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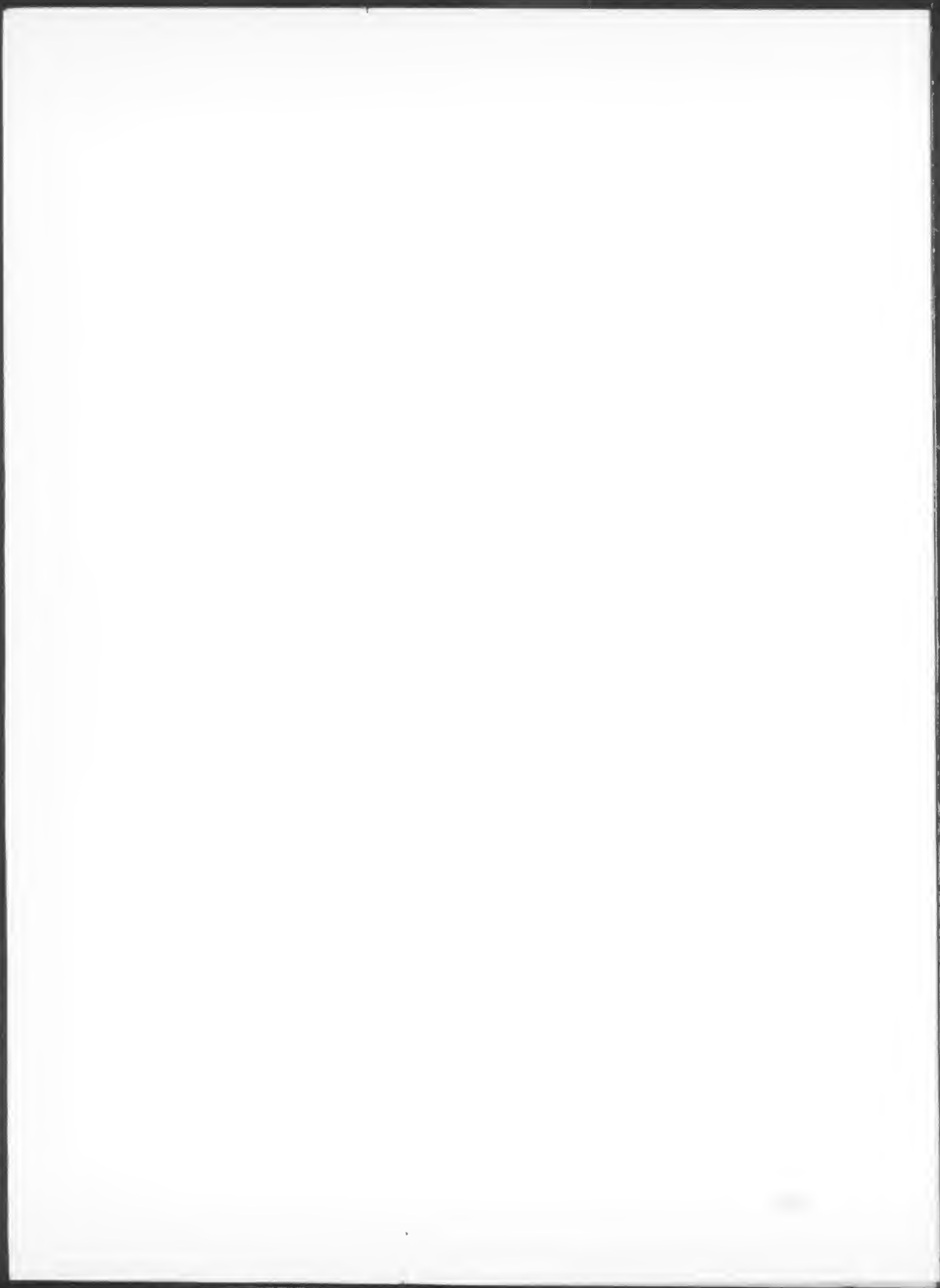


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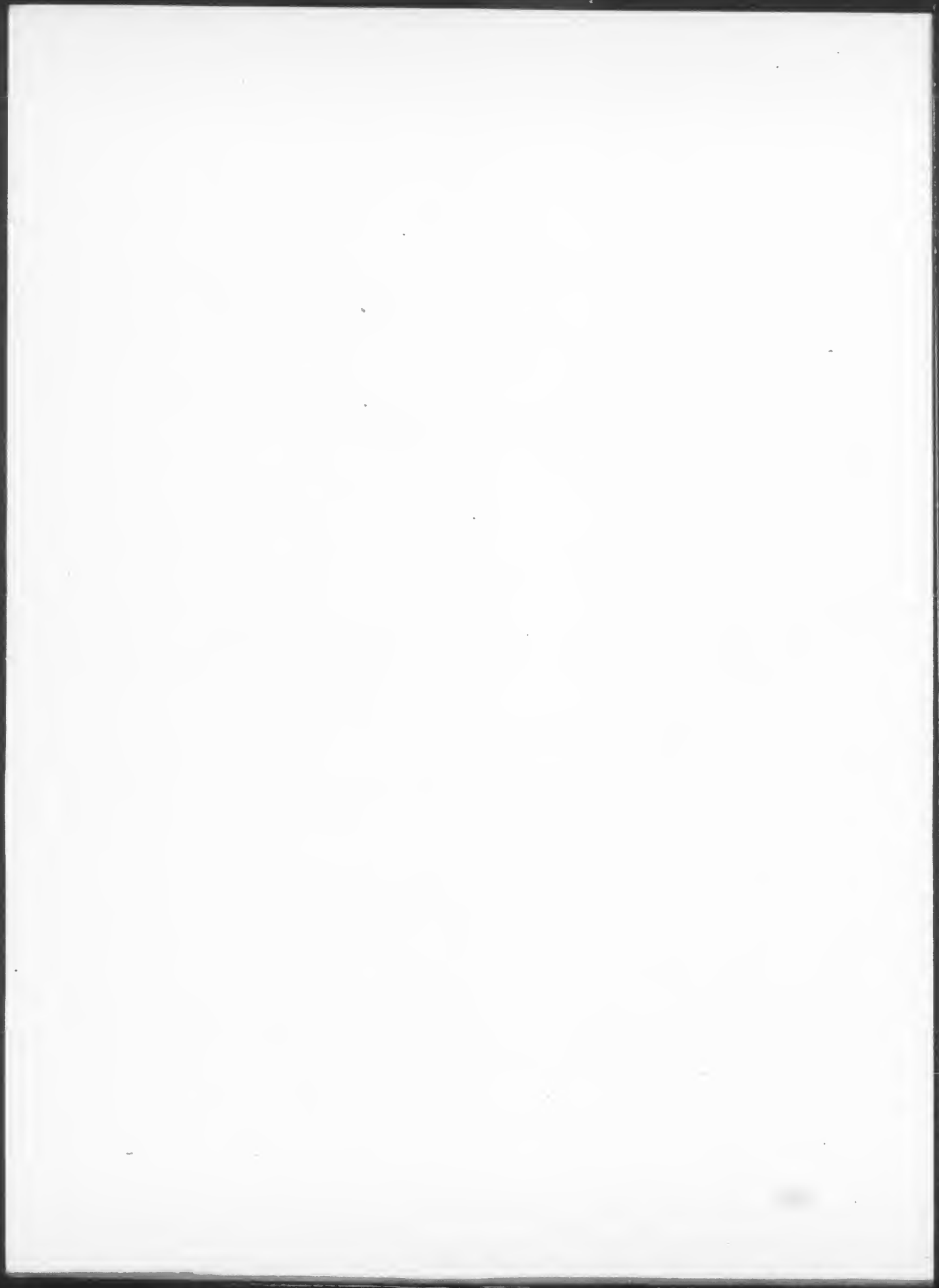
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DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 1217

[Document Number AMS-FV-10-0015; FR]

RIN 0581-AD03

Softwood Lumber Research, Promotion, Consumer Education and Industry Information Order

AGENCY: Agricultural Marketing Service.

ACTION: Final rule.

SUMMARY: This rule establishes a Softwood Lumber Research, Promotion, Consumer Education and Industry Information Order (Order). Softwood lumber is used in products like flooring, siding and framing. The program will be financed by an assessment on softwood lumber domestic manufacturers and importers and will be administered by a board of industry members selected by the Secretary of Agriculture (Secretary). The initial assessment rate will be \$0.35 per thousand board feet of softwood lumber shipped within or imported to the United States. The purpose of the program is to strengthen the position of softwood lumber in the marketplace, maintain and expand markets for softwood lumber, and develop new uses for softwood lumber within the United States. The U.S. Department of Agriculture (USDA) conducted a referendum among eligible domestic softwood lumber manufacturers and importers from May 23 through June 10, 2011. Sixty-seven percent of those voting in the referendum representing 80 percent of the volume of softwood lumber represented in the referendum favored implementation of the program.

DATES: Effective August 3, 2011.

Collection of assessments (§§ 1217.52 and 1217.53) and appropriate reporting and recordkeeping (§§ 1217.70 and 1217.71) will begin January 1, 2012.

FOR FURTHER INFORMATION CONTACT:

Maureen T. Pello, Marketing Specialist, Research and Promotion Branch, Fruit and Vegetable Programs, AMS, USDA, P.O. Box 831, Beavercreek, Oregon 97004; telephone: (503) 632-8848; facsimile (503) 632-8852; or electronic mail: Maureen.Pello@ams.usda.gov.

SUPPLEMENTARY INFORMATION: This rule is issued pursuant to the Commodity Promotion, Research, and Information Act of 1996 (1996 Act) (7 U.S.C. 7411-7425).

As part of this rulemaking process, a proposed rule was published in the *Federal Register* on October 1, 2010 (75 FR 61002). That rule provided for a 60-day comment period which ended on November 30, 2010. Fifty-five comments were received. The comments were addressed in a second proposed rule and referendum order that was published in the *Federal Register* on April 22, 2011 (78 FR 22757). A final rule prescribing referendum procedures was also published in the *Federal Register* on April 22, 2011 (76 FR 22752).

Domestic manufacturers and importers who manufactured and shipped or imported 15 million board feet or more of softwood lumber during the representative period January 1 through December 31, 2010, were eligible to vote in the referendum held from May 23 through June 10, 2011. Sixty-seven percent of those voting in the referendum representing 80 percent of the volume represented in the referendum approved implementation of the program. The referendum was conducted by mail ballot.

Executive Order 12866

This rule has been determined to be not significant for purposes of Executive Order 12866 and therefore has not been reviewed by the Office of Management and Budget (OMB).

Executive Order 12988

This rule has been reviewed under Executive Order 12988, Civil Justice Reform. It is not intended to have retroactive effect. Section 524 of the 1996 Act provides that it shall not affect or preempt any other Federal or State law authorizing promotion or research relating to an agricultural commodity.

Under section 519 of the 1996 Act, a person subject to an order may file a written petition with USDA stating that

an order, any provision of an order, or any obligation imposed in connection with an order, is not established in accordance with the law, and request a modification of an order or an exemption from an order. Any petition filed challenging an order, any provision of an order, or any obligation imposed in connection with an order, shall be filed within two years after the effective date of an order, provision, or obligation subject to challenge in the petition. The petitioner will have the opportunity for a hearing on the petition. Thereafter, USDA will issue a ruling on the petition. The 1996 Act provides that the district court of the United States for any district in which the petitioner resides or conducts business shall have the jurisdiction to review a final ruling on the petition, if the petitioner files a complaint for that purpose not later than 20 days after the date of the entry of USDA's final ruling.

Background

This rule establishes an industry-funded research, promotion, and information program for softwood lumber. Softwood lumber is used in products like flooring, siding and framing. The program will be financed by an assessment on softwood lumber domestic manufacturers and importers and will be administered by a board of industry members selected by the Secretary. The initial assessment rate is \$0.35 per thousand board feet of softwood lumber shipped within or imported to the United States. Entities that domestically manufacture and ship or import less than 15 million board feet per fiscal year will be exempt from the payment of assessments. Additionally, assessed entities will not pay assessments on the first 15 million board feet of softwood lumber shipped domestically or imported during the year. Exports from the United States will also be exempt from assessments. The purpose of the program is to strengthen the position of softwood lumber in the marketplace, maintain and expand markets for softwood lumber, and develop new uses for softwood lumber within the United States. The proposal was submitted to USDA by the Blue Ribbon Commission (BRC), a committee of 21 chief executive officers and heads of businesses that domestically manufacture and import softwood lumber.

Authority in 1996 Act

The Order is authorized under the 1996 Act which authorizes USDA to establish agricultural commodity research and promotion orders which may include a combination of promotion, research, industry information, and consumer information activities funded by mandatory assessments. These programs are designed to maintain and expand markets and uses for agricultural commodities. As defined under section 513(1)(D) of the 1996 Act, agricultural commodities include the products of forestry, which includes softwood lumber.

The 1996 Act provides for a number of optional provisions that allow the tailoring of orders for different commodities. Section 516 of the 1996 Act provides permissive terms for orders, and other sections provide for alternatives. For example, section 514 of the 1996 Act provides for orders applicable to (1) producers, (2) first handlers and others in the marketing chain as appropriate, and (3) importers (if imports are subject to assessments). Section 516 states that an order may include an exemption of de minimis quantities of an agricultural commodity; different payment and reporting schedules; coverage of research, promotion, and information activities to expand, improve, or make more efficient the marketing or use of an agricultural commodity in both domestic and foreign markets; provision for reserve funds; provision for credits for generic and branded activities; and assessment of imports.

In addition, section 518 of the 1996 Act provides for referenda to ascertain approval of an order to be conducted either prior to its going into effect or within three years after assessments first begin under the order. An order also may provide for its approval in a referendum based upon different voting patterns. Section 515 provides for establishment of a board or council from among producers, first handlers and others in the marketing chain as appropriate, and importers, if imports are subject to assessment.

Industry Background

The softwood lumber industry is comprised of sawmills that make products from softwood trees. Softwoods include the botanical group

of trees that have needle-like or scale-like leaves, or conifers. Softwood lumber includes certain products manufactured from softwoods (or coniferous trees). Softwood lumber is used in products like flooring, siding, and framing.

Softwood lumber sizes are identified by the thickness and width of the board when it is first cut from the log. This is known as "rough cut" when the wood is still green and wet. Once the wood dries, it shrinks. After the wood dries, the surface of the board is smoothed to make the wood a uniform size. This is known as "planing" the wood. Once planed, the wood is considered finished. In the industry, the term nominal is used to describe the size of the rough cut board, prior to finishing. For example, a 2 x 4 board is a nominal size. The actual size of a 2 x 4 board is 1.5 inches in thickness by 3.5 inches in width. The length of the board is typically the actual length. Usually there is a 1/2 inch difference in measurements over 2 inches and 1/4 inch difference in measurements less than 2 inches. For purposes of the Order and the tables in this rule, nominal sizes are used. One nominal board foot is a unit of measurement of softwood lumber represented by a board 12 inches long, 12 inches wide, and 1 inch thick or its cubic equivalent. A board foot calculation for softwood lumber 1 inch or more in thickness is based on its nominal thickness and width by the actual length. Softwood lumber with a nominal thickness of less than 1 inch is calculated as 1 inch.

Regional U.S. Timber Production¹

According to USDA's Forest Service, the main species of softwoods in the southern United States are pines that grow fast and can be sold for lumber in 25 to 30 years. Southern pines are often treated with preservatives. About a third of the region's lumber is sold to treaters for further processing (*i.e.*, apply preservatives).²

Most of the northern U.S. softwood lumber industry is in Maine where the predominant species are white spruce and balsam fir. These trees are typically used for light framing such as wall

studs. Second growths of red pine planted in the 1930s and later have been harvested by a few firms in the lake states. Red pine is also easy to treat and much of it is processed. White pine trees are also prevalent in the northern United States. They are used for paneling, millwork, and joinery. Millwork includes woodwork that has been made at a mill, and joinery is the trade of constructing articles by joining together pieces of wood.

The bulk of timber production in the western United States is on the coast of the Pacific Northwest. Douglas fir and hemlock trees dominate while farther south in northern California, redwood trees, suitable for outdoor structures like fences, siding and decks, are common. East of these regions, ponderosa pine dominates and is used for millwork and joinery. Northern Idaho and Montana contain lodgepole pine and other species suitable for light framing.

U.S. Softwood Lumber Output by Region³

For 2008–2009 (most recent data available to USDA), total output (production) of softwood lumber by U.S. sawmills averaged about 24.5 billion board feet annually. Of the 24.5 billion board feet, 11.7 billion board feet were from the U.S. South, 11.3 billion board feet were from the U.S. West, and 2.4 billion board feet were from the Northeast and Lake States. Data for the western states is from the Western Wood Products Association⁴ and data for the other two regions is from the U.S. Census Bureau.⁵

Softwood Lumber Markets⁶

The residential market is the largest consumer of softwood lumber in the United States. This includes single and multifamily homes, mobile homes, and remodeling. The residential market accounted for 75 percent of the total U.S. softwood lumber market in 2006 and 63 percent of the market in 2009. Table 1 below shows this data from 2003 through 2009.

³ Production data was compiled by Henry Spelter of Wood Futures Insight and Forest Economic Advisors.

⁴ Western Wood Products Association, 2008 Statistical Yearbook, p. 32.

⁵ U.S. Census Bureau, 2009, Construction, <http://www.census.gov/mcd/>.

⁶ Spelter, McKeever and Toth, Profile 2009, p. 2–5.

¹ Spelter, H., D. McKeever, D. Toth, Profile 2009: Softwood Sawmills in the United States. USDA, p. 7.

² Micklewright, J.T., Wood preservation statistics, American Wood Preservers Association, p. 25.

TABLE 1—U.S. SOFTWOOD LUMBER MARKETS FROM 2003–2009 VOLUME
[Billion board feet]

	Single family homes	Multi-family homes	Mobile homes	Residential remodeling	Non-residential, buildings	Non-residential, other	Industrial and other	Total U.S.
2003	20.2	1.7	1.1	19.3	3.6	0.6	10.2	56.7
2004	22.2	1.8	1.1	20.3	3.9	0.5	11.1	60.8
2005	24.5	1.9	1.2	20.9	3.8	0.6	11.7	64.6
2006	21.3	1.9	0.9	21.4	3.6	0.6	11.3	61.0
2007	14.9	1.7	0.8	19.7	4.0	0.6	11.4	53.1
2008	8.4	1.4	0.6	17.5	3.9	0.6	9.6	42.0
2009	5.3	0.7	0.4	14.2	3.6	0.6	7.8	32.6
Shares (percent)								
2003	36	3	2	34	6	1	18	.....
2004	36	3	2	33	6	1	18	.....
2005	38	3	2	32	6	1	18	.....
2006	35	3	2	35	6	1	18	.....
2007	28	3	1	37	8	1	21	.....
2008	20	3	1	42	9	1	23	.....
2009	16	2	1	44	11	2	24	.....

During normal economic conditions, single family homes comprise the largest share of the softwood lumber market in the United States. Single family home use rose from 20.2 billion board feet in 2003 to 24.5 billion board feet in 2005 and fell to 5.3 billion board feet in 2009. Single family homes comprised 38 percent of the market for softwood lumber in 2005 and 16 percent of the market by 2009.

Home building is cyclical in nature (follows a pattern of highs and lows) as compared to other end uses for softwood lumber. Residential remodeling and other uses experienced downturns between 2006 and 2009, but less severe than the market for single family homes. Softwood lumber used for residential remodeling fell from 21.4 billion board feet in 2006 to 14.2 billion board feet in 2009. As a percentage of softwood lumber market share, residential remodeling rose from 35 percent in 2006 to 44 percent in 2009.

Export Markets⁷

Export markets are another outlet for softwood lumber. Two decades ago, U.S. exports were about seven times greater than they were in recent years, but a strong U.S. dollar from the mid-1990s

onward helped to reduce exports. Additionally, different size and grade standards for softwood lumber in export markets complicate production when log sizes have to be converted from imperial units (feet) to metric (meters). Most manufacturers have thus focused on North American sales. However, in slow periods such as in recent years, efforts have been made to supply export markets to the extent possible.

Competition⁸

Softwood lumber competes with several alternative products. Steel and concrete dominate larger residential and nonresidential projects. Brick, concrete, and vinyl are often used in low-rise residential and nonresidential buildings. Within the last decade, wood-plastic composite lumber has become popular for outdoor decking, railing, trim, and fencing. Other wood-based products such as laminated veneer are becoming more popular in place of softwood lumber.

Imports

According to U.S. Department of Commerce, Census Bureau, Foreign Trade Statistics data (Census)⁹, imports of softwood lumber from 2008 through

2010 averaged about 10.2 billion board feet annually. During those years, imports from Canada averaged 9.6 billion board feet annually, comprising about 94 percent of total imports; imports from western Europe averaged 224 million board feet annually, comprising about 2.2 percent of total imports; and imports from Chile averaged 174 million board feet annually, comprising about 1.8 percent of total imports. Imports from other countries accounted for the remaining 2 percent of total imports for 2008 through 2010.

Price and Cost Trends¹⁰

Prices in the lumber industry can change rapidly in response to shifts in demand or supply. Prices are set competitively with many buyers and sellers bidding in a business that tends to be cyclical in nature. As shown in Table 2 below, revenue for the State of Oregon per thousand board feet was about \$309 in 2003, rose to \$420 in 2004, and fell to \$219 in 2008. In comparison, revenue for the State of Georgia per thousand board feet was about \$323 in 2003, rose to \$418 in 2005, and fell to \$262 in 2008.

TABLE 2—TYPICAL SAWMILL OPERATING COSTS 2003–2008

	Oregon		Georgia	
	Costs (\$ per thousand board feet)	Revenue (\$ per thousand board feet)	Costs (\$ per thousand board feet)	Revenue (\$ per thousand board feet)
2003	295	309	311	323
2004	330	420	335	378
2005	349	370	349	418
2006	335	316	349	330
2007	297	260	300	269

⁷ Spelter, McKeever and Toth, Profile 2009, p. 15.

⁸ Ibid.

⁹ <http://www.fas.usda.gov/gats>; accessed 3/12/11.

¹⁰ Spelter, McKeever and Toth, Profile 2009, p. 5–6.

TABLE 2—TYPICAL SAWMILL OPERATING COSTS 2003–2008—Continued

	Oregon		Georgia	
	Costs (\$ per thousand board feet)	Revenue (\$ per thousand board feet)	Costs (\$ per thousand board feet)	Revenue (\$ per thousand board feet)
2008	238	219	328	262

Several factors contributed to the revenue changes shown in Table 2. Some mills in the interior western United States were forced to close because of constraints on the availability of timber. A dispute with Canada over lumber imports that resulted in a 15 percent export levy for some U.S.-bound shipments and quotas on others after October 2006 impacted supply.

Wood, labor, and operating costs also impact revenue. The cost of wood in the United States is negotiated between buyers and sellers. Companies often enter into long-term supply contracts with timber owners where the price is negotiated quarterly based on sales and market conditions. Labor is the second biggest component of lumber costs. According to the U.S. Department of Labor, U.S. wages have increased about 3 percent per year during this decade.¹¹ At the same time, labor productivity in sawmilling has increased by a like amount leaving unit labor costs flat. The other main cost for sawmills is energy, but most mills use their own residues to generate heat for their drying needs. This has lessened the impact of rising energy prices on sawmills. As shown in Table 2, total operating costs in Oregon per thousand board feet averaged \$295 in 2003, rose to \$349 in 2005, and fell to \$238 in 2008. In comparison, total operating costs in Georgia per thousand board feet averaged \$311 in 2003, rose to \$349 in 2005 and 2006, and fell to \$328 in 2008.

Need for a Program

The softwood lumber industry is experiencing one of the worst markets in history. The collapse of the housing market caused prices to fall from \$404 per thousand board feet in 2004 to \$222 per thousand board feet in 2009. Prices rose slightly in 2010 to \$284 per thousand board feet.¹² Competition from other building products like

cement and vinyl has also helped to reduce demand for softwood lumber.

Additionally, at the request of the U.S. and Canadian governments, the U.S. Endowment for Forestry and Communities (Endowment) and the Binational Softwood Lumber Council (BSLC) were formed in 2006 in accordance with the 2006 Softwood Lumber Agreement. The Endowment is a non-profit organization that works with public and private sectors to advance the interests of the forestry community. The Endowment conducted a study to assess the feasibility of a softwood lumber research and promotion program. In the past, the industry attempted voluntary efforts to promote forest products, but they were sporadic, underfunded, and narrowly targeted. These campaigns did not last long enough to succeed. The Endowment recommended to the industry that Canadian and U.S. companies pursue a shared vision and achieve broad agreement on creating a unified softwood lumber research and promotion program. In 2008, the Endowment held an industry meeting in Seattle, Washington, to discuss the merits of such a program and obtain industry feedback.

As a result of the Endowment's efforts, the BRC was subsequently formed to pursue an industry research and promotion program. The BRC is comprised of 21 members representing the United States and Canada. Funding and support for the BRC's efforts come from the BSLC, a non-profit organization whose mission is to promote increased cooperation between the U.S. and Canadian softwood lumber industries and to strengthen and expand markets for softwood lumber products in both countries. The BRC submitted an initial proposal for a program to USDA in February 2010.

As recommended by the BRC, the program will be financed by an assessment on softwood lumber domestic manufacturers and importers and administered by a board of industry members selected by the Secretary. The initial assessment rate will be \$0.35 per thousand board feet shipped within or imported to the United States and can be increased up to a maximum of \$0.50

per thousand board feet. Entities that domestically ship or import less than 15 million board feet will be exempt along with shipments exported outside of the United States. Assessed entities will not pay assessments on the first 15 million board feet shipped or imported. The purpose of the program is to strengthen the position of softwood lumber in the marketplace, maintain and expand markets for softwood lumber, and develop new uses for softwood lumber within the United States. A referendum was held among eligible domestic manufacturers and importers to determine whether they favored implementation of the program prior to it going into effect. Sixty-seven percent of those voting in the referendum representing 80 percent of the volume represented in the referendum approved implementation of the program. The specific provisions of the program are discussed below.

Provisions of Program

Pursuant to the 1996 Act, §§ 1217.1 through 1217.30 of the Order define certain terms that will be used throughout the Order. Several of the terms are common to all research and promotion programs authorized under the 1996 Act while other terms are specific to the softwood lumber Order.

Sections 1217.40 through 1217.47 of the Order detail the establishment and membership of the Softwood Lumber Board, nominations and appointments, the term of office, removal and vacancies, procedure, reimbursement and attendance, powers and duties, and prohibited activities.

Sections 1217.50 through 1217.53 of the Order detail requirements regarding the Board's budget and expenses, financial statements, assessments, and exemption from assessments. The Board's programs and expenses shall be funded through assessments on manufacturers for the U.S. market, other income, and other funds available to the Board. The Order provides for an initial assessment rate of \$0.35 per thousand board feet. Domestic manufacturers will pay assessments based on the volume of softwood lumber shipped within the United States and importers will pay assessments based on the volume of

¹¹ U.S. Department of Labor, Bureau of Labor Statistics, 2009, Employment cost index, Washington, DC, <http://data.bls.gov/PDQ/outside.jsp?survey=ci>, accessed 3/27/09.

¹² Price data was obtained from Random Lengths Publications, Inc., and is a framing composite price that is designed as a broad measure of price movement in the lumber market (<http://www.randomlengths.com>).

softwood lumber imported to the United States.

Two years after the Order becomes effective and periodically thereafter, the Board shall review the assessment rate and, if appropriate, recommend a change in the rate. At least two-thirds of the Board members must favor a change in the assessment rate. The assessment rate can be no less than \$0.35 per thousand board feet and no more than \$0.50 per thousand board feet. Any change in the assessment rate within this range is subject to rulemaking by the Secretary.

Domestic manufacturers must pay their assessments owed to the Board by the 30th calendar day of the month following the end of the quarter in which the softwood lumber was shipped. Importer assessments will be collected through Customs.

The Order provides authority for the Board to impose a late payment charge and interest for assessments overdue to the Board by 60 calendar days. The late payment charge and rate of interest shall be prescribed in the Order's regulations issued by the Secretary.

The Order provides for four exemptions. First, manufacturers for the U.S. market who domestically ship or import less than 15 million board feet during a fiscal year are exempt from paying assessments. Domestic manufacturers and importers must apply to the Board for an exemption prior to the start of the fiscal year. The Board will issue, if deemed appropriate, a certificate of exemption to the eligible manufacturer for the U.S. market. Once approved, domestic manufacturers will not have to pay assessments to the Board for the applicable fiscal year. Approved importers must retain a copy of the certificate of exemption and may be requested to submit the certificate to Customs. USDA is working to develop a process whereby approved importers could submit a copy the exemption certificate to Customs so that Customs would not collect the assessment. However, the only available alternative at this time is for Customs to collect the assessment, and for the Board to refund such importers their assessments no later than 60 calendar days after receipt of such assessment by the Board.

Section 1217.53(a)(2) in this final rule was modified to clarify that importers may be requested to submit a copy of the certificate of exemption to Customs.

The second exemption under the Order is for manufacturers for the U.S. market who domestically ship or import more than 15 million board feet of softwood lumber annually. Domestic manufacturers will not pay assessments on their first 15 million board feet of

softwood lumber shipped during the applicable fiscal year. Importers will receive a refund from the Board for the applicable assessments collected by Customs no later than 60 calendar days after receipt of such assessments by the Board.

The third exemption under the Order is for exports of softwood lumber, and the fourth exemption is for organic lumber.

Sections 1217.60 through 1217.62 of the Order details requirements regarding promotion, research and information programs, plans and projects authorized under the Order.

Sections 1217.70 through 1217.72 specify the reporting and recordkeeping requirements under the Order as well as requirements regarding confidentiality of information.

Section 1217.81(a) of the Order specifies that the program will not go into effect unless it is approved by a majority of domestic manufacturers and importers voting in a referendum who also represent a majority of the volume of softwood lumber represented in the referendum who, during a representative period determined by the Secretary, were engaged in the domestic manufacturing or importation of softwood lumber into the United States. As previously mentioned, in a referendum held from May 23 through June 10, 2011, 67 percent of those voting in the referendum representing 80 percent of the volume of softwood lumber represented in the referendum favored implementation of the program.

Section 1217.81(b) of the Order specifies criteria for subsequent referenda. Under the Order, a referendum may be held to ascertain whether the program should continue, be amended, or be terminated.

Section 1217.80 and §§ 1217.82 through 1217.88 describe the rights of the Secretary; authorize the Secretary to suspend or terminate the Order when deemed appropriate; prescribe proceedings after termination; address personal liability, separability, and amendments; and provide OMB control numbers. These provisions are common to all research and promotion program authorized under the 1996 Act.

Regulatory Flexibility Act Analysis

In accordance with the Regulatory Flexibility Act (RFA) (5 U.S.C. 601-612), AMS is required to examine the impact of this rule on small entities. Accordingly, AMS has prepared this regulatory flexibility analysis.

The purpose of the RFA is to fit regulatory actions to the scale of businesses subject to such actions so that small businesses will not be

disproportionately burdened. The Small Business Administration defines, in 13 CFR part 121, small agricultural producers as those having annual receipts of no more than \$750,000 and small agricultural service firms (domestic manufacturers and importers) as those having annual receipts of no more than \$7.0 million.

According to USDA's Forest Service, it is estimated that, between 2007 and 2009, there were an average of 595 domestic manufacturers of softwood lumber in the United States annually.¹³ This number represents separate business entities; one business entity may include multiple sawmills. Using an average price of \$280 per thousand board feet, a domestic manufacturer who ships less than 25 million board feet per year would be considered a small entity. It is estimated that, between 2007 and 2009, about 363 domestic manufacturers, or about 61 percent,¹⁴ shipped less than 25 million board feet annually.

Likewise, according to Customs data, it is estimated that, between 2007 and 2009, there were about 883 importers of softwood lumber annually. About 798 importers, or about 90 percent, imported less than \$7.0 million worth of softwood lumber annually. Thus, the majority of domestic manufacturers and importers of softwood lumber may be considered small entities.

Regarding value of the commodity, with domestic production averaging 24.5 billion board feet (2008 and 2009), and using an average price for those years of \$237 per thousand board feet,¹⁵ the average annual value for softwood lumber is about \$5.8 billion. According to Customs data, the average annual value for softwood lumber imports for 2008 and 2009 is about \$3.1 billion.

This rule establishes an industry-funded research, promotion, and information program for softwood lumber. Softwood lumber is used in products like flooring, siding and framing. The program will be financed by an assessment on softwood lumber domestic manufacturers and importers and administered by a board of industry members selected by the Secretary. The initial assessment rate will be \$0.35 per thousand board feet shipped within or imported to the United States and may

¹³ Spelter, McKeever and Toth, Profile 2009, p. 15.

¹⁴ Percentages were obtained from the American Lumber Standard Committee, Inc. (ALSC). The ALSC administers an accreditation program for the grademarking of lumber produced under the American Softwood Lumber Standard (Voluntary Product Standard 20).

¹⁵ Spelter, McKeever and Toth, Profile 2009, p. 2-5.

be increased to \$0.50 per thousand board feet. Entities that domestically ship or import less than 15 million board feet are exempt along with shipments exported outside of the United States. No entity will pay assessments on the first 15 million board feet domestically shipped or imported. The purpose of the program is to strengthen the position of softwood lumber in the marketplace, maintain and expand markets for softwood lumber, and develop new uses for softwood lumber within the United States. A referendum was held May 23 through June 10, 2011, among eligible domestic manufacturers and importers to determine whether they favor implementation of the program prior to it going into effect. Sixty-seven percent of those voting in the referendum, representing 80 percent of the volume of softwood lumber represented in the referendum, favored implementation of the program. The program is authorized under the 1996 Act.

Regarding the economic impact of the Order on affected entities, softwood lumber domestic manufacturers and importers will pay assessments to the Board. As previously mentioned, the

initial assessment rate is \$0.35 per thousand board feet shipped within or imported to the United States and may be increased to no more than \$0.50 per thousand board feet.

The Order provides for an exemption for domestic manufacturers and importers who domestically ship or import less than 15 million board feet annually. Of the 595 domestic manufacturers, it is estimated that about 232, or 39 percent, ship less than 15 million board feet per year and will thus be exempt from paying assessments under the Order. Of the 883 importers, it is estimated that about 780, or 88 percent, import less than 15 million board feet per year and will also be exempt from paying assessments. Thus, about 363 domestic manufacturers and 103 importers will pay assessments under the Order. It is estimated that if \$17.5 million were collected in assessments (\$0.35 per thousand board feet assessment rate with 50 billion board feet assessed), 25 percent, or about \$4 million, will be paid by importers and 75 percent, or about \$13 million, will be paid by domestic manufacturers.

Regarding the impact on the industry as a whole, the program is expected to

grow markets for softwood lumber by stopping the erosion of market share in single family residential market, increasing the market share in multi-family residential construction, significantly increasing the use of softwood lumber in non-residential markets, and rebuilding softwood lumber's share in the outdoor living market. The BRC estimates the long-term market growth opportunity in the non-residential market and the raised wood segment of the residential market is between 10 and 12 billion board feet. USDA's Forest Service in a 2007 study estimated a more conservative potential growth at around 8 billion board feet.¹⁶ While the benefits of the program are difficult to quantify, the benefits are expected to outweigh the program's costs.

Regarding alternatives, the BRC considered various options in assessment rate and exemption levels. The BRC believes that \$20 million in assessment income is an ideal threshold for an effective program that will help to improve the market for softwood lumber. Table 3 below shows the range in assessments projected at various industry shipment levels per year.

TABLE 3—PROJECTED INCOME GENERATED AT VARIOUS ASSESSMENT RATES AND SHIPMENT LEVELS¹

Assessment options (per thousand board feet)	Annual shipment levels (billion board feet)		
	40	50	60
\$0.25	\$10 million	\$12.5 million	\$15 million.
\$0.35	\$14 million	\$17.5 million	\$21 million.
\$0.50	\$20 million	\$25 million	\$30 million.

¹ Assumes no exemption.

Regarding exemption levels, the BRC explored projected assessment income at exemption levels of 15, 20, and 30 million board feet. With a 15 million

board foot exemption, the BRC projected a deduction of 11.3 percent in assessment income. Table 4 below shows the BRC's projected income

levels at various assessment options in light of the 15 million board foot exemption.

TABLE 4—PROJECTED INCOME GENERATED AT VARIOUS ASSESSMENT RATES AND SHIPMENT LEVELS¹

Assessment options (per thousand board feet)	Annual shipment levels (billion board feet)		
	40	50	60
\$0.25	\$8.9 million	\$11.1 million	\$13.3 million.
\$0.35	\$12.4 million	\$15.5 million	\$18.9 million.
\$0.50	\$17.7 million	\$22.2 million	\$26.6 million

¹ Assumes 15 million board foot exemption.

Ultimately the BRC concluded that an assessment rate range of \$0.35 to a maximum of \$0.50 per thousand board

feet with an exemption threshold of 15 million board feet was appropriate and would generate sufficient income to

support an effective promotion program for softwood lumber. At an initial assessment rate of \$0.35 per thousand

¹⁶ Spelter, H.D. McKeever, M. Alderman, Profile 2007: Softwood Sawmills in the United States and Canada, USDA, p. 10.

board feet, the BRC projects assessment income between \$12.4 million and almost \$19 million with shipment levels ranging from 40 to 60 billion board feet, respectively.

The industry explored the merits of a voluntary promotion program. Over the years, the industry organized various public outreach, education and promotion campaigns funded through voluntary assessments. Although some were partially effective, none fully accomplished their objectives and the gains either disappeared quickly or eroded over time.

This action imposes additional reporting and recordkeeping burden on domestic manufacturer and importers of softwood lumber. Domestic manufacturers and importers interested in serving on the Board must submit a nomination form to the Board indicating their desire to serve or nominating another industry member to serve on the Board. Interested persons may also submit a background statement outlining their qualifications to serve on the Board. Except for the initial Board nominations, domestic manufacturers and importers will have the opportunity to cast a ballot and vote for candidates to serve on the Board. Domestic manufacturer and importer nominees to the Board must submit a background form to the Secretary to ensure they are qualified to serve on the Board.

Additionally, domestic manufacturers and importers who domestically ship or import less than 15 million board feet annually may submit a request to the Board for an exemption from paying assessments on this volume. Domestic manufacturers and importers will also be asked to submit a report regarding their shipments/imports that will accompany their assessments paid to the Board. Domestic manufacturers and importers who qualify as 100 percent organic under the NOP and are not a split operation may submit a request to the Board for an exemption from assessments. Importers may also request a refund of any assessments paid to Customs.

Finally, domestic manufacturers and importer who participated in the referendum to vote on whether the Order should become effective completed a ballot for submission to the Secretary. These forms were submitted to the OMB and approved under OMB Control No. 0581-0265. Specific burdens for the forms are detailed later in this document in the section titled Paperwork Reduction Act. As with all Federal promotion programs, reports and forms are periodically reviewed to reduce information requirements and duplication by industry and public

sector agencies. Finally, USDA has not identified any relevant Federal rules that duplicate, overlap, or conflict with this rule.

AMS is committed to complying with the E-Government Act, to promote the use of the Internet and other information technologies to provide increased opportunities for citizen access to Government information and services, and for other purposes.

Regarding outreach efforts, as previously mentioned, the Endowment conducted a study to assess the feasibility of a softwood lumber research and promotion program. According to the BRC, at the beginning of the study (early 2008), in-depth interviews were conducted among North American softwood lumber industry leaders to explore the level of interest in a generic promotion program to help grow the market for softwood lumber. The Endowment interviewed 35 companies, which included a cross section of various levels of size and ownership types within the softwood lumber industry. Of the 35 companies surveyed, 86 percent by number representing 54 percent of the volume favored exploring a mandatory promotion program for softwood lumber.

In early 2009, the BRC was formed and began a comprehensive process to develop a program. According to the BRC, its membership is diverse and represents 44 percent of softwood lumber shipments within the U.S. market. Efforts were made to inform various associations throughout the country through presentations at their meetings. Articles and notices were also published in various newspapers and newsletters about the program.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), AMS requested approval of a new information collection and recordkeeping requirements for the softwood lumber program.

Title: Advisory Committee or Research and Promotion Background Information.

OMB Number for background form AD-755: (Approved under OMB No. 0505-0001).

Expiration Date of Approval: July 31, 2012.

Title: National Research, Promotion, and Consumer Information Programs.

OMB Number: 0581-0265.

Expiration Date of Approval: 3 years from approval date.

Type of Request: New information collection for research and promotion programs.

Abstract: The information collection requirements in the request are essential to carry out the intent of the 1996 Act. The information collection concerns a new, national research and promotion program for the softwood lumber industry. The program will be financed by an assessment on softwood lumber domestic manufacturers and importers and administered by a board of industry members selected by the Secretary. The program provides for an exemption for the first 15 million board feet of softwood lumber shipped by domestic manufacturers within the United States or imported into the United States during the year. A referendum was held May 23 through June 10, 2011, among eligible domestic manufacturers and importers to determine whether they favor implementation of the program prior to it going into effect. Sixty-seven percent of those voting in the referendum, representing 80 percent of the volume represented in the referendum, favored implementation of the program. The purpose of the program is to help build the market for softwood lumber.

In summary, the information collection requirements under the program concern Board nominations, the collection of assessments, and referenda. For Board nominations, domestic manufacturers and importers interested in serving on the Board must submit a "Nomination Form" to the Board indicating their desire to serve or to nominate another industry member to serve on the Board. Interested persons may also submit a background statement outlining qualifications to serve on the Board. Except for the initial Board nominations, domestic manufacturers and importers will have the opportunity to submit a "Nomination Ballot" to the Board where they will vote for candidates to serve on the Board. Nominees must also submit a background information form, "AD-755," to the Secretary to ensure they are qualified to serve on the Board.

Regarding assessments, domestic manufacturers and importers who ship or import less than 15 million board feet annually may submit a request, "Application for Exemption from Assessments," to the Board for an exemption from paying assessments. Domestic manufacturers and importers must submit a "Shipment/Import Report" that will accompany their assessments paid to the Board and report the quantity of softwood lumber shipped domestically or imported during the applicable period, the quantity exported from the United States, the quantity for which assessments were paid, and the country

of export (for imports). Domestic manufacturers who ship less than 15 million board feet annually and are exempt from paying assessments do not have to submit this report. Additionally, only importers who pay their assessments directly to the Board must submit this report. As previously mentioned, the majority of importer assessments will be collected by Customs. Customs will remit the funds to the Board and the other information will be available from Customs (*i.e.*, country of export, quantity of softwood lumber imported). Finally, domestic manufacturers and importers who qualify as 100 percent organic under the NOP and are not a split operation may submit an "Organic Exemption Form" to the Board and request an exemption from assessments. Importers may also request a refund of any assessments paid to Customs.

There will also be an additional burden on domestic manufacturers and importers voting in referenda. The referendum ballot, which represents the information collection requirement relating to referenda, was addressed in a final rule on referendum procedures which was published in the **Federal Register** on April 22, 2011 (76 FR 22752).

Information collection requirements that are included in this rule include:

(1) *Nomination Form*

Estimate of Burden: Public recordkeeping burden for this collection of information is estimated to average 0.25 hour per application.

Respondents: Domestic manufacturers and importers.

Estimated Number of Respondents: 50.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 12.5 hours.

(2) *Background Statement*

Estimate of Burden: Public recordkeeping burden for this collection of information is estimated to average 0.25 hour per application.

Respondents: Domestic manufacturers and importers.

Estimated Number of Respondents: 50.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 12.5 hours.

(3) *Nomination Ballot*

Estimate of Burden: Public recordkeeping burden for this collection of information is estimated to average 0.25 hour per application.

Respondents: Domestic manufacturers and importers.

Estimated Number of Respondents: 300.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 75 hours.

(4) *Background Information Form AD-755 (OMB Form No. 0505-0001)*

Estimate of Burden: Public reporting for this collection of information is estimated to average 0.5 hour per response for each Board nominee.

Respondents: Domestic manufacturers and importers.

Estimated number of Respondents: 13 (38 for initial nominations to the Board, 0 for the second year, and up to 13 annually thereafter).

Estimated number of Responses per Respondent: 1 every 3 years. (0.3)

Estimated Total Annual Burden on Respondents: 19 hours for the initial nominations to the Board, 0 hours for the second year of operation, and up to 6.5 hours annually thereafter.

(5) *Application for Exemption From Assessments*

Estimate of Burden: Public reporting burden for this collection of information is estimated to average 0.25 hour per domestic manufacturer or importer reporting on softwood lumber shipped domestically or imported. Upon approval of an application, domestic manufacturers and importers will receive exemption certification.

Respondents: Domestic manufacturers (232) and importers (780) who ship domestically or import less than 15 million board feet of softwood lumber annually.

Estimated number of Respondents: 1,012.

Estimated number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 253 hours.

(6) *Shipment/Import Report*

Estimate of Burden: Public reporting burden for this collection of information is estimated to average 0.5 hour per domestic manufacturer or importer.

Respondents: Domestic manufacturers who ship 15 million board feet or more annually (363) and importers who remit their assessments directly to the Board (assume 5 percent of 103 importers, or 5).

Estimated number of Respondents: 368.

Estimated number of Responses per Respondent: 4.

Estimated Total Annual Burden on Respondents: 736 hours.

(7) *Organic Exemption Form*

Estimate of Burden: Public recordkeeping burden for this collection of information is estimated to average 0.5 hours per exemption form.

Respondents: Organic domestic manufacturers and importers.

Estimated Number of Respondents: 1.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 0.5 hour.

(8) *Refund of Assessments Paid on Organic Softwood Lumber*

Estimate of Burden: Public reporting burden for this collection of information is estimated to average 0.25 hour.

Respondents: Organic importers.

Estimated Number of Respondents: 1.
Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 0.25 hour.

(9) *A Requirement to Maintain Records Sufficient To Verify Reports Submitted Under the Order*

Estimate of Burden: Public recordkeeping burden for keeping this information is estimated to average 0.5 hours per record keeper maintaining such records.

Recordkeepers: Domestic manufacturers (595) and importers (883).

Estimated number of recordkeepers: 1,478.

Estimated total recordkeeping hours: 739 hours.

As noted above, under the program, domestic manufacturers and importers will be required to pay assessments and file reports with and submit assessments to the Board (importers through Customs). While the Order imposes certain recordkeeping requirements on domestic manufacturers and importers, information required under the Order can be compiled from records currently maintained. Such records shall be retained for at least two years beyond the fiscal year of their applicability.

An estimated 1,478 respondents will provide information to the Board (595 domestic manufacturers and 883 importers). The estimated cost of providing the information to the Board by respondents is \$24,387. This total has been estimated by multiplying 739 total hours required for reporting and recordkeeping by \$33, the average mean hourly earnings of various occupations involved in keeping this information. Data for computation of this hourly rate was obtained from the U.S. Department of Labor Statistics.

The Order's provisions have been carefully reviewed, and every effort has

been made to minimize any unnecessary recordkeeping costs or requirements, including efforts to utilize information already submitted under other programs administered by USDA and other state programs.

The forms require the minimum information necessary to effectively carry out the requirements of the program, and their use is necessary to fulfill the intent of the 1996 Act. Such information can be supplied without data processing equipment or outside technical expertise. In addition, there are no additional training requirements for individuals filling out reports and remitting assessments to the Board. The forms are simple, easy to understand, and place as small a burden as possible on the person required to file the information.

Collecting information quarterly coincides with normal industry business practices. The timing and frequency of collecting information are intended to meet the needs of the industry while minimizing the amount of work necessary to fill out the required reports. The requirement to keep records for two years is consistent with normal industry practices. In addition, the information to be included on these forms is not available from other sources because such information relates specifically to individual domestic manufacturers and importers who are subject to the provisions of the 1996 Act. Therefore, there is no practical method for collecting the required information without the use of these forms.

In the October 1, 2010, proposed rule, comments were also invited on the information collection requirements prescribed in the Paperwork Reduction Act section of this rule. Specifically, comments were solicited on: (a) Whether the collection of information is necessary for the proper performance of functions of the Order and USDA's oversight of the Order, including whether the information would have practical utility; (b) the accuracy of USDA's estimate of the burden of the collection of information, including the validity of the methodology and assumptions used; (c) the accuracy of USDA's estimate of the principal manufacturing areas in the United States for softwood lumber; (d) the accuracy of USDA's estimate of the number of domestic manufacturers and importers of softwood lumber that will be covered under the program; (e) ways to enhance the quality, utility, and clarity of the information to be collected; and (f) ways to minimize the burden of the collection of information on those who are to respond, including

the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology. No comments were received regarding information collection.

As previously mentioned, the Department conducted a referendum among domestic manufacturers and importers of softwood lumber from May 23 through June 10, 2011, to determine whether the program would become effective. The representative period for establishing voter eligibility was January 1 through December 31, 2010. Domestic manufacturers and importers currently engaged in the business who manufactured and shipped within the United States/or imported to the United States 15 million board feet or more of softwood lumber during the representative period were eligible to vote. Sixty-seven percent of those voting in the referendum representing 80 percent of the volume of softwood lumber represented in the referendum favored implementation of the program.

After consideration of all relevant material presented, including the initial proposal, comments received, and the referendum results, it is found that the Softwood Lumber Research, Promotion, Consumer Education and Industry Information Order is consistent with and effectuates the purposes of the 1996 Act.

Pursuant to 5 U.S.C. 553, it is found that good cause exists for not postponing the effective date of this rule until 30 days after publication in the **Federal Register** because this rule was approved in a referendum of domestic manufacturers and importers and needs to be in effect as soon as possible so that USDA can conduct nominations to seat the first Board prior to January 1, 2012, the date when the collection of assessments begins on the program.

List of Subjects in 7 CFR Part 1217

Administrative practice and procedure, Advertising, Consumer information, Marketing agreements, Softwood lumber promotion, Reporting and recordkeeping requirements.

For the reasons set forth in the preamble, Title 7, Chapter XI of the Code of Federal Regulations is amended by adding part 1217 to read as follows:

PART 1217—SOFTWOOD LUMBER RESEARCH, PROMOTION, CONSUMER EDUCATION AND INDUSTRY INFORMATION ORDER

Subpart A—Softwood Lumber Research, Promotion, Consumer Education and Industry Information Order

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Authority: 7 U.S.C. 7411–7425; 7 U.S.C. 7401.

Subpart A—Softwood Lumber Research, Promotion, Consumer Education, and Industry Information Order

Definitions

§ 1217.1 Act.

Act means the Commodity Promotion, Research, and Information Act of 1996 (7 U.S.C. 7411–7425), and any amendments thereto.

§ 1217.2 Blue Ribbon Commission or BRC.

Blue Ribbon Commission or *BRC* means the 21-member committee representing businesses that manufacture softwood lumber in the United States or import softwood lumber to the United States formed to pursue an industry research, promotion, and information program.

§ 1217.3 Board or Softwood Lumber Board.

Board or *Softwood Lumber Board* means the administrative body established pursuant to § 1217.40, or such other name as recommended by the Board and approved by the Department.

§ 1217.4 Board foot.

Board foot or *BF* means a unit of measurement of softwood lumber represented by a board 12-inches long, 12-inches wide, and 1-inch thick or its cubic equivalent. A board foot calculation for softwood lumber 1 inch or more in thickness is based on its nominal thickness and width and the actual length. Softwood lumber with a nominal thickness of less than 1 inch is calculated as 1 inch.

§ 1217.5 Conflict of interest.

Conflict of interest means a situation in which a member or employee of the Board has a direct or indirect financial interest in a person who performs a service for, or enters into a contract with, the Board for anything of economic value.

§ 1217.6 Customs or CBP.

Customs or *CBP* means Customs and Border Protection, an agency of the United States Department of Homeland Security.

§ 1217.7 Department or USDA.

Department or *USDA* means the U.S. Department of Agriculture, or any

officer or employee of the Department to whom authority has heretofore been delegated, or to whom authority may hereafter be delegated, to act in the Secretary's stead.

§ 1217.8 Domestic manufacturer.

Domestic manufacturer means any person who is a first handler and is engaged in the manufacturing, sale and shipment of softwood lumber in the United States during a fiscal period and who owns, or shares in the ownership and risk of loss of manufacturing of softwood lumber or a person who is engaged in the business of manufacturing, or causes to be manufactured, sold and shipped such softwood lumber in the United States beyond personal use. This term does not include any person who re-manufactures softwood lumber that has already been subject to assessment under this Order.

§ 1217.9 Export.

Export means to manufacture and ship softwood lumber from within the United States to locations outside of the United States.

§ 1217.10 Fiscal period or year.

Fiscal period or year means a calendar year from January 1 through December 31, or such other period as recommended by the Board and approved by the Secretary.

§ 1217.11 Importer.

Importer means any person who imports softwood lumber from outside the United States for sale in the United States as a principal or as an agent, broker, or consignee of any person who manufactures softwood lumber outside the United States for sale in the United States, and who is listed in the import records as the importer of record for such softwood lumber.

§ 1217.12 Information.

Information means activities or programs designed to disseminate the results of research, new and existing marketing programs, new and existing marketing strategies, new and existing uses and applications, and to enhance the image of softwood lumber and the forests from which it comes. These include:

(a) Consumer education, which means any action taken to provide information to, and broaden the understanding of, the general public regarding softwood lumber; and

(b) Industry information, which means information and programs that would enhance the image of the softwood lumber industry.

§ 1217.13 Manufacture.

Manufacture means the process of transforming softwood logs into softwood lumber.

§ 1217.14 Manufacturer for the U.S. market.

Manufacturer for the U.S. market means domestic manufacturers and importers of softwood lumber as defined in this Order.

§ 1217.15 Marketing.

Marketing means the sale or other disposition of softwood lumber in interstate, foreign, or intrastate commerce.

§ 1217.16 Nominal size.

Nominal size means the size by which softwood lumber is known and sold in the marketplace that differs from actual size and is based on the thickness and width of a board when it is first cut from a log, or rough cut, prior to drying and planing.

§ 1217.17 Order.

Order means an order issued by the Secretary under section 514 of the Act that provides for a program of generic promotion, research, and information regarding agricultural commodities authorized under the Act.

§ 1217.18 Part and subpart.

Part means the Softwood Lumber Research, Promotion, Consumer Education, and Industry Information Order and all rules, regulations, and supplemental orders issued pursuant to the Act and the Order. The Order shall be a *subpart* of such part.

§ 1217.19 Person.

Person means any individual, group of individuals, partnership, company, corporation, association, affiliate, cooperative, or any other legal entity.

§ 1217.20 Planing.

Planing means the act of smoothing the surface of a board to make the wood a uniform size.

§ 1217.21 Programs, plans, and projects.

Programs, plans and projects mean those research, promotion and information programs, plans, or projects established pursuant to this Order.

§ 1217.22 Promotion.

Promotion means any action taken, including paid advertising, public relations and other communications, and promoting the results of research, that presents a favorable image of softwood lumber to the public and to any and all consumers and those who influence consumption of softwood

lumber with the intent of improving the perception, markets and competitive position of softwood lumber and stimulating sales of softwood lumber.

§ 1217.23 Research.

Research means any activity that advances the position of softwood lumber in the marketplace that includes any type of test, study, or analysis designed to advance the image, desirability, use, marketability, sales, product development, or quality of softwood lumber; new applications; improving softwood lumber's position in building and fire codes; softwood lumber product testing and safety; and evaluating the effectiveness of market development and promotion efforts including life cycle studies, forestry, sustainable forest management, environmental preferability, competitiveness, efficiency, pest and disease control, water quality and other management aspects of forestry and the forests from which softwood lumber originates.

§ 1217.24 Secretary.

Secretary means the Secretary of Agriculture of the United States, or any other officer or employee of the Department to whom authority has been delegated, or to whom authority may hereafter be delegated, to act in the Secretary's stead.

§ 1217.25 Softwood.

Softwood means one of the botanical groups of trees that have needle-like or scale-like leaves, or conifers.

§ 1217.26 Softwood lumber.

Softwood lumber means and includes softwood lumber and products manufactured from softwood as described in section 804(a) of Title VIII of the Tariff Act of 1930, as amended (19 U.S.C. 1202-1683g), and as assessed under § 1217.52.

§ 1217.27 State.

State means any of the several 50 States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and the territories and possessions of the United States.

§ 1217.28 Suspend.

Suspend means to issue a rule under section 553 of title 5 U.S.C. to temporarily prevent the operation of an order or part thereof during a particular period of time specified in the rule.

§ 1217.29 Terminate.

Terminate means to issue a rule under section 553 of title 5 U.S.C. to cancel permanently the operation of an order

or part thereof beginning on a date certain specified in the rule.

§ 1217.30 United States.

United States means collectively the 50 States, the District of Columbia, the Commonwealth of Puerto Rico and the territories and possessions of the United States.

Softwood Lumber Board

§ 1217.40 Establishment and membership.

(a) *Establishment of the Board.* There is hereby established a Softwood Lumber Board to administer the terms and provisions of this Order and promote the use of softwood lumber. The Board shall be composed of manufacturers for the U.S. market who manufacture and domestically ship or import 15 million board feet or more of softwood lumber in the United States during a fiscal period. Seats on the Board shall be apportioned based on the volume of softwood lumber manufactured and shipped within the United States by domestic manufacturers and the volume of softwood lumber imported into the United States.

(b) The Board shall be composed of 18 or 19 members, depending upon whether an additional importer member is appointed to the Board, pursuant to paragraph (b)(2)(iii) of this section. The Board shall be established as follows:

(1) *Domestic manufacturers.* Twelve members shall be domestic manufacturers from the following three regions:

(i) Six members shall be from the U.S. South Region, which consists of the states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas;

(ii) Five members shall be from the U.S. West Region, which consists of the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming; and

(iii) One member shall be from the Northeast and lake States Region, which consists of the states of Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, Vermont, West Virginia, Wisconsin, and all other parts of the United States not listed in paragraphs (b)(1)(i), (b)(1)(ii), or (b)(1)(iii) of this section.

(2) *Importers.* Six members shall be importers who represent the following regions and import the majority of their

softwood lumber from the respective region:

(i) Four members shall import softwood lumber from the Canadian West Region, which consists of the provinces of British Columbia and Alberta; and

(ii) Two members shall import softwood lumber from the Canadian East Region, which consists of the Canadian territories and all other Canadian provinces not listed in paragraph (b)(2)(i) of this section that import softwood lumber into the United States.

(iii) If the Secretary, at the request of the Board or on his or her own, determines that it would be consistent with the provisions of the Act, the Secretary may appoint an additional importer to the Board to represent a region not otherwise specified in paragraphs (b)(2)(i) and (ii) of this section. Nominees would be solicited as prescribed in § 1217.41(b), or in the case of the Secretary acting on his or her own will be handled by the Secretary, and all the names of eligible candidates would be submitted to the Secretary for consideration. Such nominees must certify that the majority of their softwood lumber is imported from such region. In addition, representation for the region not otherwise specified in paragraphs (b)(2)(i) and (ii) of this section would be subject to the Board review and reapportionment provided for in paragraph (c) of this section.

(c) In each five-year period, but not more frequently than once in each three-year period, the Board shall:

(1) Review, based on a three-year average, the geographical distribution of the volume of softwood lumber manufactured and shipped within the United States by domestic manufacturers and the volume of softwood lumber imported into the United States; and

(2) If warranted, recommend to the Secretary the reapportionment of the Board membership to reflect changes in the geographical distribution of the volume of softwood lumber manufactured and shipped within the United States by domestic manufacturers and the volume of softwood lumber imported into the United States. The destination of volumes between regions also shall be considered. The number of Board members may also be changed. Any changes in Board composition shall be implemented by the Secretary through rulemaking.

§ 1217.41 Nominations and appointments.

(a) Initial nominations will be submitted to the Secretary by the Blue

Ribbon Commission. Before considering any nominations, the BRC shall publicize the nomination process, using trade press or other means it deems appropriate, and shall outreach to all known manufacturers for the U.S. market who domestically manufacture and/or import 15 million board feet or more of softwood lumber per fiscal year in order to generate nominees that reflect the different operations within the softwood lumber industry. The BRC may use regional caucuses, mail or other methods to elicit potential nominees. The BRC shall submit the nominations to the Secretary and recommend two nominees for each Board position specified in paragraphs (b)(1), (b)(2)(i) and (b)(2)(ii) of § 1217.40. All nominees solicited pursuant to § 1217.40(b)(2)(iii) shall be submitted to the Secretary through the BRC. From the nominations submitted by the BRC, the Secretary shall select the members of the Board.

(b) Subsequent nominations shall be conducted as follows:

(1) The Board shall outreach to all segments of the softwood lumber industry. Softwood lumber domestic manufacturers and importers may submit nominations to the Board. Subsequent nominees must domestically manufacture and/or import 15 million board feet or more of softwood lumber per fiscal year;

(2) Domestic manufacturers and importer nominees may provide the Board a short background statement outlining their qualifications to serve on the Board;

(3) Nominees that are both a domestic manufacturer and an importer may seek nomination to the Board and vote in the nomination process as either a domestic manufacturer or an importer, but not both: *Provided*, That, such nominees who domestically manufacture the majority of their softwood lumber may seek nomination and vote as a domestic manufacturer, and such nominees who import the majority of their softwood lumber may seek nomination and vote as an importer. Such nominees must domestically manufacture and import 15 million board feet or more of softwood lumber per fiscal year;

(4) Domestic manufacturers who manufacture softwood lumber in more than one region may seek nomination only in the region in which they manufacture the majority of their softwood lumber. The names of domestic manufacturer nominees shall be placed on a ballot by region. The ballots along with the background statements shall be mailed to domestic manufacturers in each respective region for a vote. Domestic manufacturers who manufacture softwood lumber in more

than one region may only vote in the region in which they manufacture the majority of their softwood lumber. The votes shall be tabulated for each region with the nominee receiving the highest number of votes at the top of the list in descending order by vote. The top two candidates for each position shall be submitted to the Secretary;

(5) Importer nominees shall certify that the majority of their softwood lumber is imported from the respective region for which they are seeking to represent on the Board and shall provide documentation to verify this if requested by the Board. The names of importer nominees shall be placed on a ballot by region. The ballots along with the background statements shall be mailed to importers in each respective region for a vote. Importers who import softwood lumber from more than one region may only vote in the region from which they import the majority of their softwood lumber. The votes shall be tabulated for each region with the nominee receiving the highest number of votes at the top of the list in descending order by vote. The top two candidates for each position shall be submitted to the Secretary.

(6) The Board must submit nominations to the Secretary at least six months before the new Board term begins. From the nominations submitted by the Board, the Secretary shall select the members of the Board;

(7) No two members shall be employed by a single corporation, company, partnership, or any other legal entity; and

(8) The Board may recommend to the Secretary modifications to its nomination procedures as it deems appropriate. Any such modifications shall be implemented through rulemaking by the Secretary.

§ 1217.42 Term of office.

(a) With the exception of the initial Board, each Board member will serve a three-year term or until the Secretary selects his or her successor. Each term of office shall begin on January 1 and end on December 31. No member may serve more than two consecutive terms, excluding any term of office less than three years.

(b) For the initial board, the terms of Board members shall be staggered for two, three, and four years. Determination of which of the initial members shall serve a term of two, three, or four years shall be recommended to the Secretary by the Blue Ribbon Commission.

§ 1217.43 Removal and vacancies.

(a) In the event that any member of the Board ceases to work for or be affiliated with a domestic manufacturer or importer or ceases to do business in the region he or she represents, such position shall become vacant.

(b) The Board may recommend to the Secretary that a member be removed from office if the member consistently refuses to perform his or her duties or engages in dishonest acts or willful misconduct. The Secretary may remove the member if he or she finds that the Board's recommendation shows adequate cause. Further, without recommendation of the Board, a member may be removed by the Secretary upon showing of adequate cause, including the failure by a member to submit reports or remit assessments required under this part, if the Secretary determines that such member's continued service would be detrimental to the achievement of the purposes of the Act.

(c) If a position becomes vacant, nominations to fill the vacancy will be conducted using the nominations process set forth in this Order. A vacancy will not be required to be filled if the unexpired term is less than six months.

§ 1217.44 Procedure.

(a) A majority of the Board members (10) will constitute a quorum so long as at least three of the members present are importer members and six of the members present are domestic manufacturers. If participation by telephone or other means is permitted, members participating by such means shall count as present in determining quorum or other voting requirements set forth in this section.

(b) All votes at meetings of the Board and executive committee will be cast in person or by electronic voting or other means as the Board and Secretary deem appropriate to allow members participating by telephone or other electronic means to cast votes. Voting by proxy will not be allowed.

(c) Each member of the Board will be entitled to one vote on any matter put to the Board and the motion will carry if supported by 10 Board members, except for recommendations to change the assessment rate or to adopt a budget, both of which require affirmation by at least two-thirds (12 members for an 18 member Board and 13 members for a 19 member Board) of the Board members. If a Board has vacant positions, recommendations to change the assessment rate or to adopt a budget must pass by an affirmative vote of at

least two-thirds of the Board members, exclusive of the vacant seats.

(d) The Board must give members and the Secretary timely notice of all Board, executive and committee meetings.

(e) In lieu of voting at a properly convened meeting, and when, in the opinion of the Board's chairperson, such action is considered necessary, the Board may take action by mail, telephone, electronic mail, facsimile, or any other means of communication. Any action taken under this procedure is valid only if:

(1) All members and the Secretary are notified and the members are provided the opportunity to vote;

(2) Ten (10) Board members vote in favor of the action (unless two-thirds vote of the Board members is required under the Order); and

(3) All votes are promptly confirmed in writing and recorded in the Board minutes.

§ 1217.45 Reimbursement and attendance.

Board members will serve without compensation. Board members will be reimbursed for reasonable travel expenses, as approved by the Board, which they incur when performing Board business.

§ 1217.46 Powers and duties.

The Board shall have the following powers and duties:

(a) To administer this Order in accordance with its terms and conditions and to collect assessments;

(b) To develop and recommend to the Secretary for approval such bylaws as may be necessary for the functioning of the Board and such rules, regulations as may be necessary to administer the Order, including activities authorized to be carried out under the Order;

(c) To meet, organize, and select from among its members a chairperson and, such other officers as may be necessary;

(d) To create an executive committee of five members of the Board comprised of the chairperson and four other members elected by the Board. The duties of the executive committee shall be specified in bylaws that are recommended by the Board and approved by the Secretary;

(e) To create other committees or subcommittees, which may include individuals other than Board members, as the Board deems necessary from its membership and other representatives it deems appropriate;

(f) To employ or contract with such persons, other than the members, as it may deem necessary to assist the Board in carrying out its duties, and to determine the compensation and define the duties of each;

(g) To notify manufacturers for the U.S. market of all Board meetings through press releases or other means and to give the Secretary the same notice of Board meetings, executive committee, and subcommittee meetings that is given to members in order that the Secretary's representative(s) may attend such meetings, and to keep and report minutes of each meeting to the Secretary;

(h) To develop and administer programs, plans, and projects and enter into contracts or agreements, which must be approved by the Secretary before becoming effective, for promotion, research, and information, including consumer and industry information, research and advertising designed to strengthen the softwood lumber industry's position in the marketplace and to maintain, develop, and expand markets for softwood lumber. The payment of costs for such activities shall be with funds collected pursuant to the Order, including funds collected pursuant to § 1217.50(f). Each contract or agreement shall provide that:

(1) The contractor or agreeing party shall develop and submit to the Board a program, plan, or project together with a budget that specifies the cost to be incurred to carry out the activity;

(2) The contractor or agreeing party shall keep accurate records of all of its transactions and make periodic reports to the Board of activities conducted, submit accounting for funds received and expended, and make such other reports as the Secretary or Board may require;

(3) The Secretary may audit the records of the contracting or agreeing party periodically; and

(4) Any subcontractor who enters into a contract with a Board contractor and who receives or otherwise uses funds allocated by the Board shall be subject to the same provisions as the contractor.

(i) To prepare and submit to the Secretary for approval 60 calendar days in advance of the beginning of a fiscal period, rates of assessment and a budget of the anticipated expenses to be incurred in the administration of the Order, including the probable cost of each promotion, research, and information activity proposed to be developed or carried out by the Board;

(j) To borrow funds necessary for startup expenses of the Order;

(k) To invest assessments collected and other funds received pursuant to the Order and use earnings from invested assessments to pay for activities carried out pursuant to the Order;

(l) To recommend changes to the assessment rates as provided in this part;

(m) To cause its books to be audited by a certified public accountant at the end of each fiscal period and at such other times as the Secretary may request, and to submit a report of each audit directly to the Secretary;

(n) To periodically prepare and make public and to make available to manufacturers for the U.S. market reports of its activities and, at least once each fiscal period, to make public an accounting of funds received and expended;

(o) To maintain minutes, books, and records and prepare and submit to the Secretary such reports from time to time as may be required for appropriate accounting with respect to the receipt and disbursement of funds entrusted to it, and to submit to the Secretary such information pertaining to this part or subpart as he or she may request;

(p) To act as an intermediary between the Secretary and any manufacturer for the U.S. market;

(q) To receive, investigate and report to the Secretary complaints of violations of the Order; and

(r) To develop and recommend such rules and regulations to the Secretary for approval as may be necessary for the development and execution of plans or activities to effectuate the purposes of the Act.

§ 1217.47 Prohibited activities.

The Board may not engage in, and shall prohibit the employees and agents of the Board from engaging in:

(a) Any action that would be a conflict of interest;

(b) Using funds collected by the Board under the Order to undertake any action for the purpose of influencing legislation or governmental action or policy, by local, state, national, and foreign governments or subdivision thereof, other than recommending to the Secretary amendments to the Order; and

(c) No program, plan or project including advertising shall be false or misleading or disparaging to another agricultural commodity. Softwood lumber of all geographic origins shall be treated equally.

Expenses and Assessments

§ 1217.50 Budget and expenses.

(a) At least 60 calendar days prior to the beginning of each fiscal period, and as may be necessary thereafter, the Board shall prepare and submit to the Department a budget for the fiscal period covering its anticipated expenses and disbursements in administering this part. The budget for research, promotion

or information may not be implemented prior to approval by the Secretary. Each such budget shall include:

(1) A statement of objectives and strategy for each program, plan, or project;

(2) A summary of anticipated revenue, with comparative data for at least one preceding fiscal year, except for the initial budget;

(3) A summary of proposed expenditures for each program, plan, or project; and

(4) Staff and administrative expense breakdowns, with comparative data for at least one preceding fiscal year, except for the initial budget.

(b) Each budget shall provide adequate funds to defray its proposed expenditures and to provide for a reserve as set forth in this Order.

(c) Subject to this section, any amendment or addition to an approved budget must be approved by the Department, including shifting funds from one program, plan, or project to another.

(d) The Board is authorized to incur such expenses, including provision for a reserve, as the Secretary finds reasonable and likely to be incurred by the Board for its maintenance and functioning, and to enable it to exercise its powers and perform its duties in accordance with the provisions of this subpart. Such expenses shall be paid from funds received by the Board.

(e) With approval of the Department, the Board may borrow money for the payment of startup expenses subject to the same fiscal, budget, and audit controls as other funds of the Board. Any funds borrowed shall be expended only for startup costs and capital outlays and are limited to the first year of operation by the Board.

(f) The Board may accept voluntary contributions, and is encouraged to seek other appropriate funding sources to carry out activities authorized by the Order. Such contributions shall be free from any encumbrances by the donor and the Board shall retain complete control of their use. The Board may receive funds from outside sources (*i.e.*, Federal or State grants, Foreign Agricultural Service funds), with approval of the Secretary, for specific authorized projects.

(g) The Board shall reimburse the Secretary for all expenses incurred by the Secretary in the implementation, administration, enforcement and supervision of the Order, including all referendum costs in connection with the Order.

(h) For fiscal years beginning two years after the date of the first Board meeting, the Board may not expend for

administration, maintenance, and the functioning of the Board an amount that is greater than 8 percent of the assessment and other income received by and available to the Board for the fiscal year. For purposes of this limitation, reimbursements to the Secretary shall not be considered administrative costs.

(i) The Board may establish an operating monetary reserve and may carry over to subsequent fiscal periods excess funds in any reserve so established: *Provided*, That, the funds in the reserve do not exceed one fiscal period's budget of expenses. Subject to approval by the Secretary, such reserve funds may be used to defray any expenses authorized under this subpart.

(j) Pending disbursement of assessments and all other revenue under a budget approved by the Secretary, the Board may invest assessments and all other revenues collected under this part in:

(1) Obligations of the United States or any agency of the United States;

(2) General obligations of any State or any political subdivision of a State;

(3) Interest bearing accounts or certificates of deposit of financial institutions that are members of the Federal Reserve System;

(4) Obligations fully guaranteed as to principal interest by the United States; or

(5) Other investments as authorized by the Secretary.

§ 1217.51 Financial statements.

(a) The Board shall prepare and submit financial statements to the Department on a quarterly basis, or at any other time as requested by the Secretary. Each such financial statement shall include, but not be limited to, a balance sheet, income statement, and expense budget. The expense budget shall show expenditures during the time period covered by the report, year-to-date expenditures, and the unexpended budget.

(b) Each financial statement shall be submitted to the Department within 30 calendar days after the end of the time period to which it applies.

(c) The Board shall submit to the Department an annual financial statement within 90 calendar days after the end of the fiscal year to which it applies.

§ 1217.52 Assessments.

(a) The Board's programs and expenses shall be paid by assessments on manufacturers for the U.S. market, other income of the Board, and other funds available to the Board.

(b) Subject to the exemptions specified in § 1217.53, each

manufacturer for the U.S. market shall pay an assessment to the Board at the rate of \$0.35 per thousand board feet of softwood lumber except that no person shall pay an assessment on the first 15 million board feet of softwood lumber otherwise subject to assessment in a fiscal year. Domestic manufacturers shall pay assessments based on the volume of softwood lumber shipped within the United States and importers shall pay assessments based on the volume of softwood lumber imported to the United States.

(c) At least 24 months after the Order becomes effective and periodically thereafter, the Board shall review and may recommend to the Secretary, upon an affirmative vote by at least two-thirds of the Board members, a change in the assessment rate. In no event may the rate be less than \$0.35 per thousand board feet nor more than \$0.50 per thousand board feet. A change in the assessment rate is subject to rulemaking by the Secretary.

(d) Domestic manufacturers shall remit to the Board the amount due no later than the 30th calendar day of the month following the end of the quarter in which the softwood lumber was shipped.

(e) Domestic product that cannot be categorized in the Harmonized Tariff Schedule of the United States (HTSUS) numbers listed in paragraph (h) of this section if it were an import is not covered under this Order.

(f) Softwood lumber originating in the United States that is exported to another country and shipped back to the United States is covered under this Order, provided that it can be categorized in the HTSUS numbers listed in paragraph (h) of this section.

(g) Each importer of softwood lumber shall pay through Customs to the Board an assessment on softwood lumber imported into the United States as described in section 804(a) of Title VIII of the Tariff Act of 1930, as amended (19 U.S.C. 1202-1683g), provided that it can be categorized in the HTSUS numbers listed in paragraph (h) of this section.

(h) The HTSUS categories and assessment rates on imported softwood lumber are listed in the table below. A factor shall be used to determine the equivalent volume of softwood lumber in thousand board feet. The factor used to convert one cubic meter to one thousand board feet is 0.423776001. Accordingly, the assessment rate per cubic meter is as follows.

Softwood lumber	Assessment \$/cubic meter
4407.10.01	\$0.1483
4409.10.05	0.1483
4409.10.10	0.1483
4409.10.20	0.1483
4409.10.90	0.1483
4418.90.25	0.1483

(i) In the event that any HTSUS number subject to assessment is changed and such change is merely a replacement of a previous number and has no impact on the description of the softwood lumber involved, assessments will continue to be collected based on the new number.

(j) If Customs does not collect an assessment from an importer, the importer is responsible for paying the assessment directly to the Board no later than the 30th calendar day of the month following the end of the quarter in which the softwood lumber was imported.

(k) Articles brought into the United States temporarily and for which an exemption is claimed under subchapter XIII of chapter 98 of the HTSUS are not covered under this Order. If assessments are collected by Customs for these products, the importer may apply to the Board for a refund of assessments.

(l) When a domestic manufacturer or importer fails to pay the assessment within 60 calendar days of the date it is due, the Board may impose a late payment charge and interest. The late payment charge and rate of interest shall be prescribed in regulations issued by the Secretary. All late assessments shall be subject to the specified late payment charge and interest. Persons failing to remit total assessments due in a timely manner may also be subject to actions under Federal debt collection procedures.

(m) The Board may accept advance payment of assessments from any manufacturer for the U.S. market that will be credited toward any amount for which that person may become liable. The Board may not pay interest on any advance payment.

(n) If the Board is not in place by the date the first assessments are to be collected, the Secretary shall receive assessments and shall pay such assessments and any interest earned to the Board when it is formed.

§ 1217.53 Exemption from assessment.

(a) *Manufacturers for the U.S. market who domestically ship and/or import less than 15 million board feet annually.*

(1) Domestic manufacturers who ship less than 15 million board feet of softwood lumber within the United States in a fiscal year are exempt from

paying assessments. Such manufacturers must apply to the Board, on a form provided by the Board, for a certificate of exemption prior to the start of the fiscal year. This is an annual exemption and domestic manufacturers must reapply each year. Such manufacturers shall certify that they will ship less than 15 million board feet of softwood lumber during the fiscal year for which the exemption is claimed. Upon receipt of an application for exemption, the Board shall determine whether an exemption may be granted. The Board may request past shipment data to support the exemption request. The Board will then issue, if deemed appropriate, a certificate of exemption to the eligible domestic manufacturer. It is the responsibility of the domestic manufacturer to retain a copy of the certificate of exemption.

(2) Importers who import into the United States less than 15 million board feet of softwood lumber in a fiscal year are exempt from paying assessments. Such importers must apply to the Board, on a form provided by the Board, for a certificate of exemption prior to the start of the fiscal year. This is an annual exemption and importers must reapply each year. Such importers shall certify that they will import less than 15 million board feet of softwood lumber during the fiscal year for which the exemption is claimed. Upon receipt of an application for exemption, the Board shall determine whether an exemption is granted. The Board may request past import data to support the exemption request. The Board will then issue, if deemed appropriate, a certificate of exemption to the eligible importer. It is the responsibility of the importer to retain a copy of the certificate of exemption. The importer may be requested to submit a copy of the certificate to Customs. If Customs collects the assessment, the Board shall refund such importers their assessments no later than 60 calendar days after receipt of such assessments by the Board. No interest shall be paid on the assessments collected by Customs.

(3) Domestic manufacturers who did not apply to the Board for an exemption and shipped less than 15 million board feet of softwood lumber within the United States during the fiscal year shall receive a refund from the Board for the applicable assessments within 30 calendar days after the end of the fiscal year. Board staff shall determine the assessments paid and refund the amount due to the domestic manufacturer accordingly.

(4) Importers who did not apply to the Board for an exemption and imported less than 15 million board feet of

softwood lumber during the fiscal year shall receive a refund from the Board for the applicable assessments within 30 calendar days after the end of the fiscal year.

(5) If an entity is both a domestic manufacturer and an importer, the sum of such entity's domestic shipments and imports during a fiscal year shall count towards the 15 million board feet exemption.

(6) Domestic manufacturers and importers who received an exemption certificate from the Board but domestically shipped or imported 15 million board feet or more of softwood lumber during the fiscal year shall pay the Board the applicable assessments owed on the domestic shipments or imports over the 15 million board foot-exemption threshold within 30 calendar days after the end of the fiscal year and submit any necessary reports to the Board pursuant to § 1217.70.

(7) The Board may develop additional procedures to administer this exemption as appropriate. Such procedures shall be implemented through rulemaking by the Secretary.

(b) *Manufacturers for the U.S. market who domestically ship and/or import 15 million board feet or more annually.* (1) Domestic manufacturers who domestically ship 15 million board feet or more per fiscal year shall not pay assessments on their first 15 million board feet of softwood lumber shipped during the applicable fiscal year.

(2) Importers who import 15 million board feet or more per fiscal year shall be exempt from paying assessments on their first 15 million board feet of softwood lumber imported during the applicable fiscal year. Such importers shall receive a refund from the Board for the applicable assessments collected by Customs. The Board shall refund such importers their assessments no later than 60 calendar days after receipt by the Board.

(c) *Export.* Shipments of softwood lumber by domestic manufacturers to locations outside of the United States are exempt from assessment. The Board shall establish procedures for approval by the Secretary for refunding assessments that may be paid on such shipments and establish any necessary safeguards as deemed appropriate. Safeguard procedures shall be implemented by the Secretary through rulemaking. The Board may also recommend to the Secretary that such shipments be assessed if it deems appropriate. Such action shall be implemented by the Secretary through rulemaking.

(d) *Organic.* (1) Organic Act means section 2103 of the Organic Foods

Production Act of 1990 (7 U.S.C. 6501-6522).

(2) A domestic manufacturer who operates under an approved National Organic Program (NOP) (7 CFR part 205) system plan, only manufactures and ships softwood lumber that is eligible to be labeled as 100 percent organic under the NOP and is not a split operation shall be exempt from payment of assessments. To obtain an organic exemption, an eligible domestic manufacturer shall submit a request for exemption to the Board, on a form provided by the Board, at any time initially and annually thereafter on or before the start of the fiscal year as long as such manufacturer continues to be eligible for the exemption. The request shall include the following: The manufacturer's name and address; a copy of the organic operation certificate provided by a USDA-accredited certifying agent as defined in the Organic Act, a signed certification that the applicant meets all of the requirements specified for an assessment exemption, and such other information as may be required by the Board and with the approval of the Secretary. The Board shall have 30 calendar days to approve the exemption request. If the exemption is not granted, the Board will notify the applicant and provide reasons for the denial within the same time frame.

(3) An importer who imports only softwood lumber that is eligible to be labeled as 100 percent organic under the NOP and is not a split operation shall be exempt from the payment of assessments. To obtain an organic exemption, an eligible importer must submit documentation to the Board and request an exemption from assessment on 100 percent of organic softwood lumber, on a form provided by the Board, at any time initially and annually thereafter on or before the beginning of the fiscal year as long as the importer continues to be eligible for the exemption. This documentation shall include the same information as required by domestic manufacturers in paragraph (d)(2) of this section. If the importer complies with the requirements of this section, the Board will grant the exemption and issue a Certificate of Exemption to the importer. The Board will also issue the importer a 9-digit alphanumeric number valid for 1 year from the date of issue. This alphanumeric number should be entered by the importer to Customs at entry summary. Any line item entry of 100 percent organic softwood lumber bearing this alphanumeric number assigned by the Board will not be subject to assessments.

(4) Importers who are exempt from assessment in paragraph (d)(3) of this section shall also be eligible for reimbursement of assessments collected by Customs and may apply to the Board for a reimbursement. The importer would be required to submit satisfactory proof to the Board that the importer paid the assessment on exempt organic products.

(5) The exemption will apply immediately following the issuance of the exemption certificate.

Promotion, Research, and Information

§ 1217.60 Programs, plans, and projects.

(a) The Board shall develop and submit to the Secretary for approval programs, plans and projects authorized by this subpart. Such programs, plans and projects shall provide for promotion, research, education and other activities including consumer and industry information and advertising designed to:

- (1) Maintain, develop, expand and grow markets for softwood lumber;
- (2) Enhance and strengthen the image, reputation and public acceptance of softwood lumber and the forests from which it comes;
- (3) Develop new markets and marketing strategies for softwood lumber;
- (4) Expand the knowledge and understanding of the strength, safety and technical applications and encourage innovation in the use of softwood lumber;

(5) Transfer and disseminate the knowledge and understanding of the strength, safety, environmental and sustainable benefits and technical applications of softwood lumber; and

(6) Develop, expand and grow existing and new opportunities and applications for softwood lumber.

(b) No program, plan, or project shall be implemented prior to its approval by the Secretary. Once a program, plan, or project is so approved, the Board shall take appropriate steps to implement it.

(c) The Board must evaluate each program, plan and project authorized under this subpart to ensure that it contributes to an effective and coordinated program of research, promotion and information. The Board must submit the evaluations to the Secretary. If the Board finds that a program, plan or project does not contribute to an effective program of promotion, research, or information, then the Board shall terminate such plan or program.

§ 1217.61 Independent evaluation.

At least once every five years, the Board shall authorize and fund from

funds otherwise available to the Board, an independent evaluation of the effectiveness of the Order and the programs conducted by the Board pursuant to the Act. The Board shall submit to the Secretary, and make available to the public, the results of each periodic independent evaluation conducted under this paragraph.

§ 1217.62 Patents, copyrights, trademarks, inventions, product formulations, and publications.

Any patents, copyrights, trademarks, inventions, product formulations, and publications developed through the use of funds received by the Board under this subpart shall be the property of the U.S. Government, as represented by the Board, and shall along with any rents, royalties, residual payments, or other income from the rental, sales, leasing, franchising, or other uses of such patents, copyrights, trademarks, inventions, publications, or product formulations, inure to the benefit of the Board, shall be considered income subject to the same fiscal, budget, and audit controls as other funds of the Board, and may be licensed subject to approval by the Secretary. Upon termination of this subpart, § 1217.83 shall apply to determine disposition of all such property.

Reports, Books, and Records

§ 1217.70 Reports.

(a) Each manufacturer for the U.S. market will be required to provide periodically to the Board such information as the Board, with the approval of the Secretary, may require. Such information may include, but not be limited to:

- (1) For domestic manufacturers:
 - (i) The name, address and telephone number of the domestic manufacturer;
 - (ii) The board feet of softwood lumber shipped within the United States;
 - (iii) The board feet of softwood lumber for which assessments were paid; and
 - (iv) The board feet of softwood lumber that was exported.
- (2) For importers:
 - (i) The name, address and telephone number of the importer;
 - (ii) The board feet of softwood lumber imported;
 - (iii) The board feet of softwood lumber for which assessments were paid; and
 - (iv) The country of export.

(b) For domestic manufacturers, such information shall accompany the collected payment of assessments on a quarterly basis specified in § 1217.52. For importers who pay their assessments directly to the Board, such

information shall accompany the payment of collected assessments within 30 calendar days after importation specified in § 1217.52.

§ 1217.71 Books and records.

Each manufacturer for the U.S. market, including those exempt under § 1217.53, shall maintain any books and records necessary to carry out the provisions of this subpart and regulations issued thereunder, including such records as are necessary to verify any required reports. Domestic manufacturers who only export softwood lumber shall also retain such books and records. Such books and records must be made available during normal business hours for inspection by the Board's or Secretary's employees or agents. A manufacturer for the U.S. market must maintain the books and records for two years beyond the fiscal period to which they apply.

§ 1217.72 Confidential treatment.

All information obtained from books, records, or reports under the Act, this subpart and the regulations issued thereunder shall be kept confidential by all persons, including all employees and former employees of the Board, all officers and employees and former officers and employees of contracting and subcontracting agencies or agreeing parties having access to such information. Such information shall not be available to Board members or other manufacturers for the U.S. market. Only those persons having a specific need for such information solely to effectively administer the provisions of this subpart shall have access to such information. Only such information so obtained as the Secretary deems relevant shall be disclosed by them, and then only in a judicial proceeding or administrative hearing brought at the direction, or at the request, of the Secretary, or to which the Secretary or any officer of the United States is a party, and involving this subpart. Nothing in this section shall be deemed to prohibit:

(a) The issuance of general statements based upon the reports of the number of persons subject to this subpart or statistical data collected therefrom, which statements do not identify the information furnished by any person; and

(b) The publication, by direction of the Secretary, of the name of any person who has been adjudged to have violated this part, together with a statement of the particular provisions of this part violated by such person.

Miscellaneous

§ 1217.80 Right of the Secretary.

All fiscal matters, programs or projects, contracts, rules or regulations, reports, or other substantive actions proposed and prepared by the Board shall be submitted to the Secretary for approval.

§ 1217.81 Referenda.

(a) *Initial referendum.* The Order shall not become effective unless the Order is approved by a majority of domestic manufacturers and importers voting in the referendum who also represent a majority of the volume of softwood lumber represented in the referendum who, during a representative period determined by the Secretary, have been engaged in the domestic manufacturing or importation of softwood lumber. A single entity who domestically manufactures and imports softwood lumber may cast one vote in the referendum.

(b) *Subsequent referenda.* The Secretary shall conduct subsequent referenda:

(1) For the purpose of ascertaining whether manufacturers for the U.S. market favor the amendment, continuation, suspension, or termination of the Order;

(2) Five years after this Order becomes effective and every five years thereafter, to determine whether softwood lumber manufacturers for the U.S. market favor the continuation of the Order. The Order shall continue if it is favored by a majority of domestic manufacturers and importers voting in the referendum who also represent a majority of the volume of softwood lumber represented in the referendum who, during a representative period determined by the Secretary, have been engaged in the domestic manufacturing or importation of softwood lumber;

(3) At the request of the Board established in this Order;

(4) At the request of 10 percent or more of the number of persons eligible to vote in a referendum as set forth under the Order; or

(5) At any time as determined by the Secretary.

§ 1217.82 Suspension or termination.

(a) The Secretary shall suspend or terminate this part or subpart or a provision thereof, if the Secretary finds that this part or subpart or a provision thereof obstructs or does not tend to effectuate the purposes of the Act, or if the Secretary determines that this subpart or a provision thereof is not favored by persons voting in a referendum conducted pursuant to the Act.

(b) The Secretary shall suspend or terminate this subpart at the end of the fiscal period whenever the Secretary determines that its suspension or termination is favored by a majority of domestic manufacturers and importers voting in the referendum who also represent a majority of the volume represented in the referendum who, during a representative period determined by the Secretary, have been engaged in the domestic manufacturing or importation of softwood lumber.

(c) If, as a result of a referendum the Secretary determines that this subpart is not approved, the Secretary shall:

(1) Not later than one hundred and eighty (180) calendar days after making the determination, suspend or terminate, as the case may be, the collection of assessments under this subpart.

(2) As soon as practical, suspend or terminate, as the case may be, activities under this subpart in an orderly manner.

§ 1217.83 Proceedings after termination.

(a) Upon termination of this subpart, the Board shall recommend to the Secretary up to nine of its members, representing all regions specified in § 1217.40(b), three of whom shall be importers and six of whom shall be domestic manufacturers, to serve as trustees for the purpose of liquidating the Board's affairs. Such persons, upon designation by the Secretary, shall become trustees of all of the funds and property then in the possession or under control of the Board, including claims for any funds unpaid or property not delivered, or any other existing claim at the time of such termination.

(b) The said trustees shall:

(1) Continue in such capacity until discharged by the Secretary;

(2) Carry out the obligations of the Board under any contracts or agreements entered into pursuant to the Order;

(3) From time to time account for all receipts and disbursements and deliver all property on hand, together with all books and records of the Board and trustees, to such person or person as the Secretary directs; and

(4) Upon request of the Secretary execute such assignments or other instruments necessary or appropriate to vest in such persons title and right to all of the funds, property, and claims vested in the Board or the trustees pursuant to the Order.

(c) Any person to whom funds, property, or claims have been transferred or delivered pursuant to the Order shall be subject to the same

obligations imposed upon the Board and upon the trustees.

(d) Any residual funds not required to defray the necessary expenses of liquidation shall be turned over to the Secretary to be disposed of, to the extent practical, to one or more softwood lumber industry organizations in the United States whose mission is generic softwood lumber promotion, research, and information programs.

§ 1217.84 Effect of termination or amendment.

Unless otherwise expressly provided by the Secretary, the termination of this subpart or of any regulation issued pursuant thereto, or the issuance of any amendment to either thereof, shall not:

(a) Affect or waive any right, duty, obligation, or liability which shall have arisen or which may thereafter arise in connection with any provision of this subpart or any regulation issued thereunder;

(b) Release or extinguish any violation of this subpart or any regulation issued thereunder; or

(c) Affect or impair any rights or remedies of the United States, or of the Secretary or of any other persons, with respect to any such violation.

§ 1217.85 Personal liability.

No member or employee of the Board shall be held personally responsible, either individually or jointly with others, in any way whatsoever, to any person for errors in judgment, mistakes, or other acts, either of commission or omission, as such member or employee, except for acts of dishonesty or willful misconduct.

§ 1217.86 Separability.

If any provision of this subpart is declared invalid or the applicability of it to any person or circumstances is held invalid, the validity of the remainder of this subpart, or the applicability thereof to other persons or circumstances shall not be affected thereby.

§ 1217.87 Amendments.

Amendments to this subpart may be proposed from time to time by the Board or any interested person affected by the provisions of the Act, including the Secretary.

§ 1217.88 OMB control numbers.

The control numbers assigned to the information collection requirements by the Office of Management and Budget pursuant to the Paperwork Reduction Act of 1995, 44 U.S.C. chapter 35, are OMB control number 0505-0001 (Board nominee background statement) and OMB control number 0581-0265.

Subpart B—[Reserved]

Dated: July 28, 2011.

David R. Shipman,
Acting Administrator.

[FR Doc. 2011-19491 Filed 8-1-11; 8:45 am]
BILLING CODE 3410-02-P

DEPARTMENT OF ENERGY

10 CFR Parts 429 and 430

[Docket No. EERE-2010-BT-CE-0014]

RIN 1904-AC23

Energy Conservation Program: Certification, Compliance, and Enforcement for Consumer Products and Commercial and Industrial Equipment; Correction

Correction

In rule document 2011-10401 appearing on pages 24762-24782 in the issue of May 2, 2011, make the following correction:

§ 429.54 [Corrected]

On page 14780, the formula for § 429.54(a)(2)(i)(B) should read:

$$LCL = \bar{x} - t_{0.99} \left(\frac{s}{\sqrt{n}} \right)$$

And \bar{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.99}$ is the t statistic for a 99% two-tailed confidence interval with $n-1$ degrees of freedom (from Appendix A).

[FR Doc. C1-2011-10401 Filed 8-1-11; 8:45 am]
BILLING CODE 1505-01-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 95

[Docket No. 30794; Amdt. No. 495]

IFR Altitudes; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.
ACTION: Final rule

SUMMARY: This amendment adopts miscellaneous amendments to the required IFR (instrument flight rules) altitudes and changeover points for certain Federal airways, jet routes, or direct routes for which a minimum or maximum en route authorized IFR altitude is prescribed. This regulatory action is needed because of changes occurring in the National Airspace

System. These changes are designed to provide for the safe and efficient use of the navigable airspace under instrument conditions in the affected areas.

DATES: *Effective Date:* 0901 UTC, August 25, 2011.

FOR FURTHER INFORMATION CONTACT:

Harry Hodges, Flight Procedure Standards Branch (AMCAFS-420), Flight Technologies and Programs Division, Flight Standards Service, Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 South MacArthur Blvd., Oklahoma City, OK 73169 (Mail Address: P.O. Box 25082 Oklahoma City, OK 73125) telephone: (405) 954-4164.

SUPPLEMENTARY INFORMATION: This amendment to part 95 of the Federal Aviation Regulations (14 CFR part 95) amends, suspends, or revokes IFR altitudes governing the operation of all aircraft in flight over a specified route or any portion of that route, as well as the changeover points (COPs) for Federal airways, jet routes, or direct routes as prescribed in part 95.

The Rule

The specified IFR altitudes, when used in conjunction with the prescribed changeover points for those routes, ensure navigation aid coverage that is adequate for safe flight operations and free of frequency interference. The reasons and circumstances that create the need for this amendment involve matters of flight safety and operational efficiency in the National Airspace System, are related to published aeronautical charts that are essential to the user, and provide for the safe and efficient use of the navigable airspace. In addition, those various reasons or circumstances require making this amendment effective before the next scheduled charting and publication date of the flight information to assure its timely availability to the user. The effective date of this amendment reflects those considerations. In view of the close and immediate relationship between these regulatory changes and safety in air commerce, I find that notice and public procedure before adopting this amendment are impracticable and contrary to the public interest and that good cause exists for making the amendment effective in less than 30 days.

Conclusion

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a

“significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 95

Airspace, Navigation (air).
Issued in Washington, DC, on July 22, 2011.

John M. Allen,
Director, Flight Standards Service.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, part 95 of the Federal Aviation Regulations (14 CFR part 95) is amended as follows effective at 0901 UTC, August 25, 2011.

PART 95 [AMENDED]

■ 1. The authority citation for part 95 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44719, 44721.

■ 2. Part 95 is amended to read as follows:

Revisions to IFR Altitudes & Changeover Points

Amendment 495

Effective Date August 25, 2011

From	To	MEA	MAA
§ 95.3000 Low Altitude RNAV Routes			
§ 95.3502 RNAV Route TK502 Is Added To Read			
95.3502 RNAV Route TK502			
Westminster, MD VORTAC	Taylor, MD FIX	2700	17500
Taylor, MD FIX	Wingo, PA FIX	* 2500	17500
* 2000—MOCA			
Wingo, PA FIX	Sinon, PA FIX	2400	17500
Sinon, PA FIX	Gribl, PA FIX	2400	17500
Gribl, PA FIX	Tolan, NJ FIX	2100	17500
Tolan, NJ FIX	Balde, NY FIX	* 2100	17500
* 1500—MOCA			
Balde, NY FIX	Spate, NY FIX	* 2100	17500
* 1400—MOCA			
Spate, NY, FIX	Deckr, NY FIX	2100	17500
§ 95.3504 RNAV Route TK504 Is Added To Read			
95.3504 RNAV Route TK504			
Rusey, MD FIX	Cidob, MD FIX	* 1800	17500
* 1500—MOCA			
Cidob, MD FIX	Hamor, PA FIX	2300	17500
Hamor, PA FIX	Arcum, PA FIX	* 2300	17500
* 2000—MOCA			
Arcum, PA FIX	Tully, PA FIX	2600	17500
Tully, PA FIX	Borke, NJ FIX	2000	17500
Borke, NJ FIX	Banka, NJ FIX	2000	17500
From	To		MEA
§ 95.6001 Victor Routes—U.S.			
§ 95.6002 VOR Federal Airway V2 Is Amended To Read in Part			
Livingston, MT VOR/DME	Reepo, MT FIX		9700
Colus, MT FIX	Billings, MT VORTAC.		
	W BND		9000
	E BND		6400
§ 95.6026 VOR Federal Airway V26 Is Amended To Read in Part			
Wausau, WI VORTAC	Green Bay, WI VORTAC		# 3000
# GNSS Required			
§ 95.6036 VOR Federal Airway V36 Is Amended To Read in Part			
# Elmira, NY VOR/DME	Hawly, PA FIX		* 4500
* GNSS MEA.			
# Elmira R-122 Unusable below FL180 Beyond 40 NM.			
§ 95.6056 VOR Federal Airway V56 Is Amended To Read in Part			
Florence, SC VORTAC	Fayetteville, NC VOR/DME		2300
§ 95.6086 VOR Federal Airway V86 Is Amended To Read in Part			
Livingston, MT VOR/DME	Reepo, MT FIX		9700
Colus, MT FIX	Billings, MT VORTAC.		

From	To	MEA
	W BND	9000
	E BND	6400
§ 95.6094 VOR Federal Airway V94 Is Amended To Read in Part		
Greenville, MS VOR/DME	Holly Springs, MS VORTAC	* 3000
* 2100-MOCA		
§ 95.6097 VOR Federal Airway V97 Is Amended To Read in Part		
Seminole, FL VORTAC	Pecan, GA VORTAC	2100
§ 95.6119 VOR Federal Airway V119 Is Amended To Read in Part		
Newcombe, KY VORTAC	Croup, OH FIX	2800
Croup, OH FIX	Henderson, WV VORTAC	* 5500
* 2400-MOCA		
* 2800-GNSS MEA		
§ 95.6128 VOR Federal Airway V128 Is Amended To Read in Part		
York, KY VORTAC	CROUP, OH FIX	* 3300
* 2300-MOCA		
Croup, OH FIX	Ruley, WV FIX	3200
Ruley, WV FIX	Charleston, WV VORTAC	3600
§ 95.6155 VOR Federal Airway V155 Is Amended To Read in Part		
Chesterfield, SC VOR/DME	Lills, NC FIX	2300
Lills, NC FIX	Sandhills, NC VORTAC	* 8000
* 2000-MOCA		
* 2400-GNSS MEA		
§ 95.6157 VOR Federal Airway V157 Is Amended To Read in Part		
Waycross, GA VORTAC	# Alma, GA VORTAC	2000
# Alma R-189 Unusable use Waycross R-009.		
Florence, SC VORTAC	Fayetteville, NC VOR/DME	2300
§ 95.6270 VOR Federal Airway V270 Is Amended To Read in Part		
Delancey, NY VOR/DME	Athos, NY FIX	6300
Athos, NY FIX	Chester, MA VOR/DME	* 4500
* 4000-MOCA		
§ 95.6292 VOR Federal Airway V292 Is Amended To Read in Part		
Sages, NY FIX	* Wigan, NY FIX	** 10000
* 4500-MRA		
** 6400-MOCA		
** 7000-GNSS MEA		
* Wigan, NY FIX	# Barnes, MA VORTAC	** 10000
* 4500-MRA		
** 4900-MOCA		
** 5000-GNSS MEA		
# BARNES R-279 Unusable BYD 50 NM.		
§ 95.6325 VOR Federal Airway V325 Is Amended To Read in Part		
Dalao, GA FIX	Caran, GA FIX	# * 5000
* 3700-MOCA		
# GNSS MEA		
Caran, GA FIX	# Gadsden, AL VOR/DME	* 5000
* 4200-MOCA		
# Gadsden R-089 Unusable BYD 47NM Except for ACFT Equipped with Suitable RNAV System With GPS.		
§ 95.6520 VOR Federal Airway V520 Is Amended To Read in Part		
Salmon, ID VOR/DME	* Dubois, ID VORTAC	13600
* 9000-MCA Dubois, ID VORTAC, E BND		
* 10600-MCA Dubois, ID VORTAC, W BND		
§ 95.6521 VOR Federal Airway V52 Is Amended To Read in Part		
# Cross City, FL VORTAC	Hewvn, FL FIX	* 5000

From	To	MEA
* 1400-MOCA * 2000-GNSS MEA # Cross City R-289 Unusable Beyond 60 NM. Hevvn, FL FIX	Teres, FL FIX	* 2000
* 1300-MOCA * GNSS MEA * GNSS Required Teres, FL FIX	Cress, FL FIX	* 4000
* 1400-MOCA * 2000-GNSS MEA		
§ 95.6535 VOR Federal Airway V535 Is Amended To Read in Part		
Sidon, MS VORTAC	Holly Springs, MS VORTAC	* 3000
* 2100-MOCA		
§ 95.6578 VOR Federal Airway V578 Is Amended To Read in Part		
Tift Myers, GA VOR	#Alma, GA VORTAC	* 3000
* 2100-MOCA * 2100-GNSS MEA #Alma R-263 Unusable Use Tift Myers R-083.		
§ 95.6401 Hawaii VOR Federal Airway V1 Is Amended To Read in Part		
Kona, HI VORTAC	* Reefs, HI FIX	5000
* 4100-MCA Reefs, HI FIX, SE BND Reefs, HI FIX	MOANA, HI FIX	* 2000
* 1300-MOCA Moana, HI FIX	Rowin, HI FIX	* 4000
* 1300-MOCA Rowin, HI FIX	*Lavas, HI FIX	** 8000
** 1300-MOCA		
§ 95.6403 Hawaii VOR Federal Airway V3 Is Amended To Read in Part		
Mynah, HI FIX	* Jason, HI FIX	3500
* 5400-MCA JASON, HI FIX, NE BND Jason, HI FIX	Kamuela, HI VOR/DME	6700
§ 95.6405 Hawaii VOR Federal Airway V5 Is Amended To Read in Part		
Kona, HI VORTAC	* Mynah, HI FIX	5000
* 4100-MCA Mynah, HI FIX, SE BND Mynah, HI FIX	Hefiti, HI FIX	* 2000
* 1300-MOCA Hefiti, HI FIX	Maken, HI FIX	6000
§ 95.6407 Hawaii VOR Federal Airway V7 Is Amended To Read in Part		
Kona, HI VORTAC	* Reefs, HI FIX	5000
* 4100-MCA Reefs, HI FIX, SE BND Reefs, HI FIX	Moana, HI FIX	* 2000
* 1300-MOCA Moana, HI FIX	Rowin, HI FIX	* 4000
* 1300-MOCA		
§ 95.6411 Hawaii VOR Federal Airway V11 Is Amended To Read in Part		
Reefs, HI FIX	* Flitt, HI FIX	** 3000
* 4600-MCA FLITT, HI FIX, N BND ** 2000-MOCA ** 2000-GNSS MEA Flitt, HI FIX	Upolu Point, HI VORTAC	5700
§ 95.6420 Hawaii VOR Federal Airway V20 Is Amended To Read in Part		
Jorda, HI FIX	* Fires, HI FIX	** 10000
* 13000-MRA ** 1300-MOCA	NW BND	** 13000
* Fires, HI FIX	SE BND	** 13000
* 13000-MRA ** 1300-MOCA	* Hokla, HI FIX	
Hokla, HI FIX	Typho, HI FIX	* 8000
* 1300-MOCA		

From		To		MEA	
Typho, HI FIX		* Robyn, HI FIX			
* 3900—MCA Robyn, HI FIX, SE BND		SE BND		** 3000	
** 1300—MOCA		NW BND		** 8000	
Robyn, HI FIX		Kona, HI VORTEC		5000	
From		To		MEA	MAA
§ 95.7001 Jet Routes					
§ 95.7045 Jet Route J45 Is Amended To Read in Part					
# Alma, GA VORTAC		Macon, GA VORTAC		18000	45000
# Alma R-320 Unusable use Macon R-139					
§ 95.7149 Jet Route J149 Is Amended To Read in Part					
# Armel, VA VORTAC		Eytee, WV FIX		* 31000	41000
* 18000—GNSS MEA					
# Armel R-281 Unusable BYD 119 NM. NA Except for Aircraft Equipped With Suitable RNAV System With GPS.					
* GNSS Required.					
Eytee, WV FIX		Geffs, WV FIX		* 31000	41000
* 18000—GNSS MEA					
* GNSS Required					
From		To		Changeover points	
				Distance	From
§ 95.8003 VOR Federal Airway Changeover Points Airway Segment V119 Is Amended To Add Changeover Point					
Newcombe, KY VORTAC		Henderson, WV VORTAC		32	Newcombe
V578 Is Amended To Delete Changeover Point					
Tift Myers, GA VOR		Alma, GA VORTAC		26	Tift Myers

[FR Doc. 2011-19504 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-13-P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**48 CFR Part 1816**

RIN 2700-AD69

NASA Implementation of Federal Acquisition Regulation (FAR) Award Fee Language Revision**AGENCY:** National Aeronautics and Space Administration.**ACTION:** Final rule.

SUMMARY: NASA has adopted, without change, an interim final rule amending the NASA FAR Supplement (NFS) to implement the FAR Award Fee revision issued in Federal Acquisition Circular (FAC) 2005-46.

DATES: *Effective Date:* August 2, 2011.

FOR FURTHER INFORMATION CONTACT: Bill Roets, NASA, Office of Procurement, Contract Management Division (Suite 5G86); (202) 358-4483; *e-mail:* william.roets-1@nasa.gov.

SUPPLEMENTARY INFORMATION:**A. Background**

An interim rule was published on February 8, 2011 (76 FR 6696) implementing Federal Acquisition Circular (FAC) 2005-46 which significantly revised FAR Parts 16.305, 16.401, and 16.405-2 by incorporating new requirements relative to the use of award fee incentives. Specifically, the FAR rule implemented section 814 of the John Warner 2007 National Defense Authorization Act (NDAA) and section 867 of the Duncan Hunter 2009 NDAA and which required agencies to:

(1) Link award fees to acquisition objectives in the areas of cost, schedule, and technical performance;

(2) Clarify that the base fee may be included in a cost plus award fee type contract at the discretion of the contracting officer;

(3) Prescribe narrative ratings when making a percentage of award fee available;

(4) Prohibit the issuance of award fees for a rating period if the contractor's performance is judged to be below satisfactory;

(5) Conduct an analysis and consider the results of the analysis when determining whether to use an award fee type contract or not;

(6) Include specific content in the award fee plans; and

(7) Prohibit the rolling over of unearned award fees to subsequent rating periods.

NASA received no comments on the interim rule and has adopted the interim rule as a final rule without change.

B. Executive Orders 12866 and 13563

Executive Orders (E.O.s) 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). E.O. 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rule is not a major rule under 5 U.S.C. 804.

C. Regulatory Flexibility Act

NASA certifies that this final rule will not have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, at 5 U.S.C. 601, *et seq.*,

because it merely implements the FAR Award Fee revisions and does not impose an economic impact beyond that addressed in the FAC 2005-46 publication of the FAR final rule.

D. Paperwork Reduction Act

This final rule does not contain any information collection requirements that require the approval of the Office of Management and Budget under 44 U.S.C. 3501, *et seq.* in accordance with the Paperwork Reduction Act.

List of Subjects in 48 CFR Part 1816

Government procurement.

William P. McNally,

Assistant Administrator for Procurement.

PART 1816—TYPES OF CONTRACTS

Accordingly, the interim rule amending 48 CFR part 1816 which was published at 76 FR 6696 on February 8, 2011, is adopted as a final rule without change.

[FR Doc. 2011-19105 Filed 8-1-11; 8:45 am]

BILLING CODE 7510-01-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 101126522-0640-02]

RIN 0648-XA612

Fisheries of the Exclusive Economic Zone Off Alaska; Pacific Ocean Perch for Catcher Vessels Participating in the Rockfish Entry Level Trawl Fishery in the Central Regulatory Area of the Gulf of Alaska

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; modification of a closure.

SUMMARY: NMFS is opening directed fishing for Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the Gulf of Alaska (GOA) for 48 hours. This action is necessary to fully use the 2011 directed fishing allowance of Pacific ocean perch for trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the GOA.

DATES: Effective 1200 hrs, Alaska local time (A.l.t.), July 29, 2011, through 1200 hrs, A.l.t., July 31, 2011. Comments

must be received at the following address no later than 4:30 p.m., A.l.t., August 12, 2011.

ADDRESSES: Send comments to Glenn Merrill, Assistant Regional Administrator, Sustainable Fisheries Division, Alaska Region, NMFS, Attn: Ellen Sebastian. You may submit comments, identified by 0648-XA612, by any one of the following methods:

- *Electronic Submissions:* Submit all electronic public comments via the Federal eRulemaking Portal Web site at <http://www.regulations.gov>.
- *Mail:* P.O. Box 21668, Juneau, AK 99802.
- *Fax:* (907) 586-7557.
- *Hand delivery to the Federal Building:* 709 West 9th Street, Room 420A, Juneau, AK.

All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All Personal Identifying Information (e.g., name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields, if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe portable document file (pdf) formats only.

FOR FURTHER INFORMATION CONTACT: Steve Whitney, 907-586-7269.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the GOA exclusive economic zone according to the Fishery Management Plan for Groundfish of the Gulf of Alaska (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

NMFS closed directed fishing for Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the GOA under § 679.20(d)(1)(iii) on July 9, 2011 (publication in the *Federal Register* pending).

NMFS has determined that approximately 120 metric tons of Pacific ocean perch remain in the directed fishing allowance. Therefore, in accordance with § 679.25(a)(1)(i), (a)(2)(i)(C), and (a)(2)(iii)(D), and to fully utilize the 2011 directed fishing for

Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the GOA, NMFS is terminating the previous closure and is reopening directed fishing for Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the GOA. This will enhance the socioeconomic well-being of harvesters dependent upon Pacific ocean perch in this area. The Administrator, Alaska Region (Regional Administrator) considered the following factors in reaching this decision: (1) The current catch of Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery and (2) the harvest capacity and stated intent on future harvesting patterns of vessels participating in this fishery.

In accordance with § 679.20(d)(1)(iii), the Regional Administrator finds that this directed fishing allowance will be reached after 48 hours. Consequently, NMFS is prohibiting directed fishing for Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the GOA effective 1200 hrs, A.l.t., July 31, 2011.

Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA (AA), finds good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553(b)(B) as such requirement is impracticable and contrary to the public interest. This requirement is impracticable and contrary to the public interest as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion and would delay the opening of Pacific ocean perch by trawl catcher vessels participating in the rockfish entry level fishery in the Central Regulatory Area of the GOA. NMFS was unable to publish a notice providing time for public comment because the most recent and relevant data only became available as of July 27, 2011.

The AA also finds good cause to waive the 30-day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

Without this inseason adjustment, NMFS could not allow the fishery for Pacific ocean perch by trawl catcher vessels participating in the rockfish

entry level fishery in the Central Regulatory Area of the GOA to be harvested in an expedient manner and in accordance with the regulatory schedule. Under § 679.25(c)(2), interested persons are invited to submit written comments on this action to the above address until August 12, 2011.

This action is required by § 679.20 and § 679.25 and is exempt from review under Executive Order 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: July 28, 2011.

James P. Burgess,
Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2011-19533 Filed 7-28-11; 4:15 pm]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 101126522-0640-02]

RIN 0648-XA613

Fisheries of the Exclusive Economic Zone Off Alaska; "Other Rockfish" in the Western Regulatory Area of the Gulf of Alaska

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; closure.

SUMMARY: NMFS is prohibiting retention of "other rockfish" in the Western Regulatory Area of the Gulf of Alaska

(GOA). This action is necessary because the 2011 total allowable catch (TAC) of "other rockfish" in the Western Regulatory Area of the GOA has been reached.

DATES: Effective 1200 hrs, Alaska local time (A.l.t.), July 28, 2011, through 2400 hrs, A.l.t., December 31, 2011.

FOR FURTHER INFORMATION CONTACT: Steve Whitney, 907-586-7269.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the GOA exclusive economic zone according to the Fishery Management Plan for Groundfish of the Gulf of Alaska (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The 2011 TAC of "other rockfish" in the Western Regulatory Area of the GOA is 212 metric tons (mt) as established by the final 2011 and 2012 harvest specifications for groundfish of the GOA (76 FR 11111, March 1, 2011).

In accordance with § 679.20(d)(2), the Administrator, Alaska Region, NMFS (Regional Administrator), has determined that the 2011 TAC of "other rockfish" in the Western Regulatory Area of the GOA has been reached. Therefore, NMFS is requiring that "other rockfish" caught in the Western Regulatory Area of the GOA be treated as prohibited species in accordance with § 679.21(b).

"Other rockfish" in the Western Regulatory Area of the GOA means slope and demersal shelf rockfish.

Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA (AA), finds good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553(b)(B) as such requirement is impracticable and contrary to the public interest. This requirement is impracticable and contrary to the public interest as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion and would delay prohibiting the retention of "other rockfish" in the Western Regulatory Area of the GOA. NMFS was unable to publish a notice providing time for public comment because the most recent, relevant data only became available as of July 25, 2011.

The AA also finds good cause to waive the 30-day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

This action is required by § 679.20 and § 679.21 and is exempt from review under Executive Order 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: July 28, 2011.

James P. Burgess,
Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2011-19537 Filed 7-28-11; 4:15 pm]

BILLING CODE 3510-22-P

Proposed Rules

Federal Register

Vol. 76, No. 148

Tuesday, August 2, 2011

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Part 319

[Docket No. APHIS-2011-0012]

RIN 0579-AD48

Importation of Tomatoes From the Economic Community of West African States Into the Continental United States

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: We are proposing to amend the fruits and vegetables regulations to allow the importation of tomatoes from the member States of the Economic Community of West African States (ECOWAS) into the continental United States. As a condition of entry, tomatoes from the ECOWAS would be subject to a systems approach that would include requirements for pest exclusion at the production site, fruit fly trapping and monitoring, and procedures for packing the tomatoes. The tomatoes would also be required to be accompanied by a phytosanitary certificate issued by the national plant protection organization of the exporting country with an additional declaration that the tomatoes had been produced in accordance with the proposed requirements. This action would allow for the importation of tomatoes from the ECOWAS into the continental United States while continuing to provide protection against the introduction of quarantine pests.

DATES: We will consider all comments that we receive on or before October 3, 2011.

ADDRESSES: You may submit comments by either of the following methods:

- **Federal eRulemaking Portal:** Go to <http://www.regulations.gov#!documentDetail;D=APHIS-2011-0012-0001>.
- **Postal Mail/Commercial Delivery:** Send your comment to Docket No. APHIS-2011-0012, Regulatory Analysis

and Development, PPD, APHIS, Station 3A-03.8, 4700 River Road Unit 118, Riverdale, MD 20737-1238.

Supporting documents and any comments we receive on this docket may be viewed at <http://www.regulations.gov#!docketDetail;D=APHIS-2011-0012> or in our reading room, which is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690-2817 before coming.

FOR FURTHER INFORMATION CONTACT: Mr. Phillip Grove, Regulatory Coordinator, PPQ, APHIS, 4700 River Road, Unit 156, Riverdale, MD 20737-1236; (301) 734-6280.

SUPPLEMENTARY INFORMATION:

Background

The regulations in "Subpart—Fruits and Vegetables" (7 CFR 319.56-1 through 319.56-51, referred to below as the regulations) prohibit or restrict the importation of fruits and vegetables into the United States from certain parts of the world to prevent the introduction and dissemination of plant pests that are new to or not widely distributed within the United States. Section 319.56-28 of the regulations contains administrative instructions allowing the importation of tomatoes from various countries where the Mediterranean fruit fly (Medfly, *Ceratitis capitata*) is present.

We currently do not allow the importation of fresh tomatoes from any member of the Economic Community of West African States (ECOWAS). The ECOWAS comprises the following members: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. The government of Senegal has requested that the Animal and Plant Health Inspection Service (APHIS) amend the regulations to allow fresh tomatoes (*Solanum lycopersicum*) to be imported from Senegal into the continental United States. Because of the similar pest risks present in the other countries in the ECOWAS, we prepared a regional pest risk assessment (PRA) and a risk management document (RMD) for the importation of tomatoes from any ECOWAS member State.

Copies of the PRA and the RMD may be obtained from the person listed under **FOR FURTHER INFORMATION CONTACT** or viewed on the Regulations.gov Web site (see **ADDRESSES** above for instructions for accessing Regulations.gov).

The PRA, titled "Importation of Tomatoes, *Solanum lycopersicum*, from the Economic Community of West African States (ECOWAS) into the Continental United States" (2009), evaluates the risks associated with the importation of tomatoes into the continental United States from the ECOWAS. The PRA identified 10 pests that could be introduced into the United States through the importation of tomatoes. Seven of the pests were determined to pose a high pest risk potential:

- Bactrocera cucurbitae* (melon fruit fly)
- B. invadens* (Asian fruit fly)
- Ceratitis capitata* (Medfly)
- Ceratitis rosa* (natal fruit fly)
- Helicoverpa armigera* (cotton bollworm)
- H. assulta* (cape gooseberry budworm)
- Leucinodes orbonalis* (eggplant fruit borer)

Three of the pests were determined to pose a medium pest risk potential:

- Chrysodeixis chalcites* (golden twin spot moth)
- Maconellicoccus hirsutus* (pink hibiscus mealybug)
- Nipaecoccus viridis* (spherical mealybug)

APHIS has determined that measures beyond standard port-of-entry inspection are required to mitigate the risks posed by these plant pests. Therefore, we are proposing to allow the importation of tomatoes from the ECOWAS into the continental United States only if they are produced in accordance with a systems approach to mitigate pest risk as outlined below. We are proposing to amend § 319.56-28 by adding a new paragraph (h) to the end of the section that would set out requirements for the importation of fresh tomatoes from the ECOWAS.

Proposed Systems Approach

Production Site Requirements

Tomatoes from the ECOWAS would have to be grown in approved production sites registered with the national plant protection organization (NPPO) of the exporting country. Initial approval of production sites would be completed jointly by the NPPO of the

exporting country and APHIS. The NPPO of the exporting country would have to visit and inspect the production sites monthly, beginning 2 months before the harvest and continuing through the end of the shipping season. APHIS would be able to monitor the production sites, if necessary. This condition would ensure that the required phytosanitary measures are properly implemented throughout the process of growing and packing tomatoes for export to the United States.

Production sites for tomatoes would also have to be pest-exclusionary structures (PES). The PES would be required to have self-closing double doors, and all openings, including vents, to the outside of the PES would have to be covered by screening with mesh openings of not more than 1.6 mm. Screening with openings of not more than 1.6 mm will prevent introduction of fruit flies, moths, and mealybugs.

In addition, no shade trees could be grown within 10 meters of the entry door of the PES and no other fruit fly host plants could be grown within 50 meters of the entry door of the PES. These requirements would reduce the pest pressure of fruit flies outside the place of production because, during hot, sunny weather, pests congregate in shaded areas for survival.

Mitigation Measures for Fruit Flies

The NPPO of the exporting country would be required to set and maintain fruit fly traps with an APHIS-approved protein bait inside the PES, beginning 2 months prior to the start of the shipping season and continuing through the end of the harvest. The traps would have to be set at a rate of eight traps per hectare, with a minimum of four traps in each PES, and checked every 7 days. We also propose to require the NPPO of the exporting country to maintain records of trap placement, trap maintenance, and captures of any fruit flies of concern. The trapping records would have to be maintained for 1 year and made available to APHIS upon request.

Capture of a single fruit fly of concern inside a PES would immediately result in cancellation of exports to the United States from that PES. The detection of a fruit fly of concern in a consignment at the port of entry that is traced back to a PES would also result in immediate cancellation of exports to the United States from that PES. In both cases, exports from the PES in question could not resume until APHIS and the NPPO of the exporting country have mutually determined that the risk has been properly mitigated.

Harvesting Requirements

The stem and calyx of each tomato would have to be removed. Removal of the stem and calyx would eliminate hiding places for small pests, thereby allowing the pests to be detected during the NPPO's inspection.

Packinghouse Requirements

While being used for packing tomatoes for export to the United States, the packinghouses would only be allowed to accept fruit from registered production sites. This requirement would reduce the risk that quarantine pests are present on or in tomatoes exported to the United States.

In addition, no shade trees could be grown within 10 meters of the entry door of the packinghouses, and no other fruit fly host plants could be grown within 50 meters of the entry door of the packinghouses. As mentioned earlier with regard to production sites, these requirements would reduce the pest pressure of fruit flies outside the packinghouse.

Post-Harvest Procedures

The tomatoes would have to be safeguarded by an insect-proof screen or plastic tarpaulin while in transit to a packinghouse and while awaiting packing. Tomatoes would have to be packed for shipment to the United States within 24 hours of harvest in insect-proof cartons or containers, or covered with insect-proof mesh or a plastic tarpaulin. These safeguards would have to remain intact until arrival in the United States or the consignment would not be allowed to enter the United States. Containers transported by sea would have to be kept closed if stored within 20 meters of a fruit fly host prior to being loaded onto the vessel. These measures would prevent harvested fruit from being infested by quarantine pests.

Commercial Consignments

Only commercial consignments of tomatoes would be allowed to be imported. Commercial consignments, as defined in § 319.56-2, are consignments that an inspector identifies as having been imported for sale and distribution. Such identification is based on a variety of indicators, including, but not limited to: Quantity of produce, type of packaging, identification of grower or packinghouse on the packaging, and documents consigning the fruits or vegetables to a wholesaler or retailer. Produce grown commercially is less likely to be infested with plant pests than noncommercial consignments. Noncommercial consignments are more prone to infestations because the

commodity is often ripe to overripe, could be of a variety with unknown susceptibility to pests, and is often grown with little or no pest control.

Inspection and Phytosanitary Certificate

Each consignment of tomatoes would have to be inspected by the NPPO of the exporting country and found free of the quarantine pests listed earlier. Each consignment would also have to be accompanied by a phytosanitary certificate issued by the NPPO of the exporting country, providing the additional declaration "These tomatoes were grown in registered production sites in [name of country] and the consignment has been inspected and found free of quarantine pests." This requirement would certify that the provisions of the regulations have been met.

Executive Order 12866 and Regulatory Flexibility Act

This proposed rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

In accordance with the Regulatory Flexibility Act, we have analyzed the potential economic effects of this action on small entities. The analysis is summarized below. Copies of the full analysis are available by contacting the person listed under **FOR FURTHER INFORMATION CONTACT** or on the Regulations.gov Web site (see **ADDRESSES** above for instructions for accessing Regulations.gov).

This proposed rule would allow the importation of tomatoes from the member States of the ECOWAS under a systems approach. Entities potentially affected by this proposed rule are U.S. producers of fresh tomatoes (classified under Other Vegetable (except Potato) and Melon Farming, NAICS 111219) and importers of fresh tomatoes. Vegetable-producing establishments are classified as small if their annual receipts are not more than \$750,000. According to the 2007 Census of Agriculture (which has the most recent data on farm sizes), there were 25,809 farms producing tomatoes in the United States. About 68 percent of these farms had less than 1 acre in tomatoes. Overall, 25,128 farms (97.4 percent) had a total of 39,879 acres in tomatoes (about 9 percent of the total planted area) and are considered small, with an average of about 1.6 acres and an average annual income of about \$8,000 in 2007. The remaining 2.6 percent of the farms planted a total of 402,346 acres in tomatoes (91 percent of the planted area). They averaged 591 acres,

with an average annual income of about \$3 million.

The impact of potential tomato imports on U.S. small-entity producers as a result of this rule would be small. The annual decrease in producer welfare per small entity is estimated to be less than \$4 or about 0.05 percent of average annual sales by small entities, when we assume that 1,934 metric tons of tomatoes would be exported to the United States from ECOWAS because of this rule. The dollar decrease in welfare for most small tomato producers would be even smaller, given that the majority planted less than an acre in tomatoes.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12988

This proposed rule would allow tomatoes to be imported into the United States from the ECOWAS. If this proposed rule is adopted, State and local laws and regulations regarding tomatoes imported under this rule would be preempted while the fruit is in foreign commerce. Fresh fruits are generally imported for immediate distribution and sale to the consuming public and would remain in foreign commerce until sold to the ultimate consumer. The question of when foreign commerce ceases in other cases must be addressed on a case-by-case basis. If this proposed rule is adopted, no retroactive effect will be given to this rule, and this rule will not require administrative proceedings before parties may file suit in court challenging this rule.

Paperwork Reduction Act

In accordance with section 3507(d) of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the information collection or recordkeeping requirements included in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB). Please send written comments to the Office of Information and Regulatory Affairs, OMB, Attention: Desk Officer for APHIS, Washington, DC 20503. Please state that your comments refer to Docket No. APHIS-2011-0012. Please send a copy of your comments to: (1) Docket No. APHIS-2011-0012, Regulatory Analysis and Development, PPD, APHIS, Station 3A-03.8, 4700 River Road Unit 118, Riverdale, MD 20737-1238, and (2) Clearance Officer, OCIO, USDA, room 404-W, 14th Street and Independence Avenue, SW., Washington, DC 20250. A comment to OMB is best assured of having its full

effect if OMB receives it within 30 days of publication of this proposed rule.

APHIS is proposing to amend the fruits and vegetables regulations to allow the importation of tomatoes from the member States of the ECOWAS into the continental United States. As a condition of entry, tomatoes from the ECOWAS would be subject to a systems approach that would include requirements for pest exclusion at the production site, fruit fly trapping and monitoring, and procedures for packing the tomatoes. The tomatoes would also be required to be accompanied by a phytosanitary certificate issued by the national plant protection organization of the exporting country with an additional declaration that the tomatoes had been produced in accordance with the proposed requirements. This action would allow for the importation of tomatoes from the ECOWAS into the continental United States while continuing to provide protection against the introduction of quarantine pests.

The information collection activities would include a phytosanitary certificate with an additional declaration, production site registration, recordkeeping, and inspection of production sites.

We are soliciting comments from the public (as well as affected agencies) concerning our proposed information collection and recordkeeping requirements. These comments will help us:

- (1) Evaluate whether the proposed information collection is necessary for the proper performance of our agency's functions, including whether the information will have practical utility;
- (2) Evaluate the accuracy of our estimate of the burden of the proposed information collection, including the validity of the methodology and assumptions used;
- (3) Enhance the quality, utility, and clarity of the information to be collected; and
- (4) Minimize the burden of the information collection on those who are to respond (such as through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.*, permitting electronic submission of responses).

Estimate of burden: Public reporting burden for this collection of information is estimated to average 3.8 hours per response.

Respondents: Foreign officials, importers of tomatoes from ECOWAS.

Estimated annual number of respondents: 2.

Estimated annual number of responses per respondent: 2.5.

Estimated annual number of responses: 5.

Estimated total annual burden on respondents: 19 hours. (Due to averaging, the total annual burden hours may not equal the product of the annual number of responses multiplied by the reporting burden per response.)

Copies of this information collection can be obtained from Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 851-2908.

E-Government Act Compliance

The Animal and Plant Health Inspection Service is committed to compliance with the E-Government Act to promote the use of the Internet and other information technologies, to provide increased opportunities for citizen access to Government information and services, and for other purposes. For information pertinent to E-Government Act compliance related to this proposed rule, please contact Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 851-2908.

List of Subjects in 7 CFR Part 319

Coffee, Cotton, Fruits, Imports, Logs, Nursery stock, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements, Rice, Vegetables.

Accordingly, we propose to amend 7 CFR part 319 as follows:

PART 319—FOREIGN QUARANTINE NOTICES

1. The authority citation for part 319 continues to read as follows:

Authority: 7 U.S.C. 450, 7701-7772, and 7781-7786; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

2. In § 319.56-28, a new paragraph (h) is added to read as follows:

§ 319.56-28 Tomatoes from certain countries.

* * * * *

(h) *Tomatoes (fruit) (Solanum lycopersicum) from member States of the Economic Community of West African States.* Fresh tomatoes may be imported into the continental United States from member States of the Economic Community of West African States (ECOWAS) only in accordance with this section and other applicable provisions of this subpart. The ECOWAS consists of Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo Republic. These conditions are designed to prevent the introduction of the following quarantine

pests: *Bactrocera cucurbitae*, *B. invadens*, *Ceratitis capitata*, *Ceratitis rosa*, *Chrysodeixis chalcites*, *Helicoverpa armigera*, *H. assulta*, *Leucinodes orbonalis*, *Macronellicoccus hirsutus*, and *Nipaeococcus viridis*.

(1) *Production site requirements.* (i) Production sites in which the tomatoes are produced must be registered with the national plant protection organization (NPPO) of the exporting country. Initial approval of production sites must be completed jointly by the NPPO of the exporting country and APHIS.

(ii) The NPPO of the exporting country must visit and inspect the production sites monthly, beginning 2 months before the harvest and continuing through the end of the shipping season. APHIS may monitor the production sites if necessary.

(iii) Production sites must be pest-exclusionary structures (PES). The PES must have self-closing double doors. All openings, including vents, to the outside of the PES must be covered by screening with mesh openings of not more than 1.6 mm.

(iv) No shade trees may be grown within 10 meters of the entry door of the PES, and no other fruit fly host plants may be grown within 50 meters of the entry door of the PES.

(2) *Mitigation measures for fruit flies.*

(i) Beginning 2 months prior to the start of the shipping season and continuing through the end of the harvest, the NPPO of the exporting country must set and maintain fruit fly traps with an APHIS-approved protein bait inside each PES at a rate of eight traps per hectare, with a minimum of four traps in each PES, and check the traps every 7 days. The NPPO of the exporting country must maintain records of trap placement, trap maintenance, and captures of any fruit flies of concern. The NPPO must maintain trapping records for 1 year, and make the records available to APHIS upon request.

(ii) Capture of a single fruit fly of concern inside a PES will immediately result in cancellation of exports to the United States from that PES. The detection of a fruit fly of concern in a consignment at the port of entry that is traced back to a PES will also result in immediate cancellation of exports to the United States from that PES. In both cases, exports from the PES in question may not resume until APHIS and the NPPO of the exporting country have mutually determined that the risk has been properly mitigated.

(3) *Harvesting requirements.* The stem and calyx must be removed from the tomato.

(4) *Packinghouse requirements.* (i) While in use for exporting tomatoes to the United States, the packinghouses may only accept fruit from registered production sites.

(ii) No shade trees may be grown within 10 meters of the entry door of the packinghouses, and no other fruit fly host plants may be grown within 50 meters of the entry door of the packinghouses.

(5) *Post-harvest procedures.* (i) The tomatoes must be safeguarded by an insect-proof mesh screen or plastic tarpaulin while in transit to the packinghouse and while awaiting packing.

(ii) Tomatoes must be packed within 24 hours of harvest in insect-proof cartons or containers, or covered with insect-proof mesh or a plastic tarpaulin for transport to the United States. These safeguards must remain intact until arrival in the United States or the consignment will be denied entry into the United States.

(iii) If transported by sea, the containers in which the tomatoes are packed must be kept closed if stored within 20 meters of a fruit fly host prior to being loaded on the vessel.

(6) *Commercial consignments.* The tomatoes may be imported in commercial consignments only.

(7) *Phytosanitary certificate.* Each consignment of tomatoes must be accompanied by a phytosanitary certificate issued by the NPPO of the exporting country, providing an additional declaration "These tomatoes were grown in registered production sites in [name of country] and the consignment has been inspected and found free of quarantine pests."

* * * * *

Done in Washington, DC, this 27th day of July 2011.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 2011-19518 Filed 8-1-11; 8:45 am]

BILLING CODE 3410-34-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA-2011-0585; Airspace Docket No. 11-AWP-9]

Proposed Modification of Class E Airspace; Blythe, CA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to modify Class E airspace at Blythe, CA. Controlled airspace is necessary to accommodate aircraft using Area Navigation (RNAV) Global Positioning System (GPS) standard instrument approach procedures at Blythe Airport. The FAA is proposing this action to enhance the safety and management of aircraft operations at the airport.

DATES: Comments must be received on or before September 16, 2011.

ADDRESSES: Send comments on this proposal to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590; telephone (202) 366-9826. You must identify FAA Docket No. FAA-2011-0585; Airspace Docket No. 11-AWP-9, at the beginning of your comments. You may also submit comments through the Internet at <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT:

Eldon Taylor, Federal Aviation Administration, Operations Support Group, Western Service Center, 1601 Lind Avenue, SW., Renton, WA 98057; telephone (425) 203-4537.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal.

Communications should identify both docket numbers (FAA Docket No. FAA-2011-0585 and Airspace Docket No. 11-AWP-9) and be submitted in triplicate to the Docket Management System (see **ADDRESSES** section for address and phone number). You may also submit comments through the Internet at <http://www.regulations.gov>.

Commenters wishing the FAA to acknowledge receipt of their comments on this action must submit with those comments a self-addressed stamped postcard on which the following statement is made: "Comments to FAA Docket No. FAA-2011-0585 and Airspace Docket No. 11-AWP-9". The postcard will be date/time stamped and returned to the commenter.

All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this action may be changed in light of comments received. All comments submitted will be available for examination in the public docket both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of NPRMs

An electronic copy of this document may be downloaded through the Internet at <http://www.regulations.gov>. Recently published rulemaking documents can also be accessed through the FAA's Web page at http://www.faa.gov/airports_airtraffic/air_traffic/publications/airspace_amendments/.

You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office (see the **ADDRESSES** section for the address and phone number) between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. An informal docket may also be examined during normal business hours at the Northwest Mountain Regional Office of the Federal Aviation Administration, Air Traffic Organization, Western Service Center, Operations Support Group, 1601 Lind Avenue, SW., Renton, WA 98057.

Persons interested in being placed on a mailing list for future NPRMs should contact the FAA's Office of Rulemaking, (202) 267-9677, for a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

The Proposal

The FAA is proposing an amendment to Title 14 Code of Federal Regulations (14 CFR) part 71 by modifying Class E airspace extending upward from 700 feet above the surface at Blythe Airport, Blythe, CA. Additional controlled airspace is necessary to accommodate aircraft using the RNAV (GPS) standard instrument approach procedures at Blythe Airport. This action would enhance the safety and management of aircraft operations at the airport.

Class E airspace designations are published in paragraph 6005, of FAA Order 7400.9U, dated August 18, 2010, and effective September 15, 2010, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be published subsequently in this Order.

The FAA has determined this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this proposed regulation; (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified this proposed rule, when promulgated, would not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the U.S. Code. Subtitle 1, Section 106, describes the authority for the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it creates additional controlled airspace at Blythe Airport, Blythe, CA.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

1. The authority citation for 14 CFR part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959-1963 Comp., p. 389.

§ 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of the Federal Aviation Administration Order 7400.9U, Airspace Designations and Reporting Points, dated August 18, 2010, and

effective September 15, 2010 is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

* * * * *

AWP CA E5 Blythe, CA [Modified]

Blythe Airport, CA

(Lat. 33°37'09" N., long. 114°43'01" W.)

That airspace extending upward from 700 feet above the surface within a 6.7-mile radius of the Blythe Airport, and within 4 miles south and 1.2 miles north of the 264° bearing from the airport extending from the 6.7-mile radius to 10 miles west of the airport. That airspace extending upward from 1,200 feet above the surface within an area bounded by lat. 33°50'00" N., long. 114°21'00" W.; to lat. 33°42'00" N., long. 114°17'00" W.; to lat. 33°41'30" N., long. 114°07'30" W.; to lat. 33°27'00" N., long. 114°09'00" W.; to lat. 33°23'00" N., long. 114°13'00" W.; to lat. 33°28'30" N., long. 114°28'00" W.; to lat. 33°26'00" N., long. 115°04'00" W.; to lat. 33°53'00" N., long. 115°07'00" W.; to lat. 34°15'00" N., long. 114°50'00" W.; to lat. 34°15'00" N., long. 114°28'00" W.; to lat. 33°52'00" N., long. 114°29'00" W., thence to the point of beginning, and that airspace within a 15.8-mile radius of Blythe Airport extending clockwise from the 124° bearing to the 227° bearing from Blythe Airport.

Issued in Seattle, Washington, on July 19, 2011.

John Warner,

Manager, Operations Support Group, Western Service Center.

[FR Doc. 2011-19498 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

23 CFR Part 655

[FHWA Docket No. FHWA-2010-0170]

RIN 2125-AF41

National Standards for Traffic Control Devices; the Manual on Uniform Traffic Control Devices for Streets and Highways; Revision

AGENCY: Federal Highway Administration (FHWA), (DOT).

ACTION: Proposed rule; request for comments.

SUMMARY: The Manual on Uniform Traffic Control Devices (MUTCD) is incorporated in our regulations, approved by the Federal Highway Administration, and recognized as the national standard for traffic control devices used on all streets, highways, bikeways, and private roads open to public travel. The FHWA proposes to

revise certain standards, guidance, options, and supporting information relating to traffic control devices in Part 1 (General) of the MUTCD. The proposed changes are intended to clarify the definition of Standard statements in the MUTCD and clarify the use of engineering judgment and studies in the application of traffic control devices.

DATES: Comments must be received on or before October 3, 2011. Late-filed comments will be considered to the extent practicable.

ADDRESSES: Mail or hand deliver comments to the U.S. Department of Transportation, Dockets Management Facility, 1200 New Jersey Avenue, SE., Washington, DC 20590, or submit electronically at <http://www.regulations.gov> or fax comments to (202) 493-2251. All comments should include the docket number that appears in the heading of this document. All comments received will be available for examination and copying at the above address from 9 a.m. to 5 p.m., e.t., Monday through Friday, except Federal holidays. Those desiring notification of receipt of comments must include a self-addressed, stamped postcard or may print the acknowledgment page that appears after submitting comments electronically. Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70, Page 19477-78) or you may visit <http://dms.dot.gov>.

FOR FURTHER INFORMATION CONTACT: Mr. Hari Kalla, Office of Transportation Operations, (202) 366-5915; or Mr. William Winne, Office of the Chief Counsel, (202) 366-1397, Federal Highway Administration, 1200 New Jersey Ave., SE., Washington, DC 20590. Office hours are from 8:00 a.m. to 4:30 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access and Filing

You may submit or retrieve comments online through the Federal eRulemaking portal at: <http://www.regulations.gov>. Electronic submission and retrieval help and guidelines are available under the help section of the Web site. It is available 24 hours each day, 365 days each year. Please follow the instructions. An electronic copy of this document may also be downloaded from the Office of the Federal Register's

home page at: <http://www.archives.gov> and the Government Printing Office's Web page at: <http://www.access.gpo.gov/nara>.

Background

In the December 16, 2009, Final Rule¹ adopting the 2009 edition of the MUTCD, the FHWA made clarifying revisions to the text of Section 1A.09 and to the definition of Standard in Section 1A.13 to remove conflicting language and provide consistency in the intended use of engineering judgment and engineering studies. The Final Rule deleted the following 2003 MUTCD text from the GUIDANCE in Section 1A.09 of the 2009 MUTCD: "The decision to use a particular device at a particular location should be made on the basis of either an engineering study or the application of engineering judgment. Thus, while this Manual provides Standards, Guidance, and Options for design and application of traffic control devices, this Manual should not be considered a substitute for engineering judgment. Engineering judgment should be exercised in the selection and application of traffic control devices * * *". Additionally, in paragraph 1 of Section 1A.13, the following sentence was added to the definition of Standard: "Standard statements shall not be modified or compromised based on engineering judgment or engineering study."

It was not the intention of the FHWA to change the longstanding meaning of Standard or remove the appropriate application of engineering studies or engineering judgment where the language of a particular Standard explicitly or implicitly requires it.

Subsequent to the issuance of the Final Rule for the 2009 MUTCD, the FHWA received correspondence and resolutions from the American Association of State Highway and Transportation Officials (AASHTO) and the National Committee on Uniform Traffic Control Devices (NCUTCD), and letters from several State DOTs, expressing concerns that the removal of language from Section 1A.09 and the addition of the sentence to the Section 1A.13 definition of Standard had the effect of removing the flexibility of highway agencies to address field conditions. The FHWA agrees with some of the concerns and especially believes that, even with the clarifications adopted in the 2009 MUTCD, the language concerning the

appropriate use of engineering studies and engineering judgment in relation to Standards in the MUTCD is still unclear. Therefore, the FHWA is proposing amendments to Section 1A.09 and to paragraph 1 of Section 1A.13 at this time.

Proposed Amendment

The text of this proposed revision of the 2009 edition of the MUTCD is available for inspection and copying, as prescribed in 49 CFR part 7, at the FHWA Office of Transportation Operations (HOTO-1), 1200 New Jersey Avenue, SE., Washington, DC 20590. Furthermore, the text of the proposed revision is available on the MUTCD Internet Web site <http://mutcd.fhwa.dot.gov>, showing the current MUTCD text of Section 1A.09 and paragraph 1 of Section 1A.13 with proposed additions in blue underlined text and proposed deletions as red strikeout text. The complete current 2009 edition of the MUTCD is also available on the same Internet Web site. A copy of the proposed revision is also available at <http://www.regulations.gov> under the docket number noted above.

This NPA is being issued to provide an opportunity for public comment on the desirability of these proposed amendments to the MUTCD. Based on the comments received and its own experience, the FHWA may issue a Final Rule concerning the proposed changes included in this notice.

It should be noted that on April 22, 2010, an NPA was published in the **Federal Register**,² proposing to revise the 2009 MUTCD by adding Standards, Guidance, Options, and Support information regarding maintaining minimum retroreflectivity of longitudinal pavement markings. The deadline for comments to that docket has passed and the FHWA is currently reviewing the docket comments received. In the April 22, 2010, NPA, it was noted that the proposed revisions regarding maintaining minimum retroreflectivity of longitudinal pavement markings would be designated as Revision 1 to the 2009 edition of the MUTCD. Actual designation of revision numbers will depend on the relative timing of any Final Rules that may be issued by the FHWA as a result of the April 22, 2010, NPA, this NPA, or any other rulemakings related to the MUTCD. Whichever of the Final Rules is issued first would be designated as Revision 1

¹ 74 FR 66732, December 16, 2009. This Federal Register notice can be viewed at the following Internet Web site: <http://edocket.access.gpo.gov/2009/pdf/E9-28322.pdf>.

² 75 FR 20935, April 22, 2010. This Federal Register notice can be viewed at the following Internet Web site: <http://edocket.access.gpo.gov/2010/pdf/2010-9294.pdf>.

and subsequent Final Rules will be numbered accordingly.

The FHWA requests that commenters cite the Section number and paragraph number of the proposed MUTCD text for which each specific comment to the docket about the proposed text is concerned, to help make the FHWA's docket comment review process more efficient.

A summary of the proposed changes in Part 1 of the MUTCD is included in the following discussion.

Discussion of Proposed Amendments to the MUTCD

1. In Section 1A.09 Engineering Study and Engineering Judgment, the FHWA proposes to add a new GUIDANCE paragraph stating that the decision to use a particular device at a particular location should be made on the basis of either an engineering study or the application of engineering judgment. This proposed GUIDANCE reinstates one of the GUIDANCE sentences in the 2003 MUTCD that was removed in the final rule for the 2009 MUTCD.

Additionally, the FHWA proposes to add a new OPTION paragraph stating that when an engineering study or the application of engineering judgment determines that unusual site-specific conditions at a particular location make compliance with a Standard statement in this Manual impossible or impractical, an agency may deviate from that Standard statement at that location. The FHWA believes that the addition of this flexibility is needed in limited cases because some STANDARD statements in the MUTCD cannot possibly address all the various unusual field conditions that, while relatively rare, do exist on the street and highway network in ways that can make it impossible or impractical to meet the precise requirements at such a particular location. It is not intended that a highway agency be authorized to adopt or implement broad policies or practices that deviate from a Standard on a blanket basis jurisdiction-wide, region-wide, on all highways of a particular class, or using similar criteria. The MUTCD provisions that are STANDARDS are intended to be mandatory, as opposed to merely recommended. As such, it is inappropriate to deviate from a STANDARD for any reason other than an engineering determination that the unusual site conditions at a particular location make it impossible or impractical to meet the explicit requirement of the STANDARD at that location.

2. In Section 1A.13 Definitions of Headings, Words, and Phrases in This

Manual, the FHWA proposes to modify Paragraph 1 by removing the sentence that was added to the definition of Standard in the Final Rule for the 2009 MUTCD. The sentence proposed for removal currently states "Standard statements shall not be modified or compromised based on engineering judgment or engineering study." The FHWA believes that, with the proposed additional clarifying language in Section 1A.09, this sentence would no longer be needed.

Rulemaking Analysis and Notices

Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures

The FHWA has determined that this action would be a significant regulatory action within the meaning of Executive Order 12866 and within the meaning of U.S. Department of Transportation regulatory policies and procedures because of the significant public interest in the MUTCD. The proposed changes in the MUTCD would provide additional clarification, guidance, and flexibility in the application of traffic control devices. The FHWA believes that the uniform application of traffic control devices will greatly improve the traffic operations efficiency and roadway safety. The standards, guidance, and support are also used to create uniformity and to enhance safety and mobility at little additional expense to public agencies or the motoring public. These changes are not anticipated to adversely affect, in any material way, any sector of the economy. In addition, these changes would not create a serious inconsistency with any other agency's action or materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs. It is anticipated that the economic impact of this rulemaking would be minimal; therefore, a full regulatory evaluation is not required.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601-612), the FHWA has evaluated the effects of these changes on small entities and has determined that this action would not have a significant economic impact on a substantial number of small entities. This proposed rule would provide clarification and additional flexibility.

Unfunded Mandates Reform Act of 1995

This proposed rule would not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4, 109 Stat. 48, March 22,

1995). The proposed changes provide additional guidance, flexibility, and clarification and would not require an expenditure of funds. This action would not result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$140.8 million or more in any 1 year (2 U.S.C. 1532).

Executive Order 13132 (Federalism)

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 dated August 4, 1999, and the FHWA has determined that this action would not have sufficient federalism implications to warrant the preparation of a federalism assessment. The FHWA has also determined that this rulemaking will not preempt any State law or State regulation or affect the States' ability to discharge traditional State governmental functions. The MUTCD is incorporated by reference in 23 CFR Part 655, subpart F. These proposed amendments are in keeping with the Secretary of Transportation's authority under 23 U.S.C. 109(d), 315, and 402(a) to promulgate uniform guidelines to promote the safe and efficient use of the highway. The overriding safety benefits of the uniformity prescribed by the MUTCD are shared by all of the State and local governments, and changes made to this rule are directed at enhancing safety. To the extent that these proposed amendments override any existing State requirements regarding traffic control devices, they do so in the interest of national uniformity.

Executive Order 13175 (Tribal Consultation)

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000, and believes that it would not have substantial direct effects on one or more Indian tribes; would not impose substantial direct compliance costs on Indian tribal governments; and would not preempt tribal law. Therefore, a tribal summary impact statement is not required.

Executive Order 13211 (Energy Effects)

The FHWA has analyzed this action under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a significant energy action under that order because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Therefore, a Statement of Energy Effects under Executive Order 13211 is not required.

Executive Order 12372
(Intergovernmental Review)

Catalog of Federal Domestic Assistance program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget for each collection of information they conduct, sponsor, or require through regulations. The FHWA has determined that this action does not contain collection information requirements for purposes of the PRA.

Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Executive Order 13045 (Protection of Children)

The FHWA has analyzed this action under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. The FHWA certifies that this action would not concern an environmental risk to health or safety that may disproportionately affect children.

Executive Order 12630 (Taking of Private Property)

The FHWA does not anticipate that this action would affect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

National Environmental Policy Act

The agency has analyzed this action for the purpose of the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and has determined that it would not have any effect on the quality of the environment.

Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and

October of each year. The RIN contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

List of Subjects in 23 CFR Part 655

Design standards, Grant programs—transportation, Highways and roads, Incorporation by reference, Signs, Traffic regulations.

Issued on: July 27, 2011.

Victor M. Mendez,
Federal Highway Administrator.

In consideration of the foregoing, the FHWA proposes to amend title 23, Code of Federal Regulations part 655 as follows:

PART 655—TRAFFIC OPERATIONS

1. The authority citation for part 655 continues to read as follows:

Authority: 23 U.S.C. 101(a), 104, 109(d), 114(a), 217, 315, and 402(a); 23 CFR 1.32; and, 49 CFR 1.48(b).

Subpart F—Traffic Control Devices on Federal-Aid and Other Streets and Highways—[Amended]

2. Revise § 655.601(a), to read as follows:

§ 655.601 Purpose.

* * * * *

(a) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009 Edition, with Revision(s) number ____ [revision number to be inserted] incorporated, FHWA, dated ____ [date to be inserted]. This publication is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and is on file at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. It is available for inspection and copying at the Federal Highway Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590, telephone 202-366-1993, as provided in 49 CFR part 7. The text is also available from the FHWA Office of Operations Web site at: <http://mutcd.fhwa.dot.gov>.

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[FR Doc. 2011-19511 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-22-P

GENERAL SERVICES ADMINISTRATION

41 CFR Chapter 301

[FTR notice 2011-01; Docket No. 2011-0002; Sequence 5]

**Federal Travel Regulation (FTR):
Temporary Duty (TDY) Travel
Allowances: Notice of Public Meeting;
Correction**

AGENCY: Office of Governmentwide Policy, General Services Administration (GSA).

ACTION: Notice of Public Meeting; correction.

SUMMARY: The General Services Administration (GSA) published a notice in the *Federal Register* on July 20, 2011 (76 FR 43236), announcing a public meeting to industry and the general public in an effort to streamline travel policies, incorporated travel efficiency and effectiveness, and incorporated industry best practices. The document contains incorrect dates.

FOR FURTHER INFORMATION CONTACT: Ms. Marcerto Barr, GSA, 1275 First Street, NE., Washington, DC 20417; telephone: (202) 208-7654; or email: Marcerto.Barr@gsa.gov.

Corrections

In the *Federal Register* of July 20, 2011, in FR Doc. 2011-18305 (76 FR 43236), the following corrections are made:

1. On page 43237, in the first column, correct the **DATES** caption to read:

DATES: The meetings will take place on September 20, 2011 and September 21, 2011.

2. On page 43237, in the second column, in the first, third, and fourth paragraphs remove "August 23, 2011" and add "September 6, 2011" in its place.

Dated: July 27, 2011.

Craig J. Flynn,

*Deputy Director, Office of Travel,
Transportation & Asset Management.*

[FR Doc. 2011-19482 Filed 8-1-11; 8:45 am]

BILLING CODE 6820-14-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

46 CFR Parts 1, 10, 11, 12, 13, 14, and 15

[Docket No. USCG-2004-17914]

RIN 1625-AA16

Implementation of the Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, and Changes to Domestic Endorsements

AGENCY: Coast Guard, DHS.

ACTION: Notice of public meetings; request for comments.

SUMMARY: The Coast Guard is announcing a series of public meetings to receive comments on a supplemental notice of proposed rulemaking (SNPRM) entitled "Implementation of the Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, and Changes to Domestic Endorsements" that published in the *Federal Register* on August 1, 2011. The changes proposed in the SNPRM address the comments received from the public in response to a previously published Notice of Proposed Rulemaking, in most cases through revisions based on those comments, and propose to incorporate the 2010 amendments to the STCW Convention that will come into force on January 1, 2012.

DATES: Public meetings will be held on the following dates:

- Monday, August 22, 2011, in Miami, FL from 9 a.m. until noon;
- Wednesday, August 24, 2011, in New Orleans, LA from 9 a.m. until noon;
- Friday, August 26, 2011, in Seattle, WA from 9 a.m. until noon;
- Wednesday, September 7, 2011, in Washington, DC from 10 a.m. until 1 p.m.

Written comments and related material may also be submitted to Coast Guard personnel specified at those meetings for inclusion in the official docket for this rulemaking. The comment period for the SNPRM closes on September 30, 2011. All comments and related material submitted after the meeting must either be submitted to our online docket via <http://www.regulations.gov> on or before September 30, 2011 or reach the Docket Management Facility by that date.

ADDRESSES: The public meetings will be held at the following locations:

- Monday, August 22, 2011, Miami Airport Marriott, 1201 NW Le Jeune Road, Building A, Miami, FL 33126.
- Wednesday, August 24, 2011, Hilton Garden Inn Hotel New Orleans, French Quarter/Central Business District, 821 Gravier Street, New Orleans, LA 70112.
- Friday, August 26, 2011, The Edgewater Hotel Noble House Hotels & Resorts, 2411 Alaskan Way, Pier 67, Seattle, WA 98121.
- Wednesday, September 7, 2011 at United States Coast Guard Headquarters Building, Room 2501, 2100 Second Street, SW., Washington, DC 20593 from 10 a.m. until 1 p.m. **Note:** A government-issued photo identification (for example, a driver's license) will be required for entrance to the building.

Live webcasts (audio and video) of the three public meetings to be held in Miami, FL, New Orleans, LA, and Seattle, WA, will also be broadcast online. The Web site for viewing those webcasts can be found at <http://www.stcwregs.us>. The webcasts will enable those using this feature only to view the proceedings and not to make remarks to those participating in the meetings in person. However, a verbatim record of these public meetings will be provided in the docket.

You may submit written comments identified by docket number USCG-2004-17914 before or after the meetings using any one of the following methods:

- **Federal eRulemaking Portal:** <http://www.regulations.gov>. Follow the instructions for submitting comments (preferred method to avoid delays in processing).
- **Fax:** 202-372-1918.
- **Mail:** Docket Management Facility (M-30), U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001.
- **Hand delivery:** Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays. The telephone number is 202-366-9329.

Docket: For access to the docket to read documents or comments related to this notice, go to <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: If you have questions on this proposed rulemaking, call or e-mail Mr. Rogers Henderson, Maritime Personnel Qualifications Division, U.S. Coast Guard, telephone 202-372-1408, e-mail: Rogers.W.Henderson@uscg.mil. If you have questions on viewing or submitting

material to the docket, call Ms. Renee V. Wright, Program Manager, Docket Operations, telephone 202-366-9826.

SUPPLEMENTARY INFORMATION:

Background and Purpose

In 2007, the International Maritime Organization (IMO) embarked on a comprehensive review of the entire STCW Convention and STCW Code. The Coast Guard held public meetings prior to each one of the IMO meetings in London for the review to determine what positions U.S. delegations should advocate and to exchange views about amendments to STCW that were under discussion. In addition, the Coast Guard also took advantage of advisory committee meetings, specifically Merchant Personnel Advisory Committee (MERPAC), to discuss developments and implementation of the requirements relating to the 2010 amendments. The 2010 amendments resulting from that review were adopted on June 25, 2010. The Convention is not self-implementing; therefore, the United States, as a signatory to the STCW Convention, must initiate regulatory changes to ensure full implementation of amendments to the STCW Convention and STCW Code.

The Coast Guard proposed, in an SNPRM published in the *Federal Register* on August 1, 2001, to implement these provisions, and to clearly separate the two licensing schemes for STCW and domestic endorsements, pursuant to the Convention and under the authority of Title 46, United States Code, section 2103 and chapters 71 and 73.

Parties to the STCW Convention have port state control authority to detain vessels that do not appear to be in compliance with the Convention. If U.S. regulations are non-compliant with the STCW Convention and STCW Code, there is a risk that U.S. ships will be detained in foreign ports by member nations and that U.S. mariners would not be able to seek employment on foreign flag vessels.

Instructions for Submitting Comments

All submissions received must include the words "Department of Homeland Security" and the docket number for this action. Comments received will be posted without alteration at <http://www.regulations.gov>, including any personal information provided. You may review a Privacy Act notice regarding our public dockets in the January 17, 2008, issue of the *Federal Register* (73 FR 3316).

Information on Service for Individuals With Disabilities

For information on facilities or services for individuals with disabilities or to request special assistance at the public meetings, contact Mr. Rogers Henderson at the telephone number or e-mail address indicated under the **FOR FURTHER INFORMATION CONTACT** section of this notice.

Dated: July 27, 2011.

J.G. Lantz,

Director of Commercial Regulations and Standards.

[FR Doc. 2011-19459 Filed 8-1-11; 8:45 am]

BILLING CODE 9110-04-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R2-ES-2011-0042; MO 92210-0-0009]

RIN 1018-AV86

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Chupadera Springsnail (*Pyrgulopsis chupadera*) and Proposed Designation of Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the Chupadera springsnail (*Pyrgulopsis chupadera*) as endangered under the Endangered Species Act of 1973, as amended (Act). If we finalize this rule as proposed, it would extend the Act's protections to this species. We also propose to designate critical habitat for the Chupadera springsnail under the Act. In total, approximately 0.7 hectares (1.9 acres) are being proposed for designation as critical habitat, located in Socorro County, New Mexico.

DATES: We will accept comments received or postmarked on or before October 3, 2011. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section, by September 16, 2011.

ADDRESSES: You may submit comments by one of the following methods:

(1) **Electronically:** Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Enter Keyword or ID box, enter FWS-R2-ES-2011-0042, which is the docket number for this rulemaking. Then, in the Search

panel at the top of the screen, under the Document Type heading, check the box next to Proposed Rules to locate this document. You may submit a comment by clicking on "Submit a Comment."

(2) **By hard copy:** Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R2-ES-2011-0042; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042-PDM; Arlington, VA 22203.

We will post all information received on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Information Requested section below for more details).

FOR FURTHER INFORMATION CONTACT:

Wally "J" Murphy, Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105 Osuna NE, Albuquerque, NM 87113; telephone 505-346-2525; facsimile 505-346-2542. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION: This document consists of both a proposed rule to list the Chupadera springsnail as endangered and proposed critical habitat designation for the Chupadera springsnail.

Public Comments

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from the public, other concerned governmental and Tribal agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The historical and current status and distribution of the Chupadera springsnail, its biology and ecology, the range and population size of this species, including the locations of any additional populations of this species, and any information on the biological or ecological requirements of the species.

(2) Information relevant to the factors that are the basis for making a listing determination for a species under section 4(a) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), which are:

(a) The present of threatened destruction, modification, or curtailment of the species' habitat or range;

(b) Overutilization for commercial, recreational, scientific, or educational purposes;

(c) Disease or predation;

(d) The inadequacy of existing regulatory mechanisms; or

(e) Other natural or manmade factors affecting its continued existence and threats to the species or its habitat.

(3) Information about any ongoing conservation measures for, or threats to, the Chupadera springsnail and its habitat. We are particularly interested in receiving any information related to the potential effects of climate change on the Chupadera springsnail or its habitat.

The following information regarding the potential economic and other impacts of the proposed critical habitat designation is requested solely so that we may consider the potential effects of critical habitat designation in the final rule.

(1) The reasons why we should or should not designate habitat as "critical habitat" under the Act including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether the benefit of designation would outweigh threats to the species caused by the designation, such that the designation of critical habitat is prudent.

(2) Specific information on:

(a) The amount and distribution of Chupadera springsnail habitat;

(b) What occupied areas containing features essential to the conservation of the species should be included in the designation and why; and

(c) What areas not occupied are essential for the conservation of the species and why.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Any foreseeable economic, national security, or other relevant impacts of designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities or families, and the benefits of including or excluding areas that exhibit these impacts.

(5) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We will not accept comments sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. If you provide personal identifying information, such as your street address, phone number, or e-mail address, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Background

Previous Federal Actions

We identified the Chupadera springsnail as a candidate for listing in the May 22, 1984, Notice of Review of Invertebrate Wildlife for Listing as Endangered or Threatened Species (49 FR 21664). Candidates are those fish, wildlife, and plants for which we have on file sufficient information on biological vulnerability and threats to support preparation of a listing proposal, but for which development of a listing regulation is precluded by other higher priority listing activities. The Chupadera springsnail was petitioned for listing on November 20, 1985, and was found to be warranted for listing but precluded by higher priority activities on October 4, 1988 (53 FR 38969). The Chupadera springsnail has been included in all of our subsequent annual Candidate Notices of Review (54 FR 554, January 6, 1989; 56 FR 58804, November 21, 1991; 59 FR 58982, November 15, 1994; 61 FR 7595, February 28, 1996; 62 FR 49397, September 19, 1997; 64 FR 57533, October 25, 1999; 66 FR 54807, October 30, 2001; 67 FR 40657, June 13, 2002; 69 FR 24875, May 4, 2004; 70 FR 24869, May 11, 2005; 71 FR 53755, September 12, 2006; 72 FR 69033, December 6, 2007; 73 FR 75175, December 10, 2008; 74 FR 57803, November 9, 2009; and 75 FR 69221, November 10, 2010). In 2002, the listing priority number was increased from 8 to 2 in accordance with our priority guidance published on September 21, 1983 (48 FR 43098). A listing priority of 2 reflects a species with threats that are both imminent and high in magnitude.

Species Information

The Chupadera springsnail (*Pyrgulopsis chupaderae*) is a tiny (1.6

to 3.0 millimeters (mm) (0.06 to 0.12 inches (in) tall) freshwater snail (Taylor 1987, p. 25; Hershler 1994, p. 30) in the family Hydrobiidae. The pigmentation of the body and operculum (covering over the shell opening) of this species is much more intense than in any other species in the genus *Pyrgulopsis* (Taylor 1987, p. 26). The Chupadera springsnail was first described by Taylor (1987, pp. 24–27) as *Fontelicella chupaderae*. Hershler (1994, pp. 11, 13), in his review of the genus *Pyrgulopsis*, found that the species previously assigned to the genus *Fontelicella* had the appropriate morphological characteristics for inclusion in the genus *Pyrgulopsis* and formally placed them within that genus. Although the genetic characteristics of *P. chupaderae* have not been analyzed, based on its unique morphology and geographic isolation, it is a valid species.

Springsnails are strictly aquatic, and respiration occurs through an internal gill. Springsnails in the genus *Pyrgulopsis* are egg-layers with a single small egg capsule deposited on a hard surface (Hershler 1998, p. 14). The larval stage is completed in the egg capsule, and upon hatching, the snails emerge into their adult habitat (Brusca and Brusca 1990, p. 759; Hershler and Sada 2002, p. 256). The snail exhibits separate sexes; physical differences are noticeable between them, with females being larger than males. Because of their small size and dependence on water, significant dispersal likely does not occur, although on rare occasions aquatic snails have been transported by becoming attached to the feathers and feet of migratory birds (Rostoe 1955, p. 66; Dundee *et al.* 1967, pp. 89–90). Hydrobiid snails feed primarily on periphyton, which is a complex mixture of algae, bacteria, and microbes that occurs on submerged surfaces in aquatic environments (Mladenka 1992, pp. 46, 81; Allan 1995, p. 83; Hershler and Sada 2002, p. 256; Lysne *et al.* 2007, p. 649). The lifespan of most aquatic snails is 9 to 15 months (Pennak 1989, p. 552).

Snails in the family Hydrobiidae were once much more widely distributed during the wetter Pleistocene Age (1.6 million to 10,000 years ago). As ancient lakes and streams dried, springsnails became patchily distributed across the landscape as geographically isolated populations exhibiting a high degree of endemism (species found only in a particular region, area, or spring) (Bequart and Miller 1973, p. 214; Taylor 1987, pp. 5–6; Shepard 1993, p. 354; Hershler and Sada 2002, p. 255). Hydrobiid snails occur in springs, seeps, marshes, spring pools, outflows, and diverse flowing water habitats.

Although hydrobiid snails as a group are found in a wide variety of aquatic habitats, they are sensitive to water quality and each species is usually found within relatively narrow habitat parameters (Sada 2008, p. 59). Proximity to spring vents, where water emerges from the ground, plays a key role in the life history of springsnails. Many springsnail species exhibit decreased abundance farther away from spring vents, presumably due to their need for stable water chemistry (Hershler 1994, p. 68; Hershler 1998, p. 11; Hershler and Sada 2002, p. 256; Martinez and Thome 2006, p. 14). Several habitat parameters of springs, such as substrate, dissolved carbon dioxide, dissolved oxygen, temperature, conductivity, and water depth, have been shown to influence the distribution and abundance of *Pyrgulopsis* (O'Brien and Blinn 1999, pp. 231–232; Mladenka and Minshall 2001, pp. 209–211; Malcom *et al.* 2005, p. 75; Martinez and Thome 2006, pp. 12–15; Lysne *et al.* 2007, p. 650). Dissolved salts such as calcium carbonate may also be important factors because they are essential for shell formation (Pennak 1989, p. 552).

The Chupadera springsnail is endemic to Willow Spring and an unnamed spring of similar size 0.5 kilometers (km) (0.3 miles (mi)) north of Willow Spring at the southeast end of the Chupadera Mountains in Socorro County, New Mexico (Taylor 1987, pp. 20–22; Mehlhop 1993, p. 3; Lang 1998, p. 36). The two springs where Chupadera springsnail has been documented are on two hillsides where groundwater discharges flow through volcanic gravels containing sand, mud, and aquatic plants (Taylor 1987, p. 26). Water temperatures in areas of the springbrook (the stream flowing from the springhead) currently occupied by the springsnail range from 15 to 25 degrees Celsius (°C) (59 to 77 degrees Fahrenheit (°F)) over all seasons (1997 to 1998). Water velocities range from 0.01 to 0.19 meters per second (m/s) (0.03 to 0.6 feet per second (ft/s)) (Lang 2009, p. 1). In 1998, when Willow Spring was last visited, the springbrook was 0.5 to 2 meters (m) (1.6 to 6.6 feet (ft)) wide, 6 to 15 centimeters (cm) (2.4 to 6 in) deep, and approximately 38 m (125 ft) long, upstream of where it entered a pond created by a berm (small earthen dam) across the springbrook (Lang 2009, p. 1).

Current status of the population at Willow Spring is unknown because access has been denied by the landowner since 1999, despite requests for access to monitor the springsnail (Carman 2004, pp. 1–2; 2005, pp. 1–5; NMDGF 2007, p. 12). Prior surveys

show the springsnail population to be locally abundant in this location and stable through 1999 (Lang 1998, p. 36; Lang 1999, p. A5); therefore, we presume the species still persists at Willow Spring. At the unnamed spring, repeated sampling between 1995 and 1997 yielded no snails, and the habitat at that spring has been significantly degraded (devoid of riparian vegetation due to trampling by cattle, and the benthic habitat was covered with manure) (Lang 1998, p. 59; Lang 1999, p. B13). Therefore, the species is likely extirpated from this unnamed spring (NMDGF 1996, p. 16; Lang 1999, p. B13).

Springsnail dispersal is primarily limited to aquatic habitat connections (Hershler *et al.* 2005, p. 1755). Once extirpated from a spring, natural recolonization of that spring or other nearby springs is very rare.

Summary of Factors Affecting the Species

Section 4 of the Act and implementing regulations at 50 CFR 424 set forth procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence. Listing actions may be warranted based on any of the above threat factors, singly or in combination. Each of these factors is discussed below.

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

The principal threats to the habitat of Chupadera springsnail at Willow Spring include groundwater depletion, livestock grazing, and spring modification (Lang 1998, p. 59; NMDGF 2002, p. 45). These threats are intensified by the fact that the species' known historic range was only two small springs, and it has been extirpated from one of the known locations. Other potential threats, such as fire and recreational use at the springs, were considered but no information was found that indicated these may be affecting the species at this time.

Groundwater Depletion

Habitat loss due to groundwater depletion threatens the Chupadera springsnail. Since spring ecosystems rely on water discharged to the surface from underground aquifers, groundwater depletion can result in the destruction of habitat by the drying of springs and cause the loss of spring fauna. For example, groundwater depletion from watering a lawn adjacent to a small spring (Snail Spring) in Cochise County, Arizona, has reduced habitat availability of the San Bernardino springsnail (*Pyrgulopsis bernardina*) at that location because of the loss of flowing water to the spring (Malcom *et al.* 2003, p. 18; Cox *et al.* 2007, p. 2). Also, in Pecos County, Texas, two large spring systems (Comanche Springs and Leon Springs) were completely lost to drying when irrigation wells were activated in the supporting local aquifer (Scudday 1977, pp. 515–516). Spring drying or flow reduction from groundwater pumping has also been documented in the Roswell (August 9, 2005; 70 FR 46304) and Mimbres Basins (Summers 1976, pp. 62–65) of New Mexico.

Area groundwater use may significantly increase due to Highland Springs Ranch, a developing subdivision in the immediate vicinity of Chupadera springsnail habitat. Beginning in 2007, Highland Springs Ranch is being developed in four phases with approximately 650 lots ranging from 8 hectares (ha) (20 acres (ac)) to 57 ha (140 ac). There is no central water system, so each homeowner is responsible for drilling an individual water well. In Highland Springs Ranch, homeowners are entitled to 629 cubic meters (0.51 acre-feet) of water per year (New Mexico Office of the State Engineer (NMOSE) 2009).

Because of the close proximity of the subdivision to Willow Spring (the northern boundary of lot 42A of Willow Springs Ranch, a phase of Highland Springs Ranch, is approximately 91 m (300 ft) from Willow Spring), it appears likely that groundwater pumping could affect the discharge from the spring through depletion of groundwater. Under normal conditions Willow Spring has a very small discharge (Lang 2009, p. 1), and, therefore, any reduction in available habitat from declining spring flows would be detrimental to the Chupadera springsnail. Given the close proximity of the unnamed spring (0.5 km (0.3 mi)) to Willow Spring, and because they both supported the Chupadera springsnail historically, we believe both springs are fed by the same groundwater aquifer. Thus, groundwater

depletion that would affect spring flow at Willow Spring would also likely affect the unnamed spring.

The Bosque del Apache National Wildlife Refuge western boundary is located about 0.8 km (0.5 mi) east of the spring where Chupadera springsnail occurs, providing protection from development and groundwater depletion for much of the land east of the spring.

In addition, any decreases in regional precipitation due to prolonged drought will further stress groundwater availability and increase the risk of diminishment or drying of the springs. The current, multiyear drought in the western United States, including the Southwest, is the most severe drought recorded since 1900 (Overpeck and Udall 2010, p. 1642). In addition, numerous climate change models predict an overall decrease in annual precipitation in the southwestern United States and northern Mexico (see *Factor E*, Climate Change below). Recent regional drought may have affected habitat for Chupadera springsnail. For example, the extreme drought of 2002 resulted in drying streams across the State, with nearly all of the major river basins in New Mexico at historic low flow levels (New Mexico Drought Task Force 2002, p. 1). Because of our inability to access Willow Spring, we do not have information on how this drought affected the Chupadera springsnail.

Drought affects both surface and groundwater resources and can lead to diminished water quality (Woodhouse and Overpeck 1998, p. 2693; MacRae *et al.* 2001, pp. 4, 10) in addition to reducing groundwater quantities. The small size of the springbrooks where the Chupadera springsnails reside (1.5 m (5 ft) wide or less) makes them particularly susceptible to drying, increased water temperatures, and freezing. The springs do not have to cease flowing completely to have an adverse effect on springsnail populations. Because these springs are so small, any reductions in the flow rates from the springs can reduce the available habitat for the springsnails, increasing the risk of extinction. Decreased spring flow can lead to a decrease in habitat availability, an increase in water temperature fluctuations, a decrease in dissolved oxygen levels, and an increase in salinity (MacRae *et al.* 2001, p. 4). Water temperatures and factors such as dissolved oxygen in springs do not typically fluctuate, and springsnails are narrowly adapted to spring conditions and are sensitive to changes in water quality (Hershler 1998, p. 11). Groundwater depletion can lead to loss

and degradation of Chupadera springsnail habitat and presents a substantial threat to the species.

Livestock Grazing

It is estimated that livestock grazing has damaged approximately 80 percent of stream and riparian ecosystems in the western United States (Belsky *et al.* 1999, p. 419). The damage occurs from increased sedimentation, decreased water quality, and trampling and overgrazing stream banks where succulent (high water content) forage exists (Armour *et al.* 1994, p. 10; Fleischer 1994, p. 631; Belsky *et al.* 1999, p. 419).

The damage from livestock grazing on spring ecosystems can alter or remove springsnail habitat, resulting in restricted distribution or extirpation of springsnails. For example, cattle trampling at a spring in Owens Valley, California, reduced banks to mud and sparse grass, limiting the occurrence of the endangered Fish Slough springsnail (*Pyrgulopsis pertubata*) (Bruce and White 1998, pp. 3–4). Poorly managed livestock use of springbrooks can directly negatively affect springsnails through contamination of aquatic habitat from feces and urine, habitat degradation of the springbrook by trampling of substrate and loss of aquatic and riparian vegetation, and crushing of individual springsnails.

Lang (1998, p. 59) reported that the unnamed spring was heavily impacted by cattle because it was devoid of riparian vegetation, and the gravel and cobbles were covered with mud and manure. It appears that overgrazing and access to the aquatic habitat of the spring by livestock caused the extirpation of the Chupadera springsnail population from this unnamed spring (NMDGF 1996, p. 16; Lang 1999, p. A5). Grazing was occurring at Willow Spring in 1999 (the last time the spring was visited) (Lang 1999, p. A5), and the Service has no information that grazing practices have changed since that time. Continued use of the springs by livestock presents a substantial threat to the Chupadera springsnail.

Spring Modification

Spring modification occurs when attempts are made to increase flow through excavation at the springhead, when the springhead is tapped to direct the flow into a pipe and then into a tank or a pond, when excavation around the springhead creates a pool, inundating the springhead, or when the springbrook is dammed to create a pool downstream of the springbrook. Because springsnails are typically most abundant at the springhead where water chemistry and

water quality are normally stable, any modification of the springhead could be detrimental to springsnail populations. In addition, any modification or construction done at the springhead could also affect individuals downstream through siltation of habitat. Because springsnails are typically found in shallow flowing water, inundation that alters springsnail habitat by changing water depth, velocity, substrate composition, vegetation, and water chemistry can cause population reduction or extirpation. For example, inundation has negatively affected populations of other springsnails such as Koster's springsnail (*Juturnia kosteri*) and Roswell springsnail (*Pyrgulopsis roswellensis*) at Bitter Lake National Wildlife Refuge and caused their extirpation from North Spring (NMDGF 2004, p. 33; 70 FR 46304, August 9, 2005).

The springhead at Willow Spring has been modified through impoundment of the springbrook to maintain a pump and improve water delivery systems to cattle (Lang 1998, p. 59). It appears that springbrook impoundment has only occurred downstream of the source, leaving some appropriate springbrook habitat intact upstream (Taylor 1987, p. 26). At the last visit to the spring in 1999, the habitat at the spring was of sufficient quality to sustain the Chupadera springsnail, but any subsequent alterations could be catastrophic for the species. Spring modification, either at the springhead or in the springbrook, is a threat to the Chupadera springsnail.

Small, Reduced Range

The geographically small range of the Chupadera springsnail increases the risk of extinction from any effects associated with other threats (NMDGF 2002, p. 1). When species are limited to small, isolated habitats, like the Chupadera springsnail in one small arid spring system, they are more likely to become extinct due to a local event that negatively affects the population (Shepard 1993, pp. 354–357; McKinney 1997, p. 497; Minckley and Unmack 2000, pp. 52–53).

The natural historic range of the Chupadera springsnail includes only two small spring sites. As a result of habitat alteration at the unnamed spring, the species now occurs only at Willow Spring (Lang 1999, p. B13). We have no information on the current status of the species because access to Willow Spring has been continually denied since 1999 (Carman 2004, p. 1–2; Carman 2005, p. 1–5; NMDGF 2007, p. 12). The springsnail is limited to aquatic habitats in small spring systems

and has minimal mobility, so it is unlikely its range will ever expand. As a result, if the population at Willow Spring were extirpated for any reason, the species would be extinct, since there are no other sources of this springsnail from which to recolonize. This situation makes the magnitude of impact of any possible threat very high. In other words, the resulting effects of any of the threat factors under consideration here, even if they are relatively small on a temporal or geographic scale, could result in complete extinction of the species.

Therefore, because the Chupadera springsnail is restricted to a single small site, it is particularly susceptible to extinction if its habitat is degraded or destroyed. While the small, reduced range does not represent an independent threat to the species, it does substantially increase the risk of extinction from the effects of all other threats, including those addressed in this analysis, and those that could occur in the future from unknown sources.

Summary of Factor A

In summary, the Chupadera springsnail is threatened by the present destruction and modification of its habitat and range. Groundwater depletion due to new wells from nearby subdivision developments, in addition to droughts, is likely resulting in reduced flow at the spring that supports the species. Cattle grazing is occurring at both historically occupied sites and has resulted in the extirpation of the species at one of these springs. Grazing at these sites is likely to continue in the future. Finally, springhead and springbrook modification have affected Chupadera springsnail habitat at Willow Spring, and further modification may have occurred since the last visit to this site in 1999. Because of the extremely small and reduced range of the species, these threats have an increased risk of resulting in extinction of the Chupadera springsnail. These threats are already occurring, they affect the full historical range of the species, and they result in the species being at risk of extinction.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

There are very few people who are interested in or study springsnails, and those who do are sensitive to their rarity and endemism. Consequently, collection for scientific or educational purposes is very limited. As far as we know, because the Chupadera springsnail occurs on private land with limited access, there has been no collection since 1999 when NMDGF

made its last collection (Lang 2000, p. C5). There are no known commercial or recreational uses of the springsnails. For these reasons we find that the Chupadera springsnail is not threatened by overutilization for commercial, recreational, scientific, or educational purposes.

C. Disease or Predation

The Chupadera springsnail is not known to be affected or threatened by any disease. At the time the spring was last surveyed, no nonnative predatory species were present. However, any future introduction of a nonnative species into habitat of the Chupadera springsnail could be catastrophic to the springsnail. The Chupadera springsnail has an extremely small and reduced range, and a nonnative predator or competitor has an increased risk of resulting in extinction of the Chupadera springsnail. Because there are no known nonnative species present, we find that the Chupadera springsnail is not currently threatened by disease or predation.

D. The Inadequacy of Existing Regulatory Mechanisms

Existing regulatory mechanisms are not sufficient to protect the Chupadera springsnail and prevent its extinction. New Mexico State law provides limited protection to the Chupadera springsnail. The species is listed as a New Mexico State endangered species, Group 2, which are those species "whose prospects of survival or recruitment within the state are likely to become jeopardized in the near future" (NMDGF 1988, p. 1). This designation provides protection under the New Mexico Wildlife Conservation Act of 1974 (*i.e.*, State Endangered Species Act) (19 NMAC 33.6.8), but only prohibits direct take of species, except under issuance of a scientific collecting permit. No permit has been issued for taking this species. The New Mexico Wildlife Conservation Act defines "take" or "taking" as "harass, hunt, capture, or kill any wildlife or attempt to do so" (17 NMAC 17.2.38). In other words, New Mexico State status as an endangered species only conveys protection from collection or intentional harm to the animals themselves but does not provide habitat protection. Because most of the threats to the Chupadera springsnail are from effects to habitat, in order to protect individuals and ensure their long-term conservation and survival, their habitat must be protected.

We are aware of no State laws or local ordinances that would limit groundwater pumping in the subdivisions adjacent to Willow Spring.

The water supply for subdivision homes comes from individual wells, and each well in the Highland Springs Ranch subdivisions may pump up to 629 cubic meters (0.51 acre feet) per year (NMOSE 2009, p. 1). Although water delivery systems are evaluated by the New Mexico Office of the State Engineer to determine if prior water rights or the welfare of the State might be impaired by groundwater pumping, the effect of individual domestic water wells only receives that evaluation if the area has been designated as a domestic well management area (Utton Transboundary Resources Center 2011, p. 3). The land being developed around Willow Spring has not been designated as such. As discussed in Factor A above, inadequate spring flow due to pumping from the groundwater aquifer by homeowners is a threat to the water supply of Chupadera springsnail, and there are currently no regulatory mechanisms in place to manage groundwater withdrawal and ensure adequate spring flows.

In summary, the inadequacy of existing regulatory mechanisms poses a threat to the Chupadera springsnail. Existing Federal, State, and local laws have been inadequate to prevent ongoing loss of the limited habitat of this springsnail, and they are not expected to prevent further population declines of the species.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Other natural or manmade factors affecting the continued existence of the Chupadera springsnail include introduced species and climate change. These threats are intensified by the fact that the species' known historical range was only two small springs, and it has been extirpated from one of the known locations.

Introduced Species

Introduced species are a serious threat to native aquatic species (Williams *et al.* 1989, p. 18; Lodge *et al.* 2000, p. 7). Because the distribution of the Chupadera springsnail is so limited, and its habitat so restricted, introduction of certain nonnative species into its habitat could be devastating. Saltcedar (*Tamarix* spp.) threatens spring habitats primarily through the amount of water it consumes and from the chemical composition of the leaves that drop to the ground and into the springs. Saltcedar leaves that fall to the ground and into the water add salt to the system, as their leaves contain salt glands (DiTomaso 1998, p. 333). Additionally, dense stands of common reed (*Phragmites australis*) choke small

stream channels, slowing water velocity and creating more pool-like habitat; this habitat is not suitable for Chupadera springsnail, which are found in flowing water. Finally, Russian thistle (*Salsola tragus*; tumbleweed) can create problems in spring systems by being blown into the channel, slowing flow, and overloading the system with organic material (Service 2005, p. 2). The control and removal of nonnative vegetation can also impact springsnail habitats. For example, this has been identified as a factor responsible for localized extirpations of populations of the Federally endangered Pecos assimineia (*Assimineia pecos*), a springsnail in New Mexico, due to vegetation removal that resulted in soil and litter drying, thereby making the habitat unsuitable (Taylor 1987, pp. 5, 9).

Likewise, nonnative mollusks have affected the distribution and abundance of native mollusks in the United States. Of particular concern for the Chupadera springsnail is the red-rim melania (*Melanooides tuberculata*), a snail that can reach tremendous population sizes and has been found in isolated springs in the west (McDermott 2000, pp. 13–16; Ladd 2010, p. 1; U.S. Geological Survey 2010, p. 1). The red-rim melania has caused the decline and local extirpation of native snail species, and it is considered a threat to endemic aquatic snails that occupy springs and streams in the Bonneville Basin of Utah (Rader *et al.* 2003, p. 655). It is easily transported on gear or aquatic plants, and because it reproduces asexually (individuals can develop from unfertilized eggs), a single individual is capable of founding a new population. It has become established in isolated desert spring ecosystems such as Ash Meadows, Nevada, San Solomon Spring and Diamond Y Spring, Texas, and Cuatro Ciénegas, Mexico. In many locations, this exotic snail is so numerous that it covers the bottom of the small stream channel. If the red-rim melania were introduced into Willow Spring, it could easily outcompete and eliminate the Chupadera springsnail.

None of these nonnative species are known to occur in the habitats of the Chupadera springsnail at this time, and so potential impacts have not been realized. While any of these species, or others, could threaten the Chupadera springsnail if they were introduced to the small habitats of the species, nonnative species are not considered a current threat to the Chupadera springsnail.

Climate Change

According to the Intergovernmental Panel on Climate Change (IPCC 2007, p. 5), “[w]arming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.” The average Northern Hemisphere temperatures during the second half of the 20th century were very likely higher than during any other 50-year period in the last 500 years and likely the highest in at least the past 1,300 years (IPCC 2007, p. 5). It is very likely that over the past 50 years, cold days, cold nights, and frosts have become less frequent over most land areas, and hot days and hot nights have become more frequent (IPCC 2007, p. 8). Data suggest that heat waves are occurring more often over most land areas, and the frequency of heavy precipitation events has increased over most areas (IPCC 2007, pp. 8, 15).

The IPCC (2007, pp. 12, 13) predicts that changes in the global climate system during the 21st century will very likely be larger than those observed during the 20th century. For the next two decades a warming of about 0.2 °C (0.4 °F) per decade is projected (IPCC 2007, p. 12). Afterwards, temperature projections increasingly depend on specific emission scenarios (IPCC 2007, p. 13). Various emissions scenarios suggest that by the end of the 21st century, average global temperatures are expected to increase 0.6 °C to 4.0 °C (1.1 °F to 7.2 °F) with the greatest warming expected over land (IPCC 2007, p. 15). However, the growth rate of carbon dioxide emissions continues to accelerate and is above even the most fossil fuel intensive scenario used by the IPCC (Canadell *et al.* 2007, p. 18866; Global Carbon Project 2008, p. 1), suggesting that the effects of climate change may be even greater than those projected by the IPCC.

In consultation with leading scientists from the Southwest, the New Mexico Office of the State Engineer prepared a report for the Governor of New Mexico (NMOSE 2006). The report made the following observations about the impact of climate change in New Mexico:

(1) Warming trends in the American Southwest exceed global averages by about 50 percent (p. 5);

(2) Models suggest that even moderate increases in precipitation would not offset the negative impacts to the water supply caused by increased temperature (p. 5);

(3) Temperature increases in the Southwest are predicted to continue to

be greater than the global average (p. 5); and

(4) The intensity, frequency, and duration of drought may increase (p. 7).

One of the primary effects of climate change on the Chupadera springsnail is likely to be associated with groundwater availability that supports the spring flows in its habitat. There is high confidence that many semiarid areas like the western United States will suffer a decrease in water resources due to climate change (Kundzewicz *et al.* 2007, p. 175). Consistent with the outlook presented for New Mexico, Hoerling (2007, p. 35) states that, relative to 1990–2005, modeling indicates that a 25 percent decline in stream flow will occur from 2006 to 2030 and a 45 percent decline will occur from 2035 to 2060 in the Southwest. Milly *et al.* (2005, p. 349) project a 10–30 percent decrease in runoff in mid-latitude western North America by the year 2050 based on an ensemble of 12 climate models. Solomon *et al.* (2009, p. 1707) predict precipitation amounts in the southwestern United States and northern Mexico will decrease by as much as 9 to 12 percent (measured as percentage of change in precipitation per degree of warming, relative to 1900 to 1950 as the baseline period). Christensen *et al.* (2007, p. 888) state, “The projection of smaller warming over the Pacific Ocean than over the continent. * * * is likely to induce a decrease in annual precipitation in the southwestern USA and northern Mexico.” In addition, Seager *et al.* (2007, p. 1181) show that there is a broad consensus among climate models that the Southwest will get drier in the 21st century and that the transition to a more arid climate is already under way. Only one of 19 models has a trend toward a wetter climate in the Southwest (Seager *et al.* 2007, p. 1181). A total of 49 projections were created using the 19 models, and all but three predicted a shift to increasing aridity (dryness) in the Southwest as early as 2021 to 2040 (Seager *et al.* 2007, p. 1181). These research results indicate that the Southwest can be expected to be hotter and drier in the future, likely negatively affecting the water resources, including spring ecosystems such as Willow Spring.

It is anticipated that the effects of climate change will also lead to greater human demands on scarce water sources while at the same time leading to decreasing water availability because of increased evapotranspiration (water drawn up by plants from the soil that evaporates from their leaves), reduced soil moisture, and longer, hotter

summers (Archer and Predick 2008, p. 25; Karl *et al.* 2009, pp. 47, 52). Climate change will likely reduce groundwater recharge through reduced snowpack and perhaps through increased severity in drought (Kundzewicz *et al.* 2007, p. 175; Stonestrom and Harrill 2008, p. 21). There is currently no information to quantify the likely effects of climate change on the groundwater system that supports the springs where the Chupadera springsnail occurs. However, in a study of the Ogallala aquifer, a much larger aquifer east of Willow Spring, Rosenberg *et al.* (1999, p. 688) found that groundwater recharge will be reduced in the face of climate change in spite of increased water yields in many areas. They also found that Ogallala aquifer water levels have been directly correlated with annual precipitation over time (Rosenberg *et al.* 1999, p. 679) and concluded that changes in climate could profoundly affect the accessibility and reliability of water supplies from the aquifer. We anticipate that the aquifer that supplies water to Chupadera springsnail habitat may also be susceptible to climate change-induced changes in precipitation.

In summary, climate change could affect the Chupadera springsnail through the combined effects of global and regional climate change, along with the increased probability of long-term drought. However, we are not able to predict with certainty how these indirect effects of climate change will affect Chupadera springsnail habitats due to a lack of information on the groundwater system that provides water to the species’ spring habitat. We conclude that climate change may be a significant stressor that indirectly exacerbates existing threats by increasing the likelihood of prolonged drought that would reduce groundwater availability and incur future habitat loss. As such, climate change, in and of itself, may affect the springsnail, but the magnitude and imminence (when the impacts occur) of the impacts remain uncertain. Climate change is not currently a threat to the Chupadera springsnail, but it has the potential to be a threat in the foreseeable future, and impacts from climate change in the future will likely exacerbate the current and ongoing threat of habitat loss caused by other factors, as discussed above.

Summary of Factor E

The Chupadera springsnail is not currently threatened by other natural or man-made factors. However, any future introduction of harmful nonnative species could have severe effects on the species. In addition, the effects of

climate change, while difficult to quantify at this time, are likely to exacerbate the current and ongoing threat of habitat loss caused by other factors, particularly the loss of spring flows resulting from prolonged drought.

Proposed Listing Determination

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Chupadera springsnail and have determined that the species warrants listing as endangered throughout its range. The loss of one of two known populations, the ongoing threat of modification of the habitat at the only known remaining site, Willow Spring, from grazing and spring modification, and the imminent threat of groundwater depletion posed by subdivision development adjacent to the spring, places this species at great risk of extinction. The small, reduced distribution of the Chupadera springsnail heightens the danger of extinction due to threats from Factors A (specifically loss of spring flow, livestock grazing, and spring modification) and D (inadequacy of existing regulatory mechanisms). The existing threats are exacerbated by the effects of ongoing and future climate change, primarily due to the projected increase in droughts. Because these threats are ongoing now or are imminent, and their potential impacts to the species would be catastrophic given the very limited range of the species, we find that a proposed designation of endangered, rather than threatened, is appropriate.

The Act defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." In considering "significant portion of the range," a key part of this analysis in practice is whether the threats are geographically concentrated in some way. If the threats to the species are essentially uniform throughout its range, no portion is likely to warrant further consideration. Based on the threats to the Chupadera springsnail throughout its entire limited range (one spring), we find that the species is in danger of extinction throughout all of its range, based on the immediacy, severity, and scope of the threats described above. The species is proposed as endangered, rather than threatened, because the threats are occurring now or are imminent, and their potential impacts to the species would be catastrophic given the very limited range of the species, making the Chupadera springsnail at risk of extinction at the present time. Since

threats extend throughout its entire range, it is unnecessary to determine if it is in danger of extinction throughout a significant portion of its range. Therefore, on the basis of the best available scientific and commercial information, we propose listing the Chupadera springsnail as endangered throughout its range in accordance with sections 3(6) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and conservation by Federal, State, Tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and requires that recovery actions be carried out for all listed species. The protection measures required of Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Subsection 4(f) of the Act requires the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning includes the development of a recovery outline shortly after a species is listed, preparation of a draft and final recovery plan, and revisions to the plan as significant new information becomes available. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. The recovery plan identifies site-specific management actions that will achieve recovery of the species, measurable criteria that determine when a species may be downlisted or delisted, and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide

estimates of the cost of implementing recovery tasks. Recovery teams (comprised of species experts, Federal and State agencies, nongovernment organizations, and stakeholders) are often established to develop recovery plans. When completed, the recovery outline, draft recovery plan, and the final recovery plan will be available from our Web site (<http://www.fws.gov/endangered>), or from our New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (e.g., restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private and State lands.

If this species is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of New Mexico would be eligible for Federal funds to implement management actions that promote the protection and recovery of the Chupadera springsnail. Information on our grant programs that are available to aid species recovery can be found at: <http://www.fws.gov/grants>.

Although the Chupadera springsnail is only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer with the Service on any action

that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is subsequently listed, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may adversely affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. For the Chupadera springsnail, Federal agency actions that may require consultation would include any Federally funded activities in the Willow Spring watershed, groundwater source area, or directly in the spring that may affect Willow Spring or the Chupadera springsnail: for example, activities that require a permit from the Army Corps of Engineers pursuant to section 404 of the Clean Water Act.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. The prohibitions, codified at 50 CFR 17.21 for endangered wildlife, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import, export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving threatened or endangered wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 for endangered species. With regard to endangered wildlife, a permit must be issued for the following purposes: for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities.

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of

the effect of a proposed listing on proposed and ongoing activities within the range of species proposed for listing. The following activities could potentially result in a violation of section 9 of the Act; this list is not comprehensive:

(1) Unauthorized collecting, handling, possessing, selling, delivering, carrying, or transporting of the species, including import or export across State lines and international boundaries, except for properly documented antique specimens of these taxa at least 100 years old, as defined by section 10(h)(1) of the Act;

(2) Introduction of nonnative species that compete with or prey upon the Chupadera springsnail, such as the introduction of competing, nonnative species to the State of New Mexico;

(3) The unauthorized release of biological control agents that attack any life stage of this species;

(4) Unauthorized modification of the springs; and

(5) Unauthorized discharge of chemicals or fill material into any waters in which the Chupadera springsnail is known to occur.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with

scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner seeks or requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time it was listed must contain physical and biological features essential to the conservation of the species and be included only if those features may require special management considerations or protection. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical and biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat), focusing on the principal biological or physical constituent elements (primary constituent elements) within an area that are essential to the conservation of the species (such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type). Primary constituent elements are the elements of physical and biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species'

life-history processes, are essential to the conservation of the species.

Under the Act and regulations at 50 CFR 424.12, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species. When the best available scientific data do not demonstrate that the conservation needs of the species require such additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species. An area currently occupied by the species but that was not occupied at the time of listing may, however, be essential to the conservation of the species and may be included in the critical habitat designation.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we determine which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge.

We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the

species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be required for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

There is no documentation that the Chupadera springsnail is threatened by collection, and it is unlikely to experience increased threats by identifying critical habitat. In the absence of a finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. The potential benefits include: (1) Triggering consultation under section 7 of the Act

in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species.

The primary regulatory effect of critical habitat is the section 7(a)(2) requirement that Federal agencies refrain from taking any action that destroys or adversely modifies critical habitat. Lands proposed for designation as critical habitat would be subject to Federal actions that trigger the section 7 consultation requirements. There may also be some educational or informational benefits to the designation of critical habitat. Educational benefits include the notification of the general public of the importance of protecting habitat.

At present, the only known extant population of the Chupadera springsnail occurs on private lands in the United States. The species currently is not known to occur on Federal lands or lands under Federal jurisdiction. However, lands proposed for designation as critical habitat, whether or not under Federal jurisdiction, may be subject to Federal actions that trigger the section 7 consultation requirement, such as the granting of Federal monies or Federal permits.

We reviewed the available information pertaining to habitat characteristics where this species is located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is prudent for the Chupadera springsnail because, as discussed above, there is no information to indicate that identification of critical habitat will result in increased threats to the species, and information indicates that designation of critical habitat would be beneficial to the species.

Critical Habitat Determinability

As stated above, section 4(a)(3) of the Act requires the designation of critical habitat concurrently with the species' listing "to the maximum extent prudent and determinable." Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

- (i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or
- (ii) The biological needs of the species are not sufficiently well known to

permit identification of an area as critical habitat.

When critical habitat is not determinable, the Act provides for an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where this species is located. This and other information represent the best scientific data available, and the available information is sufficient for us to identify areas to propose as critical habitat. Therefore, we conclude that the designation of critical habitat is determinable for the *Chupadera springsnail*.

Physical and Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical and biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derived the specific physical and biological features required for *Chupadera springsnail* from studies of this species' habitat, ecology, and life history as described below. We have determined that *Chupadera springsnail* requires the following physical and biological features:

Space for Individual and Population Growth and Normal Behavior

The *Chupadera springsnail* occurs where water emerges from the ground as a free-flowing spring and springbrook. Within the spring ecosystem, proximity to the springhead is important because of the appropriate stable water chemistry and temperature, substrate, and flow regime. The *Chupadera springsnail* occurs in one spring in an open foothill meadow at 1,620 m (5,315 ft) elevation. The species has been

found in the springhead and springbrook. Historically, it was also found at an unnamed spring 0.5 km (0.3 mi) from this location.

Food, Water, Air, Light, or Other Nutritional or Physiological Requirements

Taylor (1987, p. 26) found *Chupadera springsnail* on pebbles and cobbles interspersed with sand, mud, and aquatic plants. Individuals were abundant in flowing water on stones, dead wood, and among vegetation on firm surfaces that had an organic film (periphyton). *Chupadera springsnail* was not found in the impoundment created by damming the springbrook (Taylor 1987, p. 26). From data collected in 1997 and 1998, Lang (2009, p. 1) determined the springsnails were found in water velocities that ranged from 0.01 to 0.19 m/s (0.03 to 0.6 ft/s).

Chupadera springsnail consume periphyton on submerged surfaces. Spring ecosystems occupied by *Chupadera springsnail* must support the periphyton upon which springsnails graze.

Sites for Breeding, Reproduction, and Rearing of Offspring

Substrate characteristics influence the productivity of the springsnails. Suitable substrates are typically firm, characterized by cobble, gravel, sand, woody debris, and aquatic vegetation such as watercress. Suitable substrates increase productivity by providing suitable egg-laying sites and providing food resources.

Habitats Protected From Disturbance or Representative of the Historical, Geographical, and Ecological Distributions of the Species

The *Chupadera springsnail* has a restricted geographic distribution. Endemic species whose populations exhibit a high degree of isolation are extremely susceptible to extinction from both random and nonrandom catastrophic natural or human-caused events. Therefore, it is essential to maintain the spring systems upon which the *Chupadera springsnail* depends. This means protection from disturbance caused by exposure to cattle grazing, water contamination, water depletion, springhead alteration, or nonnative species. The *Chupadera springsnail* must, at a minimum, sustain its current distribution for the one remaining population to remain viable.

As discussed above (see *Factor E: Other Natural or Manmade Factors Affecting Its Continued Existence*), introduced species are a serious threat to native aquatic species (Williams *et al.*

1989, p. 18; Lodge *et al.* 2000, p. 7). Because the distribution of the *Chupadera springsnail* is so limited, and its habitat so restricted, introduction of certain nonnative species into its habitat could be devastating. Potentially harmful nonnative species include saltcedar, common reed, Russian thistle, and the red-rim melania.

Primary Constituent Elements for the Chupadera Springsnail

Under the Act and its implementing regulations, we are required to identify the physical and biological features essential to the conservation of *Chupadera springsnail* in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements to be the elements of physical and biological features that are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to *Chupadera springsnail* are springheads, springbrooks, seeps, ponds, and seasonally wetted meadows containing:

- (1) Unpolluted spring water (free from contamination) emerging from the ground and flowing on the surface;
- (2) Periphyton (an assemblage of algae, bacteria, and microbes) and decaying organic material for food;
- (3) Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for egg laying, maturing, feeding, and escape from predators; and
- (4) Nonnative predators and competitors either absent or present at low population levels.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the proposed areas contain features that are essential to the conservation of the species and may require special management considerations and protections. Threats to the physical and biological features essential to the conservation of the *Chupadera springsnail* include loss of spring flows due to groundwater pumping and drought, inundation of springheads due to pond creation, degradation of water quality and habitat due to livestock grazing or other alteration of water chemistry, and the introduction of nonnative predators and competitors. A more complete discussion of the threats to the *Chupadera springsnail* and its habitats

can be found in "Summary of Factors Affecting the Species" above.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available to designate critical habitat. We review all available information pertaining to the habitat requirements of the species. As part of our review, in accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating areas outside those currently occupied, as well as those occupied at the time of listing, are necessary to ensure the conservation of the species. We designate areas outside the geographical area occupied by a species at the time of listing only when a designation limited to its present range would be inadequate to ensure the conservation of the species.

For the purpose of designating critical habitat for Chupadera springsnail, we define the occupied area based on the most recent surveys available, which are from 1999. There is only one area currently occupied. We then evaluated whether this area contains the primary constituent elements for the Chupadera springsnail and whether they require special management. Next we considered areas historically occupied, but not currently occupied. There is only one area where the Chupadera springsnail historically occurred but is not currently occupied. We evaluated

this area to determine whether it was essential for the conservation of the species.

To determine if the one currently occupied area (Willow Spring) contains the primary constituent elements, we assessed the life-history components of the Chupadera springsnail as they relate to habitat. The springsnail requires unpolluted spring water in the springheads and springbrooks; periphyton and decaying organic material for food; rock-derived substrates for egg laying, maturation, feeding, and escape from predators; and absence of nonnative predators and competitors.

To determine if the one site historically occupied by the Chupadera springsnail (unnamed spring) is essential for the conservation of the Chupadera springsnail, we considered: (1) The importance of the site to the overall status of the species to prevent extinction and contribute to future recovery of the Chupadera springsnail; (2) whether the area could be restored to contain the necessary physical and biological features to support the Chupadera springsnail; and (3) whether a population of the species could be reestablished at the site.

We plotted the known occurrences of the Chupadera springsnail in springheads and springbrooks on 2007 U.S. Geological Survey (USGS) Digital Ortho Quarter Quad maps using ArcMap (Environmental Systems Research Institute, Inc.), a computer

geographic information system (GIS) program. There are no known developed areas such as buildings, paved areas, and other structures that lack the biological features for the springsnail within the proposed critical habitat areas.

In summary, we propose designating critical habitat in areas that we determine are occupied at the time of listing and contain sufficient primary constituent elements to support life-history functions essential to the conservation of the species and require special management, and areas outside the geographical area occupied at the time of listing that we determine are essential for the conservation of Chupadera springsnail.

Proposed Critical Habitat Designation

We are proposing two units of critical habitat for the Chupadera springsnail. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for Chupadera springsnail. The two areas we propose as critical habitat are: (1) Willow Spring, which is currently (at the time of listing) occupied and contains the primary constituent elements; and (2) unnamed spring, which is not currently (at the time of listing) occupied but is determined to be essential for the conservation of the species. The approximate area and land ownership of each proposed critical habitat unit is shown in table 1.

TABLE 1—OWNERSHIP AND APPROXIMATE AREA OF PROPOSED CRITICAL HABITAT UNITS FOR CHUPADERA SPRINGSNAIL

Critical habitat unit	Land ownership by type	Estimated size of unit in hectares (acres)
1. Willow Spring Unit	Private	0.5 (1.4)
2. Unnamed Spring Unit	Private	0.2 (0.5)
Total .....	.....	0.7 (1.9)

We present below brief descriptions of the units and reasons why they meet the definition of critical habitat for Chupadera springsnail.

Unit 1: Willow Spring Unit

Unit 1 consists of approximately 0.5 ha (1.4 ac) in Socorro County, New Mexico. When last visited in 1999, the proposed Willow Spring Unit was a wet meadow with a springbrook that runs approximately 38 m (125 ft) before being impounded by a berm that crosses the meadow. The entire unit is in private ownership. We are proposing to designate a single critical habitat unit that encompasses Willow Spring and

includes the springhead, springbrook, small seeps and ponds, and the seasonally wetted meadow associated with the spring downstream to the artificial berm. This spring is located within the drainage of the Rio Grande, approximately 2.7 km (1.7 mi) west of Interstate Highway 25.

The Willow Spring site has documented occupancy of Chupadera springsnail from 1979 to 1999 (Taylor 1987 p. 24; NMDGF 2004, p. 45). The current status of the population is unknown, but absent information that indicates otherwise, we assume it persists at Willow Spring. The proposed Willow Spring Unit contains all the

primary constituent elements to support all of the Chupadera springsnail life processes. Threats to the primary constituent elements in this unit that may require special management include the effects of cattle grazing, groundwater depletion, springhead or springbrook manipulation, water contamination, and potential competition from nonnative species.

Unit 2: Unnamed Spring Unit

Unit 2 consists of approximately 0.20 ha (0.5 ac) in Socorro County, New Mexico. The entire unit is privately owned. We are proposing to designate a single critical habitat unit that

encompasses the unnamed spring and includes the springhead, springbrook, small seeps and ponds, and the seasonally wetted meadow associated with the spring. This spring is located within the drainage of the Rio Grande, approximately 2.7 km (1.7 mi) west of Interstate Highway 25, about 0.5 km (0.3 mi) north of Willow Spring.

The proposed Unnamed Spring Unit is currently unoccupied by the Chupadera springsnail, but it was historically occupied (Taylor 1987, p. 24; Lang 1998, p. 36). The spring appears to share a common aquifer and similarities in water chemistry, temperature, and hydrology with Willow Spring. The Unnamed Spring Unit is essential to the conservation of the species because it is a site where Chupadera springsnail can be reintroduced. This area is important to prevent extinction of the Chupadera springsnail. When developing conservation strategies for species whose life histories are characterized by short generation time, small body size, high rates of population increase, and high habitat specificity, it is important to maintain multiple populations as opposed to protecting a single population (Murphy *et al.* 1990, pp. 41–51). Having fecund populations is a recognized conservation strategy to protect species from extinction due to catastrophic events (Soule 1985, p. 731). Some habitat restoration work may be needed before Chupadera springsnail could be reintroduced to the Unnamed Spring Unit; however, creating a second population is important for the long-term persistence of the species. Therefore, we conclude this spring is essential to the conservation of the species.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of "destruction or

adverse modification" (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not Federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action;

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction;

(3) Are economically and technologically feasible; and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Application of the "Adverse Modification" Standard

Regulations at 50 CFR 402.16 require Federal agencies to reinstate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinstatement of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for Chupadera springsnail. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or

authorized by a Federal agency, should result in consultation for the Chupadera springsnail. These activities include, but are not limited to:

(1) Actions that would reduce the quantity of water flow within the spring systems proposed as critical habitat.

(2) Actions that would modify the springheads within the spring systems proposed as critical habitat.

(3) Actions that would degrade water quality within the spring systems proposed for designation as critical habitat.

(4) Actions that would reduce the availability of coarse, firm aquatic substrates within the spring systems that are proposed as critical habitat.

(5) Actions that would reduce the occurrence of native aquatic algae, and/or periphyton within the spring systems proposed as critical habitat.

(6) Actions that would introduce, promote, or maintain nonnative predators and competitors within the spring systems proposed as critical habitat.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resource management plan by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

There are no Department of Defense lands within the proposed critical habitat designation, and therefore there are no exemptions under section 4(a)(3) of the Act.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors. Potential land use sectors that may be affected by Chupadera springsnail critical habitat designation include grazing, groundwater withdrawals, and subdivision development. We also consider any social impacts that might occur because of the designation.

We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://www.regulations.gov>, or by contacting the New Mexico Ecological Services Field Office directly (see **FOR FURTHER INFORMATION CONTACT** section). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

<http://www.regulations.gov>, or by contacting the New Mexico Ecological Services Field Office directly (see **FOR FURTHER INFORMATION CONTACT** section). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense (DOD) where a national security impact might exist. In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for the Chupadera springsnail are not owned or managed by the DOD, and therefore, anticipate no impact to national security. There are no areas proposed for exclusion based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any Tribal issues, and consider the government-to-government relationship of the United States with Tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposal, we have determined that there are currently no HCPs or other management plans for the Chupadera springsnail, and the proposed designation does not include any Tribal lands or trust resources. We anticipate no impact to Tribal lands, partnerships, or HCPs from this proposed critical habitat designation. There are no areas proposed for exclusion from this proposed designation based on other relevant impacts.

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule.

The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information received during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in the **ADDRESSES** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Persons needing reasonable accommodations to attend and participate in a public hearing should contact the New Mexico Ecological Services Field Office at 505-346-2525, as soon as possible. To allow sufficient time to process requests, please call no later than one week before the hearing date. Information regarding this proposed rule is available in alternative formats upon request.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this proposed rule under Executive Order 12866 (Regulatory Planning and Review). OMB bases its determination upon the following four criteria:

- (1) Whether the rule will have an annual effect of \$100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.
- (2) Whether the rule will create inconsistencies with other Federal agencies' actions.
- (3) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.
- (4) Whether the rule raises novel legal or policy issues.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the draft economic analysis prepared under section 4(b)(2) of the Act and Executive Order 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce availability of the draft economic analysis of the proposed designation in the **Federal Register** and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. On the basis of the development of our proposal, we have identified certain sectors and activities that may potentially be affected by a designation of critical habitat for the Chupadera springsnail. These sectors include grazing, groundwater withdrawals, and subdivision development. We recognize that not all of these sectors may qualify as small business entities. We have concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic

information and provide the necessary opportunity for public comment.

Energy Supply, Distribution, or Use

Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This proposed rule to designate critical habitat for the Chupadera springsnail is not a significant regulatory action under Executive Order 12866, and we do not expect it to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. We will further evaluate energy-related issues as we conduct our economic analysis, and review and revise this assessment as warranted.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or Tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or Tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a

condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not expect this rule to significantly or uniquely affect small governments because the proposed designation is on private land. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, we do not believe a Small Government Agency Plan is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we will analyze the potential takings implications of designating critical habitat for the Chupadera springsnail in a takings implications assessment. The takings implications assessment will determine whether this designation of critical habitat for the Chupadera springsnail poses significant takings implications for lands within or affected by the proposed revised designation. We will further evaluate this issue as we conduct our economic analysis.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism assessment is not

required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in New Mexico. The designation of critical habitat on lands currently occupied by the Chupadera springsnail imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what Federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the elements of physical and biological features essential to the conservation of the Chupadera springsnail within the designated areas to assist the public in understanding the habitat needs of the species.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork

Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). However, when the range of the species includes States within the Tenth circuit, such as that of the Chupadera springsnail, under the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we will undertake a NEPA analysis for critical habitat designation. We will prepare an environmental assessment for the proposed designation of critical habitat for the Chupadera springsnail and notify the public of the availability of the draft environmental assessment.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are

too long, the sections where you feel lists or tables would be useful, etc.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

We determined that there are no Tribal lands that were occupied by the Chupadera springsnail at the time of listing that contain the features essential for conservation of the species, and no Tribal lands unoccupied by the Chupadera springsnail that are essential for the conservation of the species. Therefore, we are not proposing to designate critical habitat for the Chupadera springsnail on Tribal lands.

Data Quality Act

In developing this rule we did not conduct or use a study, experiment, or survey requiring peer review under the data Quality Act (Pub. L. 106-554).

References Cited

A complete list of all references cited in this rule is available on the Internet at <http://www.regulations.gov> or upon request from the Field Supervisor, New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT** section).

Author(s)

The primary authors of this document are the staff members of the New Mexico Ecological Services Field

Services Office (see **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. In § 17.11(h) add an entry for "Springsnail, Chupadera" to the List of Endangered and Threatened Wildlife in alphabetical order under SNAILS to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
SNAILS							
Springsnail, Chupadera.	<i>Pyrgulopsis chupaderae</i> .	U.S.A. (NM)	Entire	E	.....	17.95(f)	NA

3. In § 17.95, amend paragraph (f) by adding an entry for "Chupadera springsnail (*Pyrgulopsis chupaderae*)" in the same alphabetical order that the species appears in the table at § 17.11(h), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *
(f) *Clams and Snails.*
* * * * *

Chupadera Springsnail (*Pyrgulopsis chupaderae*)

(1) Critical habitat units are depicted for Socorro County, New Mexico, on the map below.

(2) Within these areas, the primary constituent elements of the physical and biological features essential to the conservation of the Chupadera springsnail consist of springheads,

springbrooks, seeps, ponds, and seasonally wetted meadows containing:

- (i) Unpolluted spring water (free from contamination) emerging from the ground and flowing on the surface;
- (ii) Periphyton (an assemblage of algae, bacteria, and microbes) and decaying organic material for food;
- (iii) Substrates that include cobble, gravel, pebble, sand, silt, and aquatic vegetation, for egg laying, maturing, feeding, and escape from predators; and
- (iv) Nonnative predators and competitors either absent or present at low population levels.

(3) Critical habitat does not include manmade structures (such as buildings, roads, and other paved areas, and the land on which they are located) existing on the effective date of this rule.

(4) Critical habitat map units were plotted on 2007 USGS Digital Ortho

Quarter UTM coordinates in ArcMap (Environmental Systems Research Institute, Inc.), a computer GIS program.

(5) Unit 1: Willow Spring, Socorro County, New Mexico.

(i) The critical habitat area includes the springhead, springbrook, small seeps and ponds, seasonally wetted meadow, and all of the associated spring features. This area is approximately 0.5 ha (1.4 ac) around the following coordinates: Easting 316889, northing 3743013 (Universal Transverse Mercator Zone 13 using North American Datum of 1983).

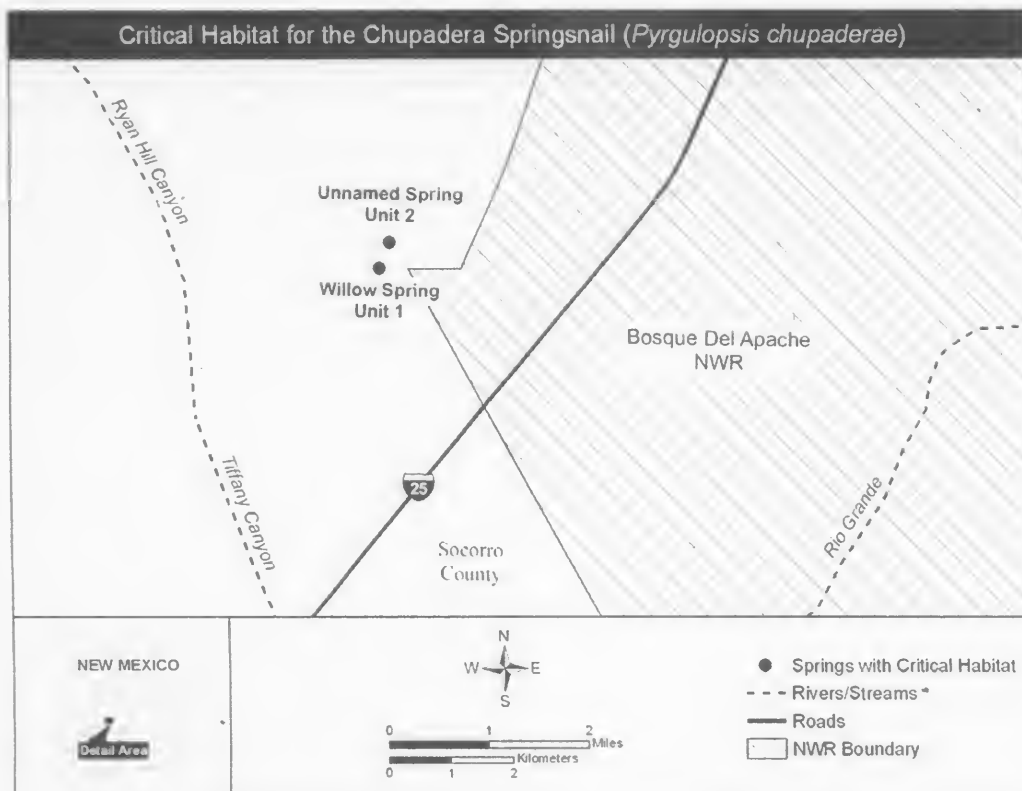
(6) Unit 2: Unnamed Spring, Socorro County, New Mexico.

(i) The critical habitat area includes the springhead, springbrook, small seeps and ponds, seasonally wetted meadow, and all of the associated spring features. This area is approximately 0.2

ha (0.5 ac) around the following coordinates: Easting 317048, northing 3743418 (Universal Transverse Mercator

Zone 13 using North American Datum of 1983).

(ii) Note: Map of Units 1 and 2 follows:



* * * * *

Dated: June 13, 2011.

Rachel Jacobson,
Acting Assistant Secretary for Fish and
Wildlife and Parks.

[FR Doc. 2011-19444 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R2-ES-2010-0091; MO
92210-0-0009]

RIN 1018-AX11

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Nine Bexar County Invertebrates

AGENCY: Fish and Wildlife Service,
Interior.

ACTION: Proposed Rule; reopening of
comment period.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce the reopening of the comment period on our February 22, 2011, proposal to revise the designation of critical habitat for the *Rhadine exilis* (ground beetle, no common name); *Rhadine infernalis* (ground beetle, no common name); Helotes mold beetle (*Batrissodes venyivi*); Cokendolpher Cave harvestman (*Texella cokendolpheri*); Robber Baron Cave meshweaver (*Cicurina baronia*); Madla Cave meshweaver (*Cicurina madla*); and Braken Bat Cave meshweaver (*Cicurina venii*); and the proposed designation of critical habitat for the Government Canyon Bat Cave meshweaver (*Cicurina vespera*) and Government Canyon Bat Cave spider (*Neoleptoneta microps*) under the Endangered Species Act of 1973, as amended (Act). These species are collectively known as the nine Bexar County invertebrates. We also announce the availability of a draft economic analysis (DEA), an amended required determinations section of the proposal, and a public hearing. We are reopening the comment period to allow all

interested parties an opportunity to comment simultaneously on the revised proposed rule, the associated DEA, and the amended required determinations section. Comments previously submitted on this rulemaking do not need to be resubmitted, as they will be fully considered in preparation of the final rule.

DATES: *Comments:* The comment period for the proposed rule published February 22, 2011, at 76 FR 0872 is reopened. We will accept comments received on or before September 1, 2011. Comments must be received by 11:59 p.m. Eastern Time on the closing date. Any comments that we receive after the closing date may not be considered in the final decision on this action.

Public Hearing: We will hold a public hearing on August 17, 2011, at the Casa Helotes Senior Citizen Center, 12070 Leslie Road, Helotes, Texas. The hearing is open to all who wish to provide formal, oral comments regarding the proposed critical habitat rule, and will be held from 6:15 p.m. to 7:50 p.m., with an informational session before the

hearing from 5 p.m. to 6:15 p.m. During the informational session, Service employees will be available to provide information and answer questions.

ADDRESSES: Comments: You may submit written comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. Search for Docket No. FWS-R2-ES-2010-0091, which is the docket number for this rulemaking.

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R2-ES-2010-0091; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042-PDM; Arlington, VA 22203.

We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).

Information Session and Hearing:

The public informational session and hearing will be held at the following location:

Casa Helotes Senior Citizen Center, 12070 Leslie Road, Helotes, Texas 78023.

People needing reasonable accommodations in order to attend and participate in the public hearing should contact Adam Zerrenner, Austin Ecological Services Field Office, at 512-490-0057 x248 as soon as possible (see **FOR FURTHER INFORMATION CONTACT**). In order to allow sufficient time to process requests, please call no later than one week before the hearing date.

FOR FURTHER INFORMATION CONTACT: Adam Zerrenner, Field Supervisor, U.S. Fish and Wildlife Service, Austin Ecological Services Field Office, 10711 Burnet Road, Suite 200, Austin, TX 78758; by telephone at 512-490-0057 x248; or by facsimile at 512-490-0974. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Public Comments

We will accept written comments and information during this reopened comment period on our proposed critical habitat for the nine Bexar County invertebrates that was published in the *Federal Register* on February 22, 2011 (76 FR 9872), our DEA of the proposed designation, and the amended required determinations provided in this document. We will consider information and recommendations from all interested parties. We are

particularly interested in comments concerning:

(1) The reasons why we should or should not designate habitat as "critical habitat" under section 4 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threats outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The distribution of the nine Bexar County invertebrates;

(b) The amount and distribution of any of the nine Bexar County invertebrates' habitat;

(c) What areas occupied by the species at the time of listing that contain features essential for the conservation of the species we should include in the designation and why;

(d) Special management considerations or protections that the features essential to the conservation of the nine Bexar County invertebrates identified in this proposal may require, including managing for the potential effects of climate change;

(e) What areas not occupied at the time of listing are essential for the conservation of the species and why;

(f) Site-specific information on subsurface geologic barriers to movement of the species or lack thereof; and

(g) The taxonomy and status of the ground beetle previously identified as *Rhadine exilis* in Black Cat Cave (proposed Unit 13) and the value of the cave and unit for conservation of the species.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Any reasonably foreseeable economic, national security, or other relevant impacts that may result from designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas from the proposed designation that are subject to these impacts.

(5) Information on whether the benefit of an exclusion of any particular area outweighs the benefit of inclusion under section 4(b)(2) of the Act, in particular for those management plans covering specified lands used as mitigation under the La Cantera Habitat Conservation Plan (HCP) and lands on which impacts to the species have been authorized

under that HCP. Copies of the La Cantera HCP are available from the Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

(6) Information on the projected and reasonably likely impacts of climate change on any of the nine Bexar County invertebrates and the critical habitat areas we are proposing.

(7) Information related to our 90-day finding we made in the February 22, 2011, *Federal Register* proposed rule (76 FR 9872) on the July 8, 2010, petition to remove critical habitat Unit 13 from designation.

(8) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments.

(9) Information on the extent to which the description of economic impacts in the DEA is reasonable and accurate.

(10) The likelihood of adverse social reactions to the designation of critical habitat, as discussed in the DEA, and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

If you submitted comments or information on the proposed rule (76 FR 9872) during the initial comment period from February 22, 2011, to April 25, 2011, please do not resubmit them. We will incorporate them into the public record as part of this comment period, and we will fully consider them in the preparation of our final determination. Our final determination concerning revised critical habitat will take into consideration all written comments and any additional information we receive during both comment periods. On the basis of public comments, we may, during the development of our final determination, find that areas proposed are not essential, are appropriate for exclusion under section 4(b)(2) of the Act, or are not appropriate for exclusion.

You may submit your comments and materials concerning the proposed rule or DEA by one of the methods listed in the **ADDRESSES** section. We will not consider comments sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

If you submit a comment via <http://www.regulations.gov>, your entire comment—including any personal identifying information—will be posted on the Web site. We will post all hardcopy comments on <http://www.regulations.gov> as well. If you submit a hardcopy comment that

includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing the proposed rule and DEA, will be available for public inspection on <http://www.regulations.gov> at Docket No. FWS-R2-ES-2010-0091, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). You may obtain copies of the proposed rule and the DEA on the Internet at <http://www.regulations.gov> at Docket Number FWS-R2-ES-2010-0091, or by mail from the Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT** section).

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat for the nine Bexar County invertebrates in this document. For more information on previous Federal actions concerning the invertebrates, refer to the proposed critical habitat rule published in the **Federal Register** on February 22, 2011 (76 FR 9872). For more information on the nine Bexar County invertebrates or their habitat, refer to the final listing rule published in the **Federal Register** on December 30, 1998 (63 FR 71855), which is available online at <http://www.regulations.gov> or from the Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

On February 22, 2011, we published a proposed critical habitat rule for the nine Bexar County invertebrates (76 FR 9872). We proposed to designate as critical habitat approximately 6,906 acres (2,795 hectares) in 35 units located in Bexar County, Texas. That proposal had a 60-day comment period, ending April 25, 2011. We will submit for publication in the **Federal Register** a final critical habitat designation for the nine Bexar County invertebrates on or before February 7, 2012.

Critical Habitat

Section 3 of the Act defines critical habitat as the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features essential to the conservation of the species and

that may require special management considerations or protection, and specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. If the proposed rule is made final, section 7 of the Act will prohibit destruction or adverse modification of critical habitat by any activity funded, authorized, or carried out by any Federal agency. Federal agencies proposing actions affecting critical habitat must consult with us on the effects of their proposed actions, under section 7(a)(2) of the Act.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act requires that we designate or revise critical habitat based upon the best scientific data available, after taking into consideration the economic impact, impact on national security, or any other relevant impact of specifying any particular area as critical habitat. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area as critical habitat, provided such exclusion will not result in the extinction of the species.

When considering the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus (activities conducted, funded, permitted, or authorized by Federal agencies), the educational benefits of mapping areas containing essential features that aid in the recovery of the listed species, and any benefits that may result from designation due to State or Federal laws that may apply to critical habitat.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan. In the case of the Bexar County invertebrates, the benefits of critical habitat include public awareness of the presence of these species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for the invertebrates due to protection from adverse modification or destruction of critical habitat. In practice, situations with a Federal nexus exist primarily on Federal lands or for projects undertaken, authorized, or funded by Federal agencies.

The final decision on whether to exclude any areas will be based on the best scientific data available at the time of the final designation, including information obtained during the comment period and information about the economic impact of designation. Accordingly, we have prepared a draft economic analysis (DEA) concerning the proposed critical habitat designation, which is available for review and comment (see **ADDRESSES** section).

Draft Economic Analysis

The DEA identifies and analyzes the potential economic impacts associated with the proposed critical habitat designation for the nine Bexar County invertebrates. The DEA describes the economic impacts of all potential conservation efforts for the invertebrates; some of these costs will likely be incurred regardless of whether we designate critical habitat. The economic impact of the proposed critical habitat designation is analyzed by comparing scenarios both "with critical habitat" and "without critical habitat." The "without critical habitat" scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The "with critical habitat" scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species.

The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs; these are the costs we may consider in the final designation of critical habitat when evaluating the benefits of excluding particular areas under section 4(b)(2) of the Act. The analysis looks retrospectively at baseline impacts incurred since the species were listed, and forecasts both baseline and incremental impacts likely to occur if we finalize the proposed critical habitat designation. For a further description of the methodology of the analysis, see chapter 2 of the DEA.

The DEA separates conservation measures into two distinct categories according to "without critical habitat" and "with critical habitat" scenarios. The "without critical habitat" scenario represents the baseline for the analysis, considering protections otherwise

afforded to the nine Bexar County invertebrates (e.g., under the Federal listing and other Federal, State, and local regulations). The "with critical habitat" scenario describes the incremental impacts specifically due to designation of critical habitat for the species. In other words, these incremental conservation measures and associated economic impacts would not occur but for the designation. Conservation measures implemented under the baseline (without critical habitat) scenario are described qualitatively within the DEA, but economic impacts associated with these measures are not quantified. Economic impacts are only quantified for conservation measures implemented specifically due to the designation of critical habitat (i.e., incremental impacts). For a further description of the methodology of the analysis, see chapter 2 of the DEA.

The DEA provides estimated costs of the foreseeable potential economic impacts of the proposed critical habitat designation for the nine Bexar County invertebrates over the next 20 years, which was determined to be the appropriate period for analysis because limited planning information is available for most activities to forecast activity levels for projects beyond a 20-year timeframe. It identifies potential incremental costs as a result of the proposed critical habitat designation; these are those costs attributed to critical habitat over and above those baseline costs attributed to listing. The DEA quantifies economic impacts of nine Bexar County invertebrates conservation efforts associated with the following categories of activity:

The DEA focused on quantifying the effect of critical habitat designation on (1) Development, (2) transportation projects, (3) utility projects, and (4) species/habitat management. The DEA estimates that the present value impacts of critical habitat designation are between \$1.62 million to \$35.6 million (\$153,000 to \$3,360,000 on an annualized basis) over 20 years (2012 through 2031), assuming a seven percent discount rate.

Impacts to development activities represent approximately 92 to 99 percent (low and high end scenarios, respectively) of the overall impacts to areas proposed for designation during the first 20 years.

The present value incremental impact to transportation activities in the areas proposed for designation range from \$13,400 in the low-end scenario to \$2,770,000 in the high-end scenario (assuming a seven percent discount rate). These figures represent an

annualized impact of approximately \$1,270 to \$262,000.

No incremental impacts are expected to utility project and species and habitat management. No utility projects are currently planned within the proposed critical habitat area. Based on the frequency of past consultations and technical assistance efforts on utility projects (i.e., one to two efforts per year), however, it is likely that other projects will be proposed within critical habitat in the future. To date, however, Service review of these projects has primarily been technical assistance efforts that have determined the projects were not likely to affect the species or habitat. We therefore anticipate that any incremental impacts on unknown future utility projects would be minor administrative impacts.

As we stated earlier, we are soliciting data and comments from the public on the DEA, as well as all aspects of the proposed rule and our amended required determinations. We may revise the proposed rule or supporting documents to incorporate or address information we receive during the public comment period. In particular, we may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of these species.

Required Determinations—Amended

In our February 22, 2011, proposed rule (76 FR 9872), we indicated that we would defer our determination of compliance with several statutes and executive orders until the information concerning potential economic impacts of the designation and potential effects on landowners and stakeholders became available in the DEA. We have now made use of the DEA data to make these determinations. In this document, we affirm the information in our proposed rule concerning Executive Order (E.O.) 12866 (Regulatory Planning and Review), E.O. 12630 (Takings), E.O. 13132 (Federalism), E.O. 12988 (Civil Justice Reform), E.O. 13211 (Energy, Supply, Distribution, and Use), the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), and the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951). However, based on the DEA data, we are amending our required determination concerning the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

Regulatory Flexibility Act

Under the Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 802(2)), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. Based on our DEA of the proposed designation, we provide our analysis for determining whether the proposed rule would result in a significant economic impact on a substantial number of small entities. Based on comments we receive, we may revise this determination as part of our final rulemaking.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if the proposed designation of critical habitat for the nine Bexar County invertebrates would affect a substantial number of small entities, we considered the number of small entities potentially affected within particular types of economic activities, such as residential and commercial development. In order to determine whether it is appropriate for our agency to certify that this proposed rule would

not have a significant economic impact on a substantial number of small entities, we considered each industry or category individually. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement. Critical habitat designation will not affect activities that do not have any Federal involvement; designation of critical habitat affects only activities conducted, funded, permitted, or authorized by Federal agencies. In areas where one or more of the nine Bexar County invertebrates are present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect the species. When we finalize this proposed critical habitat designation, consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process.

In the DEA, we evaluated the potential economic effects on small entities resulting from implementation of conservation actions related to the proposed designation of critical habitat for the nine Bexar County invertebrates. We estimate 20 to 218 small developers may be affected by the proposed rule annually, and annualized per entity impacts range from \$6,400 to \$8,660. This compares to average annual sales of small developers of \$6.36 million. So while there may be a substantial number of developers affected, on average, the annualized incremental impact per small developer represents only from 0.10 to 0.14 percent of small developers' average annual sales. We do not believe this will have a significant impact to this small business sector. Please refer to the DEA of the proposed critical habitat designation for a more detailed discussion of potential economic impacts.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. Information for this analysis was gathered from the Small Business Administration, stakeholders, and the Service. For the above reasons and based on currently available information, we certify that, if promulgated, the proposed critical habitat designation would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

Authors

The primary authors of this notice are staff members of the Austin Ecological

Services Field Office, Southwest Region, U.S. Fish and Wildlife Service.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: July 14, 2011.

Eileen Sobeck,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2011-19222 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R1-ES-2011-0048; MO 92210-0-0008-B2]

Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List the Straight Snowfly and Idaho Snowfly as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 90-day petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the straight snowfly (*Capnia lineata*) and Idaho snowfly (*Capnia zukeli*) as endangered and to designate critical habitat for these species under the Endangered Species Act of 1973, as amended (Act). Based on our review, we find that the petition does not present substantial information indicating that listing either of the species may be warranted. Therefore, we are not initiating a status review for either the straight snowfly or Idaho snowfly in response to this petition. However, we ask the public to submit to us any new information that may become available concerning the status of, or threats to, the straight snowfly or Idaho snowfly or their habitats at any time.

DATES: The finding announced in this document was made on August 2, 2011.

ADDRESSES: This finding is available on the Internet at <http://www.regulations.gov> at Docket Number FWS-R1-ES-2011-0048. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office, 1387 South Vinnell Way, Room 368, Boise, ID 83709. Please submit any new information, materials,

comments, or questions concerning this finding to the above street address.

FOR FURTHER INFORMATION CONTACT: Brian T. Kelly, State Supervisor, Idaho Fish and Wildlife Office (see **ADDRESSES**), by telephone 208-378-5243, or by facsimile to 208-378-5262. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition, and publish our notice of the finding promptly in the **Federal Register**.

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is "that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted" (50 CFR 424.14(b)). If we find that substantial scientific or commercial information was presented, we are required to promptly conduct a species status review, which we subsequently summarize in our 12-month finding.

Petition History

On June 9, 2010, the Service received a petition dated June 9, 2010, from the Xerces Society for Invertebrate Conservation and Friends of the Clearwater, requesting that we list the straight snowfly and Idaho snowfly as endangered, and that we designate critical habitat for these species under the Act (hereafter cited as "Petition"). The petition clearly identified itself as such and included the requisite identification information for the petitioners, as required by 50 CFR 424.14(a). In an August 6, 2010, letter to the petitioners, we responded that we reviewed the information presented in the petition and determined that issuing an emergency regulation temporarily listing the species under section 4(b)(7) of the Act was not warranted. We also stated that, due to court orders and

judicially approved settlement agreements for other listing and critical habitat determinations under the Act that required nearly all of our listing and critical habitat funding for fiscal year 2010, we would not be able to further address the petition at that time, but would complete an evaluation of the petition when workload and funding allowed. This finding addresses the petition.

Species Information

The Idaho snowfly was once considered to be the same species as the straight snowfly, but is now recognized as a separate species (Nelson and Baumann 1989, p. 344). Both the straight and Idaho snowflies are in the order Plecoptera (stoneflies), family Capniidae and genus *Capnia* (Stark *et al.* 1998, p. 1; Nelson and Baumann 1989, entire). We accept the characterization of the straight and Idaho snowflies as separate species based on the publication of Nelson and Baumann (1989, p. 344), which has been accepted by the scientific community.

Information regarding specific habitat requirements for the straight or Idaho snowflies is unknown and is not provided in the petition or available in our files (Petition, pp. 7–8; Idaho Department of Fish and Game (IDFG) 2005, pp. 582–584). Information generic to the order, family, and genus of these species is therefore presented here.

Stoneflies, in general, are primarily associated with clean, cool running waters. The eggs and nymphs of all North American stonefly species are aquatic, while the adults (with one exception) are terrestrial (Stewart and Harper 1996, p. 217). After hatching from eggs, stoneflies usually start feeding and growing immediately, although nymphal diapause (delay in development) has been reported in some species (Stark *et al.* 1998, p. 6). During the nymphal growth period, stoneflies undergo periodic molting (Stark *et al.* 1998, p. 6). Two general growth patterns are recognized for stoneflies: Fast cycle and slow cycle (Stark *et al.* 1998, p. 6). Fast cycle species undergo nymphal or egg diapause for several months and then grow quickly over a 3- to 4-month period and emerge as adults (Stark *et al.* 1998, p. 6). Slow cycle species hatch directly and grow continuously over a 1- to 3-year period and then emerge as adults (Stark *et al.* 1998, p. 6).

Stonefly nymphs have specific requirements for water temperature, substrate type, and stream size, although these vary between species (Lillehammer *et al.* 1989, pp. 181–182). Their microhabitats include the hyporheic zone (the subsurface

sediment and porous space adjacent to a stream where shallow groundwater and surface water mixes), cobble and gravel interstices, debris accumulations, and leaf packs (Stewart and Harper 1996, p. 217). Adults live on streamside riparian vegetation, rocks, or debris (Stewart and Harper 1996, p. 217).

The Capniidae family is the most species-rich family of stoneflies in North America (Stark *et al.* 1998, p. 85). One of the primary distinguishing characteristics of this family is the period of adult emergence that occurs from late winter to early spring (Baumann *et al.* 1977, p. 56; Stewart and Harper 1996, p. 218), when adults are often found crawling on snow and ice (Baumann *et al.* 1977, p. 56; Nelson in litt. 1996, p. 2; Stark *et al.* 1998, p. 85). *Capnia* is the largest genus in the Capniidae family. Although species in North America range from coast to coast, they are particularly abundant west of the Great Plains (Stark *et al.* 1998, p. 89).

Species in the Capniidae family can be found in a variety of lotic (flowing water) habitats, with a small number found in lentic (standing water) systems, such as cold, pristine mountain lakes (Stark *et al.* 1998, p. 86). Capniid nymphs inhabit the freshwater hyporheic zone where they feed on detritus, making them important bases of the food web in these relatively energy-poor zones (Nelson in litt. 1996, p. 2; Stark *et al.* 1998, p. 86). Given that they inhabit the hyporheic zone, they are not always encountered in standard benthic (bottom of a water body) samples (Nelson in litt. 1996, p. 2).

Members of the genus *Capnia* are found in both cold and warm lotic habitats (Baumann 1979, pp. 242–243). *Capnia* species are shredders of decomposing plant tissue and coarse particulate organic matter (Stewart and Harper 1996, p. 264). North American *Capnia* species are thought to have univoltine (one brood of offspring per year), fast life cycles (Stewart and Harper 1996, p. 218; Stewart and Stark 2002, p. 125), with nymphs entering diapause in the hyporheic zone in summer (Stewart and Harper 1996, p. 218). In general, adult *Capnia* emerge earliest at lower elevations and southerly latitudes, with later emergence occurring as elevation increases, or as one proceeds north (Nelson and Baumann 1989, p. 291). Adults of the straight snowfly are reported to emerge from late February through June, while adults of the Idaho snowfly are reported to emerge during a shorter window from April through early June (Nelson and Baumann 1989, pp. 340, 344).

The straight snowfly and Idaho snowfly were originally described by Hanson (1943, pp. 85–88) from straight snowfly specimens collected in 1911 from Troy, Idaho, and Idaho snowfly specimens collected in 1938 from Moscow, Idaho. While the straight and Idaho snowflies are similar and occupy the same range and similar habitat, they are described as separate species due to morphological differences. The Idaho snowfly exhibits an extremely long epiproct (a triangular or shield-shaped plate covering the dorsal surface of the terminal abdominal segments), the absence of tergal (upper surface of abdominal segment) knobs, and brachyptery (short-wings; Nelson and Baumann 1989, p. 344); the straight snowfly differs from the most similar *Capnia confusa* by its relatively longer epiproct, visible evidence of a sclerotized (hardened) bridge between sternites (ventral plate of a body segment) seven and eight, and short wings exhibited by males (Nelson and Baumann 1989, p. 340). Adults of *Capnia* are relatively small and black, and are usually less than 0.4 inches (10 millimeters) in length (Baumann *et al.* 1977, p. 61; Stark *et al.* 1998, p. 90).

Historical and Current Distribution

The reported distribution of the straight and Idaho snowflies is within Latah County in northern Idaho (Hanson 1943, pp. 85–88; Nelson and Baumann 1989, p. 340; IDFG 2005, pp. 582–584), where they have been documented within the Potlatch and Palouse rivers and their tributaries (Nelson and Baumann 1989, p. 344). Collectively, there were 32 documented occurrences for both Idaho-endemic species between the years 1911 and 1989 (Petition, p. 31 (Appendix I)).

The straight snowfly has been collected from eight waterbodies in the Potlatch Watershed (Big Bear Creek, Little Bear Creek, West Fork Little Bear Creek, Little Boulder Creek, Hog Meadow Creek, Potlatch River, Spring Valley Creek, and Spring Valley Reservoir) and three waterbodies in the Palouse Watershed (Lost Creek, Robinson Lake, and South Fork Palouse River). There are some additional collection locations generally recorded as "Troy," "Moscow," and other localities east and northeast of Moscow, Idaho (Petition, p. 7).

The Idaho snowfly has been recorded from three waterbodies in the Potlatch Watershed (Little Boulder Creek, Potlatch River, and Spring Valley Creek), and one waterbody in the Palouse Watershed (Palouse River). This species also has some additional general locations documented, including

"Moscow," "Moscow Mountain," and "Troy Creek" (Petition, p. 7).

Prior to the 1980s, it appears that collections of both species were on a purely opportunistic or incidental basis, as there are only a handful of records for each (three for the Idaho snowfly: In 1938, 1962, and 1977; and eight for the straight snowfly: One in 1911, one in 1930, and six from the 1960s and 1970s (Petition, Appendix I)). Although the number of documented occurrences increased for both species during the 1980s, it is unclear whether this was the result of focused searches to document the full extent of their respective ranges, or if there were simply an increased number of collections of the two species incidental to other efforts. The actual historical distribution of both the straight snowfly and the Idaho snowfly is therefore unknown.

The Idaho snowfly has not been collected since 1985, and the straight snowfly has not been collected since 1989, but according to the petitioners, there have not been any targeted surveys for either species since that time (Petition, pp. 7, 31). Information on the extent and methodology of surveys within the Palouse and Potlatch drainages and other similar watersheds, or information regarding any surveys that may have occurred since the 1980s for either species, was not provided in the petition, nor is it available in our files. The petition does not provide any information, nor do we have any information available in our files, to suggest that further attempts have been made to locate additional populations of either species, or that historical documented occurrences of either species have been revisited since the 1980s to verify their continued presence or absence. All of the references cited by the petitioners with regard to species surveys were personal communications. Although we requested copies of these personal communications from the petitioners, they were not provided to us; therefore, we are not able to consider them in our evaluation (U.S. Fish and Wildlife Service (Service) in litt. 2010, entire). Whether the distribution of either species has changed since they were last observed in the mid-to late 1980s is unknown, and the petition presents no evidence to suggest their distributions have changed.

Population Status and Trend

According to the petition, abundance estimates are not known to have been made for either species at any site; apparently the only available information regarding species abundance is that past collections, based on a single location and date,

have ranged from 1 to 87 individuals of the straight snowfly, and from 1 to 89 individuals of the Idaho snowfly (Petition, p. 7). We have no additional information regarding abundance for either species available to us in our files.

According to the petition, the NatureServe global rankings are G3 (vulnerable) for the straight snowfly and G2 (imperiled) for the Idaho snowfly (Petition, p. 5). As noted by the petitioners, however, these ranking have since been changed to reflect a correction in the distribution of the straight snowfly (NatureServe 2010a, p. 1; NatureServe 2010b, p. 1). Both the straight and Idaho snowflies currently have a Global Heritage Status Rank of G2 and a National Status Rank of N2 (NatureServe 2010a, p. 1; NatureServe 2010b, p. 1). According to NatureServe, a rank of G2 signifies that a species is at a high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors. The N2 rank is assigned based upon the same factors, and species in this category are defined as imperiled in the nation and State because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation. Although we do not know which of these factors may have served as the basis for these rankings, and whether they may simply reflect the presumably limited range of these endemic species, we note that the NatureServe accounts do not provide any information regarding population abundance or trend for either species, and further clearly state that specific threats have not been identified for populations of either species (NatureServe 2010a, p. 2; NatureServe 2010b, p. 1). In addition, collections for either snowfly species have not been reported since 1989, and no surveys for the species are known to have been conducted since then (Petition, pp. 7, 31). Based on NatureServe's ranking system, the occurrences of both straight and Idaho snowflies reported in the petition could therefore be considered "historical," because it has been over 20 years since they were last documented (Hammerson *et al.* 2008, p. 4).

Both the straight and Idaho snowfly are also listed as Species of Greatest Conservation Need (SGCN) according to the IDFG Comprehensive Wildlife Conservation Strategy (CWCS) (IDFG 2005, pp. 582–584). The straight snowfly is listed with a Statewide S1 ranking, meaning that it is critically imperiled. However, the CWCS cites, as the basis for this ranking, the "lack of essential information pertaining to

status; 1 known location and no population trend data" (IDFG 2005, p. 582). The Idaho snowfly is also ranked S1 Statewide, and is included as a SGCN due to "lack of essential information pertaining to status; no population trend data" (IDFG 2005, p. 584). The CWCS recommends that further surveys and studies be conducted to determine the distribution and habitat needs for both species (IDFG 2005, pp. 582–584). However, we have no information to suggest that any further surveys or studies have been performed to date. While the petition states that both species are considered species of concern by the U.S. Forest Service, our records indicate that neither species has conservation status or classification with the U.S. Forest Service or U.S. Bureau of Land Management (IDFG 2005, pp. 582–584).

In summary, the petition provided no information, and we have none available in our files, to inform us as to the population status of either species. Although the petitioners contend that "the number and abundance of populations of these species are likely to have declined" (Petition, p. 7), and "are in imminent danger of extinction" (Petition, p. 5), the petition offers no support for these statements. Neither historical nor current estimates of abundance are available; therefore, it is not possible to discern any trend in population abundance of either species over time. In addition, although we have some historical information on distribution, no surveys have been conducted for either species in over 20 years, so we have no information to indicate that their distribution has changed. Although the rankings of the straight snowfly and Idaho snowfly by NatureServe and the State of Idaho seem to suggest that the species are imperiled, an inspection of the basis for these rankings indicates that they merely reflect a lack of data with which to discern the status of the species; hence, these rankings may more accurately reflect only the limited known geographic distribution of the snowflies, as there is no evidence of any decline or range contraction for either species. In its CWCS, IDFG concluded that the data are too limited to adequately assess the distribution, population size, and status of either the straight snowfly or Idaho snowfly (IDFG 2005, pp. 582–584). Based on the information provided in the petition and readily available to us in our files, we agree. We have no data to inform us as to the current distribution, abundance, or population trend of either the straight snowfly or Idaho snowfly, and, therefore, no

evidence to suggest that either species may have suffered any decline in numbers or distribution.

Evaluation of Information for This Finding

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations at 50 CFR part 424 set forth the procedures for adding a species to, or removing a species from, the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting the species' continued existence.

In considering what factors might constitute threats, we must look beyond the exposure of the species to a particular factor to evaluate whether the species may respond to that factor in a way that causes actual impacts to the species. If there is exposure to a factor and the species responds negatively, the factor may be a threat and we attempt to determine how significant a threat it is. The threat may be significant if it drives, or contributes to, the risk of extinction of the species such that the species may warrant listing as endangered or threatened as those terms are defined by the Act. The identification of factors that could impact a species negatively may not be sufficient to compel a finding that substantial information has been presented suggesting that listing may be warranted; virtually all species face some degree of threat. The information should contain evidence or the reasonable extrapolation that any factor(s) may be an operative threat that acts on the species to the point that the species may meet the definition of endangered or threatened under the Act.

In making this 90-day finding, we evaluated whether information regarding the threats to the straight snowfly or the Idaho snowfly as presented in the petition and other information available in our files, is substantial, thereby indicating that the petitioned action may be warranted. Our evaluation of this information is presented below.

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

The petition states that the straight and Idaho snowflies require specific environmental conditions to survive, and that habitat and water quality conditions have been impaired in the majority of the streams where both species occur. The primary causes of stream impairment cited in the petition are timber harvest operations, agriculture, livestock grazing, recreational use, and development, each of which, the petitioners contend, leads to habitat degradation that threatens the survival of both species.

Timber Harvest and Related Activities Information Provided in the Petition

The petition states that the Palouse Ranger District of the Clearwater National Forest, home to the "largest site cluster" for both the straight and Idaho snowfly, has been heavily logged and disturbed by associated logging road construction from past timber harvest activities (Petition, p. 10). The petitioners also state that an ongoing U.S. Forest Service project (approved in 2006; Petition, p. 10) within the area, the Cherry Dinner project (U.S. Department of Agriculture (USDA) 2006, entire; USDA in litt. 2008, p. 6), is impacting both the Hog Meadow and Little Boulder Creek drainages, where both snowfly species were previously collected in the 1980s (Petition, pp. 31–33). The petitioners state that the Cherry Dinner project incorporates timber harvest activities, including 310 acres (ac) (126 hectares (ha)) of understory slashing and burning; logging of 2,210 ac (894 ha); construction of 8.1 and 1.5 miles (mi) (13 and 2.4 kilometers (km)) of permanent and temporary roads, respectively; and reconstruction of 9.4 mi (15 km) of existing roads (Petition, p. 10; USDA 2006, p. 66497). The petitioners did not state how the proposed action would specifically impair Hog Meadow and Little Boulder Creeks.

The petition refers to "another site" (which we assume means another site where one or both of the snowfly species had been documented in the past, although the petition does not clarify this point) located on a small patch of private land within the Clearwater National Forest near the confluence of Nat Brown Creek and the Potlatch River that has been heavily logged and degraded by logging road construction in the past with numerous railroad grades along the creeks (Petition, p. 11). According to the petition, most of these railroad grades

are now reported to be roads. More recently, the petition states considerable logging of National Forest land within the Potlatch watershed above this same site was approved in the West Fork Potlatch Timber Sale environmental impact statement (EIS) and Record of Decision (Petition, p. 11). Additionally, the petitioners state the Idaho Department of Lands (IDL) Fiscal Year 2010 Timber Sales Plan includes an auction of 500 ac (200 ha) in the same area as the West Fork Potlatch Timber Sale (IDL 2010, p. 22). Activities associated with this sale include harvesting mature timber using overstory removal, seed trees, and a clearcut of approximately 99 ac (40 ha), along with the construction of 2.5 mi (4.0 km) of spur road (IDL 2010, p. 22). As discussed further below, the petitioners contend that such forestry operations threaten the habitat suitability and long-term survival of the snowflies (Petition, p. 11).

The petition also asserts that the Upper Lochsa Land Exchange may threaten the two snowflies. This exchange is an agreement currently being considered by the U.S. Forest Service and Western Pacific Timber in the Potlatch watershed. In this agreement, 4,300 ac (1,740 ha) of National Forest land in Latah County would be exchanged for land elsewhere outside of the range of the straight and Idaho snowflies (USDA in litt. 2010a, p. 2; USDA in litt. 2010b). Four of the proposed exchange parcels are on National Forest lands along the Potlatch River, approximately 1 mi (1.6 km) downstream from a cluster of previous collection sites for both the straight and Idaho snowflies (Petition, p. 11). The petitioners state that if these parcels are removed from public ownership, timber harvest and real estate development are likely to occur. According to the petitioners, these activities would further compromise locations where these species were documented to occur in the Potlatch watershed (Moose Creek to Corral Creek; Petition, p. 11), which is already impaired and listed under section 303(d) of the Clean Water Act (33 U.S.C. 1251 *et seq.*) due to elevated temperature (Idaho Department of Environmental Quality (IDEQ) 2008, p. xix; Environmental Protection Agency (EPA) in litt. 2008, p. 3).

The petitioners assert that forestry-related activities are affecting aquatic habitat for the straight and Idaho snowflies by altering hydrological patterns, contributing increased sediment loads in streams, and influencing stream temperatures (Petition, p. 11). The petition states that logging roads increase the amount of

compacted or impervious surfaces, reduce water infiltration, and remove vegetation, thereby increasing surface water runoff to streams that leads to increased erosion, turbidity, and sedimentation (Petition, p. 12; Cederholm *et al.* 1980, p. vi). The petition alleges that logging roads alter aquatic habitat for the snowflies by increasing flooding, facilitating the delivery of contaminants to streams, altering the stream channel, and increasing invasive plant species (Petition, p. 12; Jones *et al.* 2000, p. 76; Gucinski *et al.* 2001, entire; Forman and Alexander 1999, pp. 216, 219–221).

The petition states that impaired water quality and habitat conditions have already been documented in the majority of the streams where these species occur. It further states that each of the streams within the species' ranges that were recently investigated by the IDEQ failed the multimetric assessment (known as the "Beneficial Use Reconnaissance Program" or BURP), based on biological and physical characteristics, indicating these creeks do not support their designated beneficial uses, including support of cold-water aquatic organisms (Petition, p. 10).

Evaluation of Information Provided in the Petition and Available in Service Files

The ongoing U.S. Forest Service Cherry Dinner project and associated timber harvest activities are specifically cited in the petition as threatening the habitat for the straight and Idaho snowflies, but the analysis provided in the petition and information available in our files regarding how the project will impact or affect these two species is very limited. Furthermore, while this project includes timber harvest and road construction activities, as cited in the petition, the petition does not make note of those measures included in the Cherry Dinner project that are aimed at reducing impacts to stream habitats. Some of these measures would directly address several of the alleged threats to the two snowflies as characterized by the petitioners (Petition, pp. 10–11). For example, one of the identified purposes and needs for the Cherry Dinner project is to "reduce long-term sedimentation to streams caused by existing unsurfaced roads, and to stabilize stream banks made unstable by motorized vehicles, cattle trailing, and channelization (historic railroad grades)" (USDA 2006, p. 66497). The project plan incorporates watershed improvements, including decommissioning 24.2 mi (39 km) of roads, putting 24.6 mi (40 km) of existing roads into intermittent stored

service (self-maintaining), and stabilizing 4.8 mi (7.7 km) of streambank along the East Fork Potlatch River and its tributaries (USDA 2006, p. 66497). The petition did not present any specific information, and we have no information available in our files, that suggests there is any link between this project and any population response on the part of either the straight snowfly or the Idaho snowfly.

Similarly, the petition alleges threats to the Potlatch watershed, in general, from increased activities related to industrial logging, real estate development, and road construction associated within the proposed Upper Lochsa Land Exchange (Petition, p. 11). However, the petition provides no specific information, and we have none available in our files, suggesting any link between those alleged threats and the status of the snowflies or their habitats. Other timber sales on National Forest and State lands are cited in the petition as occurring within the range of both snowflies, but analysis provided of potential effects is limited to a description of activities, and the personal communication cited as a reference in the petition to describe existing conditions from past timber harvest activities (Petition, p. 11) was not provided to the Service for our review, nor do we have any pertinent information available in our files.

The petitioners argue that impaired water quality and habitat conditions have already been documented in the majority of the streams where these species occur. However, we did not find that to be the case, based on the information presented in the petition and available in our files. As described in the petition (p. 7), the straight snowfly has been recorded from a total of 11 specific waterbodies in two watersheds and an unspecified number of additional general locations; the Idaho snowfly has been recorded from 4 specific waterbodies in two watersheds and some other unspecified number of general locales as well. Of these locations, it appears the IDEQ has assessed water quality standards in a total of five waterbodies where the species were documented: Big Bear Creek (straight snowfly), West Fork Little Bear Creek (straight snowfly), South Fork Palouse River (straight snowfly), Little Boulder Creek (both species), and the Potlatch River (both species) (IDEQ 2007, pp. xviii, 35; IDEQ 2008, pp. 52, 53).

The EPA is responsible for ensuring that Idaho complies with the Clean Water Act, and requires IDEQ to adopt water quality standards and submit those standards to the EPA every 3

years. Water quality standards address various beneficial uses designated, or presumed, for specific water bodies, and define the criteria needed to support those uses. The IDEQ must monitor State waters to identify those that do not meet water quality standards; impaired waters that do not meet the standards are included on the Clean Water Act's section 303(d) list (IDEQ 2008, p. 1). We acknowledge that many of the waterbodies sampled by IDEQ in the Potlatch River and South Fork Palouse River Watersheds, including some where one or both of the two snowfly species may have been collected in the past, were found to violate some aspect of Idaho's water quality standards. However, it is not clear whether the areas sampled for water quality directly correspond to the areas where snowfly presence was previously documented. For example, although both snowflies are documented from the "Potlatch River" (Petition, p. 7), the IDEQ provides reports for the "Potlatch River from Big Bear Creek to the mouth," for the "East Fork Potlatch River" and "West Fork Potlatch River," and then for various reaches within those rivers, all which may differ in their results (IDEQ 2008, p. 52). The Potlatch River from Big Bear Creek to the mouth passed the BURP multimetric assessment, and some reaches of the East Fork Potlatch River passed, whereas others failed (IDEQ 2008, p. 52). If a stream did not pass the assessment, it was because it was found that "biological characteristics do not support beneficial uses and the stream fails the assessment" (IDEQ 2008, p. 51). Uncertainty as to whether the reaches sampled by IDEQ are representative of areas where either of the two snowfly species has been documented makes it difficult to evaluate the potential implications of the IDEQ assessments to the two species.

The petition provides only broad references about the typically narrow environmental tolerances of stoneflies in general, but provides us with no data, and we have none available in our files, to inform us as to the specific habitat requirements of these two snowfly species, or to suggest what effect the present water quality conditions may have on either species. For example, with regard to water temperature, the petition states that "requirements for *Capnia lineata* and *C. zuckli* have not been specifically documented, but other lotic, cold water species in this family are known to require dissolved oxygen saturations of 80 to 100%, and typically inhabit streams, creeks, and rivers with mean temperatures below 16 °C"

(Petition, p. 8). Whether this generalized temperature requirement may apply to the straight and Idaho snowflies, however, is unknown. Information from the State of Idaho's watershed assessment reports, provided by the petitioners, suggests that the State considers water temperatures not exceeding a daily average of 66 °F (19 °C) as the standard for supporting cold-water aquatic life beneficial use (IDEQ 2007, p. 28). Although the petition states that stonefly larvae in particular have very narrow environmental requirements and are particularly vulnerable to impacts on water quality, such as changes in temperature, references provided in the petition also suggest that there is considerable variation in these requirements between species (Lillehammer *et al.* 1989, p. 179). As the water quality requirements of either the straight or Idaho snowflies is unknown, we have no information to allow us to determine how changes in various aspects of water quality may affect the species. In addition, as the last known collections or surveys for either species were in 1989, with no targeted collections or surveys since, we have no evidence to suggest that the abundance or distribution of either species has been curtailed. Therefore, we have no substantial information to suggest the compromised water quality noted at some locations in the IDEQ reports may be impacting either species to the degree that the species may potentially be threatened with extinction, now or within the foreseeable future.

Most of the information presented in the petition regarding timber harvest and associated activities is related to the generalized effects on streams and aquatic habitats, but the petition does not present information specific to the effects of these activities on either the straight snowfly or Idaho snowfly. Although stonefly species in general may potentially be affected by such activities, the petition does not provide information, and we have none available in our files, that indicates the degree to which the straight or Idaho snowflies may actually be exposed to the effects of these activities, or that allows us to quantify or evaluate the severity of any potential impact from these activities on the species.

Additionally, because there have been no known surveys for the two snowflies since the 1980s, we could find no current population size, distribution, or trend data in the petition or in our files that would enable us to determine whether any alleged impacts from timber harvest and associated activities, described as threats in the petition, may significantly affect the snowflies or their

habitats. As stated previously, we have no evidence to suggest that the abundance or distribution of either species has been curtailed. While we understand that past and present timber harvest and their related activities have likely affected aquatic habitats, we have no available substantial information, and the petition has presented none, to allow us to quantify or evaluate these threats to either species, or to suggest that timber harvest may be a threat of such significance as to potentially threaten the straight snowfly or the Idaho snowfly with extinction, now or within the foreseeable future.

Agriculture and Related Activities

Information Provided in the Petition

The petition states agriculture poses significant threats to the long-term survival of the straight and Idaho snowflies in the southwestern portions of their range (Petition, p. 12). Five creeks where the two snowflies were documented in the 1960s and early 1980s (Big Bear Creek, Little Bear Creek, West Fork Little Bear Creek, Palouse River, and South Fork Palouse River) are located directly below upland agriculture for the majority of their lengths (Petition, pp. 12, 31). The petition asserts the conversion of native hunchgrass prairie to predominately annual crops within the Potlatch River watershed has left the soil susceptible to wind and water (precipitation runoff) erosion, and resulted in increased overland surface flow and decreased infiltration of water into the soil (Petition, p. 12). According to the petition, this has caused high sediment loads in streams and altered the stream hydrograph, with high peak flows following precipitation events and extremely low base-flows in summer within the Potlatch River watershed (IDFG 2006, pp. 1–2). The petition states Big Bear Creek, Little Bear Creek, and West Fork Little Bear Creek, where the straight and Idaho snowflies were collected in the 1960s and early 1980s, are now characterized as having a low gradient with incised channels, limited riparian vegetation, small substrate composition, and altered hydrographs (IDFG 2006, p. 2).

The petition asserts chemical use related to agriculture, such as herbicides, pesticides, and fertilizers, negatively affects water chemistry within the southwestern range of the straight and Idaho snowflies, posing a serious threat to both species (Petition, p. 13). Triallate, a pre-emergent, selective, thiocarbamate herbicide was identified in the U.S. Geological Survey's National Water-Quality

Assessment's Central Columbia Plateau study as the most commonly used pesticide in the Palouse study subunit, a portion of which is within the range of both snowflies (Roberts and Wagner 1996, p. 1). Concentrations of triallate, along with three other pesticides, diazinon, carbaryl, and *gamma*-HCH, were also detected in the Palouse subunit at levels above the freshwater-chronic criteria for the protection of aquatic life (Roberts and Wagner 1996, p. 3). While triallate's toxicity to stoneflies is unknown, it is documented to be toxic to other aquatic insects (Kegley *et al.* in litt. 2009a, pp. 2–3). Trifluralin, an herbicide formulated with triallate was documented at lower concentrations in streams within the Palouse subunit, and has been cited as causing mortality in aquatic species including stoneflies (Petition, p. 13; Kegley *et al.* in litt. 2009d, entire; Stavola and Patterson 2004, entire). Additionally, the petitioners state that diazinon and carbaryl are highly toxic to stoneflies (Petition, p. 13; Kegley *et al.* in litt. 2009b, entire), and along with triallate and trifluralin, pose a serious threat to both the straight and Idaho snowflies (Petition, p. 13; Kegley *et al.* in litt. 2009a, pp. 2–3).

In addition to the use of pesticides, the petition states high application rates of ammonium-based nitrogen fertilizers within the Palouse River watershed pose additional concerns for the straight and Idaho snowflies (Petition, p. 13). If these fertilizers get into the water, the high ammonia concentrations and other nutrient inputs can lead to excess algae growth, can cause oxygen depletion due to the growth and decomposition cycle of algae, and can cause increased biochemical oxygen demand as ammonia is transformed to nitrate-nitrogen (Petition, pp. 13–14). The petition asserts a reduction in dissolved oxygen is deleterious to stoneflies, in general, and poses a significant threat to both snowfly species (Petition, p. 14). The petition did not, however, provide any evidence that high ammonia concentrations have been observed in waters where the two snowfly species have been documented.

Evaluation of Information Provided in the Petition and Available in Service Files

Based on information available in our files, the Service agrees that the Palouse Prairie ecosystem, which includes Latah County and the range of the straight and Idaho snowflies, has been heavily impacted by past agricultural activities, with 94 percent of the grasslands and 97 percent of the wetlands converted to crops, hay, or pasture since 1870 (Black

et al. 2003, p. 1). Between 1931 and 1979, the last significant area of native plant communities was plowed (Black *et al.* 2003, p. 7). Portions of the Potlatch River drainage are now subject to high water temperatures, high variability in flow, and altered riparian and upland habitats, conditions that have been present since European settlement when changes to land-uses altered the landscape and hydrology within the Potlatch River (IDFG 2006, p. 23). These conditions will likely remain constant until further human development or intense restoration efforts occur (IDFG 2006, p. 23). Since 1970, little change has occurred in the overall land area devoted to agriculture. However, certain highly erodible lands have been temporarily removed from crop production under the Federal Conservation Reserve Program, with 34,594 ac (14,000 ha) removed from agriculture production and planted primarily with introduced perennial grasses in Latah County alone (Black *et al.* 2003, p. 8).

While we agree the Palouse Prairie ecosystem and portions of the straight and Idaho snowflies' range have experienced a dramatic conversion of native habitat to agriculture over the last century, information linking any potential effects of agriculture to the status of the straight snowfly or Idaho snowfly is currently not available in the petition, supporting documentation, or our files. The petition provides general information regarding agricultural chemical use within the Palouse region and the potential effects on certain stoneflies and aquatic insects (Petition, pp. 13–14), but information is provided at the Palouse River watershed level and is not specific to known snowfly populations (Roberts and Wagner 1996, entire). The level of agricultural chemical use within the Potlatch River watershed at sites where both snowfly species have been documented (Petition, pp. 6–7) is also unknown, although the petition cites an Idaho State Department of Agriculture study in the Clearwater Basin that concluded, "all pesticide concentrations detected during this study were below any chronic or acute levels that may cause ill effects for aquatic species" (Petition, p. 13). It is unknown, from information in the petition or in our files, what effect current agricultural chemical use may be having on either snowfly species. Although some of the agricultural chemicals used in the region may have varying degrees of toxicity to stoneflies, we do not have any information to assist us in determining what level of exposure to these chemicals, if any, is

being experienced by the snowflies, and if exposed, what the potential consequence of that exposure may be. Consequently, we are unable to quantify or evaluate threats to the two snowfly species from agricultural chemical use, based on the information presented in the petition and available in our files.

Most of the information presented in the petition and assertions made regarding threats from agriculture and associated activities are related to the generalized effects on streams, aquatic habitats, and several other aquatic insects, including stoneflies, but are not specific to the straight or Idaho snowflies or the sites of their documented occurrence. Additionally, because there have been no known surveys for the straight or Idaho snowfly since 1989, we could find no current population size, distribution, or trend data in the petition or in our files that would enable us to determine whether the potential threats from agriculture and related activities as described in the petition may indeed be a threat to the species' existence. In addition, certain conservation programs, such as the Federal Conservation Reserve Program, have been recently implemented within the known distribution of both snowflies (Black *et al.* 2003, p. 8), and may be benefiting both species by reducing agriculture-related effects to streams where snowflies were collected. At present we have no evidence to suggest that the abundance or distribution of either species has been curtailed in any way. We therefore have no available substantial information, and the petition has presented none, to suggest that agriculture and related activities may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future.

Livestock Grazing

Information Provided in the Petition

Within the range of the straight and Idaho snowflies, the petition states that livestock grazing has degraded water quality and negatively impacted aquatic macroinvertebrate communities through trampling and consumption of riparian vegetation, downcutting the riparian buffer, defecating and urinating within the stream channel and banks, and increasing sedimentation through the removal of riparian vegetation and trampling to channel banks (Petition, p. 14). The petitioners generally assert that livestock grazing has been shown to result in the loss of biodiversity, disruption of biological communities,

and dramatic alteration of terrestrial and aquatic communities (Petition, p. 14).

The petitioners assert that livestock grazing-related impairment to water quality has occurred at most sites where the straight and Idaho snowflies were collected (Petition, p. 14). All known straight and Idaho snowfly collection sites on the Clearwater National Forest are within the currently active Potlatch Creek grazing allotment (Petition, pp. 14, 36; USDA in litt. 2007). This allotment utilizes a pasture rotation system and is active annually from June 8 through November 7 (USDA 2009a, p. 1). The petitioners state that the Potlatch River, within the Potlatch Creek allotment between Moose Creek and Corral Creek, where both snowfly species have been documented, fails to meet Idaho's water quality standards due to elevated temperature levels (Petition, p. 14; IDEQ 2008, p. xx; EPA in litt. 2008, p. 3). At a site where the straight snowfly was collected near the confluence of Nat Brown Creek and the Potlatch River, the petition asserts that impacts from livestock grazing are occurring in the Purdue and West Fork Potlatch-Moose Creek allotments on both National Forest and non-National Forest lands (Petition, p. 14). The Potlatch-Moose Creek allotment uses a three-pasture rotation grazing system that is active from June 1 through October 31 (USDA 2009b, p. 1). The petition also noted that cattle-degraded conditions have been documented by the U.S. Forest Service at Nat Brown Creek and this area is targeted for habitat restoration projects (USDA 2008, p. 24).

The petition states that livestock attraction to riparian areas is higher during the summer and fall (Clary and Webster 1989, p. 2; Leonard *et al.* 1997, p. 11). This timing coincides with the annual grazing season for allotments that contain streams with snowfly collection sites, which the petitioners claim further increases the potential for livestock to have serious, adverse effects on both snowfly species (Petition, p. 14). The petitioners cite a specific study of a mountain stream in Northeastern Oregon where significant reductions were documented in species richness and abundance of the Plecoptera taxa (stoneflies) in grazed versus ungrazed controls (McIver and McInnis 2007, p. 298). However, the petition did not provide supporting information on grazing effects specific to the straight or Idaho snowflies.

Evaluation of Information Provided in the Petition and Available in Service Files

The petition claimed that existing water quality and habitat conditions for the straight and Idaho snowflies are being impacted by ongoing grazing on National Forest and adjacent lands within the range of the two species, although it is unclear from the information provided in the petition or in our files what the actual level of impact from grazing may be. Although the Service acknowledges that grazing is occurring within the range of the two species and may adversely affect water quality to some degree, the petition did not provide any supporting information, and we have none available in our files, that demonstrate any relationship between grazing and the status of either the straight snowfly or the Idaho snowfly. Information in the petition or in our files is not sufficient to suggest that there may be any specific effects of livestock grazing on either snowfly species, as no information is presented regarding either the level of impact that may be occurring as a result of grazing, or evidence of any negative population response by either snowfly species.

While the information in the petition and in our files documents existing livestock grazing and water quality conditions within a portion of the straight and Idaho snowflies' known range, the information presented in the petition is restricted to the generalized effect of grazing on streams, aquatic habitats, or macroinvertebrate communities, but is not specific to the straight or Idaho snowflies. The petition does not provide information, and we have none available in our files, describing the level of impact that may potentially be occurring at straight or Idaho snowfly sites as a result of livestock grazing, therefore we have no data to verify or quantify this threat to either species. Although the petitioners indicated that grazing is occurring at some sites where the snowflies were documented in the past, and the U.S. Forest Service noted degraded riparian conditions at one location related to cattle, the petition provides no specific information as to the level of impact that may potentially be experienced by the snowflies as a result of grazing activities. Additionally, because there have been no known surveys for either the straight or Idaho snowfly since 1989, we could find no current population size, distribution, or trend data in the petition or in our files that would enable us to determine whether the potential threat from grazing as described in the petition may be a threat to the species'

existence. At present we have no evidence to suggest that the abundance or distribution of either species has been curtailed in any way. We have no available substantial information, and the petition presents none, to suggest that grazing may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future.

Recreation

Information Provided in the Petition

The petition asserts that recreation threatens habitat conditions and water quality requirements for the straight and Idaho snowflies on both State and Federal lands where they have been collected in the past (Petition, p. 15). According to the petition, the Palouse Ranger District is the most heavily visited district within the Clearwater National Forest, with three campgrounds and over 90 mi (145 km) of trails located in close proximity to the population centers of Moscow and Lewiston, Idaho (Petition, p. 15). Recreational activities on the Palouse Ranger District cited in the petition include hiking, biking, camping, fishing, and hunting, with increasing rates of off-highway vehicle (OHV) recreation, including cross-country travel and user-created trails (Petition, p. 15; USDA in litt. 2009, p. 1). Petitioner-cited OHV-specific effects on the Clearwater National Forest include vegetation loss, unsightly scars, soil erosion, and stream degradation (e.g., devegetation, destruction of fragile banks, and increased siltation; USDA in litt. 2009, p. 1).

Little Boulder Creek campground, a popular developed campground and recreation area, and the site of collections for both snowflies in 1985 (Petition, pp. 31, 33), is cited in the petition as having adversely affected habitat due to erosion from foot, bike, car, and OHV traffic; runoff of pollutants from roads and trails; introduction of bacteria and excess nutrients from dog waste; trampling of streamside vegetation by recreationists; and the construction and maintenance of stream crossings and culverts that can interrupt stream flow, generate additional sedimentation and siltation in waterways, and pose barriers to dispersal by the snowflies (Petition, pp. 15–16).

The Spring Valley Reservoir, which is managed by IDFG, is another recreation area cited by the petitioners as negatively affecting habitat suitability for both snowfly species. This reservoir and campsite is located just above

Spring Valley Creek, which is the site of two documented locations for both the straight and Idaho snowflies (Petition, p. 16). The petition asserts that reservoir operations aimed at increasing summer recreation opportunities have altered the natural hydrology of Spring Valley Creek below the reservoir. They claim that retaining spring run-off until fall, when it is released from the reservoir, affects habitat suitability for both snowfly species by increasing summer water temperatures in the creek (Petition, p. 16). According to the petition, riparian areas along the section of Spring Valley Creek below the reservoir are compromised by dam rip-rap and a road, which could further elevate water temperatures via loss of shading vegetation along the creek (Petition, p. 16).

Evaluation of Information Provided in the Petition and Available in Service Files

The petition states that the Palouse Ranger District is the most heavily visited district on the Clearwater National Forest; although the document that the petitioners cited supporting this claim was not provided to the Service for our review, we were unable to find it ourselves. Although we do not dispute that recreational use is occurring within the range of the two snowfly species, it is unclear from the petition or information available in our files what specific effects recreational use at the three campgrounds and over 90 mi (145 km) of trails cited by petitioners may be having on the two snowflies or their aquatic habitats. The petition offers a list of various impacts that could potentially be associated with recreational activities, but provides no evidence that such impacts are actually occurring, or that they are occurring at a level that may impact the two snowfly species. Although recreational use may have some effect on the snowflies or their habitats, we have no data to suggest or quantify these potential threats to the species. We have no available substantial information, and the petition provides none, to suggest that any possible effects from recreational usage of campgrounds or trails may rise to the level of threatening the continued existence of either the straight or Idaho snowfly.

The increase of OHV use on the Clearwater National Forest and the effects of that use on the landscape are specifically cited and supported in the petition (Petition, p. 15; USDA in litt. 2009, p. 1). However, the information provided is at the level of the entire National Forest, and does not identify the level of OHV use that is occurring

at sites where straight or Idaho snowflies have been documented. The petition provides no information, and we have none available in our files, to suggest that the abundance or distribution of either snowfly species has been curtailed within the Clearwater National Forest. The Clearwater National Forest is presently undertaking its Travel Plan and OHV Rule Implementation process under the National Travel Rule (70 FR 68264; November 9, 2005), with expected implementation sometime in 2011 (USDA in litt. 2010a, p. 3). The National Travel Rule requires National Forests to formally designate roads, trails, and areas where summer motorized travel is permitted and to show them on a Motor Vehicle Use Map (MVUM). Once the Clearwater National Forest Travel Plan is implemented, motorized travel will be permitted only on the roads, trails, and areas shown on the MVUM (USDA in litt. 2009, p. 1), and therefore OHV use will be better regulated and impacts should be reduced within the Clearwater National Forest. At present, however, the petition does not provide information, and we have none available in our files, to suggest that any possible effects from OHV use in the Clearwater National Forest may rise to the level of threatening the continued existence of either the straight or Idaho snowfly.

While the petition asserts that Little Boulder Creek campground negatively affects the straight and Idaho snowflies' aquatic habitat, the petition only summarizes campground conditions, demands, and associated recreational uses. We have no information available in our files, and the petition offers none, to suggest that activities associated with campgrounds may pose a significant threat to the existence of the two species. Without more specific information regarding how these campground conditions and associated activities may be directly impacting the two snowfly species or their aquatic habitat, we cannot evaluate the Little Boulder Creek campground as a threat to the straight or Idaho snowfly.

The petition claims that Spring Valley Creek reservoir operations alter the natural hydrology of Spring Valley Creek below the dam by retaining spring run-off until it is released from the reservoir in the fall. We agree that these reservoir operations may negatively affect Spring Valley Creek stream conditions below the dam's outflow, but we have no data that verify that the resulting stream conditions may be a threat to the two snowfly species. Although the petition states that warmer water temperatures in summer are likely

as a result of reservoir operations, the petition offers no data or support for this assertion, and provides no information as to the potential consequences for the two snowfly species. At present we have no evidence to suggest that the abundance or distribution of the two snowfly species has been curtailed in Spring Valley Creek. Information in the petition or in our files is not sufficient to suggest that there are any specific effects from reservoir operations on either snowfly species, as no information is presented to demonstrate any negative response by either snowfly population. We therefore do not have substantial information to suggest that any possible effects from operation of the Spring Valley Reservoir may rise to the level of threatening the continued existence of either the straight or Idaho snowfly.

Most of the information presented in the petition regarding recreation is general in nature regarding the effects on streams and aquatic habitats, and is not specific to the aquatic habitat for the straight or Idaho snowflies. Additionally, because there have been no known surveys for the straight or Idaho snowfly since 1989, we could find no current population size, distribution, or trend data in the petition or in our files that would enable us to determine whether the potential threat from recreation as described in the petition may be a threat to the species' existence. At this time we have no evidence to suggest that the abundance or distribution of either snowfly species has been curtailed in any way. We have no available substantial information, and the petition presents none, to suggest that recreation may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future.

Development

Information Provided in the Petition

The petition states that within the city limits of Moscow, Idaho, the continued survival of both species is doubtful due to habitat degradation of streams within the city limits (Petition, p. 16). Both the straight and Idaho snowflies were previously collected in Moscow, although specific stream locations were not identified. Moscow, along with the cities of Troy, Deary, and Bovill, are all within the range of the snowflies, and all four are cited as growing in human population (Petition, p. 16; Latah County Comprehensive Plan 2004, p. 9; U.S. Census Bureau in litt. 2009, entire). Each of these growing cities operates a Waste Water Treatment Plant (WWTP)

that discharges effluent to a river or tributary where one or both snowfly species have been previously collected (Petition, p. 16; IDEQ 2008, p. 55).

The petitioners state that the city of Troy's WWTP discharges into the West Fork Little Bear Creek (near a historical collection site for the straight snowfly), which is documented to have excessive plant growth due to nutrient overloading, elevated temperatures, and bacteria levels (Petition, pp. 16–17; IDEQ 2008, p. xxvi). The petitioners further state that this creek suffers from declining dissolved oxygen levels, presumably caused from effluent discharged from the city of Troy's WWTP (Petition, p. 17; IDEQ 2008, p. 75). The city of Deary discharges waste from a WWTP into Mount Deary Creek, a tributary to a Clean Water Act's section 303(d)-listed Big Bear Creek, where the straight snowfly was collected in 1967 (Petition, pp. 17, 31; IDEQ 2008, p. xxv). The city of Bovill releases effluent from a WWTP into the Potlatch River, also a Clean Water Act's section 303(d)-listed stream, just upstream from a "cluster of sites" where both snowfly species were collected (Petition, p. 17; IDEQ 2008, pp. xxiv–xxv). Within the Palouse River watershed, the Syringa Mobile Home Park is cited by the petitioners as discharging effluent into the South Fork Palouse River near one historical location for the straight snowfly (Petition, p. 17). This section of the South Fork Palouse River is cited by petitioners as not meeting water quality standards to fully support aquatic life due to elevated sediment, nutrients, temperature, and bacteria (Petition, p. 17; IDEQ 2007, p. xvii).

The petition states that roadways and other impervious surfaces have also affected the Palouse and Potlatch watersheds due to increasing sedimentation in streams from overland water flow and road maintenance activities (Petition, p. 17). The petition also implicates dispersing accumulated contaminants (such as brake dust, heavy metals, and organic pollutants) into streams as a threat to these two species (Petition, p. 17). Also, as previously mentioned, forest and smaller access roads are cited by petitioners as increasing the rate of erosion and sedimentation into streams (Petition, p. 17; Gucinski *et al.* 2001, pp. 12–15). Lastly, roads are cited as creating barriers to the movement of the straight and Idaho snowflies (Petition, p. 17); we evaluate those threats below under "Barriers to Dispersal."

The petitioners refer to the increasing use of anti-icing road salts within the range of the straight and Idaho snowflies

as having detrimental effects on aquatic organisms due to their toxicity and movement from roadways into nearby streams and rivers (Petition, p. 17; Idaho Transportation Department (ITD) in litt. 2004, entire; Kegley *et al.* in litt. 2009c, entire). Magnesium chloride ($MgCl_2$), the primary liquid de-icing agent used by ITD on Idaho State roadways (Petition, p. 17), has been cited by the petitioners as having lethal and sublethal effects on aquatic insects such as water fleas (*Daphnia* and *Ceriodaphnia* spp.; Kegley *et al.* 2009c, p. 4; Lewis 1999, pp. 28–33). In addition, the petitioners state that $MgCl_2$ has also been shown to affect riparian vegetation by stunting overall growth and decreasing leaf cover, making it problematic for stream temperatures to remain cool during late summer when stream flows are low, thereby affecting habitat requirements for the snowflies (Petition, p. 18).

Evaluation of Information Provided in the Petition and Available in Service Files

While streams within the city limits of Moscow, Idaho, may be degraded, information was not presented in the petition, and is not available in our files, to suggest the decline or absence of the straight or Idaho snowfly in those streams as a consequence. We acknowledge the WWTPs in the Idaho cities of Troy, Deary, and Bovill, along with the Syringa Mobile Home Park, discharge effluent into water quality-impaired streams with documented straight and Idaho snowfly collections. We also agree that sedimentation and contaminants from roadways, such as brake dust and $MgCl_2$, may negatively affect water quality and aquatic organisms within the range of the straight and Idaho snowflies. However, it is unclear from the information provided in the petition or in our files what level of impact, if any, the discharge of effluent or sedimentation and contaminants may have on the two species of snowflies. In addition, we could find no reliable population size or trend data for the two snowflies in the petition or in our files that would enable us to determine whether these activities may be threatening the species' existence, as the last known collections or surveys for either the straight or Idaho snowfly in these areas were conducted more than 20 years ago. We therefore have no substantial information available to us, and the petition presents none, to suggest that development may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly

with extinction, now or within the foreseeable future.

Barriers to Dispersal

Information Provided in the Petition

The petition asserts that roadways and currently impaired habitat conditions within the Potlatch River watershed, including elevated water temperature, sediment, and nutrient levels, may be limiting the snowflies' ability to colonize or re-colonize suitable habitat, therefore confining their known range to a smaller set of creeks than they historically occupied (Petition, p. 18).

Evaluation of Information Provided in the Petition and Available in Service Files

The information presented in the petition regarding barriers to dispersal is related to generalized effects of roadways and impaired habitat conditions on streams, aquatic habitats, and certain aquatic macroinvertebrates; the petition does not present any information specific to the straight or Idaho snowflies. Additionally, we could find no reliable population size or trend data in the petition or in our files for the two snowflies that would allow us to determine whether barriers to dispersal may threaten the snowflies' continued existence. The last known collections or surveys for either the straight or Idaho snowfly were in 1989, and we have no evidence to suggest that the abundance or distribution of either species has been curtailed in any way. We therefore have no substantial information available to us, and the petition presents none, to suggest that barriers to dispersal may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future.

Summary of Factor A

The petition presents a detailed account of various activities occurring within the range of the straight snowfly and Idaho snowfly that may have generalized negative impacts on environmental quality of aquatic habitats. However, the petition does not present any information that correlates the status of the two snowfly species with any of the threats cited. Further, the petition does not provide any data to suggest that either of the species have declined in abundance or suffered any reduction in range in response to any of the cited general threats. The species were last collected in the 1980s, and we are unaware of any attempts to survey for either species since that time. We could find no reliable population size,

distribution, or trend data for either the straight snowfly or Idaho snowfly in the petition or in our files that would lead us to conclude that the potential threats considered under Factor A may be a threat to the species' continued existence. In addition, as the total range occupied by straight and Idaho snowfly populations in Idaho has never been documented, no reduction in snowfly range can be determined. We found very little data, in the petition or in our files, directly related to the straight snowfly or Idaho snowfly indicating the extent of any impact to their populations.

In summary, we could find no information in the petition or in our files that would be sufficient to lead a reasonable person to conclude that the petitioned action may be warranted due to the present or threatened destruction, modification, or curtailment of the habitat or range of the straight snowfly or Idaho snowfly, as there is no information to suggest that either of these species may meet the definition of an endangered or threatened species under the Act. Overall, the petition's claims are not supported by the information available. Consequently, we conclude that the petition does not present substantial scientific or commercial information indicating that listing either the straight snowfly or Idaho snowfly may be warranted based on the present or threatened destruction, modification, or curtailment of its habitat or range.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Information Provided in the Petition

The petition does not present information, and we do not have any information in our files, suggesting that overutilization for commercial, recreational, scientific, or educational purposes may be a threat to either the straight snowfly or Idaho snowfly. Consequently, we conclude that the petition does not present substantial scientific or commercial information indicating that listing either the straight snowfly or Idaho snowfly may be warranted based on overutilization for commercial, recreational, scientific, or educational purposes.

C. Disease or Predation

Information Provided in the Petition

The petition does not identify disease or predation as a potential threat to either the straight snowfly or Idaho snowfly at this time. The petition does state that even though threats from disease or predation have never been assessed for these two species, the rarity

of these species and their confined ranges makes them more vulnerable to extinction as a result of normal population fluctuations resulting from disease or predation (Petition, p. 19). The petitioners did not offer any supporting documentation for these statements, but referred to their discussion under Factor E regarding the alleged rarity of the species.

Evaluation of Information Provided in the Petition and Available in Service Files

The petition asserts that since both snowfly species are rare and have confined ranges, they are more vulnerable to extinction as a result of normal population fluctuations resulting from predation or disease. However, in order to determine that there is substantial information that a species may be endangered or threatened, we have to determine that the species actually may be subject to specific significant threats. Although we agree that species with restricted ranges and small populations may be more vulnerable to potential threats, broad statements about generalized threats to rare species do not independently constitute substantial information that listing may be warranted. Moreover, as detailed in the section below on Small Population Size and Stochastic Events under Factor E, the limited survey data available are insufficient to determine whether these snowfly species are, in fact, rare. We could find no information in the petition or in our files suggesting any impact to either species from disease or predation, or in any way linking the status of the straight snowfly or Idaho snowfly to disease or predation. Consequently, we conclude that the petition does not present substantial scientific or commercial information indicating that listing either the straight snowfly or Idaho snowfly may be warranted based on disease or predation.

D. The Inadequacy of Existing Regulatory Mechanisms

Information Provided in the Petition

The petition asserts that the straight and Idaho snowflies currently receive no recognition or protection under Federal or State law. The petition also states that both species are considered critically imperiled by IDFG's Conservation Data Center (now called the Idaho Natural Heritage Program). In addition, the petition states that both species are considered species of concern by the U.S. Forest Service, but that this designation has not resulted in the species being taken into

consideration in the assessment of the environmental impacts of management actions (Petition, p. 19). While the petitioners claim that the straight and Idaho snowfly do not receive recognition or protection under Federal or State law, they do not identify any specific threats to either species, besides "land management activities within the Clearwater National Forest administrative boundary," as a result of this lack of recognition or protection for these species (Petition, p. 19).

Evaluation of Information Provided in the Petition and Available in Service Files

Both the straight and Idaho snowflies are classified as "critically imperiled" by the Idaho Conservation Data Center (IDFG 2005, pp. 582-584), although the reasoning for this designation is the "lack of essential information pertaining to status" and "no population trend data" (which is because neither species has been collected since 1989, nor, according to the petition, have any targeted surveys for these species been conducted since then): The recommended actions for both species cited in IDFG (2005, pp. 582-584) are "field surveys are needed to determine the distribution and habitat needs of this species." We were unable to find information in the petition, supporting documentation, or in our files that confirmed that both species are considered species of concern by the U.S. Forest Service (IDFG 2005, pp. 582-584). While they are considered species of concern in the draft Clearwater-Nez Perce National Forest Plan (USDA 2007, p. 4), this plan has not been finalized (USDA in litt, 2010a, p. 2).

Information in our files, but not mentioned in the petition, indicates that both species are considered Species of Greatest Conservation Need by the IDFG (IDFG 2005, pp. 582-584). This level of recognition by the State provides a common framework that enables conservation partners, including Federal, tribal agencies, and local government agencies, and private landowners, to jointly implement a long-term approach for the benefit of both snowfly species (IDFG 2005, p. v). Species of Greatest Conservation Need recognition also extends some level of consideration under State, Federal, and local government laws when project impacts are reviewed, such as for stormwater pollution prevention plans.

We found the petition to be correct in that there are no existing regulatory mechanisms for the straight snowfly or Idaho snowfly. We could not determine the existence of any threats the

snowflies may face, now or in the foreseeable future, that would indicate a need for protective regulatory mechanisms. Because minimal information exists concerning the population size, trends, habitat needs, and limiting factors for both snowfly species, we have no substantial information to suggest that the inadequacy of existing regulatory mechanisms may pose a threat to the continued existence of these species. In addition, as noted above in Factor B and in the petition (p. 18), the straight and Idaho snowflies are not considered a commercial species, and are not at risk of overcollection. We therefore have no data related to the straight snowfly or Idaho snowfly indicating any impact to either of these species due to the inadequacy of existing regulatory mechanisms so as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future. Consequently, we conclude that the petition does not present substantial scientific or commercial information indicating that listing either the straight snowfly or Idaho snowfly may be warranted based on the inadequacy of existing regulatory mechanisms.

E. Other Natural or Manmade Factors Affecting the Species' Continued Existence

The petition identifies two threat factors under Factor E: (1) Small population size and vulnerability to stochastic events, and (2) global climate change.

Small Population Size and Stochastic Events

Information Provided in the Petition

The petition describes the straight and Idaho snowflies as weak fliers, with a limited dispersal potential that is decreased even further by habitat disturbance (Petition, p. 19). According to the petition, the population size of each of the species is unknown, but presumably small, as no more than 89 individuals have ever been reported from a single site, and most collections had fewer individuals. The petition further states that smaller and fragmented populations are generally at greater risk of extinction due to predation, disease, and changing food supply, as well as from natural disasters such as floods or droughts. Further, the loss of genetic variability and reduced fitness due to inbreeding is also a concern for small populations (Petition, p. 19).

Evaluation of Information Provided in the Petition and Available in Service Files

The petitioners assert that the straight and Idaho snowflies consist of small, isolated populations with restricted distributions, and this condition, in conjunction with other threats to the species, places them in imminent danger of extinction (Petition, p. 1). According to the petition, the straight snowfly was last surveyed in 1989, and the Idaho snowfly was last surveyed in 1985. Therefore, these surveys occurred more than 20 years ago. The petitioners presume that population sizes for the species are small, based on the maximum number of individuals historically collected from a single site (Petition, p. 7). We do not agree with the petitioners that the number of individuals in past collections is in any way reflective of total population size (Petition, p. 7). The number of individuals collected at any one time in the past would have been dependent upon the methods and purpose of that particular collection attempt, and cannot be assumed to be indicative of total population size. There are not sufficient data to reasonably estimate the size of populations of either of the two snowfly species, either historically or at the present time. In addition, it is not clear from the information provided in the petition or available in our files whether the currently recognized range of either species has been established through past targeted search efforts or from incidental collections. According to the information provided in the petition, no systematic surveys have been conducted for either of the snowfly species in recent years (Petition, p. 7), and we have no additional information available to us. We therefore do not have sufficient information to suggest that the rangewide distribution, either historical or current, of either species is known.

We recognize the inherent vulnerabilities of species with small populations and restricted geographic ranges, and agree with the petitioners that small populations are generally at greater risk of extinction from deterministic threats or stochastic processes than large populations. However, we do not consider a small population or naturally restricted distribution alone to be a threat to species; rather, these factors can be a vulnerability that may render the species more susceptible to other threats, if they are present. Even if we assume that the populations of the straight snowfly and Idaho snowfly are small and restricted in range, based on

the best available information, we have no indication that other natural or anthropogenic factors are likely to significantly threaten the existence of these species. And again, at this point in time, we have no evidence to suggest that the population abundance or distribution of either species has been curtailed in any way.

In order to determine that there is substantial information that a species may be endangered or threatened, we have to determine that the species may actually be subject to specific significant threats; broad statements about generalized threats to rare species do not independently constitute substantial information that listing may be warranted. The petition does not provide, nor do we have in our files, information specific to the vulnerability of the straight or Idaho snowfly to stochastic events either now or in the foreseeable future. Furthermore, known collection surveys for both snowflies were last conducted more than 20 years ago, so the current distribution and population size of the straight or Idaho snowflies are unknown. The petition presents no information, and we have none available in our files, to suggest that the populations of either the straight snowfly or the Idaho snowfly are unnaturally small or fragmented. Consequently, in the absence of current distribution and population information, as well as the lack of information identifying specific threats to the species and linking those threats to the rarity of the species, we do not consider small population sizes and stochastic events alone to be threats for these species. We have no available substantial information, and the petition presents none, to suggest that small population size and stochastic events may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future.

Global Climate Change

Information Provided in the Petition

The petition asserts that global climate change is a threat to the straight and Idaho snowflies. According to the petition, a temperature rise since the 1950s has shifted snowmelt more than 20 days earlier in the Latah County area, and has decreased snow pack 30 to 45 percent in the headwaters of the Potlatch River. The petition also reports that studies predict that snow packs will be reduced by up to 60 percent in some regions of the West, which, in turn, is expected to reduce summertime flows

in the next 50 years by 20 to 50 percent (Petition, pp. 19–20).

According to the petition, the snowfly life cycle, in contrast to many aquatic organisms, is more constrained by warm than cold water temperatures (Petition, p. 20). The petition asserts that the effects of climate change on the nymph stage could include: (1) Nymphs remaining in diapause longer to avoid warm stream temperatures, reducing their period of active feeding and growth; and (2) nymphs exiting diapause into water temperatures that are too warm for their survival (Petition, p. 20). However, the petition does not provide any support for these statements. Citing one study of two stonefly species in the genus *AlloCapnia*, the petition claims that remaining in diapause longer to escape warmer weather conditions may not provide refugia for nymphs because study results indicate that increased depth in the hyporheic zone did not result in decreased temperatures (Petition, p. 20; McNutt 2003, p. 43). Two studies cited by petitioners showed that: (1) Species-specific stream temperature ranges for stonefly egg and nymph development have been documented in a study of Fennoscandian species (Petition, p. 20; Lillehammer *et al.* 1989, entire); and (2) another *Capnia* species (*Capnia bifrons*) failed to survive or have successful egg and nymph development above certain water temperature limits (Petition, p. 20; Elliot 1986, entire).

The petition states that the adult stonefly stage is also expected to suffer as a result of a warming climate due to: (1) Untimely emergence of adults that are not appropriate for mating and egg maturation; and (2) impaired stonefly physiological conditions resulting in reduced fertility and fecundity (Petition, p. 20). The petition claims that intensifying climatic shifts in this region pose serious threats to the straight and Idaho snowflies, largely via reductions in the availability and suitability of their thermal habitat (Petition, p. 20).

Evaluation of Information Provided in the Petition and Available in Service Files

It is possible that climate change could pose a threat to the straight snowfly or Idaho snowfly if water levels, water temperature, or other habitat variables that affect the snowflies change significantly within the foreseeable future as a result. However, the petition has presented no information, and we have none available in our files, specific to the level of water flow or the thermal environment required by either the

straight snowfly or the Idaho snowfly. The petitioners cite to the studies of Lillehammer *et al.* (1989, entire) and Elliot (1986, entire) in support of documentation of species-specific temperature ranges for successful stonefly egg and nymph development. However, these studies provide no information specific to either the straight snowfly or Idaho snowfly. Although stoneflies in general are considered cool-water species, the study of Lillehammer *et al.* (1989, p. 179) concludes that "the characteristics of egg development in the Plecoptera, especially with respect to water temperature, show considerable variation." Based on this observed variation, it is likely not appropriate to use other stonefly species as surrogates to inform us as to the specific habitat requirements of the straight snowfly or Idaho snowfly. The temperature range for successful egg and nymph development for the straight and Idaho snowflies is therefore unknown, as are temperatures tolerated by adults of either species.

There are currently no models available that predict potential climate change effects at a localized scale sufficient to ascertain the likely magnitude of water temperature changes that might be experienced within the range of the straight snowfly or Idaho snowfly. Because what may constitute suitable thermal habitat for the species is also unknown, it is not possible to determine whether the effects of climate change may become a significant threat to these species.

The information presented in the petition regarding climate change is related to generalized effects on water flow and temperature; the petition does not present any information specific to the straight or Idaho snowflies or their habitat. The petition provides no specific information, and we have none available in our files, to support the statement that reductions in the availability or suitability of thermal habitat for the two snowflies may occur as a result of climate change, and if so, pose a serious threat. The petition presents no information, and we have none available in our files, describing the habitat requirements of either the straight snowfly or the Idaho snowfly. Given the lack of current population and abundance information for either species, coupled with the limited ability of current models to ascertain whether climate change may be, or may become, a threat to these species, the petition fails to present substantial information to suggest that the straight snowfly or Idaho snowfly may be threatened with extinction due to global climate change.

We have no available substantial information, and the petition presents none, to suggest that global climate change may be a threat of such significance as to potentially threaten the straight snowfly or Idaho snowfly with extinction, now or within the foreseeable future.

Summary of Factor E

The petition claims the populations of the straight snowfly and Idaho snowfly are small and fragmented, and consequently at risk of extinction from stochastic events. However, based on the information presented in the petition and in our files, the population sizes, both historical and current, for the straight snowfly and the Idaho snowfly are unknown. As there have been no surveys or collections of either species since the 1980s, there is no evidence to suggest that the distribution of either species has changed. In addition, although the petition presumes that the populations of both species are small and fragmented, there is no evidence to support this assertion.

Even if populations of the straight snowfly and Idaho snowfly were assumed to be small, we do not consider small population size, in and of itself, to constitute a threat. We agree that small population size may render a species more vulnerable to threats, if threats are present. However, in the case of the straight snowfly and Idaho snowfly, we have no indication that other factors may pose a significant threat to the existence of either species. Because we lack information identifying specific threats to the species and linking those threats to the rarity of the species, we conclude that there is no substantial information to suggest that small population size and stochastic events may be a threat.

The petition additionally proposes that global climate change poses a serious threat to the two snowflies, primarily due to reductions in the availability and suitability of their thermal habitat. However the petition presents no information, and we have none available in our files, describing the specific habitat requirements of either the straight snowfly or the Idaho snowfly. In addition, there are currently no models available that predict potential climate change effects at a localized scale sufficient to ascertain the likely magnitude of temperature changes that might be experienced within the range of the straight snowfly or Idaho snowfly. The petition provides no specific information, and we have none available in our files, to support the statement that reductions in the availability or suitability of thermal

habitat for the two snowflies as a result of climate change pose a serious threat.

In summary, we could find no information in the petition or in our files that would be sufficient to lead a reasonable person to conclude the petitioned action may be warranted due to small population size or global climate change. The petition's claims are not supported by the information available. Consequently, we conclude that the petition does not present substantial scientific or commercial information indicating that listing either the straight snowfly or Idaho snowfly may be warranted based on other natural or manmade factors affecting the existence of the species, now or in the foreseeable future.

Finding

In evaluating a petition under the Act, the Secretary must make a finding as to whether the petition "presents substantial scientific or commercial information indicating that the petitioned action may be warranted." Furthermore, as stated earlier, our regulatory standard for substantial information is "that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted" (50 CFR 424.14(b)(1)). Therefore, in evaluating the petition to list the straight snowfly or Idaho snowfly as endangered or threatened under the Act, we must determine whether the petition presents substantial information indicating that the threats acting on the species may be so significant that the species may consequently be in danger of extinction at the present time (endangered), or likely to become so within the foreseeable future (threatened).

All species face some level of threat. In order to determine that there is substantial information that the species may be in danger of extinction now or in the foreseeable future, the available information must go beyond the identification of presumptive threats and should reasonably suggest that there are operative threats acting on the species to the point that it may warrant protection under the Act. The Service's Endangered Species Petition Management and Guidance (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1996, p. 8) states "Petition findings need to be rooted in the here-and-now of a species' current status and whatever trends can be confidently discerned." Information regarding the range, distribution, population size, and status of the two snowflies is dated (more than 20 years old) and very limited, which prevents

any reasonable assessment of current or historical distribution, population size, or trends. In addition, the petitioners do not provide information, and we have none available in our files, indicating that the range or abundance of the snowflies has been curtailed.

Although the petition provides an inventory of various activities or elements that may pose potential threats to the straight snowfly or the Idaho snowfly, as data on their current population distribution, abundance, and trend are completely lacking, and there is no evidence that either species has suffered any population decline or reduction in range, the petitioners' conclusion that both species "are in imminent danger of extinction" (Petition, p. 5) appears to be purely speculative. We have limited or no data on the actual exposure of the straight snowfly or Idaho snowfly to the purported threats, or whether that exposure, should it occur, would cause a negative population response, let alone result in the present or threatened endangerment of the species. All available threat information presented is generalized in nature, and both the NatureServe accounts and the IDFG Comprehensive Wildlife Conservation Strategy concede that "specific threats to Idaho populations have not been identified" (IDFG 2005, pp. 592-584; NatureServe 2010a, p. 2; NatureServe 2010b, p. 1). While we may agree with the petition's description of impaired aquatic habitat conditions within the range of these two species, we simply have no information to link the effect of these conditions with the snowfly populations. Therefore the petition lacks substantial information to indicate the threats listed in the petition are significantly impacting the straight snowfly or Idaho snowfly or threatening their continued existence. Based on the information presented in the petition and available in our files, we have no evidence to suggest that threats may be acting on either the straight snowfly or the Idaho snowfly such that either species may currently be in danger of extinction or likely to become so within the foreseeable future. Therefore, we conclude that a reasonable person would not believe that the measure proposed in the petition may be warranted.

On the basis of our determination under section 4(b)(3)(A) of the Act, we find the petition does not present substantial scientific or commercial information to indicate that listing either the straight snowfly or Idaho snowfly as endangered or threatened under the Act is warranted at this time. Although we will not review the status

of these species at this time, we encourage interested parties to continue to gather data that will assist with the conservation of the straight snowfly and Idaho snowfly. If you wish to provide information regarding the straight snowfly or Idaho snowfly you may submit your information or materials to the State Supervisor, Idaho Fish and Wildlife Office (see ADDRESSES), at any time.

References Cited

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Idaho Fish and Wildlife Office (see ADDRESSES).

Authors

The primary authors of this notice are the staff members of the Idaho Fish and Wildlife Office (see ADDRESSES).

Authority

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: July 21, 2011.

Gregory E. Siekaniec,
Acting Director, U.S. Fish and Wildlife Service.

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BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R2-ES-2011-0047; MO 92210-0-0008-B2]

Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List the Redrock Stonefly as Endangered or Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the Redrock stonefly (*Anacroneuria wipukupa*) as endangered or threatened and to designate critical habitat under the Endangered Species Act of 1973, as amended. After review of all available scientific and commercial information, we find that listing the Redrock stonefly is not warranted at this time. However, we ask the public to submit to us any new information that becomes available

concerning the threats to the Redrock stonefly or its habitat at any time.

DATES: The finding announced in this document was made on August 2, 2011.

ADDRESSES: This finding is available on the Internet at <http://www.regulations.gov> at Docket Number FWS-R2-ES-2011-0047. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Arizona Ecological Services Office, 2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021. Please submit any new information, materials, comments, or questions concerning this finding to the above street address.

FOR FURTHER INFORMATION CONTACT:

Steve Spangle, Field Supervisor, Arizona Ecological Services Office (see ADDRESSES); by telephone at 602-242-0210; or by facsimile at 602-242-2534. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), requires that, for any petition to revise the Federal Lists of Threatened and Endangered Wildlife and Plants that contains substantial scientific or commercial information that listing the species may be warranted, we make a finding within 12 months of the date of receipt of the petition. In this finding, we will determine that the petitioned action is: (1) Not warranted, (2) warranted, or (3) warranted, but the immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Section 4(b)(3)(C) of the Act requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring a subsequent finding to be made within 12 months. We must publish these 12-month findings in the **Federal Register**.

Previous Federal Actions

On June 25, 2007, we received a formal petition dated June 18, 2007, from WildEarth Guardians requesting that we list the Redrock stonefly as either endangered or threatened and

that critical habitat be designated under the Act. This species was part of a petition to list 475 species in the southwestern United States. WildEarth Guardians incorporated all analyses, references, and documentation provided by NatureServe in its online database at <http://www.natureserve.org> into the petition. This included information produced by the Natural Heritage Network, particularly the Heritage Data Management System compiled by the Arizona Game and Fish Department (AGFD) (AGFD 2004, pp. 1–3).

Relative to the Redrock stonefly, the petition provided information on the species' current distribution, indicating it was limited to Oak Creek, Yavapai County, Arizona. The remaining information was general in nature describing factors that influence the entire stonefly order. The petition clearly identified itself as a petition and included the identification information required at 50 CFR 424.14(a). We sent a letter to the petitioners dated July 11, 2007, acknowledging receipt of the petition and stating that the petition was under review. The 90-day finding was published in the **Federal Register** on December 16, 2009 (74 FR 66866). This notice constitutes the 12-month finding on the June 18, 2007, petition to list the Redrock stonefly as endangered or threatened.

Species Information

Taxonomy and Species Description

The Redrock stonefly is an aquatic insect in the Family Perlidae and the Order Plecoptera. Immature stoneflies, or nymphs, are aquatic and generally live in cold-water streams. The nymphs have external gills, which may be present on almost any part of the body. Nymphs appear very similar to adults but lack wings (Stewart and Harper 1996, p. 218). Most stonefly nymphs are herbivorous, feeding on submerged leaves and algae, but other stonefly species are predaceous and feed on other aquatic macroinvertebrates (Stewart and Harper 1996, p. 217). Stoneflies remain in nymph form for 1 to 3 years, depending on species, before emerging and becoming terrestrial adults (Bouchard 2004, p. 77). Adult stoneflies generally only survive for a few weeks, and emerge only during specific times of the year. Some adult stoneflies do not feed at all, but those that do are herbivorous.

The family Perlidae includes relatively large, predaceous stoneflies. They have external gills found on three thoracic (middle body) segments (Bouchard 2004, p. 85). The *Anacroneturia* genus is the largest genus

in the Perlidae family, primarily occurring in the Neotropical regions of Central and South America (Jewitt 1958, p. 159; Bispo and Froehlich 2004, p. 191). There are 231 described and 19 undescribed species within this genus occurring from the southernmost United States to South America (DeWalt *et al.* 2010, p. 1). The genus *Anacroneturia* expanded northward into Central America, Texas, and Arizona about 4 million years ago after the formation of the Isthmus of Panama, during the Pliocene Period (Fochetti and Tierno de Figueroa 2008, p. 374).

Anacroneturia was confirmed to exist in the United States when Redrock stonefly was described from Yavapai County, Arizona (Baumann and Olson 1984, pp. 489–492). *Anacroneturia* nymphs (immature stages) were first collected in Oak Creek at Page Springs in 1975, and the first adults were collected from Oak Creek at Redrock Crossing in 1978 (Baumann and Olson 1984, p. 489).

The Redrock stonefly is a large-winged stonefly. Adult male body lengths range between 0.4 to 0.5 inches (in) (10 to 12 millimeters (mm)), and female body lengths are 0.6 in (15 mm). Overall coloration is the same between genders: yellow head, brown and yellow body with bands bordering the midline. Redrock stonefly legs are covered with small brown spines on the upper surface, and the abdomen has many small spinules on the edges (Baumann and Olson 1984, pp. 489–492). Stewart and Harper (1996, pp. 231, 255, 258) provide morphological characters to separate *Anacroneturia* adults and nymphs from other Perlidae genera. *Anacroneturia* adults and nymphs are distinguished from all other southwestern Perlidae for having two ocelli (simple eyes) on top of their head rather than three. The only other western Perlidae genus with two ocelli is *Neoperla*, but it is not found in Arizona (Stewart and Stark 2002, p. 350).

Ecology

Baumann and Olson (1984, pp. 489–492) is the only published paper describing the Redrock stonefly. This paper does not provide any specific habitat or ecology information on this species. However, the following ecological information is available from published reports on other *Anacroneturia* species. We presume that the information generally applies to Redrock stonefly.

At early ages and small sizes, *Anacroneturia* nymphs are primarily detritivorous, meaning they feed on decayed leaves, algae, and other organic

matter. Older larger nymphs are predaceous, feeding entirely on other aquatic insects including Dipteran (true fly) larvae and Ephemeropteran (mayfly) nymphs, and other smaller stonefly nymphs. North American Perlidae stonefly nymphs, in addition to foraging in riffle (shallow, flowing water) habitats, often forage within leaf packs (Femenella and Stewart 1986, pp. 535–536). Neotropical *Anacroneturia* nymphs forage in leaf litter as predators (Baptista *et al.* 2001, p. 251; Wantzen and Wagner 2006, p. 220); we assume that leaf litter provides an important foraging habitat for Redrock stonefly nymphs. Leaf litter availability varies in southwestern U.S. streams (Schade and Fisher 1997, p. 612). Leaf litter can accumulate behind large rocks, behind logs, along the stream margins where the current is slower, and behind other obstructions in high-gradient streams (Hoover *et al.* 2006, pp. 443–444). Intense local thunderstorms generate severe flash floods, which may reduce leaf litter availability for that season (Schade and Fisher 1997, pp. 612, 624). Predaceous stoneflies, including the Redrock stonefly, must then be able to forage in riffle areas outside of leaf litter when it is not available in their habitat. Adult *Anacroneturia* do not eat; they apparently rely on the predaceous diet of their late nymphal stages for reproductive organ and egg development (Fenoglio 2003, pp. 2, 16).

Neotropical *Anacroneturia* have a multivoltine life cycle (more than one life cycle, from egg to adult, occurs during a year) (Jackson and Sweeney 1995, p. 122). Because multivoltine life cycles are unknown in stoneflies from temperate climates (United States and Canada) (Brittain 1990, p. 4), we anticipate that the Redrock stonefly would have a univoltine life cycle (only one life cycle from egg to adult per year).

Stoneflies use egg or nymphal diapause (a period of suspended growth or development) during harsh summer conditions to allow them to survive seasonally poor water conditions and low stream flows (Snellen and Stewart 1979, p. 663; Brittain 1990, p. 8; Favret and DeWalt 2002, p. 37). During summer diapause, stonefly eggs or nymphs suspend development and remain buried in the moist stream bottom sediment until optimal growth conditions return. Stoneflies, including Perlidae, also use this summer diapause to survive in intermittent streams (streams that only flow as a response to snowmelt or rain storm runoff and have insufficient groundwater contribution to provide surface flow during the summer) (Snellen and Stewart 1979, p.

1; Feminella 1996, p. 659; Miller and Golladay 1996, p. 685). The Redrock stonefly may be expected to use diapauses during dry periods when water conditions and quantity are low.

Aquatic macroinvertebrates drift, or move downstream in their habitats, under different circumstances. Catastrophic drift occurs when large flood events carry macroinvertebrates downstream (Brittain and Eikland 1988, pp. 82–83). All aquatic macroinvertebrates are likely to experience this drift event if they are unable to find suitable protection during a flood event. This may also include drift from substrate disturbance from other means such as hikers, livestock, or vehicles moving across the stream. Aquatic macroinvertebrates may behaviorally drift to colonize new habitats to reduce competition for food and space (Brittain and Eikland 1988, p. 84). Predator-induced drift may occur when they are disturbed by a foraging predator and escape by allowing the water current to carry them away (Malmqvist and Sjöström 1987, p. 402). Intentional drifting, as in behaviorally or predator-induced cases, is only practiced by those macroinvertebrates that are capable swimmers (such as Baetid and Amelitid mayflies) and can control when, where, and how far they drift (Malmqvist and Sjöström 1987, p. 402). Drifting insects are very susceptible to fish predation; they are out in the open water column where they are easily seen. Intentional drift often occurs at night to avoid fish predation (Flecker 1992, p. 438). Aquatic macroinvertebrates that are poor swimmers, such as predaceous stoneflies, are less likely to purposely drift because they would be susceptible to fish predation (Radar and McArthur 1995, p. 8). However, in some cases, predaceous stoneflies may drift when suitable foraging sites are separated by areas, such as sand-bottom streams, with little hiding cover to crawl across. Large crawling stoneflies, like the Redrock stonefly, are also susceptible to fish predation where there is little cover. In contrast, areas of continuous cover, such as cobble-bed streams, provide protection from fish predation when stoneflies move from one area to another (Radar and McArthur 1995, p. 1). The known Redrock stonefly sites are continuous cobble-bedded streams, which reduces the need to drift to new areas.

Distribution

The Redrock stonefly is known to only occur in Arizona, and it was initially described from specimens collected at two sites: Redrock Crossing

at Red Rock State Park and Page Springs on Oak Creek, Yavapai County, Arizona (Baumann and Olson 1984, p. 492; AGFD 2004, p. 1). Additional stonefly surveys were conducted to determine the Redrock stonefly's current status and distribution (Service 2010a, p. 1). During surveys in May and June 2010, adult Redrock stoneflies were found at the Page Spring Fish Hatchery on Oak Creek and Wet Beaver Creek, and near an Arizona Department of Environmental Quality (ADEQ) Bear Flats sampling site on Tonto Creek (Service 2010, p. 1). Surveys on West Clear Creek, east of Camp Verde in Yavapai County, did not identify any Redrock stoneflies. Identification of adult specimens was confirmed by stonefly experts (Kondratieff pers. comm. 2010, p. 1; Baumann pers. comm. 2010, p. 1; Stark pers. comm. 2010, p. 1).

The ADEQ had previously collected *Anacroneria* nymphs during water quality monitoring on Campbell Blue Creek in Apache County in 2000; four sites on Upper Tonto Creek in Gila County from 1995 to 2008; Spring Creek in Gila County in 1998; and Wet Beaver Creek (upstream of the Service's survey location) in 1995 (Spindler 2010a, p. 1). Species identification was not possible because only *Anacroneria* nymphs were collected. However, because there are no other stonefly species in that genus known from Arizona, we presume these nymphs represent collections of Redrock stonefly.

In total, we now believe the Redrock stonefly occupies at least 10 sites within five different streams in central Arizona. As a result the only known change in distribution of the species is the increase from 2 sites, from which it was initially described, to 10 sites where additional surveys found it. The increased range is a result of increased survey efforts. We suspect that if additional survey efforts were employed for this species, its known range and number of occurrences would likely expand as well. This is because the adult flying form of the Redrock stonefly has the ability to easily disperse into available habitats, and there are numerous other habitats in this region of Arizona that would appear suitable to support Redrock stoneflies. The species does not appear to be a habitat specialist, and so we would expect to find it in other similar stream habitats if more survey efforts were undertaken.

The current sites where the Redrock stonefly occurs span about 180 miles (mi) (288 kilometers (km)) east to west across the Central Highlands Physiographic Region in Arizona and include the Verde and Salt Rivers and

Tonto Creek headwaters. Because of the high elevations and associated higher rainfall and snowfall, these watersheds contain the highest concentration of perennial streams (water present throughout the year) in Arizona (Arizona Department of Water Resources (ADWR) 2009a, p. 4). The Redrock stonefly may also occupy other un-surveyed water bodies (for example, East Verde River, Dude and Canyon Creeks, and numerous sites on the White Mountain Apache Indian Reservation) located in this physiographic region. The Redrock stonefly sites or their watersheds are found on the Coconino, Tonto, and Apache-Sitgreaves National Forests. Descriptions of occupied areas on each National Forest are provided below.

To date, the Redrock stonefly has been found only in perennial streams. All sites are in moderate gradient (approximately 2 percent slope), cobble-bedded streams, with overhanging streambank vegetation including willow (*Salix sp.*), velvet ash (*Fraxinus velutina*), Arizona alder (*Alnus oblongifolia*), and blackberry (*Rubus sp.*) (Service 2010a, p. 1).

There is substantial variation in the stream size, elevation, and water temperature in areas occupied by the Redrock stonefly, making this species more of a generalist than most other stonefly species (Brittain 1990, p. 2). Stream sizes range from Campbell Blue Creek (47 square-mi (122 square-km) watershed and 160 cubic-feet-per-second (cfs) (4.5 cubic-meters-per-second (cms)) bankfull channel discharge) to Oak Creek at Page Springs (355 square-mi (919 square-km) watershed and 1,400 cfs (39.6 cms) bankfull channel discharge). Bankfull channel discharge relates to the relative frequent flow (occurs 2 out of every 3 years) that fills the river channel to the point of inundating the floodplain (Rosgen 1996, p. 2–2). Elevations at Redrock stonefly sites range from 3,460 feet (ft) (1,055 meters (m)) on Oak Creek below Page Springs to 6,670 ft (2,033 m) on Campbell Blue Creek. Adjacent upland vegetation ranges from mixed paloverde and cactus desert (Oak Creek at Page Springs) to ponderosa pine (*Pinus ponderosa*) and mixed conifer (Campbell Blue Creek). The majority of sites are located between 3,900 and 5,100 ft (1,190 and 1,555 m) in elevation. Seven of the 10 Redrock stonefly sites are considered warm-water streams (streams located below 5,000 ft (1,524 m) elevation): Oak Creek (two sites), Wet Beaver Creek (two sites), Spring Creek, and the two lower Tonto Creek sites (Spindler 2010c, p. 1). The remaining three sites (streams above

5,000 ft (1,524 m)), Campbell Blue Creek and the two higher Tonto Creek sites, are considered cold-water streams.

Coconino National Forest

Oak Creek is a perennial stream in Coconino and Yavapai Counties in central Arizona. Average annual precipitation in Oak Creek Canyon is 28 in (71 cm) (ADWR 2009a, p. 247). Its two main tributaries are the West Fork of Oak Creek and Pumphouse Wash on the Coconino National Forest. Oak Creek base flow is maintained by springs at Indian Gardens, by Page Springs, and from its Spring Creek tributary. Oak Creek, upstream and downstream of the Redrock stonefly sites, flows through Coconino National Forest, private lands, and State-owned lands. Redrock Crossing, the farthest upstream Redrock stonefly site in Redrock State Park, is located approximately 4.7 river miles (7.6 km) downstream from the city of Sedona. The Page Spring site, at the Page Springs Fish Hatchery which is owned and operated by the AGFD, is approximately 18.7 river miles (30 km) downstream of Sedona.

Wet Beaver Creek is located east of Interstate Highway 17 and north of the city of Camp Verde in Yavapai County, Arizona. It is a tributary to Beaver Creek, which eventually flows into the Verde River at Camp Verde. The Redrock stonefly was collected at two sites on Wet Beaver Creek. The ADEQ collected nymphs upstream of the U.S. Geological Survey (USGS) stream gage and adults were also collected at the Beaver Creek Ranch (Service 10a, p. 1). Both sites are located on the National Forest; the downstream site is adjacent to private land.

Tonto National Forest

Tonto Creek originates on the edge of the Mogollon Rim at about 7,600 ft (2,300 m) in elevation in mixed conifer forest, dominated by ponderosa pine. Average annual precipitation for the Upper Tonto Creek watershed ranges from 22 to 30 in (56 to 76 cm) (ADWR 2009a, p. 173). There are 10 different springs that produce more than 10 gallons per minute (gpm) (38 liters per minute (lpm)) that contribute to Tonto Creek (ADWR 2009a, p. 182). Tonto Spring at the headwaters of Tonto Creek is the largest spring in the Tonto Creek Basin with a measured discharge of 1,291 gpm (4,887 lpm) (ADWR 2009a, p. 180).

The ADEQ collected Redrock stonefly nymphs at four sites on Tonto Creek: above Bear Flats; below the Christopher Creek confluence; below the Haigler Creek confluence; and below Bear Flats,

south of Kohls Ranch (Spindler 2010a, p. 1). Two adult female Redrock stoneflies were also collected at the Bear Flats Campground in June 2010. All Redrock stonefly sites on Tonto Creek are on the Tonto National Forest. This portion of Tonto Creek is predominantly U.S. Forest Service land, with the exception of a private development at Bear Flats and Kohl's Ranch. The Redrock stonefly sites downstream of Bear Flats and downstream of the Haigler Creek confluence are located within the Hells Gate Wilderness and managed by the U.S. Forest Service.

Spring Creek is located on the Tonto National Forest near the town of Young, Gila County, Arizona. The Redrock stonefly site on Spring Creek is downstream of the Brady Canyon confluence and has an 88 square-mi (228 square-km) watershed. Spring Creek eventually flows 11 mi (17.6 km) from this site into Tonto Creek. Annual precipitation averages 24 in (61 cm) (ADWR 2009b, p. 173). Spring Creek is an interrupted flow system with perennial water disappearing in wider alluvial valleys (gently sloping areas with deep sediment deposits) then resurfacing in narrow canyons. It is mapped as an intermittent stream below its confluence with Walnut Creek (ADWR 2009a, p. 182, Figure 5.3-6). There are no springs along Spring Creek or located within its watershed that produce stream flows greater than 1 gpm (3.8 lpm) (ADWR 2009b, p. 182). ADWR (2009, p. 187) does not record any wells located within the Spring Creek watershed.

Apache-Sitgreaves National Forests

Campbell Blue Creek originates southwest of Alpine, Apache County, in eastern Arizona, and flows southeasterly for 17 river miles (27 km) to its confluence with Dry Blue Creek in New Mexico. Perennial flow initiates downstream of the Coleman Creek/Campbell Blue Creek confluence. Campbell Blue Creek has one spring that produces at least 10 gpm (38 L pm), located downstream of the Redrock stonefly site (ADWR 2009b, pp. 351-352). All of the tributaries that drain into Campbell Blue Creek are intermittent (ADWR 2009b, p. 352). The area receives an average of 21 inches (53 cm) of precipitation per year (ADWR 2009b, p. 342).

Summary of Factors Affecting the Redrock Stonefly

Section 4 of the Act and its implementing regulations (50 CFR 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Federal

Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, a species may be determined to be endangered (in danger of extinction throughout all or a significant portion of its range) or threatened (likely to become an endangered species within the foreseeable future throughout all or a significant portion of it range) based on any of the following five factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

In making this finding, information pertaining to the Redrock stonefly in relation to the five factors provided in section 4(a)(1) of the Act is discussed below. In making our 12-month finding, we considered and evaluated the best available scientific and commercial information.

In considering what factors might constitute threats, we must look beyond the mere exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure and the species responds negatively, the factor may be a threat and we then attempt to determine how significant a threat it is. If the threat is significant, it may drive or contribute to the risk of extinction of the species such that the species warrants listing as endangered or threatened as those terms are defined by the Act. This does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could suffice. The mere identification of factors that could impact a species negatively is not sufficient to compel a finding that listing is appropriate; we require evidence that these factors are operative threats that act on the species to the point that the species meets the definition of endangered or threatened under the Act.

A. The Present or Threatened, Destruction, Modification, or Curtailment of the Species' Habitat or Range

Under Factor A, we will discuss a variety of potential impacts to Redrock stonefly habitat including: (1) Water

quality, (2) livestock grazing, (3) crayfish, (4) wildfires, (5) prescribed fires, (6) recreation, and (7) urban and rural development. The potential impacts of nonnative crayfish are discussed here related to habitat alterations, and other impacts from crayfish are discussed under Factor C below.

Water Quality

Impacts to aquatic habitats, especially from pollution, have been identified as a concern for the Redrock stonefly (AGFD 2004, p. 2). Most stonefly species are restricted to cold-water environments because their small external gills require water with high dissolved oxygen levels (Surdick and Gaufin 1978, p. 3; Covich 1988, p. 365; Brittain 1990, p. 2). In unpolluted, cold-water streams and rivers, dissolved oxygen concentrations usually remain high, well above 80 percent saturation, because oxygen solubility (ability to be absorbed in water) increases as temperature decreases (Hauer and Hill 1996, p. 96). High organic nutrient levels can also be detrimental because they cause excessive microbial (microscopic organisms) growth. These organisms consume oxygen from the water (Hauer and Hill 1996, pp. 96–97). Organic pollution can also cause excessive algae growth, which can decrease dissolved oxygen when the algae respire or absorb oxygen at night (Hauer and Hill 1996, p. 97) or when the vegetation dies and decomposes (Jewell 1971, p. 1457). Because Plecoptera are considered sensitive to low dissolved oxygen levels in water, their presence is often used for monitoring water quality (Surdick and Gaufin 1978, p. 1; Udo *et al.* 1984, p. 189). However, stoneflies in the genus *Anacroneturia* are an exception to this standard practice, because species in this genus are well-established in warm-water neotropical regions of Central and South America and can withstand lower dissolved oxygen levels (Stark and Kondratieff 2004, p. 1; Fenoglio 2007, p. 220; Nelson 2008, p. 184; Springer 2008, p. 274). *Anacroneturia* are often found in streams with warm-water temperatures ranging from 75 to 78 degrees Fahrenheit (24 to 26 degrees Celsius) (Froehlich and Oliveira 1997, p. 1882; Fenoglio and Rosciszewska 2003, p. 163), which limits available dissolved oxygen. *Anacroneturia* are adapted to low dissolved oxygen levels by having egg capsules with tiny, thin canals oriented perpendicularly to the surface of the shell that enhance oxygen uptake compared to other stoneflies (Fenoglio and Rosciszewska 2003, p. 163). As a result of these adaptations, the Redrock

stonefly may be tolerant of impaired water quality, particularly elevated water temperature and excessive nutrients that can lead to low dissolved oxygen.

Several researchers have reported that *Anacroneturia* are tolerant of poor water quality conditions. In fact, due to its tolerance for low dissolved oxygen and poor water quality, Tomanova and Tedesco (2007, p. 69) determined that *Anacroneturia* may not be a good indicator of water quality. Baptista *et al.* (2007, p. 92) noted that in tropical streams, *Anacroneturia* was an exception to the rule that Plecoptera are considered sensitive to environmental degradation. In addition, *Anacroneturia* were documented in numerous bioassessment reviews and studies in South America in waters with high organic (nutrients) levels, although less so than in unpolluted waters (Froehlich and Oliveria 1997, p. 183; Bispo *et al.* 2002, p. 413; Bispo and Oliveria 2007, p. 287). Bobot and Hamada (2002, p. 300) found that *Anacroneturia* densities did not respond to suspended sediment caused by deforestation in streams in central Brazil. In another study, *Anacroneturia* were the only stoneflies found in streams under strong anthropogenic (human-caused) influences (Bispo *et al.* 2002, p. 413). We presume that the Redrock stonefly is similar to other species of stoneflies in the *Anacroneturia* genus and would, therefore, be tolerant of poor quality conditions, should these types of conditions be present in their habitat.

The ADEQ is required by the Clean Water Act (33 U.S.C. 1251 *et seq.*) to conduct a comprehensive analysis of water quality data associated with Arizona's surface waters to determine whether State water quality standards are being met and designated uses (such as human contact, aquatic, and wildlife) are being supported. Since 1992, the ADEQ has evaluated water quality at eight sites currently known to be occupied by Redrock stonefly nymphs (Spindler 2010b, p. 1). The ADEQ rated five of the eight sites, Oak Creek (two sites) and Tonto Creek (three sites), as having impaired water quality as a result of *Escherichia coli* (*E. coli*) bacteria level exceedance in 2006 and 2008 (Avila *et al.* 2009, pp. VR–33, VR–35, SR–64, SR–65). The ADEQ notes that high *E. coli* levels, on their own, do not affect aquatic invertebrates (Spindler 2010b, p. 1), and we do not expect them to affect Redrock stoneflies. This parameter is measured for safety thresholds for the human contact designated use (Marsh 2009, p. G–22). The ADEQ found no other water quality concerns during these surveys. Our

review found no other information indicating water quality concerns in the streams where Redrock stoneflies are known to occur.

Based on the results of ADEQ water quality analyses and the Redrock stonefly's wide range of habitats and presumed tolerance to higher levels of sedimentation and nutrient enrichment, we conclude that water quality conditions in Arizona are not a significant threat to the Redrock stonefly or its habitat.

Livestock Grazing

If livestock grazing is not well-managed, aquatic insects can be negatively impacted by decreased riparian vegetation, stream bank destabilization, and increases in sedimentation and water temperature (Braccia and Voshell 2006, p. 269; McIver and McInnis 2007, p. 294). Improper grazing use levels may lead to soil erosion from riparian and upland vegetation removal, soil litter removal, increased soil compaction from trampling, and increased bare ground (Kauffman and Krueger 1984, p. 434; Schulz and Leininger 1990, pp. 297–298; Belsky *et al.* 1999, p. 30). Excessive livestock grazing in upland watersheds can also lead to bare, compacted soils, which in turn allow less water infiltration, which generates increased rates of surface runoff and can contribute to soil erosion as well as flooding and stream bank alterations (Abdel-Magid *et al.* 1987, pp. 304–305; Orodho *et al.* 1990, pp. 9–11). Increased soil erosion leads to higher sediment loads in nearby waters, which can degrade instream and riparian habitat and increase water turbidity. Perlidae stoneflies, like Redrock stoneflies, may experience reduced respiratory ability when their gills are covered by sediment (Lemly 1982, pp. 238–239). Sediment that becomes embedded in the interstitial spaces around large substrate can smother insect (such as stonefly) eggs and larvae, reduce forage for the nymphal stage, and limit suitable egg depositing sites (Brusven and Prather 1974, p. 31; Waters 1995, pp. 65–66).

The ADEQ (Spindler 2010c, p. 1) classified the Redrock stonefly sites as moderate gradient based on riffle-dominated cobble or gravel or both substrate streams (Rosgen Stream Classification B3 channel types) (Rosgen 1994, p. 174; Rosgen 1996, pp. 5–68, 5–72). The B3 stream types are moderately entrenched systems with channel gradients of 2 to 4 percent. The channel bottom materials are composed primarily of cobble (2.5 to 10 in (64 to 256 mm) intermediate axis diameter) with a few boulders and lesser amounts

of sands and gravels. Rosgen (1994, p. 194) determined that B3 stream types have low sensitivity to disturbance and low streambank erosion potential. The large cobble substrate that is resistant to movement during frequent flood events is also resilient to livestock disturbance. Given the energy required to initiate movement of large cobbles, these stream channel types do not rely on vegetation for stability; the substrate size in itself provides stabilization.

Recent ADEQ water quality data do not show that livestock are having a negative impact on water condition at any of the Redrock stonefly sites. In the form of excess sediment or nutrients that are contributing to impairment (Avila *et al.* 2009, pp. SR-64, SR-65, VR-33, VR-35, VR-61, VR-62). The ADEQ sites that are impaired and the causes of impairment are discussed above in the Water Quality section.

One reason that grazing is not affecting streams that provide habitat for the Redrock stonefly is that many of the streams are in areas with well-managed grazing or no grazing. In Coconino National Forest, the Oak Creek sites are not on livestock grazing allotments. Almost the entire Oak Creek corridor is excluded from livestock grazing. The Wet Beaver Creek stonefly sites are also excluded from livestock grazing. In the Apache-Sitgreaves National Forest, Campbell Blue Creek is also excluded from livestock grazing within the downstream segment where Redrock stoneflies were collected by ADEQ (USDA 2009, p. 87).

In the Tonto National Forest, the five Upper Tonto Creek sites are located on two livestock grazing allotments: Christopher Mountain/Ellinwood and Diamond Butte. The Redrock stonefly sites in the Christopher and Tonto Creeks are excluded from grazing due to their topography (they are in very steep terrain), or they are located in pastures that are not grazed. The Spring Creek site is not located on a grazing allotment, but is used for the Heber-Reno Sheep Driveway on the Tonto and Apache-Sitgreaves National Forests. Two permitted livestock operators are authorized to use the driveway as part of their 10-year grazing permits. The permitted sheep herding is currently managed through Annual Operating Instructions that are prepared for the Long Tom and Beehive/Sheep Springs allotments in coordination with the livestock operators and six ranger districts on the two forests. The Sheep Driveway is used to access summer grazing allotments on the Apache-Sitgreaves National Forest from winter grazing lands located on private property in Phoenix, Arizona.

Approximately 8,000 permitted sheep, plus 7 pack animals per band for the sheep herders and camp tender, are authorized on the Sheep Driveway (USDA 2010a, pp. 1-2). Sheep are kept out of all riparian areas except when crossing and watering (USDA 2010a, p. 11). All riparian areas are excluded from use as bedding grounds. The limited sheep grazing at established stream channel crossings does not likely affect the Redrock stonefly. These stream crossing sites have little to no riparian vegetation and no potential to produce riparian vegetation because they are dry washes or road surfaces, or they consist of large cobble and boulder substrate (USDA 2010a, p. 3).

Livestock grazing is not threatening the habitat of the Redrock stonefly, because the habitat has limited exposure to the effects of grazing. Livestock are excluded from the Oak, Wet Beaver, and Campbell Blue Creeks Redrock stonefly sites due to decisions of land managers or property owners. The Tonto Creek Redrock stonefly sites are located in areas difficult for livestock to access. Only one area is used as a travel corridor for moving sheep (Spring Creek), and the stream crossing sites are not likely to affect Redrock stoneflies. Therefore, we find that grazing is not a significant threat to the Redrock stonefly or its habitat.

Crayfish

Crayfish are not native to Arizona. The red swamp crayfish (*Procambarus clarkii*) and the green or northern crayfish (*Orconectes virilis*) were introduced in Arizona in the 1970s (Taylor *et al.* 1996, p. 27; Inman *et al.* 1998, p. 3). The red swamp crayfish is not currently found in any of the Redrock stonefly sites (Sorensen 2010, p. 1; USGS 2010a, p. 1). The northern crayfish, however, is found throughout Arizona, including the following Redrock stonefly sites: Tonto Creek drainage; Oak Creek drainage (Holycross *et al.* 2006, pp. 23, 40-44, 59); Verde River drainage (Inman *et al.* 1998, Appendix B; Holycross *et al.* 2006, pp. 14, 20-28, 54-56); Salt River drainage (Inman *et al.* 1998, Appendix B; Holycross *et al.* 2006, pp. 15, 29-44, 56-60); and Spring Creek drainage and Campbell Blue Creek drainage (Holycross *et al.* 2006, pp. 25, 46, 55, 60).

Crayfish are known to affect aquatic macroinvertebrate habitat in three ways: (1) By increasing leaf litter decomposition rates; (2) by feeding on aquatic plants; and (3) by increasing turbidity and sedimentation from bioturbation when crayfish are physically moving through fine

substrates. The following discussion addresses each of these three mechanisms. Crayfish can also prey on macroinvertebrates, and this is discussed under *Factor C*.

First, crayfish may reduce the amount of leaf litter in streams and reduce the amount of forage and foraging habitat available to Redrock stonefly nymphs. The nymphs feed on detritus when young; they then prey upon other aquatic macroinvertebrates found in the leaf litter (Fenoglio 2003, pp. 2, 16). Forested streams receive a large portion of their energy input from allochthonous litter (mainly plant material from terrestrial sources) (Minshall 1967, p. 147; Vannote *et al.* 1980, p. 132; Wallace *et al.* 1997, p. 102). This litter, in the form of leaves and wood, is an important food source and foraging area for stream invertebrates (Wallace and Webster 1996, p. 120; Usio 2000, p. 608). Invertebrates that feed on leaf litter are called shredders and consume coarse particulate organic matter in the stream channel. Shredders convert coarse particulate organic matter into fine particulate organic matter, which breaks down litter and provides additional food sources for stream macroinvertebrates. In their native range, crayfish serve an important function by shredding coarse particulate organic matter into fine matter in litter-based food webs (Usio 2000, p. 612; Creed and Reed 2004, p. 225).

However, nonnative crayfish feeding on leaf litter can significantly reduce the time it would otherwise take to break down leaf litter and may lower the amount of foraging area available to native macroinvertebrates (Usio 2000, p. 612; Creed and Reed 2004, p. 231; Bobeldyk and Lamberti 2010, pp. 648, 652). Nonnative crayfish are typically the largest invertebrate shredder in streams (Usio 2000, p. 609; Parkyn *et al.* 2001, p. 641). Studies show that reduced terrestrial litter amounts in streams resulted in decreased abundance of invertebrates (and their predators) that feed on large and fine particulate organic matter (Wallace *et al.* 1997, p. 102; Bobeldyk and Lamberti 2010, pp. 649, 652). Neotropical *Anacroneturia* nymphs feed on the small invertebrates that occur in association with leaf litter and leaf packs (accumulated piles of leaf litter) (Benstead 1996, p. 371; Mathuriau and Chauvet 2002, p. 390; Wantzen and Wagner 2006, p. 220). Redrock stonefly nymphs are expected to use leaf packs as foraging habitat when leaf packs are available and have not been removed from the site by flooding (Schade and Fisher 1997, p. 624). Redrock stonefly

nymphs could have less available food and foraging habitat as a result of nonnative crayfish feeding on the leaf litter and increasing the rate of leaf breakdown. However, because leaf litter availability is also affected by flood events, the Redrock stonefly would be expected to be adaptable and to satisfy its foraging needs in other habitats such as riffle areas. Therefore, the potential loss of some leaf litter due to crayfish is not expected to impact Redrock stoneflies.

Second, crayfish may reduce the amount of living aquatic vegetation in streams. Crayfish feed heavily on living aquatic plants (Chambers *et al.* 1990, p. 90; Creed 1994, p. 2098; Nystrom and Strand 1996, pp. 678, 680). The northern crayfish feeds on and reduces aquatic vegetation available in streams, removing food sources for herbaceous invertebrates, which reduces macroinvertebrate habitat, and may cause a decrease in available prey items as food for the Redrock stonefly. In one example, Creed (1994, p. 2098) found that a filamentous alga (*Cladophora glomerata*), an aquatic plant commonly fed upon by crayfish, was at least 10-fold greater in aquatic habitats without crayfish in Michigan streams. Filamentous alga is an important component of aquatic vegetation that provides cover and food for macroinvertebrates that predatory stoneflies may feed on.

However, we believe that crayfish feeding on aquatic plants is not likely to impact the Redrock stonefly. This is because Redrock stonefly nymphs occur in moderately steep-gradient streams with cobble substrates that do not provide many areas with fine substrates or low water velocities for herbaceous vegetation to establish and persist. The three factors that limit aquatic vegetation growth in stream channels are shade, large cobble substrate, and high water velocity, and they are all present at all Redrock stonefly sites (Vannote *et al.* 1990, p. 132; Biggs 1996, p. 135; Riis and Biggs 2003, pp. 1495–1496; O'Hare *et al.* 2010, pp. 6–7; Service 2010a, p. 1). We presume that Redrock stoneflies, like most *Anacroneria*, feed in leaf litter and gravel and cobble substrates rather than in aquatic vegetation (Tamaris-Turizo 2007, p. 1). Therefore, crayfish herbivory does not significantly impact stonefly foraging habitat or prey availability.

Third, crayfish can increase turbidity (suspended sediment in the water column) in wetlands and lakes as they move and forage for prey in fine sediments (Statzner *et al.* 2000, p. 1039; Dorn and Wojdak 2004, p. 157). Many

aquatic invertebrates depend upon open interstitial spaces (small openings between rocks) in channel substrate (gravels and cobbles). Excessive sediments in streams can fill the interstitial spaces and reduce aquatic invertebrate habitat (Waters 1995, pp. 65–68). Crayfish bioturbation (the mobilizing of sediments by crayfish activity) can impact lakes, ponds, and wetlands, but it is not likely to significantly affect high-gradient streams, such as the sites where Redrock stoneflies are present, because the small amounts of suspended sediment would be carried by stream flow through the water column until they are deposited downstream at lower gradient and lower velocity sites.

In some situations, crayfish bioturbation may actually improve macroinvertebrate habitat in the stream environment by removing fine sediments from interstitial spaces. For example, Statzner *et al.* (2000, p. 1039) observed that crayfish bioturbation removed fine sediments and benefited gravel-spawning salmonids. Also, Creed and Reed (2004, p. 234) found that mayfly (Ephemeroptera) numbers increased when crayfish bioturbation removed fine sediments from gravel streambeds in Maryland. This may be particularly important for the recovery of stream bottom habitats after silt deposition following floods or other upstream disturbances (Parkyn *et al.* 1997, p. 689). The Redrock stonefly sites are stable stream channels that are moderately steep and dominated by cobbles. These sites usually have little soft or fine sediments to be disturbed and enter the water column. Therefore, crayfish bioturbation is not likely to impact Redrock stoneflies.

In summary, we considered three mechanisms by which nonnative crayfish could alter the habitat of the Redrock stonefly: (1) increasing leaf litter decomposition rates; (2) feeding on aquatic plants; and (3) increasing turbidity and sedimentation from bioturbation when crayfish are physically moving through fine substrates. Our analysis of the biology of the stonefly and known ecology of the crayfish finds that crayfish are not likely a significant threat to the Redrock stonefly or its habitat.

Wildfires

Wildfires, through alterations of the terrestrial environment, can cause many physical disturbances to streams (Gresswell 1999, p. 194). Low-intensity fire, which is cooler burning and does not result in major changes in the vegetation community in which it occurs, has been a natural disturbance

factor in forested landscapes for centuries, and low-intensity fires were common in Southwestern forests and grasslands prior to European settlement (Harrington and Sackett 1990, p. 122). Fire suppression and wildfire control during the past decades have changed this natural fire regime, resulting in unnatural fuel build-up by increased understory vegetation and stand density of large trees, which increases fire severity (Harrington and Sackett 1990, p. 122; Schoennagel *et al.* 2004, p. 661; Westerling *et al.* 2006, p. 940). This increased wildfire severity can result in large increases in the magnitude and frequency of floods resulting from vegetation removal by fire that did not likely occur prior to wildfire suppression and control efforts (Neary *et al.* 2003, p. 30). Moody and Martin (2001, p. 2990) and Viera *et al.* (2004, p. 1254) each noted increased soil erodibility and reduced infiltration after severe fires, which resulted in dramatic increases in peak flow and sediment load in streams draining burned catchments. In Southwestern montane watersheds, flood events may occur during the July–August monsoon period immediately following the May–June fire season (Rinne 1996, p. 653).

Wildfires have occurred in the past within watersheds that contain the Redrock stonefly sites (for example, the Picture Fire above Spring Creek, the Brady Fire above Wet Beaver Creek, and the Brins Fire and Division Fire above Oak Creek). The Brady Fire burned approximately 4,000 acres (ac) (1,620 hectares (ha)) in the upper Wet Beaver Creek watershed in 2009 (U.S. Forest Service 2010b, p. 1). Two USGS stream gages are near the Oak Creek and Wet Beaver Creek Redrock stonefly sites. Wet Beaver Creek stream flow data do not show that there has been a significantly higher peak flow event after the fire. The nearest Oak Creek stream gage, immediately upstream of Page Springs, began functioning in October 1981. The Division Fire burned approximately 650 ac (260 ha) on the slopes above Oak Creek at Page Springs in August 1980, and the Brins Fire burned 4,317 ac (1,744 ha) north of Sedona in June 2006 (U.S. Forest Service 2010b, p. 1). The USGS stream flow data do not show any significantly higher peak flows after the two fires (USGS 2010).

The direct effects of fire on stream macroinvertebrate communities generally are minor or indiscernible (Rinne 1996, p. 655; Minshall *et al.* 1997, p. 2519; Minshall 2003, p. 155). However, important exceptions may include intense heating in areas of small water volume (for example, small first-

or second-order streams or shallow, sluggish margins of larger streams) and extended exposure to toxins from dense smoke and errant retardant drops (Minshall 2003, p. 156). Redrock stoneflies may only experience limited exposure to these effects in the swifter flowing water they inhabit. Toxins and heated water may be transported through their habitat before cumulative adverse effects result.

Instead, adverse effects of wildfire on stream macroinvertebrates are largely the result of physical changes in habitat due to increased runoff after the fire (Minshall *et al.* 1989, p. 712). This higher runoff can scour, transport, and redistribute sediments and organic matter, and it can restructure the physical stream environment (Herbst and Cooper 2010, p. 1355). Aquatic macroinvertebrates are somewhat resilient to flood events. High numbers may be removed after floods, but their numbers quickly recover (Molles 1985, p. 281; Hering *et al.* 2004, p. 454). However, aquatic macroinvertebrates showed low resistance and resilience to the effects of repeated, large, post-fire flood events (Viera *et al.* 2004, p. 1253). Macroinvertebrate taxa richness and densities in general were reduced after the first large post-fire flood events, then recovered until the next large flood event (Viera *et al.* 2004, pp. 1247–1248). In one example, a 3-year study from central Arizona, Rinne (1996, p. 655) found large flood events reduced macroinvertebrate densities by 85 to 90 percent after the Dude Fire.

Primary consumers, organisms that feed on plants, such as blackfly and midge larvae (Diptera), and Baetid mayflies, quickly recolonized and dominated the community after wildfire (Minshall *et al.* 1997, p. 2523; Viera *et al.* 2004, p. 1255). Many of these primary consumers are filter feeders, which are able to take advantage of increased organic matter entering the stream after a fire (Minshall *et al.* 1989, p. 713; Herbst and Cooper 2010, p. 1363). They also disperse easily from upstream areas through drift (Minshall *et al.* 1997, p. 2523) or from adult dispersal from adjacent undisturbed habitats (Hughes *et al.* 2003, p. 2151). Because of the increased availability of prey species (primary consumers), large stonefly nymphs and other predatory macroinvertebrates can dramatically increase in abundance after a fire (Viera *et al.* 2004, pp. 1253–1254; Herbst and Cooper 2010, p. 1360; Malison and Baxter 2010, p. 1335). For example, Viera *et al.* (2004, p. 1251) found the predaceous stonefly, *Isoperla* (Perlodidae), had recovered in the first post-fire year that did not experience a

significant flood event. We would, therefore, anticipate that under most circumstances, if fires resulted in a decrease in the availability of primary consumer prey species for food of Redrock stoneflies, such an effect would be short-term in nature.

Because of the limited exposure of the species to the effects of wildfires and the expected resiliency of the species to recover following any short-term habitat alteration resulting from wildfires, we find the wildfires are not a significant threat to the Redrock stonefly or its habitat.

Prescribed Fires

To avoid the detrimental effects of large, high-severity fires and to restore more natural fire disturbance patterns in forest ecosystems of the western United States, prescribed fires and mechanical forest thinning (selected removal of trees) are being used as management tools, particularly near wildland-urban interfaces (Arkle and Pilliod 2010, p. 893). Prescribed fires are often intentionally excluded from, or near, riparian forests to avoid fire-associated increases in sediment levels and other habitat changes that could be detrimental to ecologically sensitive habitats and aquatic taxa (Arkle and Pilliod 2010, pp. 893–894). Therefore, prescribed fires in Arizona are usually designed to avoid impacting riparian and stream habitats. For example, the U.S. Forest Service has formally consulted with the Service under section 7 of the Act on two prescribed fires that they determined would have an adverse effect on two listed species, Gila topminnow (*Poeciliopsis occidentalis*) and loach minnow (*Tiaroga cobitis*), in a riparian or stream community in Arizona: the Quien Sabe Fire Management Treatment (Service 1991, pp. 8–9) and the Robinson Mesa Prescribed Fire Project (Service 1999, pp. 22–23). Both consultations included mandatory terms and conditions to reduce the adverse effects of project implementation to listed species. We anticipate that the exclusion of prescribed fire from riparian areas, along with conservation measures put in place during prescribed fire planning for other species, is adequate to minimize impacts to the Redrock stonefly. The Redrock stonefly's resilience to wildfire, discussed above, would also reduce the effects of prescribed fire. Therefore, we find that prescribed fires are not a significant threat to the Redrock stonefly or its habitat.

Recreation

The Redrock stonefly sites or their watersheds occur on private, State, and

Federal lands. The Federal lands are managed for recreation and other purposes, and some level of recreation occurs on every stream occupied by the Redrock stonefly. A study of outdoor recreation trends in the United States found increases in participation in most of the activities surveyed, which included bicycling, primitive or developed-area camping, bird watching, hiking, backpacking, and snowmobiling (Cordell *et al.* 1999, pp. 221–321). Human population growth trends are expected to continue into the future throughout the Southwest, leading to higher demand for outdoor recreational opportunities. In the arid Southwest, the human desire to recreate in or near water, and the relative scarcity of such recreational opportunities, tends to focus recreation impacts on riparian areas (Winter 1993, p. 155; Briggs 1996, p. 36).

Streams are popular hiking destinations in Arizona. While there are hiking opportunities at each of the Redrock stonefly sites, actual use is limited by their location in remote rugged canyons with poor access or due to land ownership restrictions (State and private lands). Spring Creek and the three lower Tonto Creek sites are located in areas without easy road access. The upper Tonto Creek site is difficult to access because of private land downstream of its location. The Campbell Blue Creek site is located along a forest road, leading to a private ranch in a remote area in eastern Arizona. The Redrock stonefly is not affected by hiking in Oak Creek. The Page Springs Oak Creek site, at the Page Springs Hatchery, has hiking trails on the adjacent uplands. The AGFD allows very limited creek access from their property, due to concerns of fish disease transmission from the creek to the hatchery. Redrock State Park only allows visitor access along designated trails; swimming or wading is prohibited in Oak Creek. The Beaver Creek Ranch is a private high school that limits public access to the east side of the creek. Recreational use is primarily hiking through the area along the west side of the creek.

Hiking in streams can be a source of disturbance to stream invertebrates. Aquatic invertebrates can be induced to drift as a result of disturbance by hikers within the stream. In one study, increased numbers of hikers resulted in increased densities of drifting aquatic invertebrates (Caires *et al.* 2010, p. 555). However, this is not likely to be a significant effect, because aquatic invertebrates are adapted to flash floods, which cause a similar, but larger, disturbance (Caires *et al.* 2010, p. 555).

Caires *et al.* (2010, p. 555) found that aquatic invertebrates areas disturbed by hikers quickly recolonized from upstream. Redrock stoneflies do not intentionally drift, but if hiking causes them to enter the water column, they would be susceptible to fish predation until they settled back down to the stream bed. Future flood events could carry Redrock stoneflies downstream to unoccupied habitats. Because of the limited opportunity for hikers in streams occupied by the Redrock stonefly and the likely, but short-term, effects of hiking, this type of recreational activity is not a significant threat to the Redrock stonefly or its habitat.

Off-road vehicle (ORV) use is another form of recreation that can increase sedimentation in streams by damaging riparian vegetation and stream banks. However, most Redrock stonefly sites are either inaccessible or minimally impacted by ORV use. The Oak Creek sites are not accessible to ORV use. The Page Springs site, at the Page Springs Fish Hatchery, limits visitors to walking trails on both sides of Oak Creek, fish hatchery tours, and fishing. Also, ORV use is prohibited at the Redrock Crossing site at Red State Park. The Wet Beaver Creek sites are inaccessible to ORVs because the U.S. Forest Service road leading to the site upstream of the USGS gage is closed to all vehicular traffic. The lower Wet Beaver Creek site, near the Beaver Creek Ranch, is protected by private land on the east side and the closed U.S. Forest Service road on the west side. Similarly, the three Tonto Creek sites are either located in a narrow canyon or have private land at Bear Flats that blocks access. The lower site is located in the Hells Gate Wilderness, where mechanized and motorized vehicle uses are prohibited. The Spring Creek site is located in a steep-walled canyon without any road access. The Campbell Blue Creek site is the only habitat that may experience some ORV use because there is a road paralleling the creek that provides vehicle access into the area. Therefore, due to the lack of access to all but one of the known occupied sites, we do not consider ORV use a threat to the Redrock stonefly or its habitat.

In summary, we considered the potential impacts to Redrock stonefly habitat from recreational activities primarily associated with hiking and ORV use. We found there is limited access to Redrock stonefly habitats for these activities and very minor effects when they occur. Therefore, we find that recreation is not a significant threat to the Redrock stonefly or its habitat.

Urban and Rural Development

The effects of urban and rural development on natural habitats are expected to increase as human populations increase. Consumer interest in second home and retirement real estate investments has increased significantly in recent times within the southwestern United States. Medina (1990, p. 351) points out that many real estate investors are looking for scenic areas with mild climates to develop properties that are within, or adjacent to, riparian areas, due to their aesthetic appeal and available water, especially in the southwestern United States. Arizona's population increased by 28 percent from 2000 to 2009 (U.S. Census Bureau 2010, p. 1). Over the same time period, population increases in the Arizona counties where Redrock stoneflies occur are as follows: Yavapai County (28 percent); Gila County (1.8 percent); and Apache County (1.8 percent) (U.S. Census Bureau 2010, p. 1).

Increased urbanization and population growth results in increased demands for water development projects. Collier *et al.* (1996, p. 16) mentions that water development projects are one of two main causes of decline of native fish in the Salt and Gila Rivers of Arizona, and municipal water use in central Arizona increased by 39 percent over 8 years (American Rivers 2006, p. 1). Water for development and urbanization is often supplied by groundwater pumping and surface water diversions from sources that include reservoirs and the Central Arizona Project's allocations from the Colorado River. The hydrologic connection between groundwater and surface flow of intermittent and perennial streams is becoming better understood as a result of new research. Groundwater pumping creates a cone of depression within the affected aquifer that slowly extends outward from the well site. When the cone of depression intersects the hyporheic zone of a stream (the transition zone between surface water and groundwater), the surface water flow may decrease, and the subsequent drying of riparian and wetland vegetative communities may result (Webb and Leake 2006, p. 308).

Streamflow reduction from increased groundwater use and surface water diversion can have a dramatic impact on stream habitat and associated macroinvertebrate communities. Artificial flow reductions frequently lead to negative changes in aquatic ecosystems, such as decreased water depth, increased sedimentation, and altered water temperatures and

chemistry; all of these can reduce or influence macroinvertebrate numbers, richness, competition, predation, and other interactions (Dewson *et al.* 2007, pp. 401–411). Twenter and Metzger (1963, p. 29) determined that permeable sandstone beds are the primary source of water for springs in the Page Springs (also referred to as Cave Springs) and Spring Creek areas, and much of the perennial flow in Oak Creek is from these springs. Twenter and Metzger (1963, p. 14) determined that the average base flow of Oak Creek just above the springs complex during winter months was 40 cfs (1.13 cms). After adding the 36 cfs (1.01 cms) inflow from springs and 16 cfs (0.45 cms) from Spring Creek, the base flow increased to 92 cfs (2.6 cms) near the mouth of the creek. There are six springs, not including Page Springs, immediately upstream of the Page Springs Redrock stonefly site that produces more than 10 gpm (37.8 lpm) (ADWR 2009a, p. 268). Page Springs is the second highest discharging spring in the Verde River watershed, flowing at 29 cfs (0.82 cms) (Flora 2004, p. 38). These springs and seeps in the Page Springs area provide a large volume of water to Oak Creek, where the Redrock stonefly occurs (Mitchell 2001, p. 4). An analysis of the Page Springs flow rate between January 1, 1996, and February 9, 2000, detected a 15 percent decline in flow (Mitchell 2001, p. 5). This analysis period coincided with a severe to extreme drought, and with the drilling of three new wells upstream of Page Springs (Mitchell 2001, p. 6). The ADWR's records show that three wells have been drilled in close proximity and up gradient of Cave Springs (Mitchell 2001, p. 6). Two of these wells pump between 1,200 gpm (4,542 lpm) and 1,500 gpm (5,678 lpm), and are within 0.75 mi (1.2 km) of Page Springs. Given their proximity, production rate, and hydrological connectivity, groundwater withdrawal by these wells could have a direct impact on flow at Page Springs (Mitchell 2001, p. 6). However, the extent of the impact of these wells on the spring cannot be determined without long-term aquifer tests and simultaneous discharge monitoring at Cave Springs (Mitchell 2001, p. 6).

Wet Beaver Creek, upstream of the USGS stream gage, is not affected by diversions or wells, because the watershed above this site is on the Coconino National Forest. The Beaver Creek Ranch, adjacent to the lower Wet Beaver Creek site, has a small pond that is filled by a diversion from the creek. This pond is not large enough to impact

Wet Beaver Creek base flow (Hedwall 2011, p. 1).

The Upper Tonto Creek headwaters are fed by numerous springs, the largest of which is Tonto Springs. Long-term flow records from Tonto Springs show little fluctuation in baseflow over a 20-year period (Parker *et al.* 2005, p. 73). There are numerous small wells located on private lands and at U.S. Forest Service campgrounds upstream of the Redrock stonefly site. The ADWR (2009a, p. 187) does not monitor water depth in these wells, nor address the wells' impact to Tonto Creek baseflow.

The Redrock stonefly site on Spring Creek is not affected by groundwater wells as ADWR does not identify any wells in the vicinity (2009a, p. 197). The Campbell Blue Creek Redrock stonefly site is located in an undeveloped watershed with only two small parcels of private land upstream of two ADWR-registered wells at the Blue River Ranch. There are no other ADWR-registered wells on Campbell Blue Creek (ADWR 2010, p. 1). There will likely be continued human population growth in the foreseeable future in some areas around Redrock stonefly habitats that could result in increased groundwater usage. However, we do not have sufficient information to reasonably determine whether any future groundwater would result in declines to stream flows in Redrock stonefly habitats. Overall, because of the low level of water development currently occurring within the watersheds that support the species, water development associated with urban and rural development does not appear to threaten the Redrock stonefly or its habitat.

Summary of Factor A

Overall, our review found that the best available scientific and commercial information indicates that the Redrock stonefly is not threatened by the destruction, modification, or curtailment of its habitat or range either now or in the foreseeable future. The Redrock stonefly spends most of its life in a nymph stage in gravel and cobble substrates of perennial streams. Therefore, water quality and streamflow are important habitat factors in assessing the status of the species. In considering potential threats due to the degradation of water quality, we first found that the Redrock stonefly, unlike other species of stoneflies, is not known to be particularly sensitive to changes in water quality. This is due to anatomical adaptations of the genus that allow it to persist in warmer water with lower oxygen levels compared to other stoneflies. Because of these adaptations,

any potential changes in water quality are likely to have minimal impacts to the Redrock stonefly. In addition, studies by the State of Arizona, ADEQ, at eight sites near Redrock stonefly habitat found no water quality problems that would be a concern for the stonefly. We also considered the potential impacts to water quality, particularly increased sedimentation, from livestock grazing in watersheds where the Redrock stonefly occurs. Our analysis found that grazing is not a significant source of sedimentation because most of the sites where the stoneflies occur have either adequately managing grazing programs or no grazing activity. In addition, water quality assessments by ADEQ did not indicate increased levels of sediments or other pollutants of concern.

We also considered the possible habitat concerns related to the presence of nonnative crayfish in streams inhabited by the Redrock stonefly. We found that while crayfish may increase leaf litter decomposition rates and reduce foraging habitat for Redrock stoneflies, the availability of this habitat is naturally limited by flood events. Redrock stoneflies have other foraging habitats available to them in the stream channel, such as in gravel and cobble substrates. Crayfish could also reduce foraging habitat for stoneflies by feeding on aquatic plants, if they served as stonefly feeding substrate. However, as Redrock stoneflies likely feed in leaf litter and gravel and cobble substrates (rather than on aquatic vegetation), and their streams do not contain much habitat for aquatic vegetation, this change would not impact the stoneflies. Finally, the potential for crayfish to increase turbidity of the water through foraging was not found to be a problem because the stream habitats where the stonefly occurs are high gradient with fast velocity that flushes most mobilized sediments downstream. Thus, the nature of the Redrock stonefly's feeding strategies and habitat (fast-flowing water over riffles of gravel and cobble substrates) reduces the potential impacts of nonnative crayfish.

We next considered the potential impacts from wildfires and prescribed fires to Redrock stonefly habitats. We found that the species has limited exposure to the effects of wildfires and is expected to show high resiliency to recover following any short-term habitat alteration resulting from wildfires. In addition, for prescribed fires, we anticipate that the exclusion of riparian areas, along with other conservation measures, will likely be adequate to minimize any potential impacts to the Redrock stonefly or its habitat.

We evaluated the potential impacts to Redrock stonefly habitat from recreational activities primarily associated with hiking and ORV use, because many of the streams where the species occurs are popular recreational destinations. However, we found there is limited access for these activities to the actual Redrock stonefly habitats, and very minor effects are expected when recreational activities occur near Redrock stonefly habitat. This limits the likelihood of any potential impacts to the species associated with recreational activities. We also assessed the risk of stream flow declines as a consequence to increases in human development and associated groundwater use. While there are potential effects to stream flows in some areas, we found no indication that groundwater withdrawals either currently, or in the foreseeable future, are likely to impact Redrock stonefly habitats.

Finally, there has been no reduction in the known range of the Redrock stonefly (see discussion under Distribution section above). The only change in the distribution of Redrock stonefly is the increase in the number of known locations that resulted from a recent increase in survey efforts. Therefore, in conclusion, we find that the best scientific and commercial information available indicates that the Redrock stonefly is not now, or in the foreseeable future, threatened by the destruction, modification, or curtailment of its habitat or range to the extent that listing under the Act as an endangered or threatened species is warranted at this time.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

There is no information available indicating that overutilization is a threat to Redrock stonefly. Because of limited access, collection of the species is not likely to occur with any frequency. The Redrock stonefly is currently known to occur at 10 sites. Access to three, Tonto Creek above Bear Flats, Page Springs, and Redrock Crossing, is limited by private land, State park, or State fish hatchery. The two Wet Beaver Creek sites have limited access due to closed roads and private land. The three sites on Tonto Creek, below the Bear Flat Campground and the Spring Creek site, have limited access due to rugged terrain and poor road conditions. There is no commercial or recreational use for Redrock stoneflies. Further, even though small collections for scientific and educational purposes may occasionally occur, we do not believe these collections are large enough in

magnitude to constitute a threat to the species. Therefore, we conclude that the best scientific and commercial information available indicates that Redrock stonefly is not threatened now or in the foreseeable future from overutilization for commercial, recreational, scientific, or educational purposes.

C. Disease or Predation

We have no information that disease may be a threat to Redrock stonefly. However, potential impacts from predation by native fish, nonnative fish, and nonnative crayfish are discussed below.

Predation by Native Fish

Native fish species, found in some or all of the Redrock stonefly sites, that may feed on Redrock stoneflies include: Roundtail chub (*Gila robusta*), Gila chub (*G. intermedia*), headwater chub (*G. nigra*), longfin dace (*Agosia chrysogaster*), speckled dace (*Rhinichthys osculus*), and Sonoran sucker (*Catostomus insignis*) (Rinne 1992, p. 39; Pilger *et al.* 2010, p. 307). The Oak Creek sites are also considered historical Gila trout (*Oncorhynchus gilae*) habitat (Service 2003, p. 6), and the Campbell Blue River site, although outside their historical range, may contain introduced Apache trout (*Oncorhynchus apache*) (Service 2009b, p. 12). These two trout feed upon Redrock stonefly and other aquatic insects (Behnke 1992, p. 43).

Native fish predation is not likely to negatively impact Redrock stoneflies. Aquatic macroinvertebrates, like Redrock stonefly, have adapted over time to fish predation (including small body size, cryptic coloration, and nocturnal activity) so that they are affected little by changes in fish density (Allan 1982, p. 1454). Two studies found that when fish numbers were reduced (Allan 1982, p. 1454) or increased (Culp 1986, p. 146), there were no significant effects on stoneflies and other macroinvertebrates. The stonefly, *Hesperaperla* (Perlidae), experienced decreased sculpin (*Cottus sp.*) predation when hiding cover was available (Brusven and Rose 1981, p. 1447). Flecker and Allan (1984, p. 311) found that fish predation had very little effect on macroinvertebrate taxa and individuals regardless of substrate size (embedded or un-embedded gravel and cobble substrate). Fish predation may be negligible if fish are feeding primarily on "surplus" secondary production of macroinvertebrates that exceeds the local carrying capacity.

The vulnerability of large predatory stonefly to fish predation is largely a

function of their exposure, large size, and active foraging habits (Meissner and Muotka 2006, p. 428). However, most Perlidae stoneflies, including *Anacroneria*, forage at night to avoid predators that seek prey visually (Zanetell and Peckarsky 1996, p. 574). Where focused predation on predatory stoneflies occurs, it can decrease stonefly density in two ways: Direct consumption by predatory fish, or apparent emigration to an area with fewer fish (Feltmate and Williams 1989, p. 1579). Stoneflies also modify habitat use to avoid predation by selecting larger substrate on which they are less vulnerable (Brusven and Rose 1981, p. 1447; Feltmate *et al.* 1986, p. 1587).

Because of the findings of past studies showing a lack of effect of predation on stoneflies and the ability of stoneflies to avoid exposure to predation, we find that predation by native fish is not a significant threat to Redrock stonefly.

Predation by Nonnative Fish

Nonnative fish are found in the majority of aquatic communities in Arizona, including the Redrock stonefly sites. Holycross *et al.* (2006, pp. 14–15) found nonnative fish species in 64 percent of the sample sites in the Agua Fria watershed, 85 percent of the sample sites in the Verde River watershed, 75 percent of the sample sites in the Salt River watershed, and 56 percent of the sample sites in the Gila River watershed. In total, nonnative fish were observed at 41 of the 57 sites surveyed (72 percent) across the Mogollon Rim in Arizona (Holycross *et al.* 2006, p. 14).

Several studies have been conducted that analyzed the effects of nonnative fish predation on predaceous aquatic invertebrates like the Redrock stonefly. Pilger *et al.* (2010, pp. 306–307, 311, 319–321) found the nonnative brown trout (*Salmo trutta*), rainbow trout, flathead catfish (*Pylodictis olivaris*), green sunfish (*Lepomis cyanellus*), smallmouth bass (*Micropterus dolomieu*), and yellow bullhead (*Ameiurus natalis*) preyed more frequently on predaceous aquatic invertebrates than did native fish species. The study also found stonefly remains in rainbow trout and yellow bullhead stomach contents (Pilger *et al.* 2010, pp. 316–317). Other studies (Nystrom *et al.* 2003, p. 603; Meissner and Muotka 2006, pp. 428–429; Herbst *et al.* 2009, pp. 1336–1337) also found that trout prefer large active prey such as predatory invertebrates, which may include the Redrock stonefly. In Argentina, Molineri (2008, p. 111) found *Anacroneria* densities lower in streams with introduced rainbow trout than in streams with a single native fish species.

In a second study, introduced trout were also found to decrease invertebrate predaceous stonefly abundance when compared with paired fishless streams (Herbst *et al.* 2009, p. 1330). Herbst *et al.* (2009, p. 1337) also found that two of the three abundant predaceous stoneflies declined with trout introductions, whereas the third species, was unaffected.

In streams where a previously nonexistent feeding guild (a group of organisms that feed on resources in similar ways) has become established by the presence of a nonnative fish, macroinvertebrate community-level effects are likely to be more detectable. For example, introduced brown trout in the Shag River, New Zealand, occupy the diurnal invertebrate drift feeder niche (species that feed on drifting macroinvertebrates during the day), which was not previously filled by native fish (Flecker and Townsend 1994, p. 805; Nystrom and McIntosh 2003, p. 280). Macroinvertebrate numbers and densities were lowest in the brown trout-occupied channels (Flecker and Townsend 1994, pp. 801–802). The effects of introduced trout on the macroinvertebrate community of previously fishless streams was also studied by Flecker (1992, p. 443), who compared differences in invertebrate drift timing between streams with an introduced drift feeder (rainbow trout) and nearby fishless streams. Where trout were introduced, invertebrate drift peaked at night, whereas the drift occurred at all times in the fishless streams. These studies indicate some potential impacts of nonnative fishes on stream invertebrates.

The studies described above involved nonnative fish that were stocked into previously fishless streams or streams with extremely low native fish diversity. None of the streams occupied by the Redrock stonefly were fishless prior to nonnative fish establishment. As a result of evolving in habitat already containing native predatory fish, the Redrock stonefly has likely developed effective anti-predator behavior (Sih *et al.* 2010, p. 610). Also, in North America introduced nonnative trout co-exist with, or have replaced, native trout, rather than being released into streams without trout. So the introduced trout are not a novel predatory threat that Redrock stoneflies, in Oak, Wet Beaver, and the Campbell Blue Creeks, have not experienced (Flecker and Townsend 2003, p. 805). Tonto and Spring Creeks are not considered historic native trout habitat (Service 2003, p. 4). Therefore, we conclude that the anti-predatory behaviors of Redrock stoneflies are likely sufficient to prevent nonnative

trout from being a significant threat to the Redrock stonefly.

Yellow bullheads, a nonnative fish species, do represent a previously nonexistent feeding guild in Arizona. They are nocturnal tactile feeders that forage along the stream bottom (Reynolds and Casterlin 1977, p. 132). Yellow bullheads are found in Oak, Wet Beaver, Tonto, and Spring Creeks, and are likely present in the Redrock stonefly sites. However, the Redrock stonefly may have specific behaviors to avoid predation by fish. For example, Moore and Williams (1990, p. 52) found that when the stonefly *Pteronarcys dorsata* was touched by sculpin and suckers feeding along the stream bottom, it froze and, if attacked, feigned death by curling up and extending its cerci (paired appendages on the posterior body segment) as spines. This reduced handling success or feeding ability by fish. Otto and Sjöström (1983, p. 203) also found that the stonefly *Dinocras cephalotes* used this anti-predator strategy to avoid trout predation. We do not know if this anti-predator strategy is used by Redrock stoneflies to avoid yellow bullhead predation, but we expect that this or other anti-predatory behaviors likely diminish any potential threat to the species posed by yellow bullheads.

Predation by Crayfish

Predatory activities by introduced crayfish can affect aquatic macroinvertebrates by direct predation and increased macroinvertebrate drift as escaped prey escape and incidental dislodgment by crayfish foraging. Research indicates that crayfish are primarily carnivorous as juveniles before becoming omnivorous or even herbivorous as they mature (Bondar *et al.* 2005, p. 2633; Flinders and Magoulick 2007, p. 775). However, Momot (1995, pp. 34, 38) states that the crayfish's role as a predator has been greatly underestimated.

Fernandez and Rosen (1996, p. 3) studied the effects of crayfish on a low-elevation semi-desert stream and a high-mountain stream in Arizona. They concluded that crayfish predation can noticeably reduce aquatic vertebrate and macroinvertebrate species diversity and destabilize food chains in riparian and aquatic ecosystems. However, specific information on nonnative crayfish predation on macroinvertebrates, or specifically stoneflies, is less conclusive. Some studies suggest that slow-moving organisms (unlike the Redrock stonefly) kept in enclosures with crayfish (for example, leeches (Hirudinea), dragonflies (Odonata), caddisflies (Trichoptera), isopods, and

mollusks) are preyed on by crayfish, whereas more mobile prey or prey living in sediments (for example, trout fry, chironomids, and stoneflies) were less affected by crayfish (Hanson *et al.* 1990, p. 78; Stenroth and Nystrom 2003, p. 472). For example, Fernandez and Rosen (1996, p. 10) found significantly lower macroinvertebrate numbers and biomass (primarily slow-moving caddisflies, snails, and mussels) in crayfish-occupied sites than in unoccupied sites in the White Mountains, Arizona. Crayfish reduced slow or immobile invertebrate numbers and biomass in other studies as well (Hanson *et al.* 1990, p. 78; Perry *et al.* 1997, p. 124; Stenroth and Nystrom 2003, p. 472; Olsson *et al.* 2009, p. 1735).

One study found a negative relationship between crayfish numbers and invertebrates, such as stoneflies, as a result of crayfish predation. Charlebois and Lamberti (1996, pp. 556, 560) found lower macroinvertebrate numbers, including Perlid stoneflies, in areas with both low and high crayfish densities in a Michigan stream. They concluded that invasive crayfish can significantly affect macroinvertebrate numbers. However, when Bobeldyk and Lamberti (2008, pp. 268–269) returned 10 years later, they found that, while macroinvertebrate numbers were still significantly higher in areas without crayfish, areas with high and intermediate crayfish densities were dominated by highly mobile stoneflies and mayflies. This later study substantiates the conclusion from studies discussed above: more mobile aquatic macroinvertebrate species, such as the Redrock stonefly, may not be significantly impacted by crayfish predation.

Crayfish predation on macroinvertebrates may be more pronounced in coldwater streams that lack crayfish predators, such as largemouth bass (*Micropterus salmoides*) and smallmouth bass (Hill and Lodge 1995, p. 310; Charlebois and Lamberti 1996, p. 560). Hill and Lodge (1994, p. 2122; 1995, p. 310) found higher macroinvertebrate numbers in enclosures that contained both bass and crayfish and attributed this to decreased crayfish feeding on vegetative cover and less foraging time in the presence of bass predation. In the cool-water streams occupied by the Redrock stonefly (the two uppermost Tonto Creek sites and the Campbell Blue Creek site), crayfish may not experience a high degree of fish predation; therefore, crayfish may not be limiting their foraging time. In contrast, green sunfish and yellow bullhead are found in the lower three Tonto Creek and Spring

Creek Redrock stonefly sites. These species are crayfish predators (Pilger *et al.* 2010, pp. 319, 321). Wet Beaver Creek and Oak Creek contain smallmouth bass and yellow bullhead. These crayfish predators may decrease crayfish-predation on macroinvertebrates, such as the Redrock stonefly in Oak, Wet Beaver, the lower three Tonto, and Spring Creek sites.

Crayfish are tactile predators and some stonefly nymphs have evolved appropriate defenses from predation such as retreat, deflection of an attack by reflex bleeding (fluid is forcibly expelled from pores on the legs), and spacing. Sedentary prey have been found to be more vulnerable than mobile prey to tactile predators (Allan and Flecker 1988, p. 502); therefore, upon encountering a crayfish, stoneflies rapidly retreat rather than freezing to minimize the risk of being caught (Moore and Williams 1990, p. 53). Reflex bleeding or auto-hemorrhaging is known to be used by at least four Plecoptera genera in two families: Pteronarcidae (*Pteronarcys* (Moore and Williams 1990, p. 50) and *Peltoperla* (Benfield 1974, p. 740)), and Perlidae (*Agnatina* and *Acroneuria* (Bukantis and Peckarsky 1985, p. 202)). This is used as a defense only when retreat from the predator fails and capture occurs. Crayfish that are sprayed immediately drop the stonefly and clean their antennae and mouthparts before continuing to forage (Moore and Williams 1990, p. 50). The spacing of nymphs may also serve as a deterrent to predation. Some stonefly nymphs display aggressive behavior towards each other when they come in close contact (Moore and Williams 1990, p. 54). By avoiding close contact and high densities, Redrock stoneflies may reduce their susceptibility to predation by decreasing the time and exposure to predators (Tinbergen *et al.* 1967, p. 308; Moore and William 1990, p. 55).

Crayfish may also cause macroinvertebrate drift or movement within the water column indirectly by incidentally dislodging them during foraging, or directly by attempted predation (Charlebois and Lamberti 1996, p. 557). As discussed earlier, predator-induced drift is a predator-avoidance mechanism used by macroinvertebrates that swim well, whereas poor swimming invertebrates (which would include Redrock stoneflies) crawl rather than drift, when approached by predators (Malmqvist and Sjöstrom 1987, p. 401; Peckarsky 1996, p. 1902). Poor swimmers would be susceptible to fish predation if crayfish were to induce their drift up into the water column, especially during

the day (Flecker 1992, pp. 1–12; Radar and MacArthur 1995, pp. 7–8). Therefore, Redrock stoneflies crawl rather than drift to avoid crayfish predation, and so reduce the likelihood of predation by crayfish.

In conclusion, because of the expected limited exposure of the Redrock stoneflies to crayfish and the stonefly's ability to avoid predation, we conclude that nonnative crayfish do not threaten the Redrock stonefly.

Summary of Factor C

Disease is not known to be a threat to Redrock stonefly. Native fish, nonnative fish, and nonnative crayfish are found in Redrock stonefly habitat and likely prey on all available food resources, including the Redrock stonefly. However, we have no evidence to suggest that predation has been, or will be, a threat to the Redrock stonefly. The species has numerous morphological and behavioral adaptations that may be used to avoid predation by fish or crayfish. Aquatic macroinvertebrates and, presumably, Redrock stoneflies are well-adapted to fish predation, whether from native or nonnative species. While crayfish do feed on other aquatic macroinvertebrates, because of its mobility to avoid exposure to crayfish predation, the Redrock stonefly is not expected to be significantly affected. Consequently, we conclude that the best commercial and scientific information available indicates that the Redrock stonefly is not now, or in the foreseeable future, threatened by disease or predation to the extent that listing under the Act as an endangered or threatened species is warranted at this time.

D. The Inadequacy of Existing Regulatory Mechanisms

The Arizona Department of Agriculture has the primary authority to manage insects in the State of Arizona. They currently do not provide any regulatory protection for the Redrock stonefly. Because we have not found any existing or future threats to the Redrock stonefly, we believe this lack of direct regulatory protection is acceptable. However, several mechanisms exist that provide some indirect protection for the Redrock stonefly and its habitat from various forms of disturbance and habitat loss, and these are described below.

Redrock stoneflies may derive some indirect conservation benefit from their co-occurrence with other species listed as endangered or threatened under the Act and their critical habitat in Arizona. For example, the Campbell Blue Creek was designated as loach minnow critical habitat in 2007 (72 FR 13355; March 21,

2007). The Service is currently reevaluating loach minnow critical habitat and is proposing approximately 709 mi (1,141 km) of streams as critical habitat (75 FR 66482; October 28, 2010). The Service has also proposed 726 mi (1,168 km) of streams as critical habitat for spikedace (*Meda fulgida*) (75 FR 66482; October 28, 2010). These proposed critical habitat segments overlap the Redrock stonefly sites on Oak, Campbell Blue, Wet Beaver, and Spring Creeks. The Wet Beaver Creek site upstream of the USGS gage and the Upper Tonto Creek sites upstream of Houston Creek were not proposed for critical habitat designation. If the proposed areas are included in critical habitat for one or both endangered fishes, some limited benefits for the Redrock stonefly may occur. Critical habitat only applies to Federal actions and would only consider the impacts to habitat for the fishes; however, there is sufficient overlap in habitats with the Redrock stonefly, so some conservation benefits could occur.

The National Wild and Scenic Rivers System (NWSR System) was created by Congress in 1968 (Pub. L. 90–542; 16 U.S.C. 1271 *et seq.*) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. This NWSR System is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection. The U.S. Forest Service's policy at FSH 1909.12, Chapter 8.12 states that management prescriptions for eligible rivers should provide the following protection:

- (1) Free-flowing characteristics cannot be modified.
- (2) Outstandingly remarkable values must be protected, and to the extent practicable, enhanced.
- (3) Management and development of the river and its corridor cannot be modified to the degree that eligibility or classification would be affected.

The Apache-Sitgreaves National Forest recently submitted an eligibility report, which recommended that Campbell Blue Creek be included in the NWSR System (USDA 2010, pp. 83–87). This Redrock stonefly site is located in Eligible Segment 3, which has the proposed classification as "Recreational." "Recreational" river sections are readily accessible by road or railroad, may have some development along their shorelines, and

may have undergone some impoundment or diversion in the past (USDA 2010, p. 1). During the interim period, until Congress approves the designation, eligible rivers must be managed under the same guidelines as if designated. Therefore, the Redrock stonefly site on Campbell Blue Creek currently receives protection as if the creek was designated part of the NWSR System (USDA 2006, p. 22). This protection entails specifically the Campbell Blue Creek's free-flowing condition and outstanding remarkable values. Free-flowing is defined in part in the NWSR Act as without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway (16 U.S.C. 1286(b)); all of which benefits the Redrock stonefly and its habitat in Campbell Blue Creek.

An Instream Flow Water Right Permit with the ADWR is a surface water right that remains in-situ or "in-stream," is not physically diverted or consumptively used, and is for maintaining the flow of water necessary to preserve wildlife, including fish and recreation (ADWR 2009a, pp. 29–30). The Tonto National Forest has an instream flow water right (permit number 96757) for Christopher Creek, which drains into Tonto Creek at one of the Redrock stonefly sites. The Tonto National Forest also has pending instream flow water right applications for Tonto (application number 33–96684) and Haigler (application number 33–96571) Creeks. Both of these applications are currently being protested (Nelson 2011, p. 1). The Tonto National Forest is also compiling an instream flow water right application for Spring Creek (application number 33–96815). The Coconino National Forest has an instream flow water right permit on Spring Creek, an important perennial tributary to Oak Creek (permit number 90114) and a pending instream flow water right for Oak Creek (application number 33–90106). Once in place, these instream water rights will protect enough flow to provide for Redrock stonefly habitat in perpetuity.

Because we have found no other existing or future threats that warrant listing the Redrock stonefly, and some conservation mechanisms are currently in place, we conclude that the best scientific and commercial information available indicates that the Redrock stonefly is not now, or in the foreseeable future, threatened by the inadequacy of existing regulatory mechanisms to the extent that listing under the Act as an endangered or threatened species is warranted at this time.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Climate Change and Drought

Projected future climate change is most likely to affect aquatic species in the southwestern United States, like the Redrock stonefly, through reduced surface water availability resulting from lower water flows from decreased precipitation. Periods of drought in the Southwest are common, but the frequency and duration of dry periods may be altered by future climate change. Global climate change, and associated effects on regional climatic regimes, is not well understood, but the predictions for the Southwest indicate less overall precipitation and longer periods of drought. Seager *et al.* (2007, p. 1181) predict, based on broad consensus among 19 climate models, that the Southwest will become drier in the 21st century and that the transition to this drier state is already underway. The increased aridity associated with the current ongoing drought will become the norm for the Southwest within a timeframe of years to decades, if the models are correct (Jacobs *et al.* 2005, p. 438; Shaw *et al.* 2005, p. 280; Seager *et al.* 2007, p. 1183).

Exactly how climate change will affect precipitation patterns is less certain because precipitation predictions are based on continental-scale general circulation models that do not yet account for land use and land-cover-change effects on climate. Consistent with recent observations in changes from climate, the outlook presented for the Southwest predicts warmer, drier, drought-like conditions (Jacobs *et al.* 2005, p. 437; Shaw *et al.* 2005, pp. 280–281; Seager *et al.* 2007, p. 1183; Hoerling and Eischeid 2007, p. 19). A decline in water resources, with or without climate change, will be a significant factor in the watersheds of the desert Southwest.

One predicted effect of climate change is an increase in summer monsoon rains that would seasonally increase stream flows. McGavock (2009, pp. 1–6) describes the effects of increasing air temperatures on base flow of streams within the Verde River watershed, which would apply to the Oak Creek and Wet Beaver Creek Redrock stonefly sites, and likely be applicable to the other sites. Streamflow in Redrock stonefly habitats may increase seasonally as a result of summer monsoon storm runoff. Mitchell *et al.* (2002, p. 2262) defines the onset of the Arizona summer monsoon period as occurring when sea surface temperatures are a minimum of 84 degrees Fahrenheit (29 degrees Celsius)

in the Gulf of California. Earlier attainment of this temperature correlates with a stronger summer monsoon, with the opposite being true if the trigger occurs later. Gradual climate warming could result in earlier and stronger monsoons occurring more frequently and leading to larger summer runoff in Arizona streams (McGavock 2009, p. 3). The resiliency of stoneflies, and presumably the Redrock stonefly, to flooding was discussed under wildfires in Factor A. Flecker and Feifarek (1994, p. 139) found that reductions in aquatic macroinvertebrate densities, including *Anacroneria sp.*, following floods quickly improved in Venezuelan streams. Aquatic macroinvertebrates have several means to persist during and after flood events such as highly developed refuge-seeking behavior, flexible life histories (such as delaying metamorphosis from eggs to young or to adults to more favorable periods), and the ability to recolonize flooded areas rapidly (Scrimgeour and Winterbourn 1989, p. 42). We anticipate that given the widely fluctuating occurrence of summer flood events that presently occur in Arizona (Grimm and Fisher 1989, p. 294) the Redrock stonefly is likely to be resilient and persist if stronger summer floods occur in its habitat as a result of global climate warming.

Another potential effect of climate change is increased snowmelt runoff into streams through a reduction in sublimation. Sublimation is the process of snow evaporating into the atmosphere instead of melting, and can remove large amounts of water from snow that would have led to stream runoff (Montesi *et al.* 2004, p. 763). Sublimation occurs under cold temperatures with intense sunlight, especially in forested watersheds where snow is held above the ground in trees, where it can sublimate easier (Montesi *et al.* 2004, p. 763). The Verde River watershed is forested, and during cold winters, can lose large amounts of snow moisture to sublimation. Warmer winter temperatures, as predicted, would reduce sublimation, making more snowmelt available for stream runoff (McGavock 2009, p. 2).

However, if winter temperatures warm too much, winter rains would be expected to increasingly replace snowfall. Snowfall is more conducive to groundwater recharge because water from melting snow has a longer time to infiltrate into the ground than runoff from rainfall. Base flows in these streams that support Redrock stoneflies would be expected to decline later in the summer if groundwater recharge is

decreased during future warmer winters (McGavock 2009, p. 5).

Lower summer base flows in streams could result in either the elimination of available surface water (and loss of all habitat), or the reduction in the amount of available surface water. When stream flows are reduced during the summer, water quality generally decreases due to increased water temperature, decreased dissolved oxygen, and concentrated pollutants. Redrock stoneflies would likely use egg or nymphal diapause to survive decreased habitat conditions if climate change or other factors result in reduced flows and degradation of summer habitat conditions.

Climate change may be a significant, long-term source of stress that indirectly exacerbates other potential threats by mechanisms, such as increasing the likelihood of prolonged drought that would reduce groundwater availability and result in future habitat loss. However, we do not currently have sufficient information to determine the potential effects of climate change on the Redrock stonefly. Both the magnitude (the extent of any specific effects) and the imminence (when the effects might occur) of the future effects of climate change remain highly uncertain. Climate change may serve to exacerbate other current or future concerns for habitat loss from other factors. But because we have determined that the Redrock stonefly is not threatened by habitat loss, we cannot predict with any certainty that climate change will exacerbate future habitat concerns sufficiently to consider it a threat to the species. The degree of impact would depend on the intensity and longevity of Redrock stonefly habitat changes that may occur, and these changes cannot be predicted with any certainty in the foreseeable future. In addition, we find that the Redrock stonefly's adaptations to both warm and cold water, low dissolved oxygen, and sediment, discussed above in Factor A, will lessen the potential impacts from climate change. We conclude that the best scientific and commercial information available indicates that the Redrock stonefly is not now, or in the foreseeable future, threatened by other natural or anthropogenic factors affecting its continued existence, or that these factors act cumulatively with other potential threats to the extent that listing under the Act as an endangered or threatened species is warranted at this time.

Finding

As required by the Act, we considered the five factors in assessing whether the Redrock stonefly is endangered or

threatened throughout all or a significant portion of its range. We examined the best scientific and commercial information available regarding the past, present, and future threats faced by the Redrock stonefly. We reviewed the petition, information available in our files, and other available published and unpublished information, and we consulted with recognized stonefly experts and other Federal agencies.

Our review of all the available information in consideration of the five factors does not support a determination that any current activities or activities in the foreseeable future are threatening the Redrock stonefly or its habitat. Under our Factor A analysis, we found no significant modifications have occurred to the habitats of the Redrock stonefly and none are expected in the foreseeable future. In addition, the species is well-adapted to sustain itself in areas with minor habitat alterations associated with degraded water quality or altered stream habitats. The only known change in the range of the species has been an increase in distribution due to additional survey efforts. Overutilization (Factor B) and disease (Factor C) are not concerns for this species. Predation (Factor C) by both native and nonnative species likely occurs, but the Redrock stonefly has anti-predatory adaptations that are expected to allow it to withstand the anticipated predatory pressures. We find that existing regulatory mechanisms are sufficient (Factor D). Furthermore, there are current management practices and protections in place that limit or prevent possible negative impacts from human activities. The only issue of concern we found under Factor E is the potential effects of climate change. Future climate change could affect the habitat of Redrock stonefly by reduced stream flows and declining water quality. However, the species appears to be adapted to withstand some habitat degradation. At this time, because of the uncertainties of the local, specific effects of climate change, we cannot adequately assess the magnitude of those effects in the foreseeable future, and therefore, find that climate change is not a threat to the Redrock stonefly.

Based on our review of the best scientific and commercial information available pertaining to the five factors, we find that the threats are not of sufficient imminence, intensity, or magnitude to indicate that the Redrock stonefly is in danger of extinction (endangered), or likely to become endangered within the foreseeable future (threatened), throughout all or a

significant portion of its range (see "Significant Portion of the Range" below). Therefore, we find that listing the Redrock stonefly as an endangered or a threatened species is not warranted at this time.

Significant Portion of the Range

Having determined that the Redrock stonefly is not in danger of extinction or likely to become so within the foreseeable future throughout all of its range, we must next consider whether there are any significant portions of the range where the species is in danger of extinction or is likely to become endangered in the foreseeable future.

The Act defines an endangered species as one "in danger of extinction throughout all or a significant portion of its range," and a threatened species as one "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The term "significant portion of its range" is not defined by the statute. For the purposes of this finding, a portion of a species' (Redrock stonefly) range is "significant" if it is part of the current range of the species, and it provides a crucial contribution to the representation, resiliency, or redundancy of the species. For the contribution to be crucial, it must be at a level such that, without that portion, the species would be in danger of extinction.

In determining whether a species is endangered or threatened in a significant portion of its range, we first identify any portions of the range of the species that warrant further consideration. The range of a species can theoretically be divided into portions in an infinite number of ways. However, there is no purpose to analyzing portions of the range that are not reasonably likely to be significant and endangered or threatened. To identify only those portions that warrant further consideration, we determine whether there is substantial information indicating that: (1) The portions may be significant, and (2) the species may be in danger of extinction there or likely to become so within the foreseeable future. In practice, a key part of this analysis is whether the threats are geographically concentrated in some way. If the threats to the species are essentially uniform throughout its range, no portion is likely to warrant further consideration. Moreover, if any concentration of threats applies only to portions of the species' range that clearly would not meet the biologically based definition of "significant" (*i.e.*, the loss of that portion clearly would not reasonably be expected to increase the vulnerability to

extinction of the entire species to the point that the species would then be in danger of extinction), such portions will not warrant further consideration.

If we identify portions that warrant further consideration, we then determine their status (*i.e.*, whether in fact the species is endangered or threatened in a significant portion of its range). Depending on the biology of the species, its range, and the threats it faces, it might be more efficient for us to address the "significant" question first, or the status question first. Thus, if we determine that a portion of the range is not "significant," we do not need to determine whether the species is endangered or threatened there; if we determine that the species is not endangered or threatened in a portion of its range, we do not need to determine if that portion is "significant."

Applying the process described above for determining whether a species is endangered or threatened in a significant portion of its range, we considered status first to determine if any threat or potential threat acting individually or collectively threaten or endanger the Redrock stonefly in a portion of its range. We have analyzed the potential threats to the species and found that some threats, such as potential habitat alteration from water quality degradation from urban development or decline in stream flows from groundwater use, may be acting only in geographic areas associated with larger human populations. However, based on our threats analysis, we found that none of the potential threats, either individually or collectively, are severe enough to cause the Redrock stonefly to be endangered or threatened in these portions of its range, or in any portions of its range that may meet the biologically based definition of "significant."

Conclusion of 12-Month Finding

We do not find that the Redrock stonefly is in danger of extinction now, nor is it likely to become endangered within the foreseeable future, throughout all or a significant portion of its range. Therefore, listing the Redrock stonefly as endangered or threatened under the Act is not warranted at this time.

We request that you submit any new information concerning the status of, or threats to, Redrock stonefly to our Arizona Ecological Services Office (see **ADDRESSES**) whenever it becomes available. New information will help us monitor the stonefly and encourage its conservation. If an emergency situation develops for the Redrock stonefly, or

any other species, we will act to provide immediate protection.

References Cited

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Arizona Ecological Services Office (see **ADDRESSES** section).

Authors

The primary authors of this notice are staff members of the Arizona Ecological Services Office.

Authority

The authority for this section is section 4 of the Endangered Species Act

of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: July 21, 2011.

Gregory E. Siekaniec,
Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2011-19447 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-55-P

Notices

Federal Register

Vol. 76, No. 148

Tuesday, August 2, 2011

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

July 27, 2011.

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104-13. Comments regarding (a) whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology should be addressed to: Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), OIRA_Submission@OMB.EOP.GOV or fax (202) 395-5806 and to Departmental Clearance Office, USDA, OCIO, Mail Stop 7602, Washington, DC 20250-7602. Comments regarding these information collections are best assured of having their full effect if received within 30 days of this notification. Copies of the submission(s) may be obtained by calling (202) 720-8681.

An agency may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to

the collection of information unless it displays a currently valid OMB control number.

Rural Utility Service

Title: 7 CFR Part 1780, Water and Waste Loan and Grant Program.

OMB Control Number: 0572-0121.

Summary of Collection: Section 306 of the Consolidated Farm and Rural Development Act (CONACT), 7 U.S.C. 1926, authorizes Rural Utilities Service (RUS) to make loans to nonprofit corporations, and state, local and tribal governments, for the development of water and waste disposal facilities primarily servicing rural residents with populations up to 10,000 residents.

Need and Use of the Information: Rural Development's field offices will collect information from applicants/borrowers and consultants to determine eligibility and project feasibility. The information will help to ensure borrowers operate on a sound basis and use loan funds for authorized purposes. There are agency forms required as well as other requirements that involve certifications from the borrower, lenders, and other parties. Failure to collect proper information could result in improper determinations of eligibility, use of funds and or unsound loans.

Description of Respondents: State, Local or Tribal Government; not-for-profit institutions.

Number of Respondents: 852.

Frequency of Responses:

Recordkeeping; Reporting: On occasion; annually and weekly.

Total Burden Hours: 122,062.

Charlene Parker,

Departmental Information Collection Clearance Officer.

[FR Doc. 2011-19539 Filed 8-1-11; 8:45 am]

BILLING CODE 3410-15-P

DEPARTMENT OF AGRICULTURE

Office of the Secretary

Increase in Fiscal Year 2011 Specialty Sugar Tariff-Rate Quota; Determination of Total Amounts of Fiscal Year 2012 Tariff-Rate Quotas for Raw Cane Sugar and Certain Sugars, Syrups and Molasses; and Extension of Entry Period for the Fiscal Year 2012 Raw Sugar Tariff-Rate Quota

AGENCY: Office of the Secretary, USDA.

ACTION: Notice.

SUMMARY: The Office of the Secretary of the Department of Agriculture is providing notice of an increase in the fiscal year (FY) 2011 specialty sugar tariff-rate quota (TRQ) of 9,072 metric tons raw value (MTRV). The Secretary also announces the establishment of the FY 2012 in-quota aggregate quantity of the raw, as well as, refined and specialty sugar TRQ as required under the U.S. World Trade Organization (WTO) commitments. The FY 2012 raw cane sugar TRQ is established at 1,117,195 MTRV that may be entered under subheading 1701.11.10 of the U.S. Harmonized Tariff Schedule (HTS) during FY 2012 (October 1, 2011-September 30, 2012). In addition, the in-quota aggregate quantity of the refined and specialty sugar TRQ is established at 112,718 MTRV for certain sugars, syrups, and molasses (collectively referred to as refined sugar) that may be entered under subheadings 1701.12.10, 1701.91.10, 1701.99.10, 1702.90.10, and 2106.90.44 of the HTS during FY 2012. The Secretary also today announced that sugar entering the United States under the FY 2012 raw sugar import TRQ will be permitted to enter U.S. Customs territory beginning September 1, 2011, a month earlier than the usual first entry date of October 1. This latter action is in response to increased tightness in the U.S. raw sugar market. Additional U.S. Note 5(a) (iv) of Chapter 17 of the HTS authorizes the Secretary of Agriculture to permit sugar allocated under a given quota period to be entered in a previous or subsequent quota year period.

DATES: Effective: August 2, 2011.

FOR FURTHER INFORMATION CONTACT:

Angel F. Gonzalez, Import Policies and Export Reporting Division, Foreign Agricultural Service, Department of Agriculture, 1400 Independence Avenue, SW., AgStop 1021, Washington, DC 20250-1021; by telephone (202) 720-2916; by fax (202) 720-0876; or by e-mail angel.f.gonzalez@fas.usda.gov.

SUPPLEMENTARY INFORMATION: The Office of the Secretary of the Department of Agriculture is providing notice of an increase in the FY 2011 specialty sugar TRQ of 9,072 MTRV. Entries of specialty sugar under this additional tranche will be permitted beginning August 5, 2011.

The provisions of paragraph (a)(i) of the Additional U.S. Note 5, Chapter 17 in the HTS authorize the Secretary of Agriculture to establish the in-quota TRQ amounts (expressed in terms of raw value) for imports of raw cane sugar and certain sugars, syrups, and molasses that may be entered under the subheadings of the HTS subject to the lower tier of duties of the TRQs for entry during each fiscal year. The Office of the U.S. Trade Representative (USTR) is responsible for the allocation of these quantities among supplying countries and areas.

Section 359(k) of the Agricultural Adjustment Act of 1938, as amended requires that at the beginning of the quota year the Secretary of Agriculture establish the TRQs for raw cane sugar and refined sugars at the minimum levels necessary to comply with obligations under international trade agreements, with the exception of specialty sugar.

Notice is hereby given that I have determined, in accordance with paragraph (a)(i) of the Additional U.S. Note 5, Chapter 17 in the HTS and section 359(k) of the 1938 Act, that an aggregate quantity of up to 1,117,195 MTRV of raw cane sugar described in subheading 1701.11.10 of the HTS may be entered or withdrawn from warehouse for consumption during FY 2012 (October 1, 2011–September 30, 2012). This is the minimum amount to which the United States is committed under the WTO Uruguay Round Agreements. I have further determined that an aggregate quantity of 112,718 MTRV of sugars, syrups, and molasses described in subheadings 1701.12.10, 1701.91.10, 1701.99.10, 1702.90.10, and 2106.90.44 may be entered or withdrawn from warehouse for consumption during FY 2012. Of this quantity of 112,718 MTRV, the quantity of 92,374 MTRV is reserved for the importation of specialty sugars as defined by the USTR. The total of 112,718 MTRV includes the 22,000 MTRV minimum level necessary to comply with U.S. WTO Uruguay Round commitments, of which 1,656 MTRV is reserved for specialty sugar. Because the specialty sugar TRQ is first-come, first-served, tranches are needed to allow for orderly marketing throughout the year. The FY 2012 specialty sugar TRQ will be opened in five tranches. The first tranche, totaling 1,656 MTRV, will open October 12, 2011. All specialty sugars are eligible for entry under this tranche. The second tranche will open on October 26, 2011, and be equal to 33,565 MTRV. The remaining tranches will each be equal to 19,051 MTRV, with the third opening on January 11, 2012; the

fourth, on April 11, 2012; and the fifth, on July 11, 2012. The second, third, fourth, and fifth tranches will be reserved for organic sugar and other specialty sugars not currently produced commercially in the United States or reasonably available from domestic sources.

* Conversion factor: 1 metric ton = 1.10231125 short tons.

Karris T. Gutter,

Under Secretary, Acting Farm and Foreign Agricultural Services.

[FR Doc. 2011-19517 Filed 8-1-11; 8:45 am]

BILLING CODE P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. APHIS-2011-0031]

Notice of Availability of Pest Risk Analyses for the Importation of Fresh Pitaya and Pomegranates From Mexico Into the Continental United States

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice.

SUMMARY: We are advising the public that we have prepared pest risk analyses that evaluate the risks associated with the importation into the continental United States of fresh pitaya and pomegranates from Mexico. Based on these analyses, we believe that the application of one or more designated phytosanitary measures will be sufficient to mitigate the risks of introducing or disseminating plant pests or noxious weeds via the importation of fresh pitaya and pomegranates from Mexico. We are making the pest risk analyses available to the public for review and comment.

DATES: We will consider all comments that we receive on or before October 3, 2011.

ADDRESSES: You may submit comments by either of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov/> #!documentDetail;D=APHIS-2011-0031-0001.
- *Postal Mail/Commercial Delivery:* Send your comment to Docket No. APHIS-2011-0031, Regulatory Analysis and Development, PPD, APHIS, Station 3A-03.8, 4700 River Road Unit 118, Riverdale, MD 20737-1238.

Supporting documents and any comments we receive on this docket may be viewed at <http://www.regulations.gov/> #!docketDetail;D=APHIS-2011-0031 or

in our reading room, which is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690-2817 before coming.

Other Information: Additional information about APHIS and its programs is available on the Internet at <http://www.aphis.usda.gov>.

FOR FURTHER INFORMATION CONTACT: Mr. Marc Phillips, Regulatory Policy Specialist, Regulations, Permits, and Import Manuals, PPQ, APHIS, 4700 River Road Unit 133, Riverdale, MD 20737-1231; (301) 734-4394.

SUPPLEMENTARY INFORMATION:

Background

Under the regulations in "Subpart—Fruits and Vegetables" (7 CFR 319.56-1 through 319.56-50, referred to below as the regulations), the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture prohibits or restricts the importation of fruits and vegetables into the United States from certain parts of the world to prevent plant pests from being introduced into and spread within the United States.

Section 319.56-4 contains a performance-based process for approving the importation of commodities that, based on the findings of a pest-risk analysis, can be safely imported subject to one or more of the designated phytosanitary measures listed in paragraph (b) of that section.

APHIS received requests from the Government of Mexico to allow the importation of fresh pitaya (*Hylocereus* spp.) and pomegranates (*Punica granatum* L.) into the continental United States. We have completed pest lists for these commodities to identify pests of quarantine significance that could follow the pathway of importation into the continental United States and, based on these lists, have prepared risk management documents to identify phytosanitary measures that could be applied to fresh pitaya and pomegranates from Mexico to mitigate the pest risk. We have concluded that fresh pitaya and pomegranates can be safely imported into the continental United States from Mexico using one or more of the five designated phytosanitary measures listed in § 319.56-4(b). These measures are:

- The pitaya and pomegranates may be imported into the continental United States in commercial consignments only.

- The pitaya and pomegranates must be irradiated in accordance with 7 CFR part 305 with a minimum absorbed dose of 150 Gy.

- If the irradiation treatment is applied outside the United States, each consignment of fruit must be jointly inspected by APHIS and the national plant protection organization (NPPO) of Mexico and accompanied by a phytosanitary certificate (PC) attesting that the fruit received the required irradiation treatment.

- If the irradiation treatment is applied upon arrival in the United States, each consignment of fruit must be inspected by the NPPO of Mexico prior to departure. For consignments of pitaya, the inspection must include a sampling procedure mutually agreed upon by APHIS and the NPPO of Mexico.

- For consignments of pitaya, the PC must also include an additional declaration stating that the consignment was inspected and found free of *Milax* spp., *Dysmicoccus neobrevipes*, *Euschistus servus*, *Maracayia chlorisalis*, and *Planococcus minor*. For pomegranates, the PC must also include an additional declaration stating that the consignment was inspected and found free of Aleyrodidae, Coccidae, and Pseudococcidae.

- The commodity is subject to inspection at the U.S. ports of entry.

Therefore, in accordance with § 319.56-4(c), we are announcing the availability of our pest risk analyses for public review and comment. The pest risk analyses may be viewed on the Regulations.gov Web site or in our reading room (see ADDRESSES above for a link to Regulations.gov and information on the location and hours of the reading room). You may request paper copies of the pest risk analyses by calling or writing to the person listed under **FOR FURTHER INFORMATION CONTACT**. Please refer to the subject of the pest risk analysis you wish to review when requesting copies.

After reviewing any comments we receive, we will announce our decision regarding the import status of fresh pitaya and pomegranates from Mexico in a subsequent notice. If the overall conclusions of the analysis and the Administrator's determination of risk remain unchanged following our consideration of the comments, then we will authorize the importation of fresh pitaya and pomegranates from Mexico into the continental United States subject to the requirements specified in the risk management documents.

Authority: 7 U.S.C. 450, 7701-7772, and 7781-7786; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

Done in Washington, DC, this 28th day of July 2011.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 2011-19501 Filed 8-1-11; 8:45 am]

BILLING CODE 3410-34-P

DEPARTMENT OF AGRICULTURE

Forest Service

Lake Tahoe Basin Federal Advisory Committee (LTFAC)

AGENCY: Forest Service, USDA.

ACTION: Notice of meeting.

SUMMARY: The Lake Tahoe Federal Advisory Committee will meet in Incline Village, NV. This Committee, established by the Secretary of Agriculture on December 15, 1998 (64 FR 2876), is chartered to provide advice to the Secretary on implementing the terms of the Federal Interagency Partnership on the Lake Tahoe Region and other matters raised by the Secretary. The meeting is open to the public. The purpose of the meeting is to provide updates on the 2011 Tahoe Summit held on August 16, 2011 and the Southern Nevada Public Management Act Executives meeting. **DATES:** The meeting will be held August 23, 2011, 9 a.m. to 12 p.m.

ADDRESSES: The meeting will be held at the Tahoe Center for Environmental Science, 291 Country Club Drive, Incline Village, NV 89451.

Written comments may be submitted as described under **SUPPLEMENTARY INFORMATION**. All comments, including names and addresses when provided, are placed in the record and are available for public inspection and copying. The public may inspect comments received at Lake Tahoe Basin Management Unit, 35 College Drive, South Lake Tahoe, CA 96150. Please call ahead to (530) 543-2773 to facilitate entry into the building to view comments.

FOR FURTHER INFORMATION CONTACT: Arla Hains, Administrative Assistant to the Forest Supervisor, Lake Tahoe Basin Management Unit, (530) 543-2773, ashains@fs.fed.us.

Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern Standard Time, Monday through Friday. Requests for reasonable accommodation for access to the facility or proceedings may be made by contacting the person listed **FOR FURTHER INFORMATION**.

SUPPLEMENTARY INFORMATION: The following business will be conducted: (1) The Southern Nevada Public Land Management Act Round 12 secondary list; (2) the role of the LTFAC in the future, and (3) public comment. The full agenda may be previewed at www.fs.usda.gov/goto/ltbmu/LTFAC. Anyone who would like to bring related matters to the attention of the committee may file written statements with the committee staff before or after the meeting. The agenda will include time for people to make oral statements of three minutes or less. Individuals wishing to make an oral statement should request in writing by August 18, 2011 to be scheduled on the agenda. Written comments and requests for time for oral comments must be sent to 35 College Drive, South Lake Tahoe, CA 96150, or by e-mail to ashains@fs.fed.us, or via facsimile to (530) 543-2739.

A summary of the meeting will be posted at <http://www.fs.usda.gov/goto/ltbmu/LTFAC> within 21 days of the meeting.

Dated: July 27, 2011.

Jeff Marsolais,

Deputy Forest Supervisor.

[FR Doc. 2011-19538 Filed 8-1-11; 8:45 am]

BILLING CODE 3410-11-P

DEPARTMENT OF COMMERCE

Economic Development Administration

Notice of Petitions by Firms for Determination of Eligibility To Apply for Trade Adjustment Assistance

AGENCY: Department of Commerce, Economic Development Administration

ACTION: Notice and opportunity for public comment.

Pursuant to Section 251 of the Trade Act of 1974, as amended (19 U.S.C. 2341 *et seq.*), the Economic Development Administration (EDA) has received petitions for certification of eligibility to apply for Trade Adjustment Assistance from the firms listed below.

Accordingly, EDA has initiated investigations to determine whether increased imports into the United States of articles like or directly competitive with those produced by each of these firms contributed importantly to the total or partial separation of the firm's workers, or threat thereof, and to a decrease in sales or production of each petitioning firm.

LIST OF PETITIONS RECEIVED BY EDA FOR CERTIFICATION OF ELIGIBILITY TO APPLY FOR TRADE ADJUSTMENT ASSISTANCE 7/14/2011 THROUGH 7/27/2011

Firm name	Address	Date accepted for investigation	Products
August Ninth Analyses, Inc	6 Metro Tech Center, Brooklyn, NY 11201.	26-Jul-11	The firm designs, develops, and manufactures novel, simple to use automation and process monitoring products for industrial customers.
Methods Distributors and Manufacturers, Inc.	104 Sayton Road, Fox Lake, IL 60020.	27-Jul-11	The firm manufactures plastic and metal screws and fasteners for pressurized devices, such as fuel or compressed air pumps.
Nursery Supplies, Inc	1415 Orchard Drive, Chambersburg, PA 17201.	26-Jul-11	The firm manufactures plastic containers for the wholesale nursery industry, including a broad range of molded and vacuum-formed containers.
Technautic International, Inc., dba Reliant Water Technologies.	141 Robert E. Lee Boulevard. #284, New Orleans, LA 70124.	22-Jul-11	The firm manufactures automated dissolved oxygen monitoring and control systems.
Yoder Lumber Co., Inc	4515 Twp. Road—367, Millersburg, OH 44654.	22-Jul-11	The firm manufactures hardwood lumber and wood components.

Any party having a substantial interest in these proceedings may request a public hearing on the matter. A written request for a hearing must be submitted to the Trade Adjustment Assistance for Firms Division, Room 7106, Economic Development Administration, U.S. Department of Commerce, Washington, DC 20230, no later than ten (10) calendar days following publication of this notice.

Please follow the requirements set forth in EDA's regulations at 13 CFR 315.9 for procedures to request a public hearing. The Catalog of Federal Domestic Assistance official number and title for the program under which these petitions are submitted is 11.313, Trade Adjustment Assistance for Firms.

Dated: July 27, 2011.

Sunni Massey,

Eligibility Certifier.

[FR Doc. 2011-19508 Filed 8-1-11; 8:45 am]

BILLING CODE 3510-WH-P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Order No. 1773]

Grant of Authority for Subzone Status; GEA Bloomington Production Operations, LLC (Refrigerators); Bloomington, IN

Pursuant to its authority under the Foreign-Trade Zones Act of June 18, 1934, as amended (19 U.S.C. 81a-81u), the Foreign-Trade Zones Board (the Board) adopts the following Order:

Whereas, the Foreign-Trade Zones Act provides for " * * the establishment * * * of foreign-trade zones in ports of entry of the United States, to expedite and encourage foreign commerce, and for other purposes," and authorizes the

Foreign-Trade Zones Board to grant to qualified corporations the privilege of establishing foreign-trade zones in or adjacent to U.S. Customs and Border Protection ports of entry:

Whereas, the Board's regulations (15 CFR Part 400) provide for the establishment of special-purpose subzones when existing zone facilities cannot serve the specific use involved, and when the activity results in a significant public benefit and is in the public interest;

Whereas, the Indianapolis Airport Authority, grantee of Foreign-Trade Zone 72, has made application to the Board for authority to establish a special-purpose subzone at the refrigerator manufacturing facility of GEA Bloomington Production Operations, LLC, located in Bloomington, Indiana (FTZ Docket 67-2010, filed 11-19-2010);

Whereas, notice inviting public comment has been given in the **Federal Register** (75 FR 74001-74002, 11-30-2010) and the application has been processed pursuant to the FTZ Act and the Board's regulations; and,

Whereas, the Board adopts the findings and recommendations of the examiner's report, and finds that the requirements of the FTZ Act and Board's regulations are satisfied, and that the proposal is in the public interest;

Now, therefore, the Board hereby grants authority for subzone status for activity related to the manufacturing of refrigerators at the GEA Bloomington Production Operations, LLC, facility located in Bloomington, Indiana (Subzone 72T), as described in the application and **Federal Register** notice, subject to the FTZ Act and the Board's regulations, including Section 400.28.

Signed at Washington, DC this 26th day of July, 2011.

Ronald K. Lorentzen,

Deputy Assistant Secretary for Import Administration, Alternate Chairman, Foreign-Trade Zones Board.

Andrew McGilvray,

Executive Secretary.

[FR Doc. 2011-19565 Filed 8-1-11; 8:45 am]

BILLING CODE P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-570-851]

Certain Preserved Mushrooms From the People's Republic of China: Preliminary Results of Antidumping Duty New Shipper Reviews

AGENCY: Department of Commerce, International Trade Administration, Import Administration.

DATES: Effective Date: August 2, 2011.

SUMMARY: The Department of Commerce (the Department) is currently conducting two new shipper reviews (NSRs) of the antidumping duty order on certain preserved mushrooms from the People's Republic of China (PRC).¹ We preliminarily determine that the sales made by Guangxi Hengyong Industrial & Commercial Dev., Ltd (Hengyong) were not made below normal value (NV), and that sales made by Zhangzhou Hongda Import & Export Trading Co., Ltd (Hongda), were made below NV. As described below, the period of review (POR) of the NSR for Hengyong is February 1, 2010, through

¹ See Notice of Amendment of Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order: Certain Preserved Mushrooms From the People's Republic of China, 64 FR 8308 (February 19, 1999) (Order).

August 31, 2010, and the POR for Hongda is February 1, 2010, through July 31, 2010. If these preliminary results are adopted in our final results of this review, we will instruct U.S. Customs and Border Protection (CBP) to assess antidumping duties on all appropriate entries of subject merchandise during the POR.

FOR FURTHER INFORMATION CONTACT: Fred Baker, Scott Hoefke, or Robert James, AD/CVD Operations, Office 7, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone, (202) 482-2924, (202) 482-4947 or (202) 482-0649, respectively.

SUPPLEMENTARY INFORMATION:

Background

On February 19, 1999, the Department published the antidumping duty order on certain preserved mushrooms from the People's Republic of China. See *Notice of Amendment of Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order: Certain Preserved Mushrooms From the People's Republic of China*, 64 FR 8308 (February 19, 1999) (the Order).

On August 31, 2010, pursuant to section 751(a)(2)(B)(i) of the Tariff Act of 1930, as amended (the Act), and 19 CFR 351.214(c), the Department received NSR requests from Hengyong and Hongda. The Department determined that both of these requests had not been properly filed due to bracketing issues, and therefore returned them on September 23, 2010. On September 24, 2010, both companies resubmitted their requests. Hengyong certified that it was the exporter and Hengyong Industrial & Commercial Dev. Ltd. Hengxian Food Division (Hengxian) was the manufacturer. Hongda certified it was the exporter and Fujian Haishan Foods Co., Ltd. (Haishan) was the manufacturer.

On September 29, 2010, the Department initiated antidumping duty NSRs on certain preserved mushrooms from the PRC covering the two companies. See *Certain Preserved Mushrooms From the People's Republic of China: Notice of Initiation of Antidumping Duty New Shipper Reviews*, 75 FR 62108 (October 7, 2010) (*Initiation Notice*).

On October 4, 2010, the Department issued its standard antidumping questionnaire to both Hengyong and Hongda. They submitted their section A responses on November 2, 2010, and their sections C and D responses on November 16, 2010. On April 12, 2011, and April 15, 2011, the Department

issued supplemental sections A, C, and D questionnaires to Hongda and Hengyong, respectively. Hongda and Hengyong responded to these supplemental questionnaires on April 25, 2011, and April 28, 2011, respectively.

On November 8, 2010, the Department sent interested parties a letter requesting comments on surrogate country selection and information pertaining to valuing factors of production (FOP) in a surrogate market economy country. No party submitted surrogate country or surrogate value data.

On March 25, 2011, the Department extended the time limit for issuing the preliminary results of review. See *Certain Preserved Mushrooms From the People's Republic of China; Extension of Time Limit for the Preliminary Results of Antidumping Duty New Shipper Reviews*, 76 FR 16727 (March 25, 2011).

Period of Review

In the initiation notice of these NSRs, we indicated that the POR was February 1, 2010, through July 31, 2010. See *Initiation Notice*, 75 FR at 62108. However, for Hengyong we are extending the POR by one month to capture entries corresponding to Hengyong's sales to the United States during the period February 1, 2010, through July 31, 2010. Therefore, the POR of the NSR of Hengyong is February 1, 2010, through August 31, 2010, and the POR of the NSR of Hongda is February 1, 2010, through July 31, 2010.

Scope of the Order

The products covered by this order are certain preserved mushrooms, whether imported whole, sliced, diced, or as stems and pieces. The certain preserved mushrooms covered under this order are the species *Agaricus bisporus* and *Agaricus bitorquis*. "Certain Preserved Mushrooms" refers to mushrooms that have been prepared or preserved by cleaning, blanching, and sometimes slicing or cutting. These mushrooms are then packed and heated in containers including, but not limited to, cans or glass jars in a suitable liquid medium, including, but not limited to, water, brine, butter or butter sauce. Certain preserved mushrooms may be imported whole, sliced, diced, or as stems and pieces. Included within the scope of this order are "brined" mushrooms, which are presalted and packed in a heavy salt solution to provisionally preserve them for further processing.²

² On June 19, 2000, the Department affirmed that "marinated," "acidified," or "pickled" mushrooms

Excluded from the scope of this order are the following: (1) All other species of mushroom, including straw mushrooms; (2) all fresh and chilled mushrooms, including "refrigerated" or "quick blanched mushrooms;" (3) dried mushrooms; (4) frozen mushrooms; and (5) "marinated," "acidified," or "pickled" mushrooms, which are prepared or preserved by means of vinegar or acetic acid, but may contain oil or other additives.

The merchandise subject to this order is classifiable under subheadings: 2003.10.0127, 2003.10.0131, 2003.10.0137, 2003.10.0143, 2003.10.0147, 2003.10.0153, and 0711.51.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheadings are provided for convenience and Customs purposes, the written description of the scope of this order is dispositive.

Non-Market Economy Country Status

In every case conducted by the Department involving the PRC, we have treated the PRC as a non-market economy (NME) country. See, e.g., *Pure Magnesium from the People's Republic of China: Final Results of Antidumping Duty Administrative Review*, 73 FR 76336 (December 16, 2008); and *Frontseating Service Valves from the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*, 74 FR 10886 (March 12, 2009). In accordance with section 771(18)(C)(i) of the Act, any determination that a foreign country is an NME country shall remain in effect until revoked by the administering authority. See, e.g., *Brake Rotors From the People's Republic of China: Final Results and Partial Rescission of the 2004/2005 Administrative Review and Notice of Rescission of 2004/2005 New Shipper Review*, 71 FR 66304 (November 14, 2006). None of the parties to this proceeding have contested such treatment. Accordingly, we calculated NV in accordance with section 773(c) of the Act, which applies to NME countries.

containing less than 0.5 percent acetic acid are within the scope of the antidumping duty order. See Recommendation Memorandum-Final Ruling of Request by Tak Fat, et al. for Exclusion of Certain Marinated, Acidified Mushrooms from the Scope of the Antidumping Duty Order on Certain Preserved Mushrooms from the People's Republic of China," dated June 19, 2000. On February 9, 2005, the United States Court of Appeals for the Federal Circuit upheld this decision. See *Tak Fat v. United States*, 396 F.3d 1378 (Fed. Cir. 2005).

Separate Rates Determination

A designation of a country as an NME remains in effect until it is revoked by the Department. See section 771(18)(C) of the Act. Accordingly, there is a rebuttable presumption that all companies within the PRC are subject to government control, and thus should be assessed a single antidumping duty rate. It is the Department's policy to assign all exporters of the merchandise subject to review in NME countries a single rate unless an exporter can affirmatively demonstrate an absence of government control, both in law (*de jure*) and in fact (*de facto*), with respect to exports. To establish whether a company is sufficiently independent to be entitled to a separate, company-specific rate, the Department analyzes each exporting entity in an NME country under the test established in the *Final Determination of Sales at Less than Fair Value: Sparklers from the People's Republic of China*, 56 FR 20588 (May 6, 1991), (*Sparklers*) as amplified by the *Notice of Final Determination of Sales at Less than Fair Value: Silicon Carbide from the People's Republic of China*, 59 FR 22585 (May 2, 1994) (*Silicon Carbide*).

The Department's separate-rate status test to determine whether the exporter is independent from government control does not consider, in general, macroeconomic/border-type controls (e.g., export licenses, quotas, and minimum export prices), particularly if these controls are imposed to prevent dumping. The test focuses, rather, on controls over the investment, pricing, and output decision-making process at the individual firm level.³

Absence of De Jure Control

The Department considers the following *de jure* criteria in determining whether an individual company may be granted a separate rate: (1) An absence of restrictive stipulations associated with the individual exporter's business and export licenses; (2) any legislative enactments decentralizing control of companies; and (3) any other formal measures by the government decentralizing control of companies. See *Sparklers*, 56 FR at 20589. In this NSR, Hengyong and Hongda submitted complete responses to the separate rates section of the Department's questionnaire. The evidence submitted by Hengyong and Hongda includes

government laws and regulations on corporate ownership and control, these companies' individual business licenses, and narrative information regarding the companies' operations and selection of management. In addition, Hengyong and Hongda have placed on the record copies of certain laws and regulations, including the "Company Law of the People's Republic of China," the "Regulations of the People's Republic of China for Controlling the Registration of Enterprises as Legal Persons." The Department has analyzed these PRC laws and found that they establish an absence of *de jure* control. See, e.g., *Honey from the People's Republic of China: Preliminary Results and Partial Rescission of Antidumping Duty Administrative Review*, 72 FR 102, 105 (January 3, 2007), unchanged in *Honey from the People's Republic of China: Final Results and Final Rescission, In Part, of Antidumping Duty Administrative Review*, 72 FR 37715, 37716 (July 11, 2007). We have no information in this proceeding that would cause us to reconsider this determination.

Thus, we determine that the evidence on the record supports a preliminary finding of an absence of *de jure* government control of Hengyong and Hongda based on an absence of restrictive stipulations associated with the exporter's business license, as well as the legal authority on the record decentralizing control over the respondent. The evidence on the record provided by Hengyong and Hongda supports a preliminary finding of a *de jure* absence of government control over their export activities because: (1) There are no controls on exports of subject merchandise, such as quotas applied to, or licenses required for, exports of the subject merchandise to the United States; (2) the government of the PRC has passed legislation decentralizing control of companies. See Hongda's September 24, 2010, submission at exhibits 4, 7, appendix 1 and Hongda's November 2, 2010, submission at section A 1-7, and Hengyong's September 24, 2010, submission at exhibit 4, appendices 1-3 and Hengyong's November 2, 2010, submission at section A 1-7.

Absence of De Facto Control

As stated in previous cases, there is evidence that certain enactments of the PRC central government have not been implemented uniformly among different sectors and/or jurisdictions in the PRC. See, e.g., *Silicon Carbide*, 59 FR at 22586-87. Therefore, the Department has determined that an analysis of *de facto* control is critical in determining

whether the respondents are, in fact, subject to a degree of government control which would preclude the Department from assigning separate rates.

The absence of *de facto* government control over exports is based on whether the company: (1) Sets its own export prices independent of the government and without the approval of a government authority; (2) retains the proceeds from its export sales and makes independent decisions regarding the disposition of profits or financing of losses; (3) has the authority to negotiate and sign contracts and other agreements; and (4) has autonomy from the government regarding the selection of management. See *Silicon Carbide*, 59 FR at 22587; *Sparklers*, 56 FR at 20589; and *Final Determination of Sales at Less than Fair Value: Furfuryl Alcohol From the People's Republic of China*, 60 FR 22544, 22545 (May 8, 1995).

In its November 2, 2010, submission, Hengyong submitted evidence demonstrating an absence of *de facto* government control over its export activities. Specifically, this evidence indicates that: (1) The company sets its own export prices independent of the government and without the approval of a government authority; (2) the company retains the proceeds from its sales and makes independent decisions regarding the disposition of profits or financing of losses; (3) the company has a general manager with the authority to negotiate and bind the company in an agreement; (4) the general manager is selected by the owners; (5) the general manager appoints the manager of each department; and (6) there are no restrictions on the company's use of export revenues. Therefore, we preliminarily find that Hengyong has established that it qualifies for a separate rate under the criteria established by *Silicon Carbide* and *Sparklers*.

Similarly, in its November 2, 2010, submission, Hongda also submitted evidence demonstrating an absence of *de facto* government control over its export activities. Specifically, this evidence indicates that: (1) The company sets its own export prices independent of the government and without the approval of a government authority; (2) the company retains the proceeds from its sales and makes independent decisions regarding the disposition of profits or financing of losses; (3) the company has a sales manager with authority to negotiate and bind the company in an agreement; (4) the company's shareholders appoint the general manager, who appoints the senior managers; and (5) there are no

³ See *Certain Cut-to-Length Carbon Steel Plate from Ukraine: Final Determination of Sales at Less than Fair Value*, 62 FR 61754, 61758 (November 19, 1997), and *Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, from the People's Republic of China: Final Results of Antidumping Duty Administrative Review*, 62 FR 61276, 61279 (November 17, 1997).

restrictions on the company's use of export revenues. Therefore, we preliminarily find that Hongda has established that it qualifies for a separate rate under the criteria established by *Silicon Carbide and Sparklers*.

Bona Fide Analysis

Consistent with the Department's practice, we investigated the *bona fide* nature of the sales made by Hengyong and Hongda for these NSRs. In evaluating whether a single sale in a NSR is commercially reasonable, and therefore *bona fide*, the Department considers, *inter alia*, such factors as: (1) Timing of the sales; (2) price and quantity; (3) the expenses arising from the transaction; (4) whether the goods were sold at a profit; and (5) whether the transaction was made on an arms-length basis. See *Tianjin Tiancheng Pharmaceutical Co. v. the United States*, 366 F. Supp. 2d 1246, 1250 (CIT 2005) (TTPC). Accordingly, the Department considers a number of factors in its *bona fide* analysis, "all of which may be specific to the commercial realities surrounding an alleged sale of subject merchandise." See *Hebei New Donghua Amino Acid Co. v. the United States*, 374 F. Supp. 2d 1333, 1342 (CIT 2005) (*New Donghua*) (citing *Fresh Garlic From the People's Republic of China: Final Results of Antidumping Administrative Review and Rescission of New Shipper Review*, 67 FR 11283 (March 13, 2002), and accompanying Issues and Decision Memorandum). In TTPC, the court also affirmed the Department's decision that "any factor which indicates that the sale under consideration is not likely to be typical of those which the producer will make in the future is relevant," (TTPC, 366 F. Supp. 2d at 1250), and found that "the weight given to each factor investigated will depend on the circumstances surrounding the sale." TTPC, 366 F. Supp. 2d at 1263. Finally, in *New Donghua*, the CIT affirmed the Department's practice of evaluating the circumstances surrounding a NSR sale, so that a respondent does not unfairly benefit from an atypical sale and obtain a lower dumping margin than the producer's usual commercial practice would dictate.

In examining Hengyong's and Hongda's sales in relation to these factors, the Department observed no evidence that would indicate that these sales were not *bona fide*. For purposes of these preliminary results, we preliminarily find that the new shipper sales made by Hongda and Hengyong during the POR were *bona fide* commercial transactions based on the

totality of circumstances, namely: (1) The prices were comparable to the average unit values reported to CBP for all entries of subject merchandise; (2) The quantities sold were of commercial quantities within the range of normal commercial quantities; (3) neither Hengyong, nor Hongda, nor their customers incurred any extraordinary expenses arising from the transactions; (4) the sales were made between unaffiliated parties at arm's length; and (5) the timing of the sales does not indicate that they were not *bona fide*.

However, we note that the Department will continue to examine all aspects of Hongda's and Hengyong's POR sales including whether it is atypical, and, as such, not indicative of what its future sales may be. Since much of our analysis regarding the evidence of the *bona fides* of the transaction involves business proprietary information, a full discussion of the bases for our preliminary decision is set forth in Memorandum to Richard Weible through Robert James, Program Manager, Import Administration from Scott Hoefke, International Trade Compliance Analyst, Import Administration: *Bona Fide Sales Analysis of Shangdong Guangxi Hengyong Industrial & Commercial Dev., Ltd (Hengyong) in the Antidumping Duty New Shipper Review of Certain Preserved Mushrooms from the People's Republic of China*, dated July 26, 2011; and Memorandum to Richard Weible through Robert James, Program Manager, Import Administration from Fred Baker, International Trade Compliance Analyst, Import Administration: *Bona Fide Sales Analysis of Zhangzhou Hongda Import & Export Trading Co., Ltd. (Hongda) in the Antidumping Duty New Shipper Review of Certain Preserved Mushrooms from the People's Republic of China*, dated July 26, 2011.

Based on our preliminary findings that: (1) Hengyong's and Hongda's sales are *bona fide*; (2) Hengyong and Hongda are each eligible for a separate rate (see the "Separate Rates" section above); (3) Hengyong and Hongda are not affiliated with any exporter or producer that had previously shipped subject merchandise to the United States; and (4), Hengyong's manufacturer of subject merchandise, Hengxian, and Hongda's manufacturer of subject merchandise, Haishan, did not export the subject merchandise to the United States during the period of investigation, we preliminarily determine that Hengyong and Hongda meet the requirements to qualify as new shippers during the POR.

Therefore, for purposes of these preliminary results of review, we are treating Hengyong's and Hongda's sales of subject merchandise to the United States during the POR as appropriate transactions for these NSRs.

Surrogate Country

When the Department is investigating imports from an NME country, section 773(c)(1) of the Act directs it to base NV, in most circumstances, on the NME producer's factors of production (FOPs), valued in a surrogate market economy country or countries considered to be appropriate by the Department. In accordance with section 773(c)(4) of the Act, in valuing the FOPs, the Department shall utilize, to the extent possible, the prices or costs of FOPs in one or more market economy countries that are: (1) At a level of economic development comparable to that of the NME country; and (2) significant producers of comparable merchandise. Moreover, it is the Department's practice to select an appropriate surrogate country based on the availability and reliability of data from the countries. See Department Policy Bulletin No. 04.1: Non-Market Economy Surrogate Country Selection Process (March 1, 2004) (Policy Bulletin).

As discussed in the "Non-Market Economy Country Status" section above, the Department considers the PRC to be an NME country. Pursuant to section 773(c)(4) of the Act, the Department determined that India, Philippines, Indonesia, Thailand, Ukraine, and Peru are countries comparable to the PRC in terms of economic development.⁴ Also in accordance with section 773(c)(4) of the Act, the Department has found that India is a significant producer of comparable merchandise. Specifically, we have selected India because we have found that India is at a level of economic development similar to the PRC, pursuant to section 773(c)(4) of the Act, is a significant producer of comparable merchandise, and we have reliable, publicly available data from

⁴ See Memorandum from Carole Showers, Acting Director, Office of Policy, to Richard Weible, Director, Office 7: Subject: Request for a List of Surrogate Countries for New Shipper Reviews of the Antidumping Duty Order on Certain Preserved Mushrooms from the People's Republic of China, dated October 22, 2010. The Department notes that these six countries are part of a non-exhaustive list of countries that are at a level of economic development comparable to the PRC. See the Department's letter to "All Interested Parties: First Administrative Review of Steel Wire Garment Hangers from the People's Republic of China: Deadlines for Surrogate Country and Surrogate Value Comments," dated November 8, 2010 at 1 and Attachment I.

India representing broad-market average.

Furthermore, the Department notes that in the most recently completed proceeding involving the Order, we determined that India is comparable to the PRC in terms of economic development and has surrogate value data that are available and reliable. See *Certain Preserved Mushrooms From the People's Republic of China: Final Results and Final Rescission in Part, of Antidumping Duty New Shipper Reviews*, 76 FR 16604, (March 24, 2011). In the current proceeding, we received no comments regarding surrogate country selection. No information has been provided in this review indicating that the Department should deviate from its selection of India in the most recently completed administrative review of the Order. Given the above facts, the Department has selected India as the appropriate primary surrogate country for this review. The sources of the surrogate factor values are discussed under the "Normal Value" section below and in the Memorandum to Richard Weible, Office Director, and Robert James, Program Manager, from Carole Showers, Office of Policy Director. Subject: Request for a List of Surrogate Countries for New Shipper Reviews of the Antidumping Duty Order on Certain Preserved Mushrooms from the People's Republic of China (the PRC), dated October 22, 2010.

In accordance with 19 CFR 351.301(c)(3)(ii), for the final results in a NSR, interested parties may submit publicly available information to value FOPs within 20 days after the date of publication of these preliminary results.

U.S. Price

In accordance with section 772(a) of the Act, we based Hengyong's and Hongda's U.S. prices on export prices (EP), because their first sales to an unaffiliated purchaser were made before the date of importation and the use of constructed export price was not otherwise warranted by the facts on the record. In accordance with section 772(c) of the Act, when appropriate, we deducted from the starting price (or gross unit price) to the unaffiliated purchaser the expenses for foreign inland freight and foreign brokerage and handling. These services were provided by NME vendors for both Hengyong's and Hongda's U.S. sales. Therefore, we based the deduction of these movement charges on surrogate values.

For both Hengyong and Hongda, we valued foreign inland freight (which consisted of truck freight) using a per-unit, POR-wide, average rate calculated from Indian data on the following Web

site: <http://www.infobanc.com/logistics/logtruck.htm>. The logistics section of this Web site contains inland freight truck rates between many large Indian cities. See Memoranda to the File, "New Shipper Review of Certain Preserved Mushroom from the People's Republic of China: Surrogate Values for the Preliminary Results" (Surrogate Values Memorandum) at Exhibit 7.

We valued brokerage and handling using a price list of export procedures necessary to export a standardized cargo of goods in India. The price list is compiled based on a survey case study of the procedural requirements for trading a standard shipment of goods by ocean transport in India that is published in *Doing Business 2010: India*, published by the World Bank. See Surrogate Values Memorandum at Exhibit 8.

In their section A responses, both Hengyong and Hongda stated that they intended to use the invoice date as the date of sale, stating that this was the date that best represented when the terms of sale are fixed. See Hengyong's November 2, 2010, submission at 10; and Hongda's November 2, 2010, submission at 10-11. However, both Hengyong and Hongda in their supplemental questionnaire submissions stated that they had no instances of quantity or price changes after the receipt of the purchase order. See Hengyong's April 25, 2011, submission at 2; and Hongda's April 25, 2011, submission at 2. Therefore, we used the purchase order date as the date of sale for both Hengyong and Hongda because there were no changes to either the prices or quantities of either companies' sales after this date, and there is no record evidence that the material terms of sale are subject to change between the purchase order date and the invoice date. The Department concludes that the purchase order date is therefore the date that best represents when Hengyong and Hongda established the final material terms of sale. See 19 CFR 351.401(i).

1. Methodology

Section 773(c)(1)(B) of the Act provides that the Department shall determine the NV using an FOP methodology if the merchandise under review is exported from an NME and the information does not permit the calculation of NV using home-market prices, third-country prices, or constructed value under section 773(a) of the Act. The Department calculates NV using each of the FOPs that a respondent consumes in the production of a unit of the subject merchandise because the presence of government

controls on various aspects of NMEs renders price comparisons and the calculation of production costs invalid under the Department's normal methodologies. See, e.g., *Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, From the People's Republic of China: Preliminary Results of Antidumping Duty Administrative Review and Notice of Intent to Rescind in Part*, 70 FR 39744 (July 11, 2005), unchanged in *Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, from the People's Republic of China: Final Results of 2003-2004 Administrative Review and Partial Rescission of Review*, 71 FR 2517 (January 17, 2006).

2. Factor Valuations

In selecting the SVs, consistent with our past practice, we considered the quality, specificity, and contemporaneity of the data. See, e.g., *Folding Metal Tables and Chairs from the People's Republic of China: Final Results of Antidumping Duty Administrative Review*, 71 FR 71509 (December 11, 2006), and accompanying Issues and Decision Memorandum at Comment 9. In selecting the "best available information for surrogate values," in accordance with section 773(c)(1) of the Act, we considered whether the information was: publicly available; product-specific; representative of broad market average prices; contemporaneous with the POR; and free of taxes. See, e.g., *Notice of Preliminary Determination of Sales at Less Than Fair Value, Negative Preliminary Determination of Critical Circumstances and Postponement of Final Determination: Certain Frozen and Canned Warmwater Shrimp From the Socialist Republic of Vietnam*, 69 FR 42672, 42682 (July 16, 2004), unchanged in *Final Determination of Sales at Less Than Fair Value: Certain Frozen and Canned Warmwater Shrimp From the Socialist Republic of Vietnam*, 69 FR 71005 (December 8, 2004). See also *Final Determination of Sales at Less Than Fair Value: Certain Artist Canvas from the People's Republic of China*, 71 FR 16116 (March 30, 2006), and accompanying Issues and Decision Memorandum at Comment 2.

Where we could obtain only surrogate values that were not contemporaneous with the POR consistent with our practice, we inflated the surrogate values using, where appropriate, the Indian Wholesale Price Index (WPI) as published in *International Financial Statistics* by the International Monetary Fund (IMF). See, e.g., *Certain Preserved Mushrooms From the People's Republic of China: Final results of Antidumping*

Duty New Shipper Review, 74 FR 65520, (December 10, 2009); see also Surrogate Values Memorandum at Exhibit 2 and the IMF Web site at <http://www.imfstatistics.org/imf>.

In accordance with these guidelines, we calculated surrogate values, except as noted below, from import statistics of the primary selected surrogate country, India, from Global Trade Atlas (GTA), as published by Global Trade Information Services. Our use of GTA import data is in accordance with past practice and satisfies all of our criteria for surrogate values noted above.⁵

Furthermore, in accordance with the legislative history of the Omnibus Trade and Competitiveness Act of 1988, see Conf. Report to Accompany H.R. 3, H.R. Rep. No. 576, 100th Cong., 2nd Sess. (1988) (OTCA 1988) at 590, the Department continues to apply its long-standing practice of disregarding surrogate values if it has a reason to believe or suspect the source data may be subsidized. In this regard, the Department has previously found that it is appropriate to disregard such prices from Indonesia, South Korea and Thailand because we have determined that these countries maintain broadly available, non-industry specific export subsidies. Based on the existence of these subsidy programs that were generally available to all exporters and producers in these countries at the time of the POR, the Department finds it reasonable to infer that all exporters from Indonesia, South Korea and Thailand may have benefited from these subsidies.⁶ Additionally, we disregarded prices from NME countries. Finally, imports that were labeled as originating from an "unspecified" country were excluded from the average value, because the Department could not be certain that they were not from either an NME country or a country with general export subsidies. See

Certain Non-Frozen Apple Juice Concentrate from the People's Republic of China: Notice of Preliminary Results of the New Shipper Review, 75 FR 47270 (August 5, 2010) and *Drill Pipe From the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value and Affirmative Determination of Critical Circumstances, and Postponement of Final Determination*, 75 FR 51004 (August 18, 2010).

To value the input of wheat straw, we used the wheat straw value from the FY 2006–2007 (April 2006–March 2007) financial statement of the Indian mushroom producer Agro Dutch Industries, Ltd. (Agro Dutch) because this value is specific to the input. To value the input of manure, we used the manure value from Agro Dutch's FY 2004–2005 financial statement because this value is specific to the input. See Surrogate Values Memorandum at Exhibit 2. We adjusted these values for inflation. See Surrogate Values Memorandum at Exhibit 1.

To value land rent, the Department used data from the 2001 Punjab State Development Report, administered by the Planning Commission of the Government of India. Since the value of land rent was not contemporaneous with the POR, the Department adjusted the value for inflation. See Surrogate Values Memorandum at Exhibit 2.

We valued electricity using price data for small, medium, and large industries, as published by the Central Electricity Authority of the Government of India in its publication titled *Electricity Tariff & Duty and Average Rates of Electricity Supply in India*, dated March 2008. These electricity rates represent actual country-wide publicly-available information on tax-exclusive electricity rates charged to industries in India. As the rates listed in this source became effective on a variety of different dates, we are not adjusting the average value for inflation. See Surrogate Value Memorandum at Exhibit 4.

To value water, the Department used the revised Maharashtra Industrial Development Corporation water rates, which are available at <http://www.midcindia.com/water-supply>. The Department found this source to be the best available information since it includes a wide range of industrial water rates. Since the water rates were not contemporaneous with the POR, the Department adjusted the value for inflation. See Surrogate Values Memorandum at Exhibit 4.

We offset Hongda's material costs for revenue generated from the sale of tin scrap. See Surrogate Values Memorandum at 10 and Exhibit 3.

We valued truck freight expenses for inputs using the same surrogate data we used for valuing domestic inland freight for Hengyong and Hongda's U.S. sales (i.e., we used data from the Web site <http://www.infobanc.com/logistics/logtruck.htm>, which contains inland freight truck rates between many large Indian cities). See Surrogate Values Memorandum at Exhibit 6.

Finally, to value overhead, selling, general, and administrative expenses (SG&A), and profit, we used the 2009–10 financial statements of the Indian mushroom producers Flex Foods Limited and Himalya International Limited. See Surrogate Values Memorandum at Exhibit 9 for our computations.

In accordance with section 773(c) of the Act, we calculated NV by adding the value of the FOPs, general expenses, profit, and packing costs reported by Hengyong and Hongda. The FOPs for subject merchandise include: (1) Quantities of raw materials employed; (2) hours of labor required; (3) amounts of energy and other utilities consumed; (4) representative capital and selling costs; and (5) packing materials. We used the FOPs reported by Hengyong and Hongda for materials, energy, labor, and packing, and valued those FOPs by multiplying the amount of the factor consumed in producing subject merchandise by the average unit surrogate value of the factor derived from the Indian surrogate values selected for their NSRs.

To calculate NV, we multiplied the reported per-unit factor-consumption rates by publicly available Indian surrogate values. As appropriate we added freight costs to the surrogate values that we calculated for Hengyong's and Hongda's material inputs to make these prices delivered prices. We calculated these freight costs by multiplying surrogate freight rates by the shorter of the reported distance from the domestic supplier to the factory that produced the subject merchandise or the distance from the nearest seaport to the factory that produced the subject merchandise, as appropriate. This adjustment is in accordance with the decision of the U.S. Court of Appeals for the Federal Circuit in *Sigma Corp. v. United States*, 117 F.3d 1401, 1408 (Fed. Cir. 1997). Where there were multiple domestic suppliers of a material input, we calculated a weighted-average distance after limiting each supplier's distance to no more than the distance from the nearest seaport to Hengyong and Hongda. We increased the calculated costs of the FOPs for surrogate general expenses and profit.

⁵ See, e.g., *Certain Preserved Mushrooms From the People's Republic of China: Preliminary Results of Antidumping Duty New Shipper Review*, 74 FR 50946, 50950 (October 2, 2009), unchanged in *Certain Preserved Mushrooms From the People's Republic of China: Final Results of Antidumping Duty New Shipper Review*, 74 FR 65520 (December 10, 2009).

⁶ See, e.g., *Expedited Sunset Review of the Countervailing Duty Order on Certain Cut-to-Length Carbon Quality Steel Plate from Indonesia*, 70 FR 45692 (August 8, 2005), and accompanying Issues and Decision Memorandum at page 4; *Corrosion-Resistant Carbon Steel Flat Products from the Republic of Korea: Final Results of Countervailing Duty Administrative Review*, 74 FR 2512 (January 15, 2009), and accompanying Issues and Decision Memorandum at Comment 1, pages 17, 19–20; and *Certain Hot-Rolled Carbon Steel Flat Products from Thailand: Final Results of Countervailing Duty Determination*, 66 FR 50410 (October 3, 2001), and accompanying Issues and Decision Memorandum at Comment 1.

See Surrogate Values Memorandum at Exhibit 9.

For direct labor, indirect labor, and packing labor, previously, the Department used regression-based wages that captured the worldwide relationship between per capita Gross National Income (GNI) and hourly manufacturing wages, pursuant to 19 CFR 351.408(c)(3), to value the respondent's cost of labor. However, on May 14, 2010, the Court of Appeals for the Federal Circuit (Federal Circuit), in *Dorbest Ltd. v. United States*, 604 F.3d 1363, 1372 (Fed. Cir. 2010) (*Dorbest*), invalidated 19 CFR 351.408(c)(3). As a consequence of the Federal Circuit's ruling in *Dorbest*, the Department no longer relies on the regression-based wage rate methodology described in its regulations. On February 18, 2011, the Department published in the **Federal Register** a request for public comment on our interim methodology, and the data sources. See *Antidumping Methodologies in Proceedings Involving Non-Market Economies: Valuing the Factor of Production: Labor, Request for Comment*, 76 FR 9544 (Feb. 18, 2011).

On June 21, 2011, the Department revised its methodology for valuing the labor input in NME antidumping proceedings. See *Antidumping Methodologies in Proceedings Involving Non-Market Economies: Valuing the Factor of Production: Labor*, 76 FR 36092 (June 21, 2011) (*Labor Methodologies*). In *Labor Methodologies*, the Department determined that the best methodology to value the labor input is to use industry-specific labor rates from the primary surrogate country. Additionally, the Department determined that the best data source for industry-specific labor rates is Chapter 6A: Labor Cost in Manufacturing, from the International Labor Organization (ILO) Yearbook of Labor Statistics (Yearbook).

In these preliminary results, the Department calculated the labor input using the wage method described in *Labor Methodologies*. To value the respondent's labor input, the Department relied on data reported by India to the ILO in Chapter 6A of the Yearbook. The Department further finds the two-digit description under ISIC–Revision 3 (“Manufacture of Food Products and Beverages”) to be the best available information on the record because it is specific to the industry being examined, and is therefore derived from industries that produce comparable merchandise. Accordingly, relying on Chapter 6A of the Yearbook, the Department calculated the labor input using labor data reported by India to the ILO under Sub-Classification 15

of the ISIC–Revision 3 standard, in accordance with section 773(c)(4) of the Act. For these preliminary results, the calculated industry-specific wage rate is \$1.21. A more detailed description of the wage rate calculation methodology is provided in the Surrogate Values Memorandum. As stated above, the Department used India ILO data reported under Chapter 6A of the Yearbook, which reflects all costs related to labor, including wages, benefits, housing, training, etc.

For further details regarding the surrogate values used for these preliminary results, see Surrogate Value Memorandum.

Currency Conversion

Indian surrogate values were denominated in rupees and were converted to U.S. dollars using the applicable average exchange rate based on exchange rate data from the Department's Web site. We made all currency conversions on the date of the U.S. sale.

Preliminary Results of the Review

The Department has determined that the following preliminary dumping margins exist for the period February 1, 2010, through August 31, 2010, for Hengyong, and the period February 1, 2010, through July 31, 2010, for Hongda:

CERTAIN PRESERVED MUSHROOMS FROM THE PRC

Exporter/Manufacturer	Weighted-Average margin (percent)
Hengyong (exporter)/Hengxian (manufacturer)	0.00
Hongda (exporter)/Haishan (manufacturer)	69.43

Public Comment

The Department will disclose to parties to this proceeding the calculations performed in reaching the preliminary results within five days of the date of publication of these preliminary results. See 19 CFR 351.224(b). Interested parties may submit written comments (case briefs) within 30 days of publication of the preliminary results and rebuttal comments (rebuttal briefs) within five days after the time limit for filing case briefs. See 19 CFR 351.309(c)(1)(ii) and 351.309(d)(1). Pursuant to 19 CFR 351.309(d)(2), rebuttal briefs must be limited to issues raised in the case briefs. Parties who submit arguments are requested to submit with the argument: (1) A statement of the issue; (2) a brief summary of the argument; and (3) a

table of authorities. Further, the Department requests that parties submitting written comments provide the Department with a diskette containing the public version of those comments.

Any interested party may request a hearing within 30 days of publication of this notice. See 19 CFR 351.310(c). Interested parties who wish to request a hearing or to participate if one is requested, must submit a written request to the Assistant Secretary for Import Administration within 30 days of publication of this notice. Requests should contain: (1) The party's name, address, and telephone number; (2) the number of participants; and (3) a list of issues to be discussed. See 19 CFR 351.310(c). Issues raised in the hearing will be limited to those raised in the briefs.

Unless the deadline is extended pursuant to section 751(a)(2)(B)(iv) of the Act, the Department will issue the final results of these NSRs, including the results of our analysis of the issues raised by the parties in their comments, within 90 days after issuance of these preliminary results.

Deadline for Submission of Publicly Available Surrogate Value Information

In accordance with 19 CFR 351.301(c)(3), the deadline for submission of publicly available information to value factors of production under 19 CFR 351.408(c) is 20 days after the date of publication of the preliminary determination. In accordance with 19 CFR 351.301(c)(1), if an interested party submits factual information less than ten days before, on, or after (if the Department has extended the deadline), the applicable deadline for submission of such factual information, an interested party has ten days to submit factual information to rebut, clarify, or correct the factual information no later than ten days after such factual information is served on the interested party. However, the Department notes that 19 CFR 351.301(c)(1), permits new information only insofar as it rebuts, clarifies, or corrects information recently placed on the record. See, e.g., *Glycine from the People's Republic of China: Final Results of Antidumping Duty Administrative Review and Final Rescission, in Part*, 72 FR 58809 (October 17, 2007), and accompanying Issues and Decision Memorandum at Comment 2. Furthermore, the Department generally will not accept business proprietary information in either the surrogate value submissions or the rebuttals thereto, as the regulation regarding the submission of surrogate

values allows only for the submission of publicly available information.

Assessment Rates

Assessment rates will be based upon the final results of review. Upon issuing the final results of the review, the Department shall determine, and CBP shall assess, antidumping duties on all appropriate entries. The Department intends to issue assessment instructions to CBP 15 days after the date of publication of the final results of review. Pursuant to 19 CFR 351.212(b)(1), we will calculate importer-specific *ad valorem* duty assessment rates based on the ratio of the total amount of the dumping margins calculated for the examined sales to the total entered value of those same sales. We will instruct CBP to assess antidumping duties on all appropriate entries covered by this review if any importer-specific assessment rate calculated in the final results of this review is above *de minimis*.

Cash Deposit Requirements

The following cash deposit requirements, when imposed, will be effective upon publication of the final results of these NSRs for all shipments of subject merchandise exported by Hengyong or Hongda and entered, or withdrawn from warehouse, for consumption on or after the publication date, as provided by section 751(a)(2)(C) of the Act: (1) For subject merchandise manufactured by Hengxian and exported by Hengyong or manufactured by Haishan and exported by Hongda, the cash-deposit rate will be that established in the final results of this review; (2) for subject merchandise exported by Hengyong or Hongda but not manufactured by Hengxian or Haishan, respectively, the cash deposit rate will continue to be the PRC-wide rate (*i.e.*, 198.63 percent); and (3) for subject merchandise manufactured by Hengxian or Haishan, but exported by any other party, the cash deposit rate will be the rate applicable to the exporter. If the cash deposit rates calculated for Hengyong or Hongda in the final results is zero or *de minimis*, no zero cash deposit will be required for entries of subject merchandise both produced by Hengxian and Haishan and exported by Hengyong or Hongda, respectively. These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice serves as a preliminary reminder to importers of their responsibility under 19 CFR

351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

These NSRs and notice are in accordance with sections 751(a)(2)(B) and 777(i) of the Act and 19 CFR 351.214(i).

Dated: July 26, 2011.

Ronald Lorentzen,

Deputy Assistant Secretary for Import Administration.

[FR Doc. 2011-19530 Filed 8-1-11; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A-570-504]

Petroleum Wax Candles From the People's Republic of China: Final Results of Request for Comments on the Scope of the Antidumping Duty Order

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: On August 13, 2010, the Department of Commerce ("Department") published in the *Federal Register* the *Preliminary Results*¹ regarding its request for comments on the scope of antidumping duty order on petroleum wax candles from the People's Republic of China ("PRC").² In which we preliminarily determined a new interpretation for analyzing candle scope ruling requests and applied this interpretation to pending scope requests. We gave interested parties an opportunity to present comments and rebuttals on the *Preliminary Results*. Based upon our analysis of the comments and information received, we have changed our interpretation of the scope of the Order from the *Preliminary Results*. As discussed in more detail below, the Department intends to apply the interpretation articulated in these final

¹ See *Petroleum Wax Candles from the People's Republic of China: Preliminary Results of Request for Comments on the Scope of the Petroleum Wax Candles from the People's Republic of China Antidumping Duty Order*, 75 FR 49475 (August 13, 2010) ("*Preliminary Results*").

² See *Antidumping Duty Order: Petroleum Wax Candles from the People's Republic of China*, 51 FR 30686 (August 28, 1986) ("*Order*").

results to all pending and future scope determinations involving the Order.

FOR FURTHER INFORMATION CONTACT: Tim Lord, AD/CVD Operations, Office 9, Import Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230, telephone: (202) 482-7425.

Case History

The petitioner in the original less-than-fair-value ("LTFV") investigation, the National Candle Association ("NCA") requested that the investigation of petroleum wax candles from the PRC cover:

candles made from petroleum wax {that} contain fiber or paper-cored wicks. They are sold in the following shapes: tapers, spirals, and straight-sided dinner candles; rounds, columns, pillars; votives; and various wax-filled containers. These candles may be scented or unscented { * * * } and are generally used by retail consumers in the home or yard for decorative or lighting purposes.³

The Department adopted this same language as the scope in its notice of initiation, with the modification that the Department placed "certain" before "petroleum wax candles." This scope language carried forward without change through the eventual antidumping duty order and subsequent segments of this proceeding. Due to the fact that the plain language of the scope contains no specific words of exclusion, throughout the history of the Order there has been particular confusion regarding the coverage of certain candle types—particularly "novelty candles." This uncertainty has led to an overabundance of scope ruling requests that has hindered the effective administration of the Order.

On August 21, 2009, given the extremely large number of scope determinations requested by outside parties, the Department solicited comments from interested parties on the best method to consider whether novelty candles should or should not be included within the scope of the Order. See *Petroleum Wax Candles from the People's Republic of China: Request for Comments on the Scope of the Antidumping Duty Order and the Impact on Scope Determinations*, 74 FR 42230 (August 21, 2009). In that notice, interested parties were presented two options (as well as the opportunity to submit additional options and ideas):

Option A: The Department would consider all candle shapes identified in the scope of

³ See Antidumping Petition Submitted on Behalf of the National Candle Association in the Matter of: *Petroleum Wax Candles from the People's Republic of China* (September 3, 1985) ("*Petition*"). at 7.

the *Order* (i.e., tapers, spirals, and straight-sided dinner candles; rounds, columns, pillars, votives; and various wax-filled containers) to be within the scope of the *Order*, regardless of etchings, prints moldings or other artistic or decorative enhancements, including any holiday-related art. All other candle shapes would be considered outside of the scope of the *Order*.

Option B: The Department would consider all candle shapes, including novelty candles, to be within the scope of the *Order*, including those not in the shapes listed in the scope of the *Order*, as that is not an exhaustive list of shapes, but simply an illustrative list of common candle shapes.

After receiving comments from interested parties, the Department issued its *Preliminary Results* on August 13, 2010, in which it preliminarily developed a new interpretation for candle scope ruling requests based on Option A, with the added modification that birthday and utility candles would be excluded from the scope of the *Order*. See *Preliminary Results*. That is, the Department stated that any candle shapes not specifically listed in the *Order's* scope would be excluded; birthday and utility candles would be excluded from the scope of the *Order* even if in one of the shapes (such as tapers or pillars) specifically mentioned in the scope's text. *Id.* 75 FR at 49480 (emphasis added). The Department found in the *Preliminary Results* that, in accordance with Option A, there was no evidence on record from the LFTV investigation to indicate that prior to the issuance of the *Order*, religious, holiday, or special occasion-themed characteristics were considered to be criteria that excluded candles from the scope of the LFTV investigation. See *Preliminary Results*. No interested parties contested this assertion subsequent to the issuance of the *Preliminary Results*.

The Department preliminarily applied this interpretation to 269 unique candles⁴ contained in the five pending scope determinations under the *Order*.⁵ See *Preliminary Results* see also Memorandum to the File through Alex Villanueva, Program Manager, from Tim

⁴ "Unique candles" are those candles from a particular requestor that are not identical to each other. For example, if a requestor submitted three beach ball candles, and two of those were exactly the same size, shape, and color, while the third candle was not, the set of three candles would consist of two unique candles.

⁵ On June 5, 2009, July 7, 2009, August 20, 2009, and May 5, 2010 the Department received requests from Trade Associates Group, Ltd., Candym Enterprises, Ltd. ("Candym"), Sourcing International, LLC, and Accent Imports, respectively, for scope rulings to determine whether each company's respective assortment of candles is outside the scope of the *Order*. The Department received another scope ruling request from Candym on November 5, 2009.

Lord, Case Analyst, Certain Petroleum Wax Candles from the People's Republic of China: Candle Scope Request Preliminary Determinations (August 9, 2010). The Department subsequently discovered that it had not made preliminary determinations on all of the unique candles in the five pending scope determinations under the *Order*. As such, on October 13, 2010, the Department issued preliminary determinations for the 349 unique candles that it had inadvertently neglected to include with the *Preliminary Results*. See Memorandum to the File through Alex Villanueva, Program Manager, from Tim Lord, Case Analyst, Petroleum Wax Candles from the People's Republic of China: Preliminary Scope Rulings not Included in Preliminary Results (October 13, 2010).⁶

Changes Since the Preliminary Results

The Department received comments and/or rebuttals from interested parties by the appropriate deadlines. In examining these comments and the administrative record beginning with the LFTV investigation, the Department has changed its interpretation from the one chosen in the *Preliminary Results* and is now adopting an approach based on Option B for the reasons fully described in the I&D Memo. In addition, the Department is applying the interpretation articulated in these final results to the 618 unique candles contained in the pending scope determinations under the *Order* in a final scope ruling memorandum, which will be issued subsequent to this notice. Further, this interpretation will be applied to all future scope proceedings involving the *Order*.

All issues raised in the case and rebuttal briefs by parties are addressed in "Petroleum Wax Candles from the People's Republic of China: Issues and Decision, Memorandum of Request for Comments on the Scope of the Antidumping Duty Order," dated concurrently with this notice ("I&D Memo"), which is hereby adopted by this notice. A list of the issues that parties raised, and to which we responded in the I&D Memo, is attached to this notice as an appendix. The I&D Memo is a public document and is on file in the Central Records Unit, Main Commerce Building, Room 7046, and is accessible on the Department's-Web site

⁶ In total there are currently 618 in the five pending scope determinations under the *Order* (i.e., the 269 for which the Department issued preliminary determinations at the time of the *Preliminary Results* combined with 349 for which the Department issued preliminary determinations on October 13, 2010).

at <http://www.trade.gov/ia>. The paper copy and electronic version of the memorandum are identical in content.

Final Results

Evidence on the record indicates that contrary to the Department's position in the *Preliminary Results*, the *Order* is not limited only to the enumerated shapes/types⁷ listed in the scope of the *Order*. Rather, the most reasonable interpretation pursuant to the factors established in 19 CFR 351.225(k)(1) is that the enumerated shapes/types serve as an illustrative, not exhaustive, list of candles included within the scope of the *Order*. See I&D Memo, at Comment 1. In this regard, the Department has determined that there is no basis to exclude religious, holiday or special occasions-themed candles from the scope of the *Order*; no commenting party has objected to this determination. See I&D Memo, at Comment 3. Therefore, for the final results, the Department is adopting an inclusive scope interpretation based on Option B, whereby all petroleum wax candles (regardless of holiday or special-occasion theme), are within the scope of the *Order*.

In addition, the evidence establishes that birthday, utility, and figurine candles are excluded from the scope of the *Order*; all the commenting parties in this case, including the NCA, have agreed with this determination. See I&D Memo, at Comment 3. The Department also finds the term "figurine" is narrowly defined as a candle in the shape of a human, animal, or deity. See I&D Memo, at Comment 3.

Therefore, the Department hereby adopts an inclusive interpretation of the scope of the *Order*, whereby all candles are included within, with the exception of the three candle types that are excluded: Birthday, utility, and figurine (i.e., human, animal, or deity shaped) candles.

We are issuing these final results in accordance with 19 CFR 351.225.

Dated: July 26, 2011.

Ronald K. Lorentzen,

Deputy Assistant Secretary for Import Administration.

[FR Doc. 2011-19529 Filed 8-1-11; 8:45 am]

BILLING CODE 3510-DS-P

⁷ The term "enumerated shapes/types" refers to the candle shapes and candle types specifically mentioned in the scope of the *Order*.

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Smart Grid Advisory Committee

AGENCY: Department of Commerce, National Institute of Standards and Technology

ACTION: Notice of open meeting.

SUMMARY: The Smart Grid Advisory Committee (SGAC or Committee) will hold a meeting via teleconference on Tuesday, August 23, 2011 from 11 a.m. to 2 p.m. Eastern Time (E.T.). The primary purpose of this meeting is to review sections of the Committee's draft report to the NIST Director. The sections of the draft report that the Committee will consider at the meeting will be posted on the SGAC Web site at <http://www.nist.gov/smartgrid>. Interested members of the public will be able to participate in the meeting from remote locations by calling into a central phone number.

DATES: The SGAC will hold a meeting via teleconference on Tuesday, August 23, 2011, from 11 a.m. until 2 p.m. Eastern Time (E.T.).

ADDRESSES: Questions regarding the meeting should be sent to Office of the National Coordinator for Smart Grid Interoperability, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8100, Gaithersburg, MD 20899-8100. For instructions on how to participate in the meeting, please see the **SUPPLEMENTARY INFORMATION** section of this notice.

FOR FURTHER INFORMATION CONTACT: Dr. George W. Arnold, National Coordinator for Smart Grid Interoperability, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8100, Gaithersburg, MD 20899-8100; telephone 301-975-2232, fax 301-975-4091; or via e-mail at nistsgfac@nist.gov.

SUPPLEMENTARY INFORMATION:

The Committee was established in accordance with the Federal Advisory Committee Act (5 U.S.C. App.).

Background information on the Committee is available at: <http://www.nist.gov/smartgrid/committee.cfm>.

Pursuant to the Federal Advisory Committee Act, 5 U.S.C. app., notice is hereby given that the SGAC will hold a meeting via teleconference on Tuesday, August 23, 2011, from 11 a.m. until 2 p.m. Eastern Time (E.T.). There will be no central meeting location. The public is invited to participate in the meeting by calling in from remote locations. The primary purpose of this meeting is to review sections of the Committee's draft report to the NIST Director. The sections

of the draft report to be considered by the Committee during the meeting will be posted on the SGAC Web site at <http://www.nist.gov/smartgrid>.

Individuals and representatives of organizations who would like to offer comments and suggestions related to the Committee's affairs are invited to request detailed instructions on how to dial in from a remote location to participate in the meeting by contacting Cuong Nguyen at cuong.nguyen@nist.gov or (301) 975-2254 no later than August 16, 2011. Approximately fifteen minutes will be reserved from 1:45 p.m.—2 p.m. Eastern Time (E.T.) for public comments, and speaking times will be assigned on a first-come, first-serve basis. The amount of time per speaker will be determined by the number of requests received, but is likely to be about 3 minutes each. Questions from the public will not be considered during this period. Speakers who wish to expand upon their oral statements, those who had wished to speak but could not be accommodated, and those who were unable to participate are invited to submit written statements to the Office of the National Coordinator for Smart Grid Interoperability, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8100, Gaithersburg, MD 20899-8100, via fax at 301-975-4091, or electronically by e-mail to nistsgfac@nist.gov.

All participants of the meeting are required to pre-register to be admitted. Anyone wishing to participate must register by close of business on Tuesday, August 16, 2011, in order to be admitted. Please submit your name, e-mail address, and phone number to Cuong Nguyen at cuong.nguyen@nist.gov or (301) 975-2254. After registering, participants will be provided with detailed instructions on how to dial in from a remote location in order to participate.

Dated: July 26, 2011.

Charles H. Romine,

Acting Associate Director for Laboratory Programs.

[FR Doc. 2011-19523 Filed 8-1-11; 8:45 am]

BILLING CODE 3510-13-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XS41

Marine Mammals; File No. 87-1851

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; receipt of application.

SUMMARY: Notice is hereby given that Daniel P. Costa, PhD, University of California at Santa Cruz, Long Marine Laboratory, 100 Shaffer Road, Santa Cruz, CA, has applied for an amendment to Scientific Research Permit No. 87-1851-03.

DATES: Written, telefaxed, or e-mail comments must be received on or before September 1, 2011.

ADDRESSES: The application and related documents are available for review by selecting "Records Open for Public Comment" from the *Features* box on the Applications and Permits for Protected Species (APPS) home page, <https://apps.nmfs.noaa.gov>, and then selecting File No. 87-1851 from the list of available applications.

These documents are also available upon written request or by appointment in the following offices:

Permits, Conservation and Education Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910; phone (301) 427-8401; fax (301) 713-0376; and

Southwest Region, NMFS, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802-4213; phone (562) 980-4001; fax (562) 980-4018.

Written comments on this application should be submitted to the Chief, Permits, Conservation and Education Division, at the address listed above. Comments may also be submitted by facsimile to (301) 713-0376, or by e-mail to NMFS.Pr1Comments@noaa.gov. Please include the File No. in the subject line of the e-mail comment.

Those individuals requesting a public hearing should submit a written request to the Chief, Permits, Conservation and Education Division at the address listed above. The request should set forth the specific reasons why a hearing on this application would be appropriate.

FOR FURTHER INFORMATION CONTACT: Amy Sloan or Tammy Adams, (301) 427-8401.

SUPPLEMENTARY INFORMATION: The subject permit amendment is requested under the authority of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*), and the regulations governing the taking and importing of marine mammals (50 CFR part 216).

Permit No. 87-1851-03, issued on September 3, 2010 (75 FR 55745), authorizes tagging studies and physiological research on seals in Antarctica (in the Western Antarctic Peninsula, Weddell Sea, and Ross Sea).

including 40 Weddell seals (*Leptonychotes weddellii*), 35 crabeater seals (*Lobodon carcinophagus*), 35 southern elephant seals (*Mirounga leonina*), 10 leopard seals (*Hydrurga leptonyx*), and 5 Ross seals (*Ommatophoca rossii*). Incidental harassment, mortality, and import of samples from these species is authorized. The permit also authorizes research on California sea lions (*Zalophus californianus*) to investigate foraging, diving, energetics, food habits, and at-sea distribution along the California coast. Incidental harassment of California sea lions, harbor seals (*Phoca vitulina*), northern elephant seals (*Mirounga angustirostris*), and northern fur seals (*Callorhinus ursinus*) in California is authorized. Unintentional mortality and import of samples from California sea lions is authorized. The permit expires on January 31, 2012.

The permit holder is requesting the permit be amended to extend the permit expiration to December 31, 2012 in order to complete a study initiated in January 2010 examining the foraging behavior and habitat use of the Weddell seal in the Ross Sea. The applicant is requesting authorization to capture and handle up to 70 Weddell seals of any age/sex during 2012 using the same methods currently permitted, and requests authorization for up to four unintentional mortalities due to research conducted in 2012. No other changes to the permit are requested.

In compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), an initial determination has been made that the activity proposed is categorically excluded from the requirement to prepare an environmental assessment or environmental impact statement.

Concurrent with the publication of this notice in the **Federal Register**, NMFS is forwarding copies of the application to the Marine Mammal Commission and its Committee of Scientific Advisors.

Dated: July 27, 2011.

P. Michael Payne,

Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2011-19567 Filed 8-1-11; 8:45 am]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

Patent and Trademark Office

Submission for OMB Review; Comment Request

The United States Patent and Trademark Office (USPTO) will submit to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: United States Patent and Trademark Office (USPTO).

Title: Submissions Regarding Correspondence and Regarding Attorney Representation (Trademarks).

Form Number(s): PTO Forms 2196, 2197, and 2201.

Agency Approval Number: 0651-0056.

Type of Request: Revision of a currently approved collection.

Burden: 10,927 hours annually.

Number of Respondents: 123,010 responses per year. Of this total, the USPTO estimates that 117,151 responses will be submitted through TEAS.

Avg. Hours per Response: The USPTO estimates that it takes the public approximately 5 to 30 minutes (0.08 to 0.50 hours) to complete this information, depending on the application. This includes the time to gather the necessary information, prepare the requests, and submit them to the USPTO. The time estimates shown for the electronic forms in this collection are based on the average amount of time needed to complete and electronically file the associated form.

Needs and Uses: The public uses the information in this collection to appoint attorneys and domestic representatives to act on their behalf in the prosecution of their applications, to revoke those same appointments, to request permission to withdraw as the attorney of record or domestic representative, to request replacement of the attorney of record with another already-appointed attorney, and to request a change of the owner's or domestic representative's address. The USPTO uses the collected information to process the requests.

Affected Public: Businesses or other for-profit organizations.

Frequency: On occasion.

Respondent's Obligation: Required to obtain or retain benefits.

OMB Desk Officer: Nicholas A. Fraser, e-mail:

Nicholas_A_Fraser@omb.eop.gov.

Once submitted, the request will be publicly available in electronic format through the Information Collection Review page at <http://www.reginfo.gov>.

Paper copies can be obtained by:

• *E-mail:*

InformationCollection@uspto.gov.

Include "0651-0056 copy request" in the subject line of the message.

• *Mail:* Susan K. Fawcett, Records Officer, Office of the Chief Information Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

Written comments and recommendations for the proposed information collection should be sent on or before September 1, 2011 to Nicholas A. Fraser, OMB Desk Officer, via e-mail to *Nicholas_A_Fraser@omb.eop.gov*, or by fax to 202-395-5167, marked to the attention of Nicholas A. Fraser.

Dated: July 28, 2011.

Susan K. Fawcett,

Records Officer, USPTO, Office of the Chief Information Officer.

[FR Doc. 2011-19497 Filed 8-1-11; 8:45 am]

BILLING CODE 3510-16-P

DEPARTMENT OF EDUCATION

Notice of Proposed Information Collection Requests

AGENCY: Department of Education.

ACTION: Comment request.

SUMMARY: The Department of Education (the Department), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the reporting burden on the public and helps the public understand the Department's information collection requirements and provide the requested data in the desired format. The Acting Director, Information Collection Clearance Division, Regulatory Information Management Services, Office of Management, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.

DATES: Interested persons are invited to submit comments on or before October 3, 2011.

ADDRESSES: Comments regarding burden and/or the collection activity requirements should be electronically mailed to *ICDocketMgr@ed.gov* or mailed to U.S. Department of Education, 400 Maryland Avenue, SW., LBJ, Washington, DC 20202-4537. Please note that written comments received in response to this notice will be considered public records.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35) requires that Federal agencies provide interested parties an early opportunity to comment on information collection requests. The Director, Information Collection Clearance Division, Regulatory Information Management Services, Office of Management, publishes this notice containing proposed information collection requests at the beginning of the Departmental review of the information collection. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology.

Dated: July 28, 2011.

James Hyler,

Acting Director, Information Collection Clearance Division, Regulatory Information Management Services, Office of Management.

Institute of Education Sciences

Type of Review: Revision.

Title of Collection: Early Childhood Longitudinal Study Kindergarten Class of 2010–11 (ECLS–K:2011) Spring First-Grade and Fall Second-Grade Data Collections.

OMB Control Number: 1850–0750.

Agency Form Number(s): N/A.

Frequency of Responses: Annually.

Affected Public: Individuals or households.

Total Estimated Number of Annual Responses: 143,133.

Total Estimated Number of Annual Burden Hours: 49,128.

Abstract: The Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS–K:2011), sponsored by the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education, is a survey that focuses on children's early school experiences beginning with kindergarten and continuing through the fifth grade. It includes the collection of data from parents, teachers, school administrators, and non-parental care providers, as well as direct child assessments. Like its sister study, the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99, the ECLS–K:2011 is exceptionally broad in

its scope and coverage of child development, early learning, and school progress, drawing together information from multiple sources to provide rich data about the population of children who were kindergartners in the 2010–11 school year. This submission requests OMB's clearance for (1) a spring 2012 first-grade national data collection; (2) a fall 2012 second-grade data collection with the same 30 percent subsample for which data will be collected in the fall 2011 first-grade collection; and (3) a 60-day Federal Register notice waiver for the next OMB clearance package to be submitted in June of 2012 for the spring 2013 second-grade data collection, recruitment for the spring 2014 third-grade data collection, and tracking students for the spring 2014 third-grade and spring 2015 fourth-grade data collection.

Copies of the proposed information collection request may be accessed from <http://edicsweb.ed.gov>, by selecting the "Browse Pending Collections" link and by clicking on link number 4677. When you access the information collection, click on "Download Attachments" to view. Written requests for information should be addressed to U.S. Department of Education, 400 Maryland Avenue, SW., LBJ, Washington, DC 20202–4537. Requests may also be electronically mailed to ICDocketMgr@ed.gov or faxed to 202–401–0920. Please specify the complete title of the information collection and OMB Control Number when making your request.

Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339.

[FR Doc. 2011–19525 Filed 8–1–11; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Notice of Submission for OMB Review

AGENCY: Department of Education.

ACTION: Comment request.

SUMMARY: The Acting Director, Information Collection Clearance Division, Privacy, Information and Records Management Services, Office of Management, invites comments on the submission for OMB review as required by the Paperwork Reduction Act of 1995 (Pub. L. 104–13).

DATES: Interested persons are invited to submit comments on or before September 1, 2011.

ADDRESSES: Written comments should be addressed to the Office of Information and Regulatory Affairs,

Attention: Education Desk Officer, Office of Management and Budget, 725 17th Street, NW., Room 10222, New Executive Office Building, Washington, DC 20503, be faxed to (202) 395–5806 or e-mailed to oir_submission@omb.eop.gov with a cc: to ICDocketMgr@ed.gov. Please note that written comments received in response to this notice will be considered public records.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. The OMB is particularly interested in comments which: (1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) Enhance the quality, utility, and clarity of the information to be collected; and (4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Dated: July 28, 2011.

James Hyler,

Acting Director, Information Collection Clearance Division, Privacy, Information and Records Management Services, Office of Management.

Office of Special Education and Rehabilitative Services

Type of Review: Revision.

Title of Collection: Annual Progress Reporting Form for the American Indian Vocational Rehabilitation Services (AIVRS) Program.

OMB Control Number: 1820–0655.

Agency Form Number(s): N/A.

Frequency of Responses: Annually.

Affected Public: State, Local or Tribal Government.

Total Estimated Number of Annual Responses: 82.

Total Estimated Annual Burden Hours: 1,066.

Abstract: The Rehabilitation Services Administration (RSA) of the U.S. Department of Education (ED) will use this data collection form to capture the annual performance report data from the grantees funded under the American Indian Vocational Rehabilitation

Services (AIVRS) program. RSA and ED will use the information gathered annually to: (a) Comply with reporting requirements under the Education Department General Administration Regulations and provide annual information to Congress on activities conducted under the program, (b) measure performance on the program's Government Performance Result Act indicators, and (c) to collect information that is consistent with the common measures for federal job training programs.

The proposed changes to the existing form will improve user friendliness and the clarity and accuracy of data reported. These revisions are not of a substantial manner nor significantly different from the original collection, but are proposed to provide clarity and consistency. In many areas, the data element language has been modified with direct language instead of passive terminology and, in order to preserve consistency, all numerals are replaced with the corresponding word.

Copies of the information collection submission for OMB review may be accessed from the RegInfo.gov Web site at <http://www.reginfo.gov/public/do/PRAMain> or from the Department's Web site at <http://edicsweb.ed.gov>, by selecting the "Browse Pending Collections" link and by clicking on link number 4579. When you access the information collection, click on "Download Attachments" to view. Written requests for information should be addressed to U.S. Department of Education, 400 Maryland Avenue, SW., LBJ, Washington, DC 20202-4537. Requests may also be electronically mailed to the Internet address ICDocketMgr@ed.gov or faxed to 202-401-0920. Please specify the complete title of the information collection and OMB Control Number when making your request.

Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339.

[FR Doc. 2011-19526 Filed 8-1-11; 8:45 am]
BILLING CODE 4000-01-P

DEPARTMENT OF EDUCATION

Gainful Employment Reporting Date for the 2010-2011 Award Year and Continued Collection of Gainful Employment Information for Prior Award Years

AGENCY: Federal Student Aid, Department of Education.

ACTION: Notice of deadline date.

Overview Information:

(CFDA Nos. 84.007, 84.033, 84.038, 84.063, 84.268, 84.379, and 84.408).

Student Assistance General Provisions, Federal Supplemental Educational Opportunity Grant, Federal Work-Study, Federal Perkins Loan, Federal Pell Grant, William D. Ford Federal Direct Loan, Teacher Education Assistance for College and Higher Education Grant, and Iraq and Afghanistan Service Grant programs.

SUMMARY: The Secretary announces the deadline date for the receipt of information from institutions for programs that prepare students for gainful employment in a recognized occupation that are eligible to participate in the Federal student assistance programs authorized under title IV of the Higher Education Act of 1965, as amended (HEA), for the 2010-2011 award year. The Secretary also announces the continued collection of gainful employment program information for prior award years.

Deadline Date: November 15, 2011.

SUPPLEMENTARY INFORMATION: On October 29, 2010, the Secretary published in the *Federal Register* (75 FR 66832) final regulations related to postsecondary educational programs that lead to gainful employment in recognized occupations and the information that institutions are required to report under 34 CFR 668.6(a)(1).

The regulations in 34 CFR 668.6(a)(2)(i)(A) and (a)(2)(i)(B) provide that institutions must report information for the 2006-2007 award year to the extent that the information is available and for the 2007-2008 through the 2009-2010 award years no later than October 1, 2011. The regulations in 34 CFR 668.6(a)(2)(i)(C) further provide that an institution must report information required for the most recently completed award year no earlier than September 30, but no later than the date established by the Secretary through a notice published in the *Federal Register*. Accordingly, through this notice, the Secretary announces that institutions must report the information required under 34 CFR 668.6(a)(1) for the 2010-2011 award year no later than November 15, 2011. Although information for the gainful employment programs for prior award years is due by October 1, 2011, consistent with the submission date established by this notice for the 2010-2011 award year, the Department will continue to accept information for prior

award years through November 15, 2011.

FOR FURTHER INFORMATION CONTACT: Rene Tiongquico, U.S. Department of Education, Federal Student Aid, 830 First Street, NE., room 113H1, Washington, DC 20202. *Telephone:* (202) 377-4270.

If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service (FRS), toll free, at 1-800-877-8339.

Individuals with disabilities can obtain this document in an accessible format (e.g., braille, large print, audiotape, or computer diskette) by contacting the program contact person listed in this section.

Electronic Access to This Document: The official version of this document is the document published in the *Federal Register*. Free Internet access to the official edition of the *Federal Register* and the Code of Federal Regulations is available via the Federal Digital System at: <http://www.gpo.gov/fdsys>. At this site you can view this document, as well as all other documents of this Department published in the *Federal Register*, in text or Adobe Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the *Federal Register* by using the article search feature at: <http://www.federalregister.gov>. Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Program Authority: 20 U.S.C. 1001(b), 1002(b), 1002(c), 1070a, 1070b-1070b-4, 1070g, 1087a-1087j, and 1087aa-1087ii; 42 U.S.C. 2751-2756b.

Dated: July 28, 2011.

James W. Runcie,

Acting Chief Operating Officer, Federal Student Aid.

[FR Doc. 2011-19534 Filed 8-1-11; 8:45 am]
BILLING CODE 4000-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 1988-079]

Pacific Gas and Electric Company; Notice of Application for Amendment of License and Soliciting Comments, Motions To Intervene, and Protests

Take notice that the following hydroelectric application has been filed

with the Commission and is available for public inspection:

a. *Application Type*: Request for temporary variance of the flow requirement, pursuant to Article 402 of the Haas-Kings River Hydroelectric Project.

b. *Project No.*: 1988-079.

c. *Date Filed*: July 15, 2011.

d. *Applicant*: Pacific Gas and Electric Company.

e. *Name of Project*: Haas-King River Hydroelectric Project (P-1988).

f. *Location*: The Haas-King River Hydroelectric Project is located on the North Fork Kings River in Fresno County, near Fresno, California.

g. *Filed Pursuant to*: Federal Power Act, 16 U.S.C. 791(a)-825(r).

h. *Applicant Contact*: Mr. Neil J. Wong, Pacific Gas and Electric Company, 245 Market Street, San Francisco, California 94105, Tel: (415) 973-2109.

i. *FERC Contact*: Alyssa Dorval, (212) 273-5955, Alyssa.Dorval@ferc.gov.

j. *Deadline for filing comments, motions to intervene, and protests*: 15 days from the issuance date of this notice.

All documents may be filed electronically via the Internet. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/ecomment.asp>. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-206-3676, or for TTY, (202) 502-8659. Although the Commission strongly encourages electronic filing, documents may also be paper-filed. To paper-file, mail an original and seven copies to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. Please include the project number (P-1988-079) on any documents or motions filed.

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person whose name appears on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must

also serve a copy of the document on that resource agency.

k. *Description of Request*: Pursuant to Article 402 of the project license, Pacific Gas and Electric Company (PG&E) is required to request a temporary amendment of flows from FERC if the departure from flows lasts for more than two weeks. PG&E is planning to repair a damaged 60-inch low level outlet (LLO) gate at the Balch Project's (FERC No. 175) Balch Afterbay Dam, which has been stuck in the partially open position since early January 2011. In order to make the repairs, PG&E will need to depart from the minimum instream flows at the Dinkey Creek Siphon and at the Confluence of Dinkey Creek and the North Fork Kings River. During the repairs, PG&E will need to draw down the forebay and drain the Kings River Tunnel in a controlled manner. It is estimated that the period of no release from Dinkey Creek Siphon could last approximately 4 weeks. In addition to the absence of a release from Dinkey Creek Siphon, the flow requirement below the Balch Afterbay Dam will be met by diverting flows through a bypass system that will be constructed to allow the movement of water around the construction area. It is estimated that the minimum flow requirement of 15 cubic feet per second (cfs) will be met, and PG&E will attempt to release an additional 5-10 cfs from the bypass into the Kings River.

l. A copy of the application is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support. A copy is also available for inspection and reproduction at the address in item h above.

You may also register online at <http://www.ferc.gov/docs-filing/subscription.asp> to be notified via e-mail of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in

accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

Any filings must bear in all capital letters the title "COMMENTS," "PROTEST," or "MOTION TO INTERVENE," as applicable, and the Project Number of the particular application to which the filing refers. A copy of any motion to intervene must also be served upon each representative of the Applicant specified in the particular application.

Federal, state, and local agencies are invited to file comments on the described application. A copy of the application may be obtained by agencies directly from the applicant. If an agency does not file comments within the time specified for filing comments, it will be presumed to have no comments. One copy of an agency's comments must also be sent to the Applicant's representatives.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2011-19467 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. PR11-3-001]

Peoples Natural Gas Company LLC; Notice of Baseline Filing

Take notice that on July 20, 2011, Peoples Natural Gas Company LLC submitted a revised baseline filing of their Statement of Operating Conditions for services provided under Section 311 of the Natural Gas Policy Act of 1978 (NGPA).

Any person desiring to participate in this rate proceeding must file a motion to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the date as indicated below. Anyone filing an intervention or protest must serve a

copy of that document on the Applicant. Anyone filing an intervention or protest on or before the intervention or protest date need not serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 7 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: 5 p.m. Eastern Time on Monday August 1, 2011.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

[FR Doc. 2011-19466 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC11-98-000.

Applicants: Capital Power Income L.P., Atlantic Power Corporation.

Description: Joint Application for Approval under Section 203 of the Federal Power Act of Capital Power Income L.P.

Filed Date: 07/26/2011.

Accession Number: 20110726-5031.

Comment Date: 5 p.m. Eastern Time on Tuesday, August 16, 2011.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER11-3553-002.

Applicants: Glacial Energy of New Jersey, Inc.

Description: Glacial Energy of New Jersey, Inc. submits tariff filing per

35.17(b); Deficiency Filing—Glacial New Jersey to be effective 7/25/2011.

Filed Date: 07/25/2011.

Accession Number: 20110725-5129.

Comment Date: 5 p.m. Eastern Time on Monday, August 8, 2011.

Docket Numbers: ER11-3576-002; ER97-3583-006; ER11-3401-003; ER10-3138-002.

Applicants: Denver City Energy Associates, L.P., Golden Spread Electric Cooperative, Inc., Golden Spread Panhandle Wind Ranch, LLC, GS Electric Generating Cooperative Inc.

Description: Notice of Change in Status of Golden Spread Electric Cooperative, Inc. et al.

Filed Date: 07/25/2011.

Accession Number: 20110725-5141.

Comment Date: 5 p.m. Eastern Time on Monday, August 15, 2011.

Docket Numbers: ER11-3822-001.

Applicants: Glacial Energy of New England, Inc.

Description: Glacial Energy of New England, Inc. submits tariff filing per 35: Deficiency Filing—Glacial NE to be effective 7/25/2011.

Filed Date: 07/25/2011.

Accession Number: 20110725-5127.

Comment Date: 5 p.m. Eastern Time on Monday, August 8, 2011.

Docket Numbers: ER11-3824-001.

Applicants: Glacial Energy of Illinois, Inc.

Description: Glacial Energy of Illinois, Inc. submits tariff filing per 35: Deficiency IL to be effective 7/25/2011.

Filed Date: 07/25/2011.

Accession Number: 20110725-5125.

Comment Date: 5 p.m. Eastern Time on Monday, August 8, 2011.

Docket Numbers: ER11-3879-000; ER11-3879-001.

Applicants: Amerigreen Energy, Inc.

Description: Supplemental Information of Amerigreen Energy, Inc.

Filed Date: 07/25/2011.

Accession Number: 20110725-5064.

Comment Date: 5 p.m. Eastern Time on Monday, August 15, 2011.

Docket Numbers: ER11-3992-000.

Applicants: L&P Electric, Inc.

Description: Supplemental Information and Clarifications to Market-Based Rate Application of L&P Electric, Inc.

Filed Date: 07/25/2011.

Accession Number: 20110725-5146.

Comment Date: 5 p.m. Eastern Time on Monday, August 15, 2011.

Docket Numbers: ER11-4111-000.

Applicants: Hudson Ranch Power I LLC.

Description: Hudson Ranch Power I LLC submits tariff filing per 35.12: Application for Market-Based Rate Authority to be effective 12/1/2011.

Filed Date: 07/25/2011.

Accession Number: 20110725-5117.

Comment Date: 5 p.m. Eastern Time on Monday, August 15, 2011.

Take notice that the Commission received the following land acquisition reports:

Docket Numbers: LA11-2-000.

Applicants: Iberdrola Renewables, Inc. Atlantic Renewable Projects II LLC, Barton Windpower LLC, Big Horn Wind Project LLC, Big Horn II Wind Project LLC, Blue Creek Wind Farm LLC, Buffalo Ridge I LLC, Buffalo Ridge II LLC, Casselman Windpower LLC, Colorado Green Holdings LLC, Dillon Wind LLC, Dry Lake Wind Power, LLC, Dry Lake Wind Power II LLC, Elk River Windfarm, LLC, Elm Creek Wind, LLC, Elm Creek Wind II LLC, Farmers City Wind, LLC, Flat Rock Windpower LLC, Flat Rock Windpower II LLC, Flying Cloud Power Partners, LLC, Hardscrabble Wind Power LLC, Hay Canyon Wind LLC, Juniper Canyon Wind Power LLC, Klamath Energy LLC, Klamath Generation LLC, Klondike Wind Power LLC, Klondike Wind Power II LLC, Klondike Wind Power III LLC, Leaning Juniper Wind Power II LLC, Lempster Wind, LLC, Locust Ridge Wind Farm, LLC, Locust Ridge Wind Farm II, LLC, MinnDakota Wind LLC, Moraine Wind LLC, Moraine Wind II LLC, Mountain View Power Partners III, LLC, New Harvest Wind Project LLC, Northern Iowa Windpower II LLC, Pebble Springs Wind LLC, Providence Heights Wind, LLC, Rugby Wind LLC, San Luis Solar LLC, Shiloh I Wind Project, LLC, Star Point Wind Project LLC, Stretator-Cayuga Ridge Wind Power LLC, Trimont Wind I LLC, and Twin Buttes Wind LLC.

Description: Iberdrola Renewables MBR Sellers Q2 2011 Land Acquisition Report.

Filed Date: 07/26/2011.

Accession Number: 20110726-5054.

Comment Date: 5 p.m. Eastern Time on Tuesday, August 16, 2011.

Any person desiring to intervene or to protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214) on or before 5 p.m. Eastern time on the specified comment date. It is not necessary to separately intervene again in a subdocket related to a compliance filing if you have previously intervened in the same docket. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Anyone filing a motion to intervene or protest must serve a copy of that

document on the Applicant. In reference to filings initiating a new proceeding, interventions or protests submitted on or before the comment deadline need not be served on persons other than the Applicant.

As it relates to any qualifying facility filings, the notices of self-certification [or self-recertification] listed above, do not institute a proceeding regarding qualifying facility status. A notice of self-certification [or self-recertification] simply provides notification that the entity making the filing has determined the facility named in the notice meets the applicable criteria to be a qualifying facility. Intervention and/or protest do not lie in dockets that are qualifying facility self-certifications or self-recertifications. Any person seeking to challenge such qualifying facility status may do so by filing a motion pursuant to 18 CFR 292.207(d)(iii). Intervention and protests may be filed in response to notices of qualifying facility dockets other than self-certifications and self-recertifications.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 14 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First St., NE., Washington, DC 20426.

The filings in the above proceedings are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

[FR Doc. 2011-19465 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP11-490-000]

Columbia Gas Transmission, LLC; Notice of Intent To Prepare an Environmental Assessment for the Proposed Vepco—Warren County Project and Request for Comments on Environmental Issues

The staff of the Federal Energy Regulatory Commission (FERC or Commission) will prepare an environmental assessment (EA) that will discuss the environmental impacts of the Vepco—Warren County Project involving construction and operation of facilities by Columbia Gas Transmission, LLC (Columbia) in Charleston, West Virginia. This EA will be used by the Commission in its decision-making process to determine whether the project is in the public convenience and necessity.

This notice announces the opening of the scoping process we will use to gather input from the public and interested agencies on the project. Your input will help the Commission staff determine which issues need to be evaluated in the EA. Please note that the scoping period will close on August 25, 2011.

This notice is being sent to affected landowners; Federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American Tribes; other interested parties; and local libraries and newspapers. State and local government representatives are asked to notify their constituents of this planned project and encourage them to comment on their areas of concern.

If you are a landowner receiving this notice, you may be contacted by a Columbia representative about survey permission and/or the acquisition of an easement to construct, operate, and maintain the proposed facilities. The company would seek to negotiate a mutually acceptable agreement. However, if the project is approved by the Commission, that approval conveys with it the right of eminent domain. Therefore, if easement negotiations fail to produce an agreement, the natural gas company could initiate condemnation proceedings in accordance with state law.

A fact sheet prepared by the FERC entitled "An Interstate Natural Gas Facility On My Land? What Do I Need To Know?" is available for viewing on the FERC internet Web site (<http://www.ferc.gov>).

This fact sheet addresses a number of typically asked questions, including the use of eminent domain and how to participate in the Commission's proceedings.

Summary of the Proposed Project

Columbia proposes in response to a request from Virginia Electric and Power Company (VEPCO), to construct approximately 2.47 miles of 24-inch-diameter natural gas transmission pipeline and an associated meter and regulation (M&R) station in Warren County, Virginia. In addition, the project involves the installation of minor station piping and appurtenance modifications at existing compressor stations in northern Virginia and eastern West Virginia, and abandonment and replacement of an existing pipeline interconnect near Rockville, Maryland. The project would increase the capacity to 246,000 Dth/day during the winter and utilize 224,000 Dth/day of reserved capacity during the summer to meet the fuel requirements of VEPCO's proposed power station. The general location of the project facilities is shown in Appendix 1.

If approved, Columbia proposes to commence construction of the proposed facilities in April 2012.

Land Requirements for Construction

Construction of the pipeline would temporarily impact about 32.4 acres. Permanent land requirements for operation of the proposed pipeline would impact approximately 19.7 acres and 12.7 acres would be reverted to pre-construction use. Approximately 0.6 acres of land would be utilized at the end point for permanent above-ground valve assemblies and pig receivers. Columbia would use a 75-foot-wide temporary right-of-way during construction and a 50-foot-wide permanent right-of-way for maintenance and operation centered over the centerline of the new pipeline.

In addition to the pipeline replacement, Columbia is proposing construction of a pig launcher/receiver at existing Ninevah M&R Station in Warren County, Virginia. A new M&R station would be built at milepost 2.47 of the proposed pipeline within the VEPCO—Warren County Power Station lot. At the Rockville Measuring Station, Columbia proposes to construct an interconnect between its existing 26-inch-diameter Line MB pipeline and Transcontinental Pipeline Corporations' system. Construction and operation of the proposed modifications at the existing Ninevah M&R Station, Loudoun and Lost River Compressor Stations, and Rockville Measuring Station would take

place within the existing property boundaries of those facilities.

Columbia is also proposing to utilize four existing private access roads and two new roads to gain access to the construction areas along the pipeline route. Columbia proposes one temporary pipeyard/contractor yard for the Project.

The EA Process

The National Environmental Policy Act (NEPA) requires that the Commission take into account the environmental impacts that could result from an action whenever it considers the issuance of a Certificate of Public Convenience and Necessity. NEPA also requires us¹ to discover and address concerns the public may have about proposals. This process is referred to as "scoping." The main goal of the scoping process is to focus the analysis in the EA on the important environmental issues. By this Notice of Intent, the Commission staff requests public comments on the scope of the issues to address in the EA. All comments received are considered during the preparation of the EA. State and local government representatives are encouraged to notify their constituents of this proposed action and encourage them to comment on their areas of concern.

In the EA we will discuss impacts that could occur as a result of the construction and operation of the proposed project under these general headings:

- Geology and Soils;
- Land Use;
- Water Resources, Fisheries, and Wetlands;
- Cultural Resources;
- Vegetation and Wildlife;
- Air Quality and Noise;
- Endangered and Threatened Species;
- Public Safety.

We will also evaluate possible alternatives to the proposed project or portions of the project, and make recommendations on how to lessen or avoid impacts on the various resource areas.

Our independent analysis of the issues will be in the EA. Depending on the comments received during the scoping process, the EA may be published and mailed to Federal, state, and local agencies, public interest groups, interested individuals, affected landowners, newspapers, libraries, and the Commission's official service list for

¹ "We", "us", and "our" refer to the environmental staff of the Office of Energy Projects (OEP).

this proceeding. A comment period will be allotted for review if the EA is published. We will consider all comments on the EA before we make our recommendations to the Commission. To ensure your comments are considered, please carefully follow the instructions in the public participation section below.

With this NOI, we are asking Federal, state, and local agencies with jurisdiction and/or special expertise with respect to environmental issues to formally cooperate with us in the preparation of the EA. These agencies may choose to participate once they have evaluated the proposal relative to their responsibilities. Additional agencies that would like to request cooperating agency status should follow the instructions for filing comments provided under the Public Participation section of this NOI.

Consultations Under Section 106 of the National Historic Preservation Act

In accordance with the Advisory Council on Historic Preservation's implementing regulations for section 106 of the National Historic Preservation Act, we are using this notice to initiate consultation with applicable State Historic Preservation Office(s), and to solicit their views and those of other government agencies, interested Indian tribes, and the public on the project's potential effects on historic properties.² We will define the project-specific Area of Potential Effects (APE) in consultation with the SHPO(s) as the project is further developed. On natural gas facility projects, the APE at a minimum encompasses all areas subject to ground disturbance (examples include construction right-of-way, contractor/pipe storage yards, compressor stations, and access roads). Our EA for this project will document our findings on the impacts on historic properties and summarize the status of consultations under section 106.

Public Participation

You can make a difference by providing us with your specific comments or concerns about the Vepco—Warren County Project. Your comments should focus on the potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. The more specific your comments, the more useful

² The Advisory Council on Historic Preservation's regulations are at Title 36, Code of Federal Regulations, Part 800. Historic properties are defined in those regulations as any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register for Historic Places.

they will be. To ensure that your comments are timely and properly recorded, please send in your comments so that they will be received in Washington, DC on or before August 25, 2011.

For your convenience, there are three methods in which you can use to submit your comments to the Commission. In all instances please reference the project docket number (CP11-490-000) with your submission. The Commission encourages electronic filing of comments and has dedicated eFiling expert staff available to assist you at 202-502-8258 or efiling@ferc.gov.

(1) You may file your comments electronically by using the *eComment* feature, which is located on the Commission's Web site at <http://www.ferc.gov> under the link to *Documents and Filings*. An *eComment* is an easy method for interested persons to submit brief, text-only comments on a project:

(2) You may file your comments electronically by using the *eFiling* feature, which is located on the Commission's Web site at <http://www.ferc.gov> under the link to *Documents and Filings*. With *eFiling*, you can provide comments in a variety of formats by attaching them as a file with your submission. New *eFiling* users must first create an account by clicking on "*eRegister*." You will be asked to select the type of filing you are making. A comment on a particular project is considered a "Comment on a Filing," or

(3) You may file a paper copy of your comments at the following address:

Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE., Room 1A, Washington, DC 20426.

Label one copy of the comments for the attention of Gas Branch 3, PJ11.3.

Environmental Mailing List

An effort is being made to send this notice to all individuals, organizations, and government entities interested in and/or potentially affected by the proposed project. This includes all landowners who are potential right-of-way grantors, whose property may be used temporarily for project purposes, or who own homes within distances defined in the Commission's regulations of certain aboveground facilities.

If you do not want to send comments at this time but still want to remain on our mailing list, please return the Information Request (Appendix 2). If you do not return the Information Request, you will be taken off the mailing list.

Becoming an Intervenor

In addition to involvement in the EA scoping process, you may want to become an "intervenor," which is an official party to the proceeding. Intervenor play a more formal role in the process and are able to file briefs, appear at hearings, and be heard by the courts if they choose to appeal the Commission's final ruling. An intervenor formally participates in a Commission proceeding by filing a request to intervene. Instructions for becoming an intervenor are included in the User's Guide under the "e-filing" link on the Commission's Web site.

Additional Information

Additional information about the project is available from the Commission's Office of External Affairs, at 1-866-208-FERC or on the FERC Internet Web site (<http://www.ferc.gov>) using the eLibrary link. Click on the eLibrary link, click on "General Search" and enter the docket number excluding the last three digits in the Docket Number field (CP11-490). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at FercOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, contact (202)502-8659. The eLibrary link also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission now offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries and direct links to the documents. Go to <http://www.ferc.gov/esubscribenow.htm>.

Finally, public meetings or site visits will be posted on the Commission's calendar located at <http://www.ferc.gov/EventCalendar/EventsList.aspx> along with other related information.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

[FR Doc. 2011-19471 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2047-049]

Erie Boulevard Hydropower, L.P.; Notice of Availability of Environmental Assessment

In accordance with the National Environmental Policy Act of 1969 and the Federal Energy Regulatory Commission's (Commission or FERC) regulations, 18 CFR Part 380, Commission staff has reviewed the application for amendment of license for the Stewarts Bridge Project (FERC No. 2047) and has prepared an environmental assessment (EA). The project is located on the Sacandaga River in Saratoga County, New York.

The EA contains the Commission staff's analysis of the potential environmental effects of the proposed addition of new generating capacity and concludes that authorizing the amendment, with appropriate environmental protective measures would not constitute a major Federal action that would significantly affect the quality of the human environment.

A copy of the EA is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at FercOnlineSupport@ferc.gov or toll-free at (866) 208-3676, or for TTY contact (202) 502-8695.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2011-19468 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER11-4111-000]

Hudson Ranch Power I LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced proceeding of Hudson Ranch Power I LLC's application for market-based rate authority, with an

accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is August 15, 2011.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 14 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

The filings in the above-referenced proceeding are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FercOnlineSupport@ferc.gov or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2011-19470 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory
Commission

[Docket No. D111-10-000]

**Black Horse Ranch LLC; Notice of
Petition for Declaratory Order and
Soliciting Comments, Protests, and/or
Motions To Intervene**

Take notice that the following application has been filed with the Commission and is available for public inspection:

- a. *Application Type*: Petition for Declaratory Order.
- b. *Docket No*: D111-10-000.
- c. *Date Filed*: June 20, 2011.
- d. *Applicant*: Black Horse Ranch LLC.
- e. *Name of Project*: Black Horse Ranch Micro Hydro Project.
- f. *Location*: The existing Black Horse Ranch Micro Hydro Project is located on Moose Creek, near the town of Hunters, Stevens County, Washington, affecting T. 31 N., R. 38 E., sec. 33, Willamette Meridian.
- g. *Filed Pursuant to*: section 23(b)(1) of the Federal Power Act, 16 U.S.C. 817(b).
- h. *Applicant Contact*: Jonathan Birnbaum, 504 Honeysuckle, Altus, OK 73521; telephone: (509) 869-5594; e-mail: www.blackhorseranch@gmail.com.
- i. *FERC Contact*: Any questions on this notice should be addressed to Henry Ecton, (202) 502-8768, or e-mail address: henry.ecton@ferc.gov.
- j. *Deadline for filing comments, protests, and/or motions*: August 30, 2011.

All documents should be filed electronically via the Internet. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov/docs-filing/efiling.asp>. If unable to be filed electronically, documents may be paper-filed. To paper-file, an original and seven copies should be filed with: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/ecomment.asp>. Please include the docket number (D111-10-000) on any comments, protests, and/or motions filed.

k. *Description of Project*: The existing Black Horse Ranch Micro Hydro Project consists of: (1) An intake directing water into two 50-gallon containers, which function as mini-settling tanks; (2) a 6-inch-diameter, 850-foot-long penstock; (3) a 6-foot by-8-foot converted septic

tank used as a powerhouse, containing a 715-W generator; (4) a short transmission line to a battery bank, with two Flex 500 inverters to provide AC power to the ranch; and (5) appurtenant facilities. All power is used on the ranch.

When a Petition for Declaratory Order is filed with the Federal Energy Regulatory Commission, the Federal Power Act requires the Commission to investigate and determine if the interests of interstate or foreign commerce would be affected by the proposed project. The Commission also determines whether or not the project: (1) Would be located on a navigable waterway; (2) would occupy or affect public lands or reservations of the United States; (3) would utilize surplus water or water power from a government dam; or (4) if applicable, has involved or would involve any construction subsequent to 1935 that may have increased or would increase the project's head or generating capacity, or have otherwise significantly modified the project's pre-1935 design or operation.

l. *Locations of the Application*: Copies of this filing are on file with the Commission and are available for public inspection. This filing may be viewed on the web at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. You may also register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via e-mail of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll-free at (866) 208-3676, or TTY, contact (202) 502-8659. A copy is also available for inspection and reproduction at the address in item (h) above.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions to Intervene*—Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified

comment date for the particular application.

o. *Filing and Service of Responsive Documents*—Any filings must bear in all capital letters the title "COMMENTS", "PROTESTS", AND/OR "MOTIONS TO INTERVENE", as applicable, and the Docket Number of the particular application to which the filing refers. A copy of any motion to intervene must also be served upon each representative of the Applicant specified in the particular application.

p. *Agency Comments*—Federal, state, and local agencies are invited to file comments on the described application. A copy of the application may be obtained by agencies directly from the Applicant. If an agency does not file comments within the time specified for filing comments, it will be presumed to have no comments. One copy of an agency's comments must also be sent to the Applicant's representatives.

Dated: July 26, 2011.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2011-19469 Filed 8-1-11; 8:45 am]

BILLING CODE 6717-01-P

ENVIRONMENTAL PROTECTION
AGENCY

[R08-CO-2011-0001; FRL-9447-1]

**Adequacy Determination for Colorado
Springs, Cañon City, Greeley, Pagosa
Springs, and Telluride; Carbon
Monoxide and PM₁₀ Maintenance
Plans' Motor Vehicle Emissions
Budgets for Transportation Conformity
Purposes; State of Colorado**

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Notice of adequacy.

SUMMARY: In this notice, EPA is notifying the public that the Agency has found the following State Implementation Plan (SIP) submittals adequate for transportation conformity purposes: "Revised Carbon Monoxide Attainment/Maintenance Plan Colorado Springs Attainment/Maintenance Area" and "Revised Carbon Monoxide Maintenance Plan Greeley Attainment/Maintenance Area." In addition, EPA is notifying the public that the Agency has found the following SIP submittals and their respective motor vehicle emissions budgets adequate for transportation conformity purposes: "PM10 Maintenance Plan for Cañon City," "Final Revised PM10 Maintenance Plan for the Pagosa Springs Attainment/Maintenance Area," and "Revised PM10 Attainment/Maintenance Plan Telluride

Attainment/Maintenance Area." (PM₁₀ refers to particulate matter less than or equal to 10 microns in size.) Once this finding becomes effective, the Pikes Peak Area Council of Governments (PPACG), the North Front Range Metropolitan Planning Organization (NFRMPO), the Colorado Department of Transportation, and the U.S. Department of Transportation are required to use the relevant motor vehicle emissions budgets for future transportation conformity determinations.

DATES: This finding is effective August 17, 2011.

FOR FURTHER INFORMATION CONTACT: Tim Russ, Air Program, Mailcode 8P-AR, Environmental Protection Agency, Region 8, 1595 Wynkoop Street, Denver, Colorado 80202-1129, telephone number (303) 312-6479, fax number (303) 312-6064, or e-mail russ.tim@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document, whenever "we," "us," or "our," are used, we mean EPA.

Transportation conformity is required by section 176(c) of the Clean Air Act (CAA). The conformity rule provisions at 40 CFR part 93 require that transportation plans, programs, and projects conform to SIPs and establish the criteria and procedures for determining whether or not they do. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the National Ambient Air Quality Standard (NAAQS).

The criteria by which we determine whether a SIP's motor vehicle emissions budget (MVEB) is adequate for conformity purposes are outlined in 40 CFR 93.118(e)(4), which was promulgated August 15, 1997 (62 FR 43780). We described our process for determining the adequacy of submitted SIP MVEBs in our July 1, 2004 Transportation Conformity Rule Amendments (69 FR 40004). In addition, in certain areas with monitored ambient carbon monoxide values significantly below the NAAQS, EPA has allowed states to use limited maintenance plans (LMPs), which contain no future year maintenance projections and, therefore, no MVEBs. (See "Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas," signed by Joseph Paisie, Group Leader, Integrated Policy and Strategies Group (MD-15), October 6, 1995, also known as EPA's "LMP Policy.") In an area covered by an approved LMP, the

Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) are presumed to automatically satisfy the emissions budget test requirement, and no regional emissions analysis with respect to a MVEB under sections 40 CFR 93.118 or 93.119 (i.e., MVEB(s), build less than no-build, or build less than base year) of the conformity rule is required for RTP and TIP conformity. We used these resources in making our adequacy determinations announced in this notice.

This notice is simply an announcement of findings that we have already made and are as described below:

Colorado Springs (Carbon Monoxide): The State submitted the "Revised Carbon Monoxide Attainment/Maintenance Plan Colorado Springs Attainment/Maintenance Area" on March 31, 2010. The State prepared the submittal to meet the requirements of section 175A(b) of the CAA for a second 10-year maintenance plan and used, as appropriate, the provisions of EPA's LMP policy. Thus, the LMP contains no MVEB. EPA sent a letter to the Colorado Department of Public Health and Environment (CDPHE) on March 3, 2011, stating that the submitted Colorado Springs second 10-year maintenance plan was adequate for transportation conformity purposes. We note that we posted the "Revised Carbon Monoxide Attainment/Maintenance Plan Colorado Springs Attainment/Maintenance Area" for adequacy review on EPA's transportation conformity Web site on November 10, 2010. The public comment period closed on December 10, 2010, and we did not receive any comments in response to the adequacy review posting (see <http://www.epa.gov/otaq/stateresources/transconf/currsips.htm#co-springs>).

Greeley (Carbon Monoxide): The State submitted the "Revised Carbon Monoxide Maintenance Plan Greeley Attainment/Maintenance Area" on March 31, 2010. The State prepared the submittal to meet the requirements of section 175A(b) of the CAA for a second 10-year maintenance plan and used, as appropriate, the provisions of EPA's LMP policy. Thus, the LMP contains no MVEB. EPA sent a letter to CDPHE on March 4, 2011, stating that the submitted Greeley second 10-year maintenance plan was adequate for transportation conformity purposes. We note that we posted the "Revised Carbon Monoxide Maintenance Plan Greeley Attainment/Maintenance Area" for adequacy review on EPA's transportation conformity Web site on

November 10, 2010. The public comment period closed on December 10, 2010, and we did not receive any comments in response to the adequacy review posting (see <http://www.epa.gov/otaq/stateresources/transconf/currsips.htm#greeley>).

Cañon City (PM₁₀): The State submitted the "PM₁₀ Maintenance Plan for Cañon City" on June 18, 2009. The State prepared the submittal to meet the requirements of section 175A(b) of the CAA for a second 10-year maintenance plan. EPA sent a letter to CDPHE on May 4, 2011, stating that the submitted Cañon City PM₁₀ second 10-year maintenance plan and the 2020 PM₁₀ MVEB were adequate for transportation conformity purposes. We note that we posted the "PM₁₀ Maintenance Plan for Cañon City" for adequacy review on EPA's transportation conformity Web site on March 15, 2011. The public comment period closed on April 14, 2011, and we did not receive any comments in response to the adequacy review posting (see <http://www.epa.gov/otaq/stateresources/transconf/currsips.htm#canon>).

Pagosa Springs (PM₁₀): The State submitted the "Final Revised PM₁₀ Maintenance Plan for the Pagosa Springs Attainment/Maintenance Area" on March 31, 2010. The State prepared the submittal to meet the requirements of section 175A(b) of the CAA for a second 10-year maintenance plan. EPA sent a letter to CDPHE on March 17, 2011, stating that the submitted Pagosa Springs PM₁₀ second 10-year maintenance plan and the 2021 PM₁₀ MVEB were adequate for transportation conformity purposes. We note that we posted the "Final Revised PM₁₀ Maintenance Plan for the Pagosa Springs Attainment/Maintenance Area" for adequacy review on EPA's transportation conformity Web site on November 22, 2010. The public comment period closed on December 22, 2010, and we did not receive any comments in response to the adequacy review posting (see <http://www.epa.gov/otaq/stateresources/transconf/currsips.htm#pagosa>).

Telluride (PM₁₀): The State submitted the "Revised PM₁₀ Attainment/Maintenance Plan Telluride Attainment/Maintenance Area" on March 31, 2010. The State prepared the submittal to meet the requirements of section 175A(b) of the CAA for a second 10-year maintenance plan. EPA sent a letter to CDPHE on March 21, 2011, stating that the submitted Telluride PM₁₀ second 10-year maintenance plan and the 2021 PM₁₀ MVEB were adequate for transportation conformity purposes. We note that we posted the "Revised

PM10 Attainment/Maintenance Plan Telluride Attainment/Maintenance Area" for adequacy review on EPA's transportation conformity Web site on November 22, 2010. The public

comment period closed on December 22, 2010, and we did not receive any comments in response to the adequacy review posting (see <http://www.epa.gov/>

[otaq/stateresources/transconf/cursrips.htm#telluride](http://www.epa.gov/otaq/stateresources/transconf/cursrips.htm#telluride)).

The MVEBs we found adequate are presented in the following table:

Area of applicability	CO emissions (tons per day)	2020 PM ₁₀ emissions (pounds per day)	2021 PM ₁₀ emissions (pounds per day)
Colorado Springs (CO)	N/A ¹ .....	.....	.....
Greeley (CO)	N/A ¹ .....	.....	.....
Cañon City (PM ₁₀) .....	.....	1613	.....
Pagosa Springs (PM ₁₀) .....	.....	.....	946
Telluride (PM ₁₀) .....	.....	.....	1108

¹ LMP area—no MVEB required. Prior MVEBs may apply, as described in our adequacy letters to the State.

Please note that our adequacy review described above is separate from our rulemaking action on the five maintenance plans discussed above and should not be used to prejudge our ultimate approval or disapproval of each of the SIP revisions. Even if we find a maintenance plan or a maintenance plan and its MVEB adequate for transportation conformity purposes, we may later disapprove the SIP revision.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: July 25, 2011.

James B. Martin,

Regional Administrator, Region 8.

[FR Doc. 2011-19524 Filed 8-1-11; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-RCRA-2011-0178; FRL-9446-9]

EPA Seeking Input Materials Measurement; Municipal Solid Waste (MSW), Recycling, and Source Reduction Measurement in the U.S.

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA is soliciting stakeholder input regarding the efficacy and scope of the MSW Characterization Report called "Municipal Solid Waste in the United States" as part of a broader discussion about sustainable materials management. This information will be used to develop new measurement definitions and protocols for measurement of these materials, as well as the possible addition of construction and demolition (C&D) materials and non-hazardous industrial materials to the list of materials addressed in future efforts. This effort could lead to the creation of a new measurement report that the U.S. Environmental Protection Agency (EPA or the Agency) will make publicly available.

DATES: All written comments must be received on or before August 31, 2011.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-RCRA-2011-0178 by one of the following methods:

- <http://www.regulations.gov>. Follow the online instructions for submitting comments using the Docket ID No. EPA-HQ-RCRA-2011-0178.

- E-mail: rcra-docket@epa.gov.

- Fax: 202-566-9744.

- Mail: RCRA Docket (28221T), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001.

- Hand Delivery: EPA West Building Room 3334, 1301 Constitution Avenue, NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation (8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays) and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-HQ-RCRA-2011-0178. EPA's policy is that all comments received will be included in the docket without change and may be made available on-line at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The <http://www.regulations.gov> Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through <http://www.regulations.gov>, your e-mail address will be automatically captured and included as part of the comment that is placed in the docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you

include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at <http://www.epa.gov/dockets/>.

Docket: All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the RCRA Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the RCRA Docket is (202) 566-0270.

FOR FURTHER INFORMATION CONTACT: Hope Pillsbury, Mail Code (5306P), Office of Resource Conservation and Recovery, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (703) 308-7258; pillsbury.hope@epa.gov.

SUPPLEMENTARY INFORMATION:

Background

For decades, EPA has been providing information on the recycling, reuse and generation of municipal solid waste

(MSW) in its regularly published MSW Characterization Report called "Municipal Solid Waste in the United States." Our trash or MSW is made up of the things we commonly use and then throw away. These materials include items, such as packaging, food scraps, grass clippings, sofas, computers, and refrigerators. EPA has used this report to provide a consistent view of MSW in the US over time and for internal performance measures, deliberations and programmatic assessments; however questions are being raised about its scope, the data sources used, the assumptions made, as well as its transparency. There is also a growing need for a more holistic assessment of how materials are generated, used and managed in the U.S. economy.

While the structure, content and methodology of the MSW Characterization Report has remained essentially unchanged, the manner in which the report is used has changed dramatically, and it is now used as the basis for decisions that were unanticipated when the report was first conceived. Many believe that the data and conclusions provided in the MSW Characterization Report do not adequately support this expanded scope of use.

EPA is interested in obtaining stakeholder input regarding the Agency's methods of measuring materials in the following waste streams: MSW (which can include items, such as packaging, food scraps, grass clippings, sofas, computers, and refrigerators), construction and demolition (C&D) materials, and non-hazardous industrial materials (such as iron and steel slags, spent foundry sands, and pulp and paper residues); and the sustainable management of these materials through safe recycling and source reduction. The Agency will consider the information gathered from this notice and other sources as it works to create a new national measurement approach and report. Our goal is to produce a measurement approach and resulting report that provides appropriate data to support a broad array of uses, including recycling, source reduction and waste prevention, and disposal.

EPA's MSW Characterization Report, "Municipal Solid Waste in the United States," analyzes, among other things, the amounts of MSW recycled, incinerated and landfilled. This document can be found at: <http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm>. This report has been based on a materials flow approach, which is a top-down approach to measurement. It

characterizes the MSW stream of the nation as a whole. The report is the result of modeling that uses data gathered from a wide variety of public and private sources, such as the Department of Commerce, the U.S. Census Bureau, and trade associations. This method, however, has limitations, including the fairly narrow scope of materials it covers and inherent limitations due to a modeling approach. For example, at present, it does not include other types of non-hazardous waste, such as C&D materials, industrial materials and automotive waste.

Other measurement efforts in the solid waste area that EPA has undertaken involved electronics and C&D materials. The electronics study (with a more detailed assessment of used and end of life of electronics) called "*Electronics Waste Management in the United States: Approach One*." can be found at: <http://www.epa.gov/osw/conserves/materials/ecycling/manage.htm>. EPA conducted two C&D studies. The most recent study was "*Building-Related Construction and Demolition Materials Amounts*," to determine the amount of building-related C&D materials generated and recovered in the U.S. during 2003. That study can be found at <http://www.epa.gov/osw/conserves/rrr/imr/cdm/pubs/cd-meas.pdf>.

EPA also issued a report in 1997 that established voluntary recycling measurement standards with an extensive list of definitions. It can be found at: <http://www.epa.gov/osw/conserves/tools/recmeas/>.

Furthermore, State and local communities have also developed ways of measuring their recycling rates based on a somewhat different scope of materials included, and occasionally, different definitions of recycling so that they could meet their own legislatively mandated recycling or diversion goals. As the Agency considers a broader and more comprehensive view of sustainable materials management, EPA seeks input on how these other non-hazardous wastes and materials should be measured and characterized, as well as input on what definitions should be used.

The Agency is considering various approaches to data gathering and reporting and seeks stakeholder input on the following topics:

Topic 1: Usage of EPA's Characterization Report

If you use EPA's MSW Characterization Report:

- How do you use it?

- What decisions or actions have you taken or plan to take based upon this report?

- What do you like and dislike?
- How would you improve it?
- Recognizing that data gathering is crucial to any characterization report, do you have suggestions, based on experience with similar data gathering efforts, on what has worked, and what has not, in those efforts?

Topic 2: Scope of EPA's MSW Characterization Report

The current MSW Characterization Report shows what products and materials are commonly collected and disposed of by households. Examples of this include paper, glass, metal, plastic, textiles and wood plus organics (food, leaves and grass). All these materials are generated by residential and commercial sectors and are presently recycled, reused, combusted or landfilled. In considering the scope of the report and possible improvements, please consider the following questions:

- What materials should be included in the report (in particular, should it include other types of non-hazardous waste, such as C&D materials, industrial materials, and/or automotive waste)?
- What are the most useful sources of data?
- Who should provide this data?
- Consistent terminology is crucial for successful measurement and reporting. Thus, please list primary materials terms used in your field. For purposes of measuring, what terms are most important, and how would you define them? Examples of terms to be considered include: Reuse; source reduction; recycling; pre-consumer recycling; post-consumer recycling; disposal; biomass; organics; municipal solid waste; industrial (nonhazardous) solid waste; recycled material terms (e.g., iron and steel scrap, other metals, paper fiber) sustainability; C&D materials; and zero waste.

Topic 3: Measurement Methodology

In making assessments on the methods to be used for measurement, please provide your insights to the following questions.

- What types of data gathering and analyses are likely to be most accurate and lead to clearly understandable results?
- Are the voluntary recycling standards and definitions EPA established in 1997 applicable or useful today? Please explain why or why not.
- If an open source, transparent Web-based data collection and measurement tool could be created, would you use it?

How practical and economical would such a system be?

- In determining the measurement of materials throughout their entire life cycle from resource extraction; material processing; product design and manufacturing; product use; collection and processing; to disposal:

What data collection would be needed?

What kind of measurement methodology and tools are necessary?

What reporting framework would support your programmatic efforts?

List of Subjects

Environmental protection, municipal solid waste (MSW) characterization, MSW management, recycling, measurement, data, data collection, construction and demolition (C&D) recycling, source reduction, life cycle, life cycle systems approach, sustainable materials management.

Dated: July 27, 2011.

Suzanne Rudzinski,

Director, Office of Resource Conservation and Recovery, Office of Solid Waste and Emergency Response.

[FR Doc. 2011-19515 Filed 8-1-11; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL COMMUNICATIONS COMMISSION

Information Collections Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: The Federal Communications Commission (FCC), as part of its continuing effort to reduce paperwork burdens, invites the general public and other Federal agencies to take this opportunity to comment on the following information collection, as required by the Paperwork Reduction Act (PRA) of 1995. Comments are requested concerning (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and (e) ways to further reduce the

information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid Office of Management and Budget (OMB) control number.

DATES: Written PRA comments should be submitted on or before October 3, 2011. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to the Federal Communications Commission via e-mail to PRA@fcc.gov and Cathy.Williams@fcc.gov.

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418-2918.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060-0906.
Title: 47 CFR 73.624(g), FCC Form 317.

Form Number: FCC Form 317.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for profit entities; not for profit institutions; State, local or Tribal government.

Number of Respondents and Responses: 9,391 respondents; 18,782 responses.

Estimated Hours per Response: 2-4 hours.

Frequency of Response: Recordkeeping requirement; annual reporting requirement; one time reporting requirement.

Total Annual Burden: 56,346 hours.

Total Annual Cost: \$1,408,650.

Obligation To Respond: Required to obtain or retain benefits. The statutory authority for this information collection is contained in Sections 154(i), 301, 303, 336 and 403 of the Communications Act of 1934, as amended.

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Privacy Act Assessment: No impact(s).

Needs and Uses: On July 15, 2011, the Commission adopted the Second Report and Order, In the Matter of Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations, MB Docket No. 03-

185, FCC 11-110 ("LPTV Digital Second Report and Order"). The LPTV Digital Second Report and Order contains rules and policies for low power stations ("LPTV") to transition from analog to digital broadcasting and states that low power television, TV translator, and Class A television stations operating pursuant to Special Temporary Authority (STA) must comply with the requirements for feeable ancillary or supplementary services in Section 73.624(g) (using FCC Form 317). This requirement is being submitted to the Office of Management and Budget (OMB) for review and approval.

OMB Control Number: 3060-0386.

Title: Special Temporary Authorization (STA) Requests; Notifications; and Informal Filings; Sections 1.5, 73.1615, 73.1635, 73.1740, and 73.3598; CDBS Informal Forms; Section 74.788; Low Power Television, TV Translator and Class A Television Digital Transition Notifications; FCC Form 337.

Form Number: FCC Form 337.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for profit entities; not for profit institutions; State, local or Tribal government.

Number of Respondents and Responses: 6,509 respondents; 6,509 responses.

Estimated Hours per Response: 0.5 to 4 hours.

Frequency of Response: On occasion reporting requirement; one time reporting requirement.

Total Annual Burden: 5,325 hours.

Total Annual Cost: \$2,126,510.

Obligation To Respond: Required to obtain or retain benefits. The statutory authority for this information collection is contained in Sections 1, 4(i) and (j), 7, 301, 302, 303, 307, 308, 309, 312, 316, 318, 319, 324, 325, 336 and 337 of the Communications Act of 1934, as amended.

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Privacy Act Assessment: No impact(s).

Needs and Uses: On July 15, 2011, the Commission adopted the Second Report and Order, In the Matter of Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations, MB Docket No. 03-185, FCC 11-110 ("LPTV Digital Second Report and Order"). The LPTV Digital Second Report and Order contains rules and policies for low power stations ("LPTV") to transition from analog to

digital broadcasting and states that low power television, TV translator, and Class A television stations that have not already transitioned to digital must submit a notification to the Commission (through an informal filing) of their decision to either flash cut on their existing analog channel or to continue operating their digital companion channel and return their analog license. This requirement is being submitted to the Office of Management and Budget (OMB) for review and approval.

Federal Communications Commission.

Marlene H. Dortch,

Secretary, Office of the Secretary, Office of Managing Director.

[FR Doc. 2011-19484 Filed 8-1-11; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL COMMUNICATIONS COMMISSION

Information Collections Being Submitted for Review and Approval to the Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: The Federal Communications Commission (FCC), as part of its continuing effort to reduce paperwork burdens, invites the general public and other Federal agencies to take this opportunity to comment on the following information collection, as required by the Paperwork Reduction Act (PRA) of 1995. An agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid control number. Comments are requested concerning (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and (e) ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it

displays a currently valid control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid Office of Management and Budget (OMB) control number.

DATES: Written comments should be submitted on or before September 1, 2011. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contacts below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicholas A. Fraser, OMB, via fax 202-395-5167, or via e-mail Nicholas.A.Fraser@omb.eop.gov; and to Cathy Williams, FCC, via e-mail PRA@fcc.gov and to Cathy.Williams@fcc.gov. Include in the comments the OMB control number as shown in the "Supplementary Information" section below.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection, contact Cathy Williams at (202) 418-2918. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the Web page <http://www.reginfo.gov/public/do/PRAMain>, (2) look for the section of the Web page called "Currently Under Review," (3) click on the downward-pointing arrow in the "Select Agency" box below the "Currently Under Review" heading, (4) select "Federal Communications Commission" from the list of agencies presented in the "Select Agency" box, (5) click the "Submit" button to the right of the "Select Agency" box, (6) when the list of FCC ICRs currently under review appears, look for the OMB control number of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

SUPPLEMENTARY INFORMATION:

OMB Control No.: 3060-0139.

Title: Application for Antenna Structure Registration.

Form No.: FCC Form 854.

Type of Review: Extension of a currently approved collection.

Respondents: Individuals or households; business or other for-profit; non-profit institutions; and State, Local, or Tribal Government.

Number of Respondents: 4,500 respondents; 4,500 responses.

Estimated Time per Response: .50 hours to complete FCC Form 854; 1 hour to place registration number at base of antenna structure.

Frequency of Response: On occasion reporting requirement, recordkeeping

requirement, third party disclosure requirement.

Obligation To Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in 47 U.S.C. 303(q), 154, 303, 391 and 309.

Total Annual Burden: 6,750 hours.

Total Annual Cost: \$120,600.

Privacy Act Impact Assessment: Yes.

Nature and Extent of Confidentiality:

Respondents may request materials or information submitted to the Commission be withheld from public inspection under 47 CFR 0.459 of the Commission's rules.

This information collection contains personally identifiable information on individuals which is subject to the Privacy Act of 1974. Information on the FCC Form 854 is maintained in the Commission's system of records, FCC/WTB-1, "Wireless Services Licensing Records." These licensee records are publicly available and routinely used in accordance of Subsection (b) of the Privacy Act, 5 U.S.C. 552a(b), as amended. Materials that are afforded confidential treatment pursuant to a request made under 47 CFR 0.459 will not be available for public inspection.

The Commission has in place the following policy and procedures for records retention and disposal: Records will be actively maintained as long as the individual remains a tower owner. Paper records will be archived after being keyed or scanned into the system. Electronic records will be backed up on tape. Electronic and paper records will be maintained for at least twelve years.

Needs and Uses: The Commission will submit this expiring information collection to the Office of Management and Budget (OMB) after this 60-day comment period in order to obtain the full three year clearance from them. The Commission is requesting OMB approval for an extension of this information collection (no change to the reporting, recordkeeping and/or third party disclosure requirements).

The FCC Form 854 is used to register structures used for wire or radio communication services in any area where radio services are regulated by the Commission; to make changes to existing structures or pending applications; or to notify the Commission of the completion of construction or dismantlement of structures, as required by Title 47 of the Code of Federal Regulations (CFR) Chapter 1, Part 17 (FCC Rules Part 17). Section 303(q) of the Commissions Act of 1934, as amended, requires the Commission to require the painting and/or illumination of radio towers in cases where there is a reasonable possibility

that an antenna structure may cause a hazard to air navigation. In 1992, Congress amended Sections 303(q) and 503(b)(5) of the Communications Act to: (1) Make antenna structure owners, as well as Commission licensees and permittees responsible for the painting and lighting of antenna structures, and (2) to provide the non-license antenna structure owners may be subject to forfeiture for violations of painting or lighting requirements specified by the Commission.

Currently, each antenna structure owner proposing to construct or alter an antenna structure that is more than 60.96 meters (200 feet) in height, or that may interfere with the approach or departure space of a nearby airport runway must notify the Federal Aviation Administration (FAA) of proposed construction. The FAA determines whether the antenna structure constitutes a potential hazard, and may recommend appropriate painting and lighting for the structure. The Commission then uses the FAA's recommendation to impose specific painting and/or lighting requirements on subject licensees.

OMB Control No.: 3060-1039.

Title: Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act-Review Process, WT Docket No. 03-128.

Form No.: FCC Forms 620 and FCC 621.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit; not-for-profit institutions; and state, local or Tribal government.

Number of Responses and Respondents: 12,000 respondents and 12,000 responses.

Estimated Time per Response: .5-2 hours.

Frequency of Response: On occasion reporting requirement, recordkeeping requirement and third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in 47 U.S.C. 151, 154(i), 303(q), 303(r), 309(a), 309(j) and 319, Section 106 of the National Historic Preservation Act (NHPA) of 1966, 16 U.S.C. 470f, and Section 800.14(b) of the rules of the Advisory Council on Historic Preservation, 36 CFR 800.14(b).

Total Annual Burden: 49,848 hours.

Total Annual Cost: \$10,038,600.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: In general there is no need for

confidentiality. On a case by case basis, the Commission may be required to withhold from disclosure certain information about the location, character, or ownership of a historic property, including traditional religious sites.

Needs and Uses: The Commission is seeking OMB approval for a three year extension for the information collection requirements contained in collection 3060-1039. This data is used by the FCC staff, State Historic Preservation Officers (SHPO), Tribal Historic Preservation Officers (THPO), and the Advisory Council of Historic Preservation (ACHP) to take such action as may be necessary to ascertain whether a proposed action may affect historic properties that are listed or eligible for listing on the National Register as directed by Section 106 of the National Historic Preservation Act (NHPA) and the Commission's rules.

FCC Form 620, New Tower (NT) Submission Packet is to be completed by or on behalf of applicants to construct new antenna support structures by or for the use of licensees of the FCC. The form is to be submitted to the State Historic Preservation Office ("SHPO") or to the Tribal Historic Preservation Office ("THPO"), as appropriate, and the Commission before any construction or other installation activities on the site begins. Failure to provide the form and complete the review process under Section 106 of the NHPA prior to beginning construction may violate Section 110(k) of the NHPA and the Commission's rules.

FCC Form 621, Collocation (CO) Submission Packet is to be completed by or on behalf of applicants who wish to collocate an antenna or antennas on an existing communications tower or non-tower structure by or for the use of licensees of the FCC. The form is to be submitted to the State Historic Preservation Office ("SHPO") or to the Tribal Historic Preservation Office ("THPO"), as appropriate, and the Commission before any construction or other installation activities on the site begins. Failure to provide the form and complete the review process under Section 106 of the NHPA prior to beginning construction or other installation activities may violate Section 110(k) of the NHPA and the Commission's rules.

Federal Communications Commission.

Marlene H. Dortch,

Secretary, Office of the Secretary, Office of Managing Director.

[FR Doc. 2011-19485 Filed 8-1-11; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL COMMUNICATIONS COMMISSION

Radio Broadcasting Services; AM or FM Proposals To Change the Community of License

AGENCY: Federal Communications Commission.

ACTION: Notice.

SUMMARY: The following applicants filed AM or FM proposals to change the community of license: ALEX MEDIA, INC., Station NEW, Facility ID 189554, BNPH-20110602AAW, From BLANCA, CO, To AVONDALE, CO; BLACK CROW RADIO, LLC, DEBTOR-IN-POSSESSION, Station WKRO-FM, Facility ID 5464, BPH-20110609ADM, From EDGEWATER, FL, To PORT ORANGE, FL; ETHER MINING CORPORATION, Station KPSF, Facility ID 161373, BMP-20110519AAA, From DESERT HOT SPRINGS, CA, To CATHEDRAL CITY, CA; LOVCOM, INC., Station NEW, Facility ID 189506, BNPH-20110603ABR, From TEN SLEEP, WY, To DAYTON, WY; PENFOLD COMMUNICATIONS, INC., Station WTPG, Facility ID 122008, BMPED-20110608AAR, From WESTON, OH, To WHITEHOUSE, OH; SPANISH PEAKS BROADCASTING, INC., Station NEW, Facility ID 171098, BNPH-20070411ABF, From CHARLO, MT, To WOODS BAY, MT

DATES: The agency must receive comments on or before October 3, 2011.

ADDRESSES: Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: Tung Bui, 202-418-2700.

SUPPLEMENTARY INFORMATION: The full text of these applications is available for inspection and copying during normal business hours in the Commission's Reference Center, 445 12th Street, SW., Washington, DC 20554 or electronically via the Media Bureau's Consolidated Data Base System, http://svartifoss2.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm. A copy of this application may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY-B402, Washington, DC, 20554, telephone 1-800-378-3160 or <http://www.BCPIWEB.com>.

Federal Communications Commission.

James D. Bradshaw,

Deputy Chief, Audio Division, Media Bureau.

[FR Doc. 2011-19521 Filed 8-1-11; 8:45 am]

BILLING CODE 6712-01-P

**FEDERAL COMMUNICATIONS
COMMISSION****[MB Docket No. 11-128; DA 11-1238]****The Regional Sports Network
Marketplace****AGENCY:** Federal Communications
Commission.**ACTION:** Notice; solicitation of
comments.**SUMMARY:** In the *Adelphia Order*, the Commission adopted conditions addressing concerns regarding regional sports network (RSN) access and carriage issues and committed to examine these matters before the expiration of the conditions on July 13, 2012. This document requests public comment on matters regarding RSN access and carriage that will be used for the preparation for a report as provided in the *Adelphia Order*.**DATES:** Comments may be filed on or before September 9, 2011, and reply comments may be filed on or before September 26, 2011.**ADDRESSES:** Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554.**FOR FURTHER INFORMATION CONTACT:** Johanna Thomas (202) 418-7551, TTY (202) 418-7172, or e-mail at Johanna.Thomas@fcc.gov.**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Public Notice in MB Docket No. 11-128, DA-11-1238, released July 26, 2010. The complete text of the document is available for inspection and copying during normal business hours in the FCC Reference Center, 445 12th Street, SW., Washington, DC 20554, and may also be purchased from the Commission's copy contractor, BCPI, Inc., Portals II, 445 12th Street, SW., Washington, DC 20054. Customers may contact BCPI, Inc. at their Web site <http://www.bcpi.com> or call 1-800-378-3160.**Synopsis of the Public Notice**

1. By this Public Notice, the Media Bureau seeks comment on issues related to regional sports network (RSN) access and carriage to prepare a report as provided in the *Adelphia Order*, released July 21, 2006. In the order, the Commission approved the purchase of Adelphia Communications Corporation's cable systems by Time Warner Cable Inc. (TWC) and Comcast Corporation (Comcast) (collectively, the Applicants) subject to several conditions, including RSN access and carriage requirements. In particular, the *Adelphia Order* adopted program access

conditions preventing the Applicants from entering into any exclusive distribution agreements with existing and future affiliated RSNs and unduly or improperly influencing the sale of the programming of those RSNs to unaffiliated multichannel video programming distributors (MVPDs). The Applicants were also required to provide the programming of affiliated RSNs to all multichannel video programming distributors (MVPDs) pursuant to non-discriminatory terms and conditions. Moreover, in the *Adelphia Order*, the Commission applied the program access rules applicable to satellite-delivered, cable-affiliated programming to all of the Applicants' affiliated RSNs, regardless of the method of delivery. However, the Commission partially exempted Comcast's SportsNet Philadelphia from these requirements given that it was delivered terrestrially before being acquired by Comcast, and therefore the method of delivery was not chosen for anticompetitive purposes. Finally, the Commission implemented a dispute resolution process allowing aggrieved MVPDs and unaffiliated RSNs respectively to submit program access or carriage disputes with the Applicants to an arbitrator.

2. In the *Adelphia Order*, the Commission committed to issue a report examining "regional sports network access and carriage issues both on an industry-wide basis and specifically with respect to the Applicants" by January 13, 2012, six months prior to the expiration of the RSN conditions. After issuing the report, the Commission, in its discretion, may determine if further action is warranted.

3. The Media Bureau notes that since the *Adelphia Order* was adopted, there have been a number of relevant marketplace and regulatory developments. First, Time Warner Inc., the former parent of TWC, has been split into three separate, independent companies—TWC, Time Warner Inc., and AOL. The RSNs subject to the *Adelphia* conditions remain affiliated with TWC.

4. Second, the Commission adopted the *Comcast-NBCU Order*, released January 20, 2011, approving the merger of Comcast and NBC Universal, Inc. (NBCU). In that order, the Commission concluded that commenters raised legitimate concerns regarding the combination of Comcast's RSNs with NBCU's owned and operated stations. The Commission found, however, that any potential harm was mitigated by certain program access conditions to which Comcast agreed to be bound. In addition, the Commission adopted an

arbitration remedy applicable to all Comcast-NBCU affiliated programming, including RSNs.

5. Further, the Commission issued a Program Access Order, released October 1, 2007, which among other things, improved the program access complaint procedures by allowing for party-to-party discovery and expanding opportunities for participation in voluntary arbitration.

6. With respect to program carriage, in 2007, the Commission issued a notice of proposed rulemaking that sought comment on, among other things, the Commission's process for resolving program carriage disputes. Moreover, since the *Adelphia* transaction, the Commission has specifically addressed program carriage complaints regarding the Applicants' and unaffiliated RSNs.

7. In 2010, the Commission adopted rules allowing aggrieved MVPDs to file a complaint regarding access to terrestrially delivered, cable-affiliated programming. This decision was particularly relevant to the RSN marketplace, because several RSNs are delivered terrestrially and the Commission has historically classified this type of programming as "must-have." Additionally, in the *Terrestrial Program Access Order*, released January 20, 2010, the Commission adopted a rebuttable presumption that an unfair act involving terrestrially delivered RSNs or high-definition RSNs has the purpose and effect of hindering or preventing competition in violation of section 628(b) of the Communications Act. In *Cablevision Systems Corp. v. FCC*, the DC Circuit upheld the portions of the Commission's order adopting rules regarding terrestrially delivered programming and the Commission's adoption of a rebuttable presumption involving RSNs.

Issues for Comment

8. The Media Bureau invites comments generally on issues related to RSN access and carriage. What effect, if any, have marketplace and the 2007 and 2010 program access rules revisions had on MVPDs' ability to gain access to RSN programming? Similarly, what impact have regulatory and marketplace changes since the *Adelphia Order* had on the ability of unaffiliated RSNs to gain carriage on MVPD systems? Since the release of the *Adelphia Order* has there been an increase in the delivery of RSNs by terrestrial means? In addition, has the number of RSNs affiliated with a cable operator changed since the release of the *Adelphia Order*? If there has been a change, how does this number compare with the overall number of RSNs in the marketplace?

Are there examples since the release of the *Adelphia Order* involving the withholding of an RSN and what impact has this had on the MVPD marketplace? Further, has there been a change in the number of exclusive deals involving MVPDs and unaffiliated RSNs since the release of the *Adelphia Order*?

9. Moreover, the Media Bureau seeks comment on the access of MVPDs, other than the Applicants, to RSN programming in which the Applicants hold an interest. The Bureau also requests comment on whether unaffiliated RSNs have obtained carriage on the Applicants' cable systems and on what terms. Finally, the Bureau asks for comment on the Applicants' compliance with the *Adelphia Order*'s RSN conditions, the dispute resolution process and the effectiveness of these remedies. Do such conditions continue to be necessary in light of marketplace and regulatory changes since the time of their adoption?

Procedural Matters

10. *Ex Parte Rules*. The proceeding this Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.¹ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) List all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the

Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xnl, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

11. *Comment Information*. Pursuant to 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using: (1) The Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- *Electronic Filers*: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/> or the Federal eRulemaking Portal: <http://www.regulations.gov>.

- For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message "get form." A sample form and directions will be sent in response.

- *Paper Filers*: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW., Room TW-A325, Washington, DC 20554. The filing hours are 8 a.m. to 7 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW., Washington, DC 20554.

- *People with Disabilities*: Contact the FCC to request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

Federal Communications Commission.

Thomas Horan

Chief of Staff, Media Bureau.

[FR Doc. 2011-19519 Filed 8-1-11; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Formations of, Acquisitions by, and Mergers of Bank Holding Companies; Correction

This notice corrects a notice (FR Doc. 2011-18956) published on pages 44914 and 44915 of the issue for Wednesday, July 27, 2011.

Under the Federal Reserve Bank of Philadelphia heading, the entry for, Patriot Financial Partners, GP, L.P., Patriot Financial Partners, L.P., Patriot Financial Partners Parallel, L.P., Patriot Financial Partners, GP, LLC, Patriot Financial Managers, L.P., and Ira M. Lubert, W. Kirk Wycoff and James J. Lynch, all of Philadelphia, Pennsylvania, is revised to read as follows:

A. Federal Reserve Bank of Philadelphia (William Lang, Senior Vice President) 100 North 6th Street, Philadelphia, Pennsylvania 19105-1521:

1. Patriot Financial Partners, GP, L.P., Patriot Financial Partners, L.P., Patriot Financial Partners Parallel, L.P., Patriot Financial Partners, GP, LLC, Patriot Financial Managers, L.P., and Ira M. Lubert, W. Kirk Wycoff and James J. Lynch, all of Philadelphia,

¹ 47 CFR 1.1200 et seq.

Pennsylvania; to acquire voting shares of Porter Bancorp, Inc., Louisville, Kentucky, and thereby indirectly acquire voting shares of PBI Bank, Louisville, Kentucky.

Comments on this application must be received by August 11, 2011.

Board of Governors of the Federal Reserve System, July 27, 2011.

Jennifer J. Johnson,
Secretary of the Board.

[FR Doc. 2011-19441 Filed 8-1-11; 8:45 am]

BILLING CODE 6210-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

HIT Standards Committee's Workgroup Meetings; Notice of Meetings

AGENCY: Office of the National Coordinator for Health Information Technology, HHS.

ACTION: Notice of meetings.

This notice announces forthcoming subcommittee meetings of a federal advisory committee of the Office of the National Coordinator for Health Information Technology (ONC). The meetings will be open to the public via dial-in access only.

Name of Committees: HIT Standards Committee's Workgroups: Clinical Operations, Vocabulary Task Force, Clinical Quality, Implementation, Privacy & Security Standards Workgroups, and Summer Camp Power Teams.

General Function of the Committee: To provide recommendations to the National Coordinator on standards, implementation specifications, and certification criteria for the electronic exchange and use of health information for purposes of adoption, consistent with the implementation of the Federal Health IT Strategic Plan, and in accordance with policies developed by the HIT Policy Committee.

Date and Time: The HIT Standards Committee Workgroups will hold the following public meetings during August 2011: August 4th Surveillance Implementation Guide Power Team, 10 a.m. to 11:30 a.m./ET; August 4th, ePrescribing Discharge Meds Power Team, 2:30 p.m. to 3:30 p.m./ET; August 9th, Clinical Operations Workgroup, 10 a.m. to 11:30 a.m./ET; August 10th Implementation Workgroup, 12 p.m. to 2 p.m./ET; August 23rd Clinical Operations Workgroup, 10 a.m. to 11:30 a.m./ET; ePrescribing Discharge Meds Power Team, 11:00 a.m. to 12:00 p.m./ET; and August 25th Implementation Workgroup, 9 a.m. to 12 p.m./ET.

Location: All workgroup meetings will be available via webcast; visit <http://healthit.hhs.gov> for instructions on how to listen via telephone or Web. Please check the ONC Web site for additional information as it becomes available. Contact Person: Judy Sparrow, Office of the National Coordinator,

HHS, 330 C Street, SW., Washington, DC 20201, 202-205-4528. Fax: 202-690-6079, e-mail: judy.sparrow@hhs.gov. Please call the contact person for up-to-date information on these meetings. A notice in the **Federal Register** about last minute modifications that affect a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice.

Agenda: The workgroups will be discussing issues related to their specific subject matter, e.g., clinical operations, vocabulary standards, clinical quality, implementation opportunities and challenges, and privacy and security standards activities. If background materials are associated with the workgroup meetings, they will be posted on ONC's Web site prior to the meeting at <http://healthit.hhs.gov>.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending before the workgroups. Written submissions may be made to the contact person on or before two days prior to the workgroups' meeting dates. Oral comments from the public will be scheduled at the conclusion of each workgroup meeting. Time allotted for each presentation will be limited to three minutes. If the number of speakers requesting to comment is greater than can be reasonably accommodated during the scheduled open public session, ONC will take written comments after the meeting until close of business on that day.

If you require special accommodations due to a disability, please contact Judy Sparrow at least seven (7) days in advance of the meeting.

ONC is committed to the orderly conduct of its advisory committee meetings. Please visit our Web site at <http://healthit.hhs.gov> for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C., App. 2).

Dated: July 25, 2011.

Judith Sparrow,

Office of Programs and Coordination, Office of the National Coordinator for Health Information Technology.

[FR Doc. 2011-19550 Filed 8-1-11; 8:45 am]

BILLING CODE 4150-45-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

HIT Policy Committee's Workgroup Meetings; Notice of Meetings

AGENCY: Office of the National Coordinator for Health Information Technology, HHS.

ACTION: Notice of meetings.

This notice announces forthcoming subcommittee meetings of a federal advisory committee of the Office of the National Coordinator for Health Information Technology (ONC). The

meetings will be open to the public via dial-in access only.

Name of Committees: HIT Policy Committee's Workgroups: Meaningful Use, Privacy & Security Tiger Team, Quality Measures, Adoption/Certification, and Information Exchange workgroups.

General Function of the Committee: to provide recommendations to the National Coordinator on a policy framework for the development and adoption of a nationwide health information technology infrastructure that permits the electronic exchange and use of health information as is consistent with the Federal Health IT Strategic Plan and that includes recommendations on the areas in which standards, implementation specifications, and certification criteria are needed.

Date and Time: The HIT Policy Committee Workgroups will hold the following public meetings during August 2011: August 5th Privacy & Security Tiger Team, 2 p.m. to 4 p.m./ET; August 8th Enrollment Workgroup, 10 a.m. to 12 p.m./ET; August 22nd Meaningful Use Workgroup, 9 a.m. to 11 a.m./ET; and August 25th Privacy & Security Tiger Team, 2 p.m. to 4 p.m./ET.

Location: All workgroup meetings will be available via webcast; for instructions on how to listen via telephone or Web visit <http://healthit.hhs.gov>. Please check the ONC Web site for additional information or revised schedules as it becomes available.

Contact Person: Judy Sparrow, Office of the National Coordinator, HHS, 330 C Street, SW., Washington, DC 20201, 202-205-4528, Fax: 202-690-6079, e-mail: judy.sparrow@hhs.gov. Please call the contact person for up-to-date information on these meetings. A notice in the **Federal Register** about last minute modifications that affect a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice.

Agenda: The workgroups will be discussing issues related to their specific subject matter, e.g., meaningful use, information exchange, privacy and security, quality measures, governance, or adoption/certification. If background materials are associated with the workgroup meetings, they will be posted on ONC's web site prior to the meeting at <http://healthit.hhs.gov>.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending before the workgroups. Written submissions may be made to the contact

person on or before two days prior to the workgroup's meeting date. Oral comments from the public will be scheduled at the conclusion of each workgroup meeting. Time allotted for each presentation will be limited to three minutes. If the number of speakers requesting to comment is greater than can be reasonably accommodated during the scheduled open public session, ONC will take written comments after the meeting until close of business on that day.

If you require special accommodations due to a disability, please contact Judy Sparrow at least seven (7) days in advance of the meeting.

ONC is committed to the orderly conduct of its advisory committee meetings. Please visit our Web site at <http://healthit.hhs.gov> for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C., App. 2).

Dated: July 25, 2011.

Judith Sparrow,

Office of Programs and Coordination, Office of the National Coordinator for Health Information Technology.

[FR Doc. 2011-19551 Filed 8-1-11; 8:45 am]

BILLING CODE 4150-45-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

HIT Policy Committee Advisory Meeting; Notice of Meeting

AGENCY: Office of the National Coordinator for Health Information Technology, HHS.

ACTION: Notice of meeting.

This notice announces a forthcoming meeting of a public advisory committee of the Office of the National Coordinator for Health Information Technology (ONC). The meeting will be open to the public.

Name of Committee: HIT Policy Committee.

General Function of the Committee: To provide recommendations to the National Coordinator on a policy framework for the development and adoption of a nationwide health information technology infrastructure that permits the electronic exchange and use of health information as is consistent with the Federal Health IT Strategic Plan and that includes recommendations on the areas in which standards, implementation specifications, and certification criteria are needed.

Date and Time: The meeting will be held on August 3, 2011, from 10 a.m. to 2 p.m. Eastern Time.

Location: Marriott Wardman Park Hotel, 2660 Woodley Road, NW., Washington, DC. For up-to-date information, go to the ONC Web site, <http://healthit.hhs.gov>.

Contact Person: Judy Sparrow, Office of the National Coordinator, HHS, 330 C Street, SW., Washington, DC 20201, 202-205-4528, Fax: 202-690-6079, e-mail: judy.sparrow@hhs.gov. Please call the contact person for up-to-date information on this meeting. A notice in the **Federal Register** about last minute modifications that impact a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice.

Agenda: The committee will hear reports from its workgroups, including the Meaningful Use Workgroup, the Privacy & Security Tiger Team, the Information Exchange Workgroup, and the Quality Measures Workgroup. ONC intends to make background material available to the public no later than two (2) business days prior to the meeting. If ONC is unable to post the background material on its Web site prior to the meeting, it will be made publicly available at the location of the advisory committee meeting, and the background material will be posted on ONC's Web site after the meeting, at <http://healthit.hhs.gov>.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. Written submissions may be made to the contact person on or before August 1, 2011. Oral comments from the public will be scheduled between approximately 1 and 2 p.m. Time allotted for each presentation is limited to three minutes. If the number of speakers requesting to comment is greater than can be reasonably accommodated during the scheduled open public hearing session, ONC will take written comments after the meeting until close of business.

Persons attending ONC's advisory committee meetings are advised that the agency is not responsible for providing access to electrical outlets.

ONC welcomes the attendance of the public at its advisory committee meetings. Seating is limited at the location, and ONC will make every effort to accommodate persons with physical disabilities or special needs. If you require special accommodations due to a disability, please contact Judy Sparrow at least seven (7) days in advance of the meeting.

ONC is committed to the orderly conduct of its advisory committee meetings. Please visit our Web site at <http://healthit.hhs.gov> for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C., App. 2).

Dated: July 25, 2011.

Judith Sparrow,

Office of Programs and Coordination, Office of the National Coordinator for Health Information Technology.

[FR Doc. 2011-19555 Filed 8-1-11; 8:45 am]

BILLING CODE 4150-45-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

HIT Standards Committee Advisory Meeting; Notice of Meeting

AGENCY: Office of the National Coordinator for Health Information Technology, HHS.

ACTION: Notice of meeting.

This notice announces a forthcoming meeting of a public advisory committee of the Office of the National Coordinator for Health Information Technology (ONC). The meeting will be open to the public.

Name of Committee: HIT Standards Committee.

General Function of the Committee: to provide recommendations to the National Coordinator on standards, implementation specifications, and certification criteria for the electronic exchange and use of health information for purposes of adoption, consistent with the implementation of the Federal Health IT Strategic Plan, and in accordance with policies developed by the HIT Policy Committee.

Date and Time: The meeting will be held virtually on August 17, 2011, from 9 a.m. to 3 p.m./Eastern Time.

Location: The meeting will be conducted virtually only. Dial into the meeting: 1-877-705-6006. For up-to-date information, go to the ONC Web site, <http://healthit.hhs.gov>.

Contact Person: Judy Sparrow, Office of the National Coordinator, HHS, 330 C Street, SW., Washington, DC 20201, 202-205-4528, Fax: 202-690-6079, e-mail: judy.sparrow@hhs.gov. Please call the contact person for up-to-date information on this meeting. A notice in the **Federal Register** about last minute modifications that impact a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice.

Agenda: The committee will hear reports from its workgroups, including the Clinical Operations, Vocabulary Task Force, Clinical Quality, Implementation, and Enrollment Workgroups. ONC intends to make background material available to the public no later than two (2) business days prior to the meeting. If ONC is unable to post the background material on its Web site prior to the meeting, it will be made publicly available at the location of the advisory committee meeting, and the background material will be posted on ONC's Web site after the meeting, at <http://healthit.hhs.gov>.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending

before the committee. Written submissions may be made to the contact person on or before August 15, 2011. Oral comments from the public will be scheduled between approximately 2 and 3 p.m./Eastern Time. Time allotted for each presentation will be limited to three minutes each. If the number of speakers requesting to comment is greater than can be reasonably accommodated during the scheduled open public hearing session, ONC will take written comments after the meeting until close of business.

Persons attending ONC's advisory committee meetings are advised that the agency is not responsible for providing access to electrical outlets.

ONC welcomes the attendance of the public at its advisory committee meetings. Seating is limited at the location, and ONC will make every effort to accommodate persons with physical disabilities or special needs. If you require special accommodations due to a disability, please contact Judy Sparrow at least seven (7) days in advance of the meeting.

ONC is committed to the orderly conduct of its advisory committee meetings. Please visit our Web site at <http://healthit.hhs.gov> for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C., App. 2).

Dated: July 25, 2011.

Judith Sparrow,

Office of Programs and Coordination, Office of the National Coordinator for Health Information Technology.

[FR Doc. 2011-19536 Filed 8-1-11; 8:45 am]

BILLING CODE 4150-45-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[Docket Number NIOSH-190]

NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings 2012: Proposed Additions and Deletions to the NIOSH Hazardous Drug List

AGENCY: National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice of Draft Document Available for Public Comment.

SUMMARY: The National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC) announces the availability of the following draft document for public comment entitled "NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings 2012: Proposed Additions and Deletions to the NIOSH Hazardous Drug List." The document and instructions for submitting comments can be found at <http://www.cdc.gov/niosh/docket/review/docket190/default.html>.

This guidance document does not have the force and effect of law.

Public Comment Period: Comments must be received by October 3, 2011.

ADDRESSES: Written comments may be submitted to the NIOSH Docket Office, identified by Docket Number NIOSH-190, by any of the following methods:

- **Mail:** NIOSH Docket Office, Robert A. Taft Laboratories, MS-C34, 4676 Columbia Parkway, Cincinnati, Ohio 45226.
- **Facsimile:** (513) 533-8285.
- **E-mail:** nioshdocket@cdc.gov.

All information received in response to this notice will be available for public examination and copying at the NIOSH Docket Office, 4676 Columbia Parkway, Cincinnati, Ohio 45226.

A complete electronic docket containing all comments submitted will be available on the NIOSH web page at <http://www.cdc.gov/niosh/docket>, and comments will be available in writing by request. NIOSH includes all comments received without change in the docket, including any personal information provided. All electronic comments should be formatted as Microsoft Word. Please make reference to Docket Number NIOSH-190.

SUPPLEMENTARY INFORMATION:

Background: The NIOSH Alert: Preventing Occupational Exposures to Antineoplastic and Other Hazardous Drugs in Health Care Settings was published in September 2004 (<http://www.cdc.gov/niosh/docs/2004-165/>). This Alert contained Appendix A which was a list of drugs that were deemed to be hazardous and may require special handling. This list of hazardous drugs was updated in 2010 and covered all new approved drugs and drugs with new warning since 2007 (<http://www.cdc.gov/niosh/docs/2010-167/>). Between June 2007 and December 2009, 48 new drugs received FDA approval and 115 drugs received special warnings (usually black box warnings) based on reported adverse effects in patients. The complete list of these drugs can be found at: <http://www.cdc.gov/niosh/>

[docket/review/docket190/pdfs/Proposedchanges07112011.pdf](http://www.cdc.gov/niosh/docket/review/docket190/pdfs/Proposedchanges07112011.pdf). From this list of 169 drugs, 45 drugs were identified by NIOSH as candidate hazardous drugs. Seven of these drugs had safe handling recommendations from the manufacturer and NIOSH is accepting these recommendations as appropriate. Therefore, these seven drugs will be listed as hazardous without requiring further review. A panel consisting of peer reviewers and stakeholders was asked to review and comment on the remaining 38 potentially hazardous drugs. In addition, the panel members were asked to comment on the removal of 15 drugs from the 2010 Hazardous Drug List. Reviewers were not asked to provide a consensus opinion and NIOSH made the final determination regarding additions and deletions to the 2010 hazardous drug List.

NIOSH reviewed the recommendations of the peer reviewers and stakeholders and determined that 24 drugs in addition to the 7 drugs with manufacturer's warnings, were determined to have one or more characteristics of a hazardous drug and this list of 31 drugs is being published for comment in NIOSH Docket Number 190. In addition, 15 drugs from the 2010 Hazardous Drug List are being considered for removal. Four drugs were evaluated for reclassification, two drugs are radio-pharmaceuticals which are covered by specific handling regulations set by the Nuclear Regulatory Commission and nine others are not available in the United States at this time. In order to keep the list as current as possible, NIOSH will remove any drugs that are no longer available in the United States. If any of these drugs were to become available at a later date, NIOSH would reconsider them for review.

FOR FURTHER INFORMATION CONTACT:

Barbara MacKenzie, NIOSH, Robert A. Taft Laboratories, 4676 Columbia Parkway, MS-C26, Cincinnati, Ohio 45226, telephone (513) 533-8132, E-mail hazardousdrugs@cdc.gov.

Reference: <http://www.cdc.gov/niosh/docket/review/docket190/pdfs/PanelSummary05092011.pdf>.

Dated: July 22, 2011.

John Howard,

Director, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.

[FR Doc. 2011-19460 Filed 8-1-11; 8:45 am]

BILLING CODE 4163-19-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

[Docket No. FDA-2004-N-0451]

Food and Drug Administration Modernization Act of 1997: Modifications to the List of Recognized Standards, Recognition List Number: 027
AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing a publication containing modifications the Agency is making to the list of standards FDA recognizes for use in premarket reviews (FDA recognized consensus standards). This publication, entitled "Modifications to the List of Recognized Standards, Recognition List Number: 027" (Recognition List Number: 027), will assist manufacturers who elect to declare conformity with consensus standards to meet certain requirements for medical devices.

DATES: Submit either electronic or written comments concerning this document at any time. See section VII of this document for the effective date of the recognition of standards announced in this document.

ADDRESSES: Submit written requests for single copies of "Modifications to the List of Recognized Standards, Recognition List Number: 027" to the Division of Small Manufacturers, International, and Consumer Assistance, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Silver Spring, MD 20993-0002. Send two self-addressed adhesive labels to assist that office in processing your requests, or fax your request to 301-847-8149. Submit written comments concerning this document, or recommendations for additional standards for recognition, to the contact person (see **FOR FURTHER INFORMATION CONTACT**). Submit electronic comments by e-mail: standards@cdrh.fda.gov. This document may also be accessed on FDA's Internet site at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123792.htm>. See section

VI of this document for electronic access to the searchable database for the current list of FDA recognized consensus standards, including Recognition List Number: 027 modifications and other standards related information.

FOR FURTHER INFORMATION CONTACT: Carol L. Herman, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, rm. 3632, Silver Spring, MD 20993-0002, 301-796-6574.

I. Background

Section 204 of the Food and Drug Administration Modernization Act of 1997 (FDAMA) (Pub. L. 105-115) amended section 514 of the Federal Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 360d). Amended section 514 allows FDA to recognize consensus standards developed by international and national organizations for use in satisfying portions of device premarket review submissions or other requirements.

In a notice published in the *Federal Register* of February 25, 1998 (63 FR 9561), FDA announced the availability of a guidance entitled "Recognition and Use of Consensus Standards." The notice described how FDA would implement its standard recognition program and provided the initial list of recognized standards.

Modifications to the initial list of recognized standards, as published in the *Federal Register*, are identified in table 1 as follows.

TABLE 1—PREVIOUS PUBLICATIONS OF STANDARD RECOGNITION LISTS

February 25, 1998 (63 FR 9561).	March 31, 2006 (71 FR 16313).
October 16, 1998 (63 FR 55617).	June 23, 2006 (71 FR 36121).
July 12, 1999 (64 FR 37546).	November 3, 2006 (71 FR 64718).
November 15, 2000 (65 FR 69022).	May 21, 2007 (72 FR 28500).
May 7, 2001 (66 FR 23032).	September 12, 2007 (72 FR 52142).
January 14, 2002 (67 FR 1774).	December 19, 2007 (72 FR 71924).
October 2, 2002 (67 FR 61393).	September 9, 2008 (73 FR 52358).
April 28, 2003 (68 FR 22391).	March 18, 2009 (74 FR 11586).
March 8, 2004 (69 FR 10712).	September 8, 2009 (74 FR 46203).

TABLE 1—PREVIOUS PUBLICATIONS OF STANDARD RECOGNITION LISTS—Continued

June 18, 2004 (69 FR 34176).	May 5, 2010 (75 FR 24711).
October 4, 2004 (69 FR 59240).	June 10, 2010 (75 FR 32943).
May 27, 2005 (70 FR 30756).	October 4, 2010 (75 FR 61148).
November 8, 2005 (70 FR 67713).	March 14, 2011 (76 FR 13631).

These notices describe the addition, withdrawal, and revision of certain standards recognized by FDA. The Agency maintains "hypertext markup language (HTML)" and "portable document format (PDF)" versions of the list of "FDA Recognized Consensus Standards." Both versions are publicly accessible at the Agency's Internet site. See section VI of this document for electronic access information. Interested persons should review the supplementary information sheet for the standard to understand fully the extent to which FDA recognizes the standard.

II. Modifications to the List of Recognized Standards—Recognition List Number: 027

FDA is announcing the addition, withdrawal, correction, and revision of certain consensus standards the Agency will recognize for use in satisfying premarket reviews and other requirements for devices. FDA will incorporate these modifications in the list of FDA Recognized Consensus Standards in the Agency's searchable database. FDA will use the term "Recognition List Number: 027" to identify these current modifications.

In table 2 of this document, FDA describes the following modifications: (1) The withdrawal of standards and their replacement by others; (2) the correction of errors made by FDA in listing previously recognized standards; and (3) the changes to the supplementary information sheets of recognized standards that describe revisions to the applicability of the standards.

In section III of this document, FDA lists modifications the Agency is making that involve the initial addition of standards not previously recognized by FDA.

TABLE 2—MODIFICATIONS TO THE LIST OF RECOGNIZED STANDARDS

Old recognition No.	Replacement recognition No.	Title of standard ¹	Change
A. Cardiovascular:			

TABLE 2—MODIFICATIONS TO THE LIST OF RECOGNIZED STANDARDS—Continued

Old recognition No.	Replacement recognition No.	Title of standard ¹	Change
3-75	ANSI/AAMI SP10:2002/(R) 2008 & ANSI/AAMI SP10:2002/A1:2003 Manual, electronic or automated sphygmomanometers.	Extent of recognition, Type of standard.
3-78	ANSI/AAMI/IEC 80601-2-30:2009 Medical electrical equipment—Part 2-30: Particular requirements for the basic safety and essential performance of automated noninvasive sphygmomanometers.	Extent of recognition and Type of standard.
3-80	ANSI/AAMI/ISO 81060-1:2007 Non-invasive sphygmomanometers—Part 1: Requirements and test methods for non-automated measurement type.	Extent of recognition and Type of standard.
3-81	ANSI/AAMI/ISO 81060-2:2009 Non-invasive sphygmomanometers—Part 2: Clinical validation of automated measurement type.	Extent of recognition and Type of standard.
B. General: 5-64	5-65	ANSI/AAMI/ISO 80369-1: 2010 Small bore connectors for liquids and gases in health care applications—Part 1: General requirements.	Withdrawn and replaced with newer version.
C. Materials: 8-101	ASTM F2118-03 (Reapproved 2009), Standard Test Method for Constant Amplitude of Force Controlled Fatigue Testing of Acrylic Bone Cement.	Contact Person.
D. Ophthalmic: 10-43	ISO 11979-8 Second Edition 2006-07-01 Ophthalmic implants—Intraocular lenses—Part 8: Fundamental requirements.	Extent of recognition.
10-56	ANSI Z80.12-2007 Ophthalmics—Multifocal Intraocular Lenses.	Title, Extent of recognition.
10-57	ANSI Z80.13-2007 Ophthalmics—Phakic Intraocular Lenses.	Title, Extent of recognition.
E. Orthopedics: 11-79	ISO 7206-8:1995, Implants for Surgery—Partial and Total Hip Joint Prostheses—Part 8: Endurance Performance of Stemmed Femoral Components with Application of Torsion.	Withdrawn. See item 11-225.
11-220	ASTM F 2068-09, Standard Specification for Femoral Prostheses—Metallic Implants.	Extent of Recognition, Type of standard and Related CFR Citations and Procodes.
F. Sterility: 14-228	ANSI/AAMI/ISO 11135-1:2007 Sterilization of health care products—Ethylene oxide—Part 1: Requirements for development, validation and routine control of a sterilization process for medical devices.	Relevant Guidance.
14-295	ANSI/AAMI ST81:2004/(R)2010 Sterilization of medical devices—Information to be provided by the manufacturer for the processing of resterilizable medical devices.	Relevant Guidance.
14-119	14-311	ANSI/AAMI ST55:2010 Table-top steam sterilizers	Withdrawn and replaced with newer version.
14-280	14-312	ANSI/AAMI ST79:2010 & A1:2010 (Consolidated Text) Comprehensive guide to steam sterilization and sterility assurance in health care facilities.	Withdrawn and replaced with newer version.

¹ All standard titles in this table conform to the style requirements of the respective organizations.

III. Listing of New Entries

In table 3 of this document, FDA provides the listing of new entries and

consensus standards added as modifications to the list of recognized standards under Recognition List Number: 027.

TABLE 3—NEW ENTRIES TO THE LIST OF RECOGNIZED STANDARDS

Recognition No.	Title of standard ¹	Reference No. and date
A. Anesthesia: 1-85	Medical electrical equipment—Part 2-61: Particular requirements for basic safety and essential performance of pulse oximeter equipment.	ISO 80601-2-61 First edition 2011-04-01.
B. Dental/ENT: 4-195	Dentistry-Implants-Dynamic fatigue test for endosseous dental implants.	ISO 14801 Second Edition 2007-11-15.
C. General:		

TABLE 3—NEW ENTRIES TO THE LIST OF RECOGNIZED STANDARDS—Continued

Recognition No.	Title of standard ¹	Reference No. and date
5-66	Medical electrical equipment—Part 1-10: General requirements for basic safety and essential performance—Collateral Standard: Requirements for the development of physiologic closed-loop controllers.	IEC 60601-1-10 Edition 1.0 2007-11.
5-67	Medical devices—Application of usability engineering to medical devices.	ANSI/AAMI/IEC 62366:2007.
D. General Hospital/General Plastic Surgery: 6-253	Hoists for the transfer of disabled persons—Requirements and test methods.	ISO 10535 Second edition 2006-12-15.
E. IVD: 7-219	Quality Assurance for Design Control and Implementation of Immunohistochemistry Assays; Approved Guideline—Second Edition.	CLSI I/LA28-A2.
7-220	Quantitative D-dimer for the Exclusion of Venous Thromboembolic Disease; Approved Guideline.	CLSI H59-A.
F. Nanotechnology: 18-2	Standard Guide for Handling Unbound Engineered Nanoscale Particles in Occupational Settings.	ASTM E 2535-07.
G. OB-GYN/GU: 9-67	Standard Test Method for Determining Compatibility of Personal Lubricants with Natural Rubber Latex Condoms.	ASTM D7661-10.
9-68	Male condoms—Requirements and test methods for condoms made from synthetic materials.	ISO 23409 First edition 2011-02-15.
H. Ophthalmic: 10-64	Ophthalmics Optics—Intraocular Lenses	ANSI Z80.7-2002.
10-65	Ophthalmic instruments—Endoilluminators—Fundamental requirements and test methods for optical radiation safety.	ISO 15752 Second edition 2010-01-15
10-66	Optics and photonics—Operation microscopes—Part 2: Light hazard from operation microscopes used in ocular surgery.	ISO 10936-2 Second edition 2010-01-15.
I. Orthopedic		
11-225	Implants for surgery—Partial and total hip joint prostheses—Part 4: Determination of endurance properties and performance of stemmed femoral components.	ISO 7206-4 Third edition 2010-06-15.
J. Radiology		
12-227	Ultrasonics—Pulse-echo scanners—Part 1. Techniques for calibrating spatial measurement systems and measurement of system point-spread function response.	IEC 61391-1 First edition 2006-07.
12-228	Ultrasonics—Pulse-echo scanners—Part 2. Measurement of maximum depth of penetration and local dynamic range.	IEC 61391-2 Edition 1.0 2010-01.
12-229	Medical electrical equipment—Radiation dose documentation—Part 1: Equipment for radiography and radioscopy.	IEC PAS 61910-1 First edition 2007-07.
12-230	Primary user controls for interventional angiography x-ray equipment	NEMA XR 24-2008.

¹ All standard titles in this table conform to the style requirements of the respective organizations

IV. List of Recognized Standards

FDA maintains the Agency's current list of FDA recognized consensus standards in a searchable database that may be accessed directly at FDA's Internet site at <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfStandards/search.cfm>. FDA will incorporate the modifications and minor revisions described in this notice into the database and, upon publication in the **Federal Register**, this recognition of consensus standards will be effective. FDA will announce additional modifications and minor revisions to the list of recognized consensus standards, as needed, in the **Federal**

Register once a year, or more often, if necessary.

V. Recommendation of Standards for Recognition by FDA

Any person may recommend consensus standards as candidates for recognition under the new provision of section 514 of the FD&C Act by submitting such recommendations, with reasons for the recommendation, to the contact person (see **FOR FURTHER INFORMATION CONTACT**). To be properly considered such recommendations should contain, at a minimum, the following information: (1) Title of the standard; (2) any reference number and date; (3) name and address of the national or international standards

development organization; (4) a proposed list of devices for which a declaration of conformity to this standard should routinely apply; and (5) a brief identification of the testing or performance or other characteristics of the device(s) that would be addressed by a declaration of conformity.

VI. Electronic Access

You may obtain a copy of "Guidance on the Recognition and Use of Consensus Standards" by using the Internet. CDRH maintains a site on the Internet for easy access to information including text, graphics, and files that you may download to a personal computer with access to the Internet. Updated on a regular basis, the CDRH

home page includes the guidance as well as the current list of recognized standards and other standards related documents. After publication in the **Federal Register**, this notice announcing "Modification to the List of Recognized Standards, Recognition List Number: 027" will be available on the CDRH home page. You may access the CDRH home page at <http://www.fda.gov/MedicalDevices>.

You may access "Guidance on the Recognition and Use of Consensus Standards," and the searchable database for "FDA Recognized Consensus Standards" through the hyperlink at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards>.

This **Federal Register** document on modifications in FDA's recognition of consensus standards is available at <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123792.htm>.

VII. Submission of Comments and Effective Date

Interested persons may submit to the contact person (see **FOR FURTHER INFORMATION CONTACT**) either electronic or written comments regarding this document. It is only necessary to send one set of comments. It is no longer necessary to send two copies of mailed comments. Comments are to be identified with the docket number found in brackets in the heading of this document. FDA will consider any comments received in determining whether to amend the current listing of modifications to the list of recognized standards, Recognition List Number: 027. These modifications to the list or recognized standards are effective upon publication of this notice in the **Federal Register**.

Dated: July 28, 2011.

Nancy K. Stade,

Deputy Director for Policy, Center for Devices and Radiological Health.

[FR Doc. 2011-19479 Filed 8-1-11; 8:45 am]

BILLING CODE 4160-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2009-D-0490]

Guidance for Industry and Food and Drug Administration Staff: Investigational New Drug Applications for Minimally Manipulated, Unrelated Allogeneic Placental/Umbilical Cord Blood Intended for Hematopoietic Reconstitution for Specified Indications; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the availability of a document entitled "Guidance for Industry and FDA Staff: Investigational New Drug Applications (INDs) for Minimally Manipulated, Unrelated Allogeneic Placental/Umbilical Cord Blood Intended for Hematopoietic Reconstitution for Specified Indications," dated June 2011. The guidance document provides advice to potential sponsors to assist in the submission of an IND for certain minimally manipulated hematopoietic stem/progenitor cells from placental/umbilical cord blood, from an unrelated allogeneic cord blood donor and intended for hematopoietic reconstitution in patients with specified indications (HPC-Cs), when such HPC-Cs are not licensed and when a suitable human leukocyte antigen (HLA) matched cord blood transplant is needed for treatment of a patient with a serious or life-threatening disease or condition, and there is no satisfactory alternative treatment. If such HPC-Cs are made available for clinical use, they must be distributed under an IND. The guidance announced in this notice finalizes the draft guidance of the same title dated October 2009.

DATES: Submit either electronic or written comments on Agency guidances at any time.

ADDRESSES: Submit written requests for single copies of the guidance to the Office of Communication, Outreach and Development (HFM-40), Center for Biologics Evaluation and Research (CBER); Food and Drug Administration, 1401 Rockville Pike, Suite 200N, Rockville, MD 20852-1448. Send one self-addressed adhesive label to assist the office in processing your requests. The guidance may also be obtained by mail by calling CBER at 1-800-835-4709 or 301-827-1800. See the **SUPPLEMENTARY INFORMATION** section for

electronic access to the guidance document.

Submit electronic comments on the guidance to <http://www.regulations.gov>. Submit written comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Tami Belouin, Center for Biologics Evaluation and Research (HFM-17), Food and Drug Administration, 1401 Rockville Pike, Suite 200N, Rockville, MD 20852-1448, 301-827-6210.

SUPPLEMENTARY INFORMATION:

I. Background

FDA is announcing the availability of a document entitled "Guidance for Industry and FDA Staff: Investigational New Drug Applications (INDs) for Minimally Manipulated, Unrelated Allogeneic Placental/Umbilical Cord Blood Intended for Hematopoietic Reconstitution for Specified Indications," dated June 2011. The guidance document provides advice to potential sponsors (e.g., cord blood banks or registries, transplant centers, and individual physicians serving as sponsor-investigators) to assist in the submission of an IND for certain HPC-Cs, when such HPC-Cs are not licensed in accordance with 21 CFR Part 601, and when a suitable HLA matched cord blood transplant is needed for treatment of a patient with a serious or life-threatening disease or condition, and there is no satisfactory alternative treatment. The guidance document is applicable only to HPC-Cs intended for hematopoietic reconstitution in patients with the clinical indications listed in the guidance. If such HPC-Cs are made available for clinical use, they must be distributed under an IND meeting all of the applicable requirements in part 312 (21 CFR Part 312).

In the **Federal Register** of October 20, 2009 (74 FR 53751), FDA announced the availability of the draft guidance of the same title dated October 2009. FDA received a few comments on the draft guidance, and those comments were considered as the guidance was finalized. Changes incorporated in the final guidance include simplifying table A, which sets forth certain regulatory requirements and current best practices with respect to what should be included in an IND. In addition, organizational and editorial revisions were made to improve clarity. The guidance announced in this notice finalizes the draft guidance dated October 2009.

In the October 20, 2009, notice announcing the availability of the draft

guidance, FDA also announced that it no longer intends to exercise enforcement discretion with respect to the IND and biologics license application (BLA) requirements, and the phase-in implementation period for IND and license application requirements will end as of October 20, 2011. FDA also encouraged sponsors to send in applications as soon as possible to allow sufficient time for review, comment, and resubmission as needed to complete all actions by the end of this 2-year period. FDA continues to encourage potential sponsors to submit new protocols as needed to their existing INDs, or new INDs if needed, or BLAs as soon as possible, so that FDA may work with them to ensure that the protocols are in effect or that the BLAs are approved, if appropriate, by the end of the phase-in implementation period.

We acknowledge that there will be cord blood banks that are not able to achieve licensure by October 20, 2011. Furthermore, we acknowledge that should we approve a bank's BLA, our approval may not include all the HPC-Cs in that bank's inventory. We note that if a bank is unable to obtain a BLA by October 20, 2011, or if its BLA does not include all the HPC-Cs in that bank's inventory, its unlicensed units may be released for use only under an IND.

The guidance is being issued consistent with FDA's good guidance practices regulation (21 CFR 10.115). The guidance represents FDA's current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statutes and regulations.

II. Paperwork Reduction Act of 1995

This guidance refers to previously approved collections of information found in FDA regulations. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520). The collections of information in part 312 have been approved under OMB control number 0910-0014; 21 CFR Part 56 have been approved under OMB control number 0910-0130; 21 CFR Part 1271 have been approved under OMB control number 0910-0543; and FDA Form 1571 has been approved under OMB control number 0910-0014.

III. Comments

Interested persons may submit to the Division of Dockets Management (see ADDRESSES) either electronic or written

comments regarding this document. It is only necessary to send one set of comments. It is no longer necessary to send two copies of mailed comments. Identify comments with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

IV. Electronic Access

Persons with access to the Internet may obtain the guidance at either <http://www.fda.gov/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Guidances/default.htm> or <http://www.regulations.gov>.

Dated: July 26, 2011.

David Dorsey,

Acting Deputy Commissioner for Policy, Planning and Budget.

[FR Doc. 2011-19483 Filed 8-1-11; 8:45 am]

BILLING CODE 4160-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2011-N-0002]

Pediatric Advisory Committee; Notice of Meeting

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

This notice announces a forthcoming meeting of a public advisory committee of the Food and Drug Administration (FDA). The meeting will be open to the public.

Name of Committee: Pediatric Advisory Committee.

General Function of the Committee: To provide advice and recommendations to the Agency on FDA's regulatory issues.

Date and Time: The meeting will be held on Thursday, September 22, 2011, from 2 p.m. to 6:30 p.m. and on Friday, September 23, 2011, from 8 a.m. to 5:30 p.m.

Location: Hilton Washington DC North/Gaithersburg, 620 Perry Pkwy., Gaithersburg, MD 20877.

Contact Person: Walter Ellenberg, Office of the Commissioner, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 32, rm. 5154, Silver Spring, MD 20993-0002, 301-796-0885, or FDA Advisory Committee Information Line, 1-800-741-8138 (301-443-0572 in the Washington, DC area), and follow the prompts to the desired center or product area. Please

call the Information Line for up-to-date information on this meeting. A notice in the **Federal Register** about last minute modifications that impact a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice. Therefore, you should always check the Agency's Web site and call the appropriate advisory committee hot line/phone line to learn about possible modifications before coming to the meeting.

Agenda: On Thursday, September 22, 2011, the Pediatric Advisory Committee will meet to discuss pediatric-focused safety reviews, as mandated by the Best Pharmaceuticals for Children Act (Pub. L. 107-109) and the Pediatric Research Equity Act (Pub. L. 108-155), for Fluarix (influenza virus vaccine), Afluria (influenza virus vaccine), and Abilify (aripiprazole). There will also be an update on a study jointly funded by the Agency for Healthcare Research and Quality (AHRQ) and FDA on antipsychotic use and metabolic effects in children.

On Friday, September 23, 2011, the Pediatric Advisory Committee will meet to discuss pediatric-focused safety reviews, as mandated by the Best Pharmaceuticals for Children Act and the Pediatric Research Equity Act, for Akten (lidocaine hydrochloride), Famvir (famciclovir), Levaquin (levofloxacin), Navstel (balanced salt ophthalmic solution with hypromellose, dextrose, and glutathione), Retrovir (zidovudine), Topamax (topiramate), Triesence (triamcinolone acetonide injectable suspension), Videx EC (didanosine), Ziagen (abacavir sulfate), and Zomig Nasal Spray (zolmitriptan). There will be an informational update on Kaletra (lopinavir/ritonavir) oral solution and tablets.

As mandated by the Food and Drug Administration Amendments Act, Title III, Pediatric Medical Device Safety and Improvement Act of 2007 (Pub. L. 110-85), the committee will discuss the safety of and profit-making waiver for the pediatric humanitarian device, Melody Transcatheter Pulmonary Valve and Ensemble Delivery System.

FDA intends to make background material available to the public no later than 2 business days before the meeting. If FDA is unable to post the background material on its Web site prior to the meeting, the background material will be made publicly available at the location of the advisory committee meeting, and the background material will be posted on FDA's Web site after the meeting. Background material is available at <http://www.fda.gov/AdvisoryCommittees/Calendar/default>.

htm. Scroll down to the appropriate advisory committee link.

Procedure: Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. Written submissions may be made to the contact person on or before Friday, September 16, 2011. Oral presentations from the public will be scheduled between approximately 2 p.m. and 3 p.m. on Friday, September 23, 2011. Those individuals interested in making formal oral presentations should notify the contact person and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time requested to make their presentation on or before Friday, September 2, 2011. Time allotted for each presentation may be limited. If the number of registrants requesting to speak is greater than can be reasonably accommodated during the scheduled open public hearing session, FDA may conduct a lottery to determine the speakers for the scheduled open public hearing session. The contact person will notify interested persons regarding their request to speak by Tuesday, September 6, 2011.

Persons attending FDA's advisory committee meetings are advised that the Agency is not responsible for providing access to electrical outlets.

FDA welcomes the attendance of the public at its advisory committee meetings and will make every effort to accommodate persons with physical disabilities or special needs. If you require special accommodations due to a disability, please notify Walter Ellenberg at least 7 days in advance of the meeting.

FDA is committed to the orderly conduct of its advisory committee meetings. Please visit our Web site at <http://www.fda.gov/AdvisoryCommittees/AboutAdvisoryCommittees/ucm111462.htm> for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (5 U.S.C. app. 2).

Dated: July 28, 2011.

David Dorsey,

Acting Deputy Commissioner for Policy, Planning and Budget.

[FR Doc. 2011-19481 Filed 8-1-11; 8:45 am]

BILLING CODE 4160-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Services Administration

Eligibility Criteria for Sites Recruiting National Health Service Corps Scholars

AGENCY: Health Resources and Services Administration, HHS.

ACTION: General notice.

SUMMARY: The Health Resources and Services Administration (HRSA) announces the eligibility criteria, including their Health Professional Shortage Area (HPSA) scores, for entities that are seeking to recruit National Health Service Corps (NHSC) scholarship recipients (Corps Personnel, Corps members) during the period July 1, 2011, through June 30, 2012. A searchable database that specifies all currently approved NHSC service sites is posted on the NHSC Web site at <http://datawarehouse.hrsa.gov/HGDWReports/OneClickRptFilter.aspx?rptName=NHSCAppSiteList&rptFormat=HTML3.2>. This database can be searched by State and can be utilized to determine which entities are eligible to receive assignment of Corps members who are participating in the NHSC Scholarship Program based on the threshold HPSA score set forth below. Please note that entities on this list may or may not have current job opportunities for NHSC scholars.

Further, not all vacancies associated with sites on the list described below will be for Corps members, but could be for NHSC Scholarship Program participants serving their obligation through the Private Practice Option.

Eligible HPSAs and Entities

To be eligible to receive assignment of Corps personnel, entities must: (1) Have a current HPSA status of "designated" by the Office of Shortage Designation, Bureau of Health Professions, HRSA; (2) not deny requested health care services, or discriminate in the provision of services to an individual because the individual is unable to pay for the services or because payment for the services would be made under Medicare, Medicaid, or the Children's Health Insurance Program (CHIP); (3) enter into an agreement with the State agency that administers Medicaid and CHIP, accept assignment under Medicare, see all patients regardless of their ability to pay and post such policy, and use and post a discounted fee plan; and (4) be determined by the Secretary to have (a) A need and demand for health manpower in the area; (b)

appropriately and efficiently used Corps members assigned to the entity in the past; (c) general community support for the assignment of Corps members; (d) made unsuccessful efforts to recruit; (e) a reasonable prospect for sound fiscal management by the entity with respect to Corps members assigned there; and (f) demonstrated a willingness to support and facilitate mentorship, professional development, and training opportunities for Corps members. Priority in approving applications for assignment of Corps members goes to sites that (1) Provide primary medical care, mental health, and/or oral health services to a primary medical care, mental health, or dental HPSA of greatest shortage, respectively; (2) are part of a system of care that provides a continuum of services, including comprehensive primary health care and appropriate referrals or arrangements for secondary and tertiary care; (3) have a documented record of sound fiscal management; and (4) will experience a negative impact on its capacity to provide primary health services if a Corps member is not assigned to the entity.

Entities that receive assignment of Corps personnel must assure that (1) The position will permit the full scope of practice and that the clinician meets the credentialing requirements of the State and site; and (2) the Corps member assigned to the entity is engaged in the requisite amount of clinical practice, as defined below, to meet his or her service obligation:

Full-Time Clinical Practice

"Full-time clinical practice" is defined as a minimum of 40 hours per week for at least 45 weeks per service year. The 40 hours per week may be compressed into no less than 4 work days per week, with no more than 12 hours of work to be performed in any 24-hour period. Time spent on-call does not count toward the full-time service obligation.

For all health professionals, except as noted below, at least 32 of the minimum 40 hours per week must be spent providing direct patient care or teaching in the outpatient ambulatory care setting(s) at the NHSC-approved service site(s) during normally scheduled office hours. The remaining 8 hours per week must be spent providing clinical services for patients or teaching in the approved practice site(s), providing clinical services in alternative settings as directed by the approved practice site(s), or performing practice-related administrative activities. Teaching activities at the approved service site shall not exceed 8 hours of the minimum 40 hours per week, unless the

teaching takes place in a HRSA-approved Teaching Health Center. Teaching activities in a Teaching Health Center shall not exceed 20 hours of the minimum 40 hours per week.

For obstetrician/gynecologists, certified nurse midwives (CNMs), family medicine physicians who practice obstetrics on a regular basis, providers of geriatric services, pediatric dentists, and behavioral/mental health providers, at least 21 of the minimum 40 hours per week must be spent providing direct patient care or teaching in the outpatient ambulatory care setting(s) at the NHSC-approved service site(s), during normally scheduled office hours. The remaining 19 hours per week must be spent providing clinical services for patients or teaching in the approved practice site(s), providing clinical services in alternative settings as directed by the approved practice site(s), or performing practice-related administrative activities. No more than 8 hours per week can be spent performing practice-related administrative activities. Teaching activities at the approved service site shall not exceed 8 hours of the minimum 40 hours per week, unless the teaching takes place in a HRSA-approved Teaching Health Center. Teaching activities in a Teaching Health Center shall not exceed 20 hours of the minimum 40 hours per week.

Half-Time Clinical Practice

"Half-time clinical practice" is defined as a minimum of 20 hours per week (not to exceed 39 hours per week), for at least 45 weeks per service year. The 20 hours per week may be compressed into no less than 2 work days per week, with no more than 12 hours of work to be performed in any 24-hour period. Time spent on-call does not count toward the half-time service obligation.

For all health professionals, except as noted below, at least 16 of the minimum 20 hours per week must be spent providing direct patient care in the outpatient ambulatory care setting(s) at the NHSC-approved service site(s), during normally scheduled office hours. The remaining 4 hours per week must be spent providing clinical services for patients or teaching in the approved practice site(s), providing clinical services in alternative settings as directed by the approved practice site(s), or performing practice-related administrative activities. Teaching and practice-related administrative activities shall not exceed a total of 4 hours of the minimum 20 hours per week.

For obstetrician/gynecologists, certified nurse midwives (CNMs),

family medicine physicians who practice obstetrics on a regular basis, providers of geriatric services, pediatric dentists, and behavioral/mental health providers, at least 11 of the minimum 20 hours per week must be spent providing direct patient care in the outpatient ambulatory care setting(s) at the NHSC-approved service site(s), during normally scheduled office hours. The remaining 9 hours per week must be spent providing clinical services for patients or teaching in the approved practice site(s), providing clinical services in alternative settings as directed by the approved practice site(s), or performing practice-related administrative activities. Teaching and practice-related administrative activities shall not exceed 4 hours of the minimum 20 hours per week. Half-time clinical service is not an option for scholars serving their obligation through the Private Practice Option.

In addition to utilizing NHSC assignees in accordance with their full-time or half-time service obligation (as defined above), sites receiving assignment of Corps personnel are expected to (1) Report to the NHSC all absences, including those in excess of the authorized number of days (up to 35 full-time days per service year in the case of full-time service and up to 35 half-time days per service year in the case of half-time service); (2) report to the NHSC any change in the status of an NHSC clinician at the site; (3) provide the time and leave records, schedules, and any related personnel documents for NHSC assignees (including documentation, if applicable, of the reason(s) for the termination of an NHSC clinician's employment at the site prior to his or her obligated service end date); and (4) submit an NHSC Site Survey. The survey allows the site to assess the age, sex, race/ethnicity of, and provider encounter records for, its user population. The survey is site specific. Providers fulfilling NHSC commitments are assigned to a specific site or, in some cases, more than one site. The scope of activity to be reported in the survey includes all activity at the site(s) to which the Corps member is assigned.

Evaluation and Selection Process

In order for a site to be eligible for placement of NHSC personnel, it must be approved by the NHSC following the site's submission of a Site Application. The Site Application approval is good for a period of 3 years from the date of approval.

In approving applications for the assignment of Corps members, the Secretary shall give priority to any such

application that is made regarding the provision of primary health services to a HPSA with the greatest shortage. For the program year July 1, 2011, through June 30, 2012, HPSAs of greatest shortage for determination of priority for assignment of NHSC scholarship-obligated Corps personnel will be defined as follows: (1) Primary medical care HPSAs with scores of 16 and above are authorized for the assignment of NHSC scholarship recipients who are primary care physicians, family nurse practitioners (NPs), physician assistants (PAs) or CNMs; (2) mental health HPSAs with scores of 16 and above are authorized for the assignment of NHSC scholarship recipients who are psychiatrists or mental health nurse practitioners; and (3) dental HPSAs with scores of 16 and above are authorized for the assignment of NHSC scholarship recipients who are dentists. The NHSC has determined that a minimum HPSA score of 16 for all eligible clinicians will enable it to meet its statutory obligation to identify a number of entities eligible for placement at least equal to, but not greater than, twice the number of NHSC scholars available to serve in the 2011-2012 placement cycle.

The number of new NHSC placements through the Scholarship Program allowed at any one site is limited to one (1) Of the following provider types: Physician (MD/DO) other than psychiatrist, NP, PA, CNM, dentist, or psychiatrist. The NHSC will consider requests for up to two (2) scholar placements at any one site on a case by case basis. Factors that are taken into consideration include community need, as measured by demand for services, patient outcomes and other similar factors. Sites wishing to request an additional scholar must complete an Additional Scholar Request form available at <http://nhsc.hrsa.gov/scholarship/pdf/additionalscholarrequestform.pdf>.

Application Requests, Dates and Address

The list of HPSAs and entities that are eligible to receive priority for the placement of Corps personnel may be updated periodically. Entities that no longer meet eligibility criteria, including those sites whose 3-year approval as an NHSC service site has lapsed or whose HPSA designation has been withdrawn or proposed for withdrawal, will be removed from the priority listing. New entities interested in being added to the high priority list must submit a Site Application to the National Health Service Corps by visiting <http://nhsc.hrsa.gov/communities/apply.htm> to apply online. A searchable database

of HPSAs and their scores, by State and county, is posted at <http://hpsafind.hrsa.gov/>.

Additional Information

Entities wishing to provide additional data and information in support of their inclusion on the proposed list of HPSAs and entities that would receive priority in assignment of scholarship-obligated Corps members must do so in writing no later than September 1, 2011. This information should be submitted to: Sonya Bayone, Chief, Site Branch, Division of the National Health Service Corps, Bureau of Clinician Recruitment and Service, 5600 Fishers Lane, Room 8-37, Rockville, MD 20857. This information will be considered in preparing the final list of HPSAs and entities that are receiving priority for the assignment of scholarship-obligated Corps personnel.

The program is not subject to the provisions of Executive Order 12372, Intergovernmental Review of Federal Programs (as implemented through 45 CFR Part 100).

Dated: July 22, 2011.

Mary K. Wakefield,

Administrator.

[FR Doc. 2011-19505 Filed 8-1-11; 8:45 am]

BILLING CODE 4165-15-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Proposed collection; Comment Request; A Generic Submission for Theory Development and Validation (NCI)

SUMMARY: Under the provisions of Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995, for opportunity for public comment on proposed data collection projects, the National Cancer Institute (NCI), the National Institutes of Health (NIH) will publish periodic summaries of proposed projects to be submitted to the Office of Management and Budget (OMB) for review and approval.

Proposed Collection: Title: A Generic Submission for Theory Development and Validation (NCI). *Type of Information Collection Request:* NEW. *Need and Use of Information Collection:* In order to carry out NCI's legislative mandate to conduct and support research with respect to the causes and prevention of cancer, it is beneficial for NCI, through initiatives in the Behavioral Research Program (BRP), to conduct and support behavioral research informed by and informing theory. Formative research in the area of theory development and validation would provide the basis for developing effective cancer prevention and control

strategies, allow for a better understanding of theoretical constructs that influence decisions and actions related to cancer, and ultimately contribute to reducing the U.S. cancer burden. Data collections that result from this generic clearance would inform and clarify the use of theory in BRP-supported initiatives and funding announcements. Specifically, this research would allow NCI to conduct research to: (1) Identify psychological, biobehavioral, demographic, and individual difference predictors of cancer prevention and control behaviors and outcomes; (2) Develop and refine integrative theories; (3) Identify and observe theoretical and innovative trends in cancer prevention and control research; and (4) Determine feasibility and usefulness of collaborative and multidisciplinary approaches to cancer prevention and control. *Frequency of Response:* Will be determined by each project. *Affected Public:* Individuals or households; Businesses or other for profit; Not-for-profit institutions; Federal Government; State, Local, or Tribal Government. *Type of Respondents:* Members of the public including, but not limited to, health professionals, physicians, and researchers. Table 1 outlines the estimated burden hours and cost required for a three-year approval of this generic submission.

TABLE 1—ESTIMATES OF BURDEN HOURS FOR THREE YEARS (GENERIC STUDY)

Type of respondents	Number of respondents	Frequency of response	Average time per response (minutes/hour)	Total burden hours
General Public	2,000	1	15/60 (0.25)	500
Physicians	6,000	1	30/60 (0.5)	3,000
Health Professionals	1,000	1	60/60 (1)	1,000
Researchers	1,000	1	90/60 (1.5)	1,500
Total	11,500			6,000

Request for Comments: Written comments and/or suggestions from the public and affected agencies are invited on one or more of the following points: (1) Whether the proposed collection of information is necessary for the proper performance of the function of the agency, including whether the information will have practical utility; (2) The accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) Ways to enhance the quality, utility, and clarity of the information to be collected; and (4) Ways to minimize the burden of the

collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the data collection plans and instruments, contact Richard P. Moser, Ph.D., Science of Research and Technology Branch, Behavioral Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute/NIH, 6130 Executive Blvd., Rockville, MD 20892,

call non-toll-free number 301-496-0273 or e-mail your request, including your address to: moserr@mail.nih.gov.

Comments Due Date: Comments regarding this information collection are best assured of having their full effect if received within 60 days of the date of this publication.

Dated: July 27, 2011.

Vivian Horovitch-Kelley,

NCI Project Clearance Liaison, National Institutes of Health.

[FR Doc. 2011-19506 Filed 8-1-11; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Environmental Health Sciences; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Environmental Health Sciences Review Committee.

Date: August 23–25, 2011.

Time: 8:30 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Raleigh-Durham Airport at RTP, 4810 Page Creek Lane, Durham, NC 27703.

Contact Person: Linda K Bass, PhD, Scientific Review Administrator, Scientific Review Branch, Division of Extramural Research and Training, Nat'l Institute of Environmental Health Sciences, P.O. Box 12233, MD EC-30, Research Triangle Park, NC 27709, (919) 541-1307.

(Catalogue of Federal Domestic Assistance Program Nos. 93.115, Biometry and Risk Estimation—Health Risks from Environmental Exposures; 93.142, NIEHS Hazardous Waste Worker Health and Safety Training; 93.143, NIEHS Superfund Hazardous Substances—Basic Research and Education; 93.894, Resources and Manpower Development in the Environmental Health Sciences; 93.113, Biological Response to Environmental Health Hazards; 93.114, Applied Toxicological Research and Testing, National Institutes of Health, HHS)

Dated: July 26, 2011.

Jennifer S. Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2011-19512 Filed 8-1-11; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Center for Scientific Review Special Emphasis Panel; Member Conflict: Hematology.

Date: August 22–23, 2011.

Time: 8 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Ai-Ping Zou, MD, PHD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4118, MSC 7814, Bethesda, MD 20892. 301-435-1777, zouai@csr.nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844, 93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: July 27, 2011.

Jennifer S. Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2011-19513 Filed 8-1-11; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Substance Abuse and Mental Health Services Administration

Fiscal Year (FY) 2011 Funding Opportunity

AGENCY: Substance Abuse and Mental Health Services Administration, HHS.

ACTION: Notice of intent to award a Single Source Grant to the National Association of State Alcohol and Drug Abuse Directors (NASADAD).

SUMMARY: This notice is to inform the public that the Substance Abuse and Mental Health Services Administration (SAMHSA) intends to award approximately \$1.102 million (total costs) per year for up to three years to the National Association of State Alcohol and Drug Abuse Directors (NASADAD). This is not a formal request for applications. Assistance will be provided only to the National Association of State Alcohol and Drug Abuse Directors (NASADAD) based on the receipt of a satisfactory application that is approved by an independent review group.

Funding Opportunity Title: TI-11-006.

Catalog of Federal Domestic Assistance (CFDA) Number: 93.243.

Authority: Section 1935 of the Public Health Service Act, as amended.

Justification: Only the National Association of State Alcohol and Drug Abuse Directors (NASADAD) is eligible to apply. The Substance Abuse and Mental Health Services Administration (SAMHSA) is seeking to award a single source grant to the National Association of State Alcohol and Drug Abuse Directors (NASADAD) to provide assistance to substance abuse Single State Agencies (SSAs) to increase service capacity, including recovery support services, develop integrated systems of care, and improve behavioral health outcomes in order to effectively administer the SAPT block grant. In addition, grant funds will be used to assist States to respond to emerging issues, such as health reform, parity, information technology innovations and implementation of evidence-based practices.

The intent of this grant is to provide technical assistance on a wide range of SAMHSA program areas. Specifically, the grantee will network with the State HIV Coordinators and the State Opioid Treatment Authorities, its National Treatment Network (NTN) and Women's Treatment Coordinators and its policy body, the States' Substance Abuse Prevention and Treatment Block Grant Program Management Workgroup. This grant will provide resources to enhance the States' capacity to respond to emerging issues such as health reform, parity, use of information technology innovations and implementation of evidence-based practices. In addition, the grantee will provide technical assistance support to the National Prevention Network (NPN) leadership in support of the further development of State systems as it relates to the implementation of the SAPT Block Grant. The grantee will be expected to

facilitate a series of workshops through technical and logistical support aimed at the enhancement and development of support mechanisms that will foster the implementation of an effective data driven prevention service delivery system. The grantee will also facilitate the development of prevention core competencies which can be used to gauge the professional skill development levels needed to effectively implement data driven prevention programs, practices and policies that are goal directed and outcomes based. Finally, the grant allows for the provision of instrumental quality assurance on the block grant guidance, the web-based application system and other SAMHSA program activities.

NASADAD is in the unique position to facilitate these activities because:

- NASADAD is the sole and unique organization with a direct official relationship with the Single State Agencies (SSAs) and has a history of collaboration with the Federal and State government and other organizations that represent issues of importance.

- NASADAD is the sole organization that has been utilizing a Web-based process to facilitate SSA dialogue on SSA management, clinical program and research issues practices within the SSAs.

- NASADAD's constituency and staff are a repository of knowledge on State issues related to substance abuse treatment indicators and are accountable for performance in the SAPT Block Grant. This knowledge is critical to the grant project.

FOR FURTHER INFORMATION CONTACT: Shelly Hara, Substance Abuse and Mental Health Services Administration, 1 Choke Cherry Road, Room 8-1095, Rockville, MD 20857; telephone: (240) 276-2321; E-mail: shelly.hara@samhsa.hhs.gov.

Cathy Friedman,
SAMHSA Public Health Analyst.
[FR Doc. 2011-19496 Filed 8-1-11; 8:45 am]
BILLING CODE 4162-20-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Substance Abuse and Mental Health Services Administration

Current List of Laboratories and Instrumented Initial Testing Facilities Which Meet Minimum Standards To Engage in Urine Drug Testing for Federal Agencies

AGENCY: Substance Abuse and Mental Health Services Administration, HHS.

ACTION: Notice.

SUMMARY: The Department of Health and Human Services (HHS) notifies Federal agencies of the Laboratories and Instrumented Initial Testing Facilities (IITF) currently certified to meet the standards of the Mandatory Guidelines for Federal Workplace Drug Testing Programs (Mandatory Guidelines). The Mandatory Guidelines were first published in the **Federal Register** on April 11, 1988 (53 FR 11970), and subsequently revised in the **Federal Register** on June 9, 1994 (59 FR 29908); September 30, 1997 (62 FR 51118); April 13, 2004 (69 FR 19644); November 25, 2008 (73 FR 71858); December 10, 2008 (73 FR 75122); and on April 30, 2010 (75 FR 22809).

A notice listing all currently certified Laboratories and Instrumented Initial Testing Facilities (IITF) is published in the **Federal Register** during the first week of each month. If any Laboratory/IITF's certification is suspended or revoked, the Laboratory/IITF will be omitted from subsequent lists until such time as it is restored to full certification under the Mandatory Guidelines.

If any Laboratory/IITF has withdrawn from the HHS National Laboratory Certification Program (NLCP) during the past month, it will be listed at the end and will be omitted from the monthly listing thereafter.

This notice is also available on the Internet at <http://www.workplace.samhsa.gov> and <http://www.drugfreeworkplace.gov>.

FOR FURTHER INFORMATION CONTACT: Mrs. Giselle Hersh, Division of Workplace Programs, SAMHSA/CSAP, Room 2-1042, One Choke Cherry Road, Rockville, Maryland 20857; 240-276-2600 (voice), 240-276-2610 (fax).

SUPPLEMENTARY INFORMATION: The Mandatory Guidelines were initially developed in accordance with Executive Order 12564 and section 503 of Public Law 100-71. The "Mandatory Guidelines for Federal Workplace Drug Testing Programs", as amended in the revisions listed above, requires {or set} strict standards that Laboratories and Instrumented Initial Testing Facilities (IITF) must meet in order to conduct drug and specimen validity tests on urine specimens for Federal agencies.

To become certified, an applicant Laboratory/IITF must undergo three rounds of performance testing plus an on-site inspection. To maintain that certification, a Laboratory/IITF must participate in a quarterly performance testing program plus undergo periodic, on-site inspections.

Laboratories and Instrumented Initial Testing Facilities (IITF) in the applicant stage of certification are not to be considered as meeting the minimum requirements described in the HHS Mandatory Guidelines. A Laboratory/IITF must have its letter of certification from HHS/SAMHSA (formerly: HHS/NIDA) which attests that it has met minimum standards.

In accordance with the Mandatory Guidelines dated November 25, 2008 (73 FR 71858), the following Laboratories and Instrumented Initial Testing Facilities (IITF) meet the minimum standards to conduct drug and specimen validity tests on urine specimens:

Instrumented Initial Testing Facilities (IITF)

None.

Laboratories

- ACL Laboratories ≤8901 W. Lincoln Ave. West Allis, WI 53227, 414-328-7840/800-877-7016 (Formerly: Bayshore Clinical Laboratory)
- ACM Medical Laboratory, Inc., 160 Elmgrove Park, Rochester, NY 14624, 585-429-2264
- Advanced Toxicology Network, 3560 Air Center Cove, Suite 101, Memphis, TN 38118, 901-794-5770/888-290-1150
- Aegis Analytical Laboratories, 345 Hill Ave., Nashville, TN 37210, 615-255-2400 (Formerly: Aegis Sciences Corporation, Aegis Analytical Laboratories, Inc.)
- Alere Toxicology Services, 1111 Newton St., Gretna, LA 70053, 504-361-8989/800-433-3823 (Formerly: Kroll Laboratory Specialists, Inc., Laboratory Specialists, Inc.)
- Alere Toxicology Services, 450 Southlake Blvd., Richmond, VA 23236, 804-378-9130 (Formerly: Kroll Laboratory Specialists, Inc., Scientific Testing Laboratories, Inc.)
- Baptist Medical Center-Toxicology Laboratory, 11401 I-30, Little Rock, AR 72209-7056, 501-202-2783 (Formerly: Forensic Toxicology Laboratory Baptist Medical Center)
- Clinical Reference Lab, 8433 Quivira Road, Lenexa, KS 66215-2802, 800-445-6917
- Doctors Laboratory, Inc., 2906 Julia Drive, Valdosta, GA 31602, 229-671-2281
- DrugScan, Inc., P.O. Box 2969, 1119 Mearns Road, Warminster, PA 18974, 215-674-9310
- ElSohly Laboratories, Inc., 5 Industrial Park Drive, Oxford, MS 38655, 662-236-2609

Gamma-Dynacare Medical Laboratories,* A Division of the Gamma-Dynacare Laboratory Partnership, 245 Pall Mall Street, London, ONT, Canada N6A 1P4, 519-679-1630

Laboratory Corporation of America Holdings, 7207 N. Gessner Road, Houston, TX 77040, 713-856-8288/800-800-2387

Laboratory Corporation of America Holdings, 69 First Ave., Raritan, NJ 08869, 908-526-2400/800-437-4986 (Formerly: Roche Biomedical Laboratories, Inc.)

Laboratory Corporation of America Holdings, 1904 Alexander Drive, Research Triangle Park, NC 27709, 919-572-6900/800-833-3984 (Formerly: LabCorp Occupational Testing Services, Inc.; CompuChem Laboratories, Inc.; CompuChem Laboratories, Inc., A Subsidiary of Roche Biomedical Laboratory; Roche CompuChem Laboratories, Inc., A Member of the Roche Group)

Laboratory Corporation of America Holdings, 1120 Main Street, Southaven, MS 38671, 866-827-8042/800-233-6339 (Formerly: LabCorp Occupational Testing Services, Inc.; MedExpress/National Laboratory Center)

LabOne, Inc. d/b/a Quest Diagnostics, 10101 Renner Blvd., Lenexa, KS 66219, 913-888-3927/800-873-8845 (Formerly: Quest Diagnostics Incorporated; LabOne, Inc.; Center for Laboratory Services, a Division of LabOne, Inc.)

Maxxam Analytics,* 6740 Campobello Road, Mississauga, ON, Canada L5N 2L8, 905-817-5700, (Formerly: Maxxam Analytics Inc. NOVAMANN (Ontario), Inc.)

MedTox Laboratories, Inc., 402 W. County Road D, St. Paul, MN 55112, 651-636-7466/800-832-3244

MetroLab-Legacy Laboratory Services, 1225 NE 2nd Ave., Portland, OR 97232, 503-413-5295/800-950-5295

Minneapolis Veterans Affairs Medical Center, Forensic Toxicology Laboratory, 1 Veterans Drive, Minneapolis, MN 55417, 612-725-2088

National Toxicology Laboratories, Inc., 1100 California Ave., Bakersfield, CA 93304, 661-322-4250/800-350-3515

One Source Toxicology Laboratory, Inc., 1213 Genoa-Red Bluff, Pasadena, TX 77504, 888-747-3774 (Formerly: University of Texas Medical Branch, Clinical Chemistry Division; UTMB Pathology-Toxicology Laboratory)

Pacific Toxicology Laboratories, 9348 DeSoto Ave., Chatsworth, CA 91311, 800-328-6942 (Formerly: Centinela

Hospital Airport Toxicology Laboratory)

Pathology Associates Medical Laboratories, 110 West Cliff Dr., Spokane, WA 99204, 509-755-8991/800-541-7891x7

Phamatech, Inc., 10151 Barnes Canyon Road, San Diego, CA 92121, 858-643-5555

Quest Diagnostics Incorporated, 1777 Montreal Circle, Tucker, GA 30084, 800-729-6432 (Formerly: SmithKline Beecham Clinical Laboratories; SmithKline Bio-Science Laboratories)

Quest Diagnostics Incorporated, 400 Egypt Road, Norristown, PA 19403, 610-631-4600/877-642-2216 (Formerly: SmithKline Beecham Clinical Laboratories; SmithKline Bio-Science Laboratories)

Quest Diagnostics Incorporated, 8401 Fallbrook Ave., West Hills, CA 91304, 800-877-2520 (Formerly: SmithKline Beecham Clinical Laboratories)

S.E.D. Medical Laboratories, 5601 Office Blvd., Albuquerque, NM 87109, 505-727-6300/800-999-5227

South Bend Medical Foundation, Inc., 530 N. Lafayette Blvd., South Bend, IN 46601, 574-234-4176 x1276

Southwest Laboratories, 4625 E. Cotton Center Boulevard, Suite 177, Phoenix, AZ 85040, 602-438-8507/800-279-0027

St. Anthony Hospital Toxicology Laboratory, 1000 N. Lee St., Oklahoma City, OK 73101, 405-272-7052

STERLING Reference Laboratories, 2617 East L Street, Tacoma, Washington 98421, 800-442-0438

Toxicology & Drug Monitoring Laboratory, University of Missouri Hospital & Clinics, 301 Business Loop 70 West, Suite 208, Columbia, MO 65203, 573-882-1273

Toxicology Testing Service, Inc., 5426 N.W. 79th Ave., Miami, FL 33166, 305-593-2260

U.S. Army Forensic Toxicology Drug Testing Laboratory, 2490 Wilson St., Fort George G. Meade, MD 20755-5235, 301-677-7085

*The Standards Council of Canada (SCC) voted to end its Laboratory Accreditation Program for Substance Abuse (LAPSA) effective May 12, 1998. Laboratories certified through that program were accredited to conduct forensic urine drug testing as required by U.S. Department of Transportation (DOT) regulations. As of that date, the certification of those accredited Canadian laboratories will continue under DOT authority. The responsibility for conducting quarterly performance testing plus periodic on-site inspections of those LAPSA-accredited laboratories was transferred to the U.S. HHS, with the HHS' NLCP contractor continuing to have an active role in the performance testing and

laboratory inspection processes. Other Canadian laboratories wishing to be considered for the NLCP may apply directly to the NLCP contractor just as U.S. laboratories do.

Upon finding a Canadian laboratory to be qualified, HHS will recommend that DOT certify the laboratory (Federal Register, July 16, 1996) as meeting the minimum standards of the Mandatory Guidelines published in the Federal Register on April 30, 2010 (75 FR 22809). After receiving DOT certification, the laboratory will be included in the monthly list of HHS-certified laboratories and participate in the NLCP certification maintenance program.

Dated: July 25, 2011.

Janine Denis Cook,

Chemist, Division of Workplace Programs, CSAP/SAMHSA.

[FR Doc. 2011-19478 Filed 8-1-11; 8:45 am]

BILLING CODE 4160-20-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Substance Abuse and Mental Health Services Administration

Notice of Meetings

Pursuant to Public Law 92-463, notice is hereby given of the combined meeting of the Substance Abuse and Mental Health Services Administration's (SAMHSA) four National Advisory Councils (the SAMHSA National Advisory Council (NAC), the Center for Mental Health Services NAC, the Center for Substance Abuse Prevention NAC, and the Center for Substance Abuse Treatment NAC), SAMHSA's Advisory Committee for Women's Services, and SAMHSA's Tribal Technical Advisory Committee on August 16, 2011.

The Councils were established to advise the Secretary, Department of Health and Human Services (HHS), the Administrator, SAMHSA, and Center Directors, concerning matters relating to the activities carried out by and through the Centers and the policies respecting such activities.

Under Section 501 of the Public Health Service Act, the Advisory Committee for Women's Services (ACWS) is statutorily mandated to advise the SAMHSA Administrator and the Associate Administrator for Women's Services on appropriate activities to be undertaken by SAMHSA and its Centers with respect to women's substance abuse and mental health services.

Pursuant to Presidential Executive Order No. 13175, November 6, 2000, and the Presidential Memorandum of September 23, 2004, SAMHSA established the Tribal Technical

Advisory Committee for working with Federally-recognized Tribes to enhance the government-to-government relationship, honor Federal trust responsibilities and obligations to Tribes and American Indian and Alaska Natives. The SAMHSA TTAC serves as an advisory body to SAMHSA.

The meeting will include a report from the SAMHSA Administrator and discussions related to SAMHSA's FY 2012 Budget, substance abuse and mental health issues among women and girls, principles of recovery, workforce development, and an update on SAMHSA's National Quality Framework and Agenda.

The meeting is open to the public. However, attendance is limited to space availability. Public comments are welcome. The meeting may be accessed via Webcast. To attend on site, obtain the call-in number and access code, submit written or brief oral comments, or request special accommodations for persons with disabilities, please register on-line at <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx>, or communicate with SAMHSA's Committee Management Officer, Ms. Cynthia Graham (see contact information below).

Substantive program information may be obtained after the meeting by accessing the SAMHSA Committee Web site, <http://nac.samhsa.gov/>, or by contacting Ms. Graham.

Committees Names: Substance Abuse and Mental Health Services Administration, National Advisory Council, Center for Mental Health Services National Advisory Council, Center for Substance Abuse Prevention National Advisory Council, Center for Substance Abuse Treatment National Advisory Council, SAMHSA's Advisory Committee for Women's Services, SAMHSA Tribal Technical Advisory Committee.

Date/Time/Type: August 16, 2011, 8:30 a.m.–5:30 p.m. (Open).

Place: SAMHSA, 1 Choke Cherry Road, SAMHSA 1s Floor Conference Rooms, Rockville, Maryland 20857.

Contact: Cynthia Graham, M.S., Committee Management Officer and Designated Federal Official, SAMHSA National Advisory Council, SAMHSA Advisory Committee for Women's Services, 1 Choke Cherry Road, Rockville, Maryland 20857, **Telephone:** (240) 276-1692, **Fax:** (240) 276-1690 and **E-mail:** cynthia.graham@samhsa.hhs.gov.

The Substance Abuse and Mental Health Services Administration National Advisory Council will meet on August 17. The meeting will include the

Administrator's report; recap of the August 16 Joint Committees meeting; discussions on SAMHSA's budget and data and quality issues; panel discussions on women and girl's issues, workforce development, the National Dialogue, and suicide prevention.

The meeting is open to the public. However, attendance is limited to space availability. Public comments are welcome. To attend on-site, submit written or brief oral comments, or request special accommodations for persons with disabilities, please register at the SAMHSA Committees' Web site, <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx>, or communicate with the SAMHSA Council's Designated Federal Official, Ms. Cynthia Graham (see contact information below).

Committee Name: Substance Abuse and Mental Health Services Administration, National Advisory Council.

Date/Time/Type: August 17, 2011, 8:30 a.m.–3 p.m. (Open).

Place: SAMHSA, 1 Choke Cherry Road, Sugarloaf Conference Room, Rockville, Maryland 20857.

Contact: Cynthia Graham, M.S., Committee Management Officer and Designated Federal Official, SAMHSA National Advisory Council, 1 Choke Cherry Road, Rockville, Maryland 20857, **Telephone:** (240) 276-1692, **Fax:** (240) 276-1690, **E-mail:** cynthia.graham@samhsa.hhs.gov.

The Center for Mental Health Services Advisory Council will meet on August 17. The meeting will include the review, discussion and evaluation of grant applications reviewed by Initial Review Groups (IRGs). Therefore, a portion of the meeting will be closed to the public as determined by the SAMHSA Administrator, in accordance with Title 5 U.S.C. 552b(c)(6) and 5 U.S.C. App. 2, 10(d).

A portion of the meeting is open to the public and will include the Director's Report, updates of administrative and programmatic activities, and a report from the Consumer Subcommittee.

The meeting is not available via Webcast. Attendance is limited to space availability. Public comments are welcome. To attend on-site, submit written or brief oral comments, or request special accommodations for persons with disabilities, please register at the SAMHSA Committees' Web site, <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx> or communicate with the CMHS Council's Designated Federal Official, Ms. Diane Abbate (see contact information below).

Committee Name: Center for Mental Health Services National Advisory Council.

Date/Time/Type: August 17, 2011, 8:30 a.m.–10:30 a.m. (Closed). August 17, 2011, 10:30 a.m.–12:30 p.m. (Open).

Place: SAMHSA, 1 Choke Cherry Road, Seneca Conference Room, Rockville, Maryland 20857.

Contact: Diane Abbate, Designated Federal Official, CMHS National Advisory Council, 1 Choke Cherry Road, Rockville, Maryland 20857, **Telephone:** (240) 276-1824, **Fax:** (240) 276-1320 and **E-mail:** diane.abbate@samhsa.hhs.gov.

The Center for Substance Abuse Prevention National Advisory Council will meet on August 17. A portion of the meeting is open to the public and will include discussions on the Ambassador's Kit, the Prevention White Paper, the budget, and the Strategic Initiative for Prevention of Substance Abuse and Mental Illness. Attendance is limited to space availability. Public comments are welcome. To attend on-site, submit written or brief oral comments, or request special accommodations for persons with disabilities, please register at the SAMHSA Committees' Web site, <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx>, or communicate with the CSAP Council's Designated Federal Official, LTJG Michael Muni (see contact information below).

The meeting will also include the review, discussion and evaluation of grant applications reviewed by Initial Review Groups (IRGs). Therefore, a portion of the meeting will be closed to the public as determined by the SAMHSA Administrator, in accordance with Title 5 U.S.C. 552b(c)(6) and 5 U.S.C. App. 2, 10(d).

Committee Name: Center for Substance Abuse Prevention National Advisory Council.

Date/Time/Type: August 17, 2011, 9 a.m.–3 p.m. (Open). 3 p.m.–5 p.m. (Closed).

Place: Hilton Washington DC North/Gaithersburg, 620 Perry Parkway, Montgomery Conference Room, Gaithersburg, Maryland 20877.

Contact: Michael Muni, Designated Federal Official, CSAP National Advisory Council, 1 Choke Cherry Road, Room 4-1074, Rockville, Maryland 20857, **Telephone:** (240) 276-2559, **Fax:** (240) 276-2430, **E-mail:** Michael.muni@samhsa.hhs.gov.

The Center for Substance Abuse Treatment National Advisory Council will meet on August 17. The meeting will include the review, discussion and

evaluation of grant applications reviewed by Initial Review Groups (IRGs). Therefore, a portion of the meeting will be closed to the public as determined by the SAMHSA Administrator, in accordance with Title 5 U.S.C. 552b(c)(6) and 5 U.S.C. App. 2. 10(d).

A portion of the meeting is open to the public and will include a discussion of the Center's current administrative, legislative, and program developments. However, attendance is limited to space availability. Public comments are welcome. To attend on-site, or request special accommodations for persons with disabilities, please register at SAMHSA Committees' Web site, <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx>, or communicate with the Council's Designated Federal Officer, Ms. Cynthia Graham (see contact information below).

Committee Name: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment National Advisory Council.

Date/Time/Type: August 17, 2011 8:30 a.m.–9:45 a.m. (Closed) . 10 a.m.–2 p.m. (Open).

Place: SAMHSA, 1 Choke Cherry Road, Rock Creek and Great Falls Conference Rooms, Rockville, Maryland 20857.

Contact: Cynthia Graham, M.S., Designated Federal Official, SAMHSA/CSAT National Advisory Council, 1 Choke Cherry Road, Room 5–1036, Rockville, MD 20857, Telephone: (240) 276–1692, Fax: (240) 276–1690, E-mail: cynthia.graham@samhsa.hhs.gov.

The Substance Abuse and Mental Health Services Administration's Advisory Committee for Women's Services Committee (ACWS) will meet on August 15. The meeting will include remarks from the Associate Administrator for Women's Services in relation to SAMHSA's budget and block grant applications; a presentation on SAMHSA's survey data on women and girls; a follow-up discussion of women and girls in SAMHSA's Strategic Initiatives; a presentation on critical issues for women and girls in recovery; and a discussion of gender-specificity across behavioral health.

Public attendance is limited to space availability. Public comments are welcome. To attend on site, submit written or brief oral comments, or to request special accommodations for persons with disabilities, please register at the SAMHSA Committees' Web site, <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx>, or communicate with the ACWS

Designated Federal Officer, Ms. Cynthia Graham (see contact information below).

Committee Name: SAMHSA's Advisory Committee for Women's Services.

Date/Time/Type: Monday, March 15, 2011, from 9 a.m.–5 p.m. (Open).

Place: 1 Choke Cherry Road, Sugarloaf Conference Room, Rockville, Maryland 20857.

Contact: Cynthia Graham, M.S., Designated Federal Official, SAMHSA Advisory Committee for Women's Services, 1 Choke Cherry Road, Room 5–1035, Rockville, Maryland 20857, Telephone: (240) 276–1692, Fax: (240) 276–1690, E-mail: cynthia.graham@samhsa.hhs.gov.

The Substance Abuse and Mental Health Services Administration (SAMHSA) Tribal Technical Advisory Committee will meet on August 15, 2011. The meeting will include an update from the SAMHSA Administrator, a presentation by the HHS Office of Intergovernmental Affairs, an update on the Tribal Law and Order Act, and an overview of the SAMHSA Office of Behavioral Health Equity.

The meeting is open to the public. However, attendance is limited to space availability. To attend on-site or request special accommodations for persons with disabilities, please register at the SAMHSA Committees' Web site, <http://nac.samhsa.gov/Registration/meetingsRegistration.aspx>, or communicate with the SAMHSA Senior Advisor for Tribal Affairs, Ms. Sheila Cooper (see contact information below).

Committee Name: Substance Abuse and Mental Health Services Administration's Tribal Technical Advisory Committee.

Date/Time/Type: August 15, 2011, 8:30 a.m.–5 p.m. (Open).

Place: SAMHSA Central Office Building, 1 Choke Cherry Road, Seneca Conference Room, Rockville, Maryland 20857.

Contact: Sheila Cooper, Senior Advisor for Tribal Affairs, SAMHSA Tribal Technical Advisory Committee, 1 Choke Cherry Road, Rockville, Maryland 20857, Telephone: (240) 276–2005, Fax: (240) 276–2010 and E-mail: sheila.cooper@samhsa.hhs.gov.

Janine Denis Cook,

Chemist, Division of Workplace Programs, Substance Abuse and Mental Health Services Administration.

[FR Doc. 2011–19492 Filed 8–1–11; 8:45 am]

BILLING CODE 4162–20–P

DEPARTMENT OF HOMELAND SECURITY

[Docket No. USCBP–2011–0024]

Advisory Committee on Commercial Operations of Customs and Border Protection (COAC)

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security (DHS).

ACTION: Committee management; notice of Federal Advisory Committee meeting.

SUMMARY: The Advisory Committee on Commercial Operations of Customs and Border Protection (COAC) will meet on August 18, 2011, in Long Beach, CA. The meeting will be open to the public. As an alternative to on-site attendance, U.S. Customs and Border Protection will also offer a live webcast of the COAC meeting via the Internet.

DATES: COAC will meet on Thursday, August 18, 2011, from 1 p.m. to 5:30 p.m. Please note that the meeting may close early if the committee has completed its business.

Registration: If you plan on attending via webcast, please register online at https://apps.cbp.gov/te_registration/?w=55 by close-of-business on August 12, 2011. Please feel free to share this information with interested members of your organizations or associations. If you plan on attending on-site, please register either online at https://apps.cbp.gov/te_registration/?w=48 or by e-mail to tradeevents@dhs.gov by close-of-business on August 12, 2011.

ADDRESSES: The meeting will be held at the Westin Long Beach Hotel, in the Centennial Ballroom, Salon A, 333 East Ocean Boulevard, Long Beach, CA 90802. All visitors report to the Foyer of the Salon A.

For information on facilities or services for individuals with disabilities or to request special assistance at the meeting, contact Ms. Wanda Tate as soon as possible.

To facilitate public participation, we are inviting public comment on the issues to be considered by the committee as listed in the "Agenda" section below.

Comments must be submitted in writing no later than August 12, 2011 and must be identified by USCBP–2011–0024 and may be submitted by one of the following methods:

- **Federal eRulemaking Portal:** <http://www.regulations.gov>. Follow the instructions for submitting comments.

- **E-mail:** Tradeevents@dhs.gov. Include the docket number in the subject line of the message.

- **Fax:** 202–325–4290.

• **Mail:** Ms. Wanda Tate, Office of Trade Relations, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room 5.2A, Washington, DC 20229.

Instructions: All submissions received must include the words "Department of Homeland Security" and the docket number for this action. Comments received will be posted without alteration at <http://www.regulations.gov>, including any personal information provided.

Docket: For access to the docket to read background documents or comments received by the COAC, go to <http://www.regulations.gov>.

There will be two public comment periods held during the meeting on August 18, 2011. On-site speakers are requested to limit their comments to 3 minutes. Contact the individual listed below to register as a speaker. Please note that the public comment period for on-site speakers may end before the time indicated on the schedule that is posted on the CBP Web page at the time of the meeting. Comments can also be made electronically anytime during the COAC meeting webcast, but please note that webcast participants will not be able to provide oral comments. Comments submitted electronically will be read into the record at some time during the meeting.

FOR FURTHER INFORMATION CONTACT: Ms. Wanda Tate, Office of Trade Relations, U.S. Customs and Border Protection, Department of Homeland Security, 1300 Pennsylvania Avenue, NW., Room 5.2A, Washington, DC 20229; telephone 202-344-1440; facsimile 202-325-4290.

SUPPLEMENTARY INFORMATION: Notice of this meeting is given under the Federal Advisory Committee Act, 5 U.S.C. App. (Pub. L. 92-463). The COAC provides advice to the Secretary of Homeland Security, the Secretary of the Treasury, and the Commissioner of U.S. Customs and Border Protection (CBP) on matters pertaining to the commercial operations of CBP and related functions within DHS or the Department of the Treasury.

Agenda

The COAC will meet to review, discuss next steps and formulate recommendations on the following two issues:

- Review and Discuss Managing by Account: Center of Excellence and Expertise (CEE) and Account Executive Pilot Programs.
- Review and Discuss Role of the Broker, A Broker Revision Project.

Prior to the COAC taking action on either of these two issues, members of the public will have an opportunity to

provide comments orally or, for comments submitted electronically during the meeting, by reading the comments into the record.

The COAC will receive an update on the following Customs and Border Protection Initiatives and Subcommittee issues:

- Update on Automated Commercial Environment (ACE): What's new? What's planned?
- Update on the Work of the Enhancing Air Cargo Security Subcommittee.
- Update on the Work of Land Border Security Initiatives Subcommittee.
- Update on the Work of the One U.S. Government at the Border—Interagency Issues Subcommittee.
- Update on the Work of the Antidumping and Countervailing Duties (AD/CVD) Enhancements Subcommittee.
- Update on the Work of the Enhancing Intellectual Property Rights Enforcement Efforts Subcommittee.

Dated: July 28, 2011.

Maria Luisa O'Connell,

Senior Advisor for Trade and Public Engagement, Office of Trade Relations.

[FR Doc. 2011-19560 Filed 8-1-11; 8:45 am]

BILLING CODE 9111-14-P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Notice of Issuance of Final Determination Concerning Iridium Satellite Telephones

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of final determination.

SUMMARY: This document provides notice that U.S. Customs and Border Protection ("CBP") has issued a final determination concerning the country of origin of satellite telephones. We were asked to consider six scenarios. Based upon the facts presented, CBP has concluded in the final determination that the application board and transceiver board together convey the essential character of the phones and it is at their assembly and programming where the last substantial transformation occurs. Therefore, when the boards are assembled and programmed in Malaysia, the country of origin of the phones for purposes of U.S. government procurement is Malaysia. When the boards are assembled and programmed in Singapore, the country of origin of the phones for purposes of

U.S. government procurement is Singapore.

DATES: The final determination was issued on July 28, 2011. A copy of the final determination is attached. Any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of this final determination on or before September 1, 2011.

FOR FURTHER INFORMATION CONTACT: Heather K. Pinnock, Valuation and Special Programs Branch: (202) 325-0034.

SUPPLEMENTARY INFORMATION: Notice is hereby given that on July 28, 2011, pursuant to subpart B of part 177, Customs Regulations (19 CFR part 177, subpart B), CBP issued a final determination concerning the country of origin of satellite telephones which may be offered to the U.S. Government under an undesignated government procurement contract. This final determination, HQ H130306, was issued under procedures set forth at 19 CFR part 177, subpart B, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-18). In the final determination, CBP concluded that, based upon the facts presented, the application board and transceiver board together convey the essential character of the phones and it is at their assembly and programming where the last substantial transformation occurs. Therefore, when the boards are assembled and programmed in Malaysia, the country of origin of the phones for purposes of U.S. government procurement is Malaysia. When the boards are assembled and programmed in Singapore, the country of origin of the phones for purposes of U.S. government procurement is Singapore.

Section 177.29, Customs Regulations (19 CFR 177.29), provides that a notice of final determination shall be published in the **Federal Register** within 60 days of the date the final determination is issued. Section 177.30, CBP Regulations (19 CFR 177.30), provides that any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of a final determination within 30 days of publication of such determination in the **Federal Register**.

Dated: July 28, 2011.

Sandra L. Bell,

*Executive Director, Regulations and Rulings,
Office of International Trade.*

Attachment

HQ H170315

July 28, 2011

MAR-2 OT:RR:CTF:VS H170315 HKP

CATEGORY: Origin Marking

Kevin P. Connelly, Esq.

Seyfarth Shaw, LLP

975 F Street, N.W.

Washington, D.C. 20004-1454

RE: U.S. Government Procurement;
Country of Origin of Iridium 9555
Satellite Telephones; Substantial
Transformation; Marking

Dear Mr. Connelly:

This is in response to your letter, dated October 21, 2010, requesting a final determination on behalf of Iridium Satellite, LLC ("Iridium"), pursuant to subpart B of part 177 of the U.S. Customs and Border Protection (CBP) Regulations (19 CFR Part 177). Under these regulations, which implement Title III of the Trade Agreements Act of 1979 (TAA), as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

This final determination concerns the country of origin of the Iridium 9555 satellite telephone. We note that as a U.S. importer, Iridium is a party-at-interest within the meaning of 19 CFR 177.22(d)(1) and is entitled to request this final determination. In reaching our decision we have taken into account additional information submitted to this office on January 30, February 4, May 11, and May 31, 2011.

FACTS:

Iridium imports Iridium 9555 satellite telephones from Singapore. The telephones are composed of the following components: (1) Transceiver Board, (2) Application Board, (3) Conductive Spacer, (4) Receiver, (5) Klik Dome Array (provides feedback on switch closure), (6) Vibrator, (7) Display, (8) Radio frequency (RF) emission shields (can lids), (9) Hands Free (HF) Speaker/Cable, (10) Antenna Bearing Housing 1, (11) Antenna Bearing Housing 2, (12) Keypad, (13) HF Speaker Housing, (14) Rear Housing Assembly, (15) Front Assembly, (16) Bezel, (17) USB Cover, (18) Headset Jack (HSJ) Cover, (19) Screw Caps, (20)

RF Cap (external antenna connector cover), (21) Antenna Plunger, (22) Antenna Plunger Spring, (23) Bezel Film, and assorted screws.

The transceiver board (no. 1 above) is the radio transceiver that communicates with the Iridium satellite. It demodulates data from the satellite link and sends it to the application board (no. 2 above). In addition, the transceiver board receives commands and voice and data streams from the application board (described *infra*) and formats and modulates them into radio streams that communicate with the Iridium gateway network infrastructure using a GSM-like communication protocol. Among the components on the transceiver board are two digital base band (DBB) chips, which contain the microcontroller for the board, and two digital signal processor (DSP) cores, made in China, and two radio frequency (RF) backend chips, made in Taiwan. The bill of materials for the transceiver board was submitted for our review. The board is assembled in Malaysia.

The application board is a circuit board that contains all of the user interfaces for the handsets, i.e., the display, user connector, key pad and other buttons, microphone, speaker, and ear piece. The board also contains software for SMS messaging, predictive text, multilingual support, handset configuration, and phone menu items such as contacts. The bill of materials for the application board was submitted for our review. The board is assembled in Malaysia.

The other listed components are manufactured in Singapore, Malaysia, Hong Kong, China, Korea, the United Kingdom, and the United States. With the exception of the components made in Singapore, all of the components are shipped to Singapore, where they are placed in stock until used to manufacture the satellite telephone.

Handset software programming consists of programming the transceiver board using JTAG, a programming process, and separately downloading software to the application board. The software programs for the application board and for the transceiver board are developed in the United Kingdom. Unless otherwise described, as in scenario six below, handset programming occurs in Malaysia and/or Singapore at the board level after the pertinent chips and circuits have been installed onto the relevant board, prior to assembly of the boards with the other components into phones in Singapore. In scenario six, the integrated circuit (IC) for the transceiver board is programmed before it is incorporated into the board.

Six alternative manufacturing scenarios for the Iridium 9555 satellite telephones have been described to CBP.

Scenario I:

(1) The Malaysian-origin transceiver and application boards, both programmed in Malaysia, are shipped to Singapore.

(2) The antenna plunger housing 1 is placed into the antenna plunger spring insertion jig, and both are inserted into the antenna bearing housing 1. The antenna cable is fitted and secured with clips onto bearing housing 2, and the bearing housings are fitted together. The antenna assembly is then inserted into the antenna bearing housing with the antenna cable.

(3) The antenna assembly, antenna cable, and vibrator are inserted into the rear housing and fitted with clips.

(4) The rear speaker is placed onto the rear housing and the speaker cable is positioned. The LCD flex cable that is connected to the display is inserted into the connector on the application board and fastened with clips. The application board, assembled with the LCD and the rear housing, is moved to the next station.

(5) The application board with LCD is removed from the rear housing. The receiver is placed on the back of the LCD display, oriented, and pinned with a guide pin to the application board. The transceiver board is stacked on top of the conductive space gasket, which is stacked on top of the application board. The boards are screwed together.

(6) The various can lids are placed on the assembly. The antenna cable and rear speaker cable are plugged into the connectors on the boards.

(7) The HSJ cover and USB cover are inserted into the front housing. The keypad is placed onto the front housing. The rear housing with the stack of boards is assembled with the bezel onto the front housing. The front and rear housings are screwed together.

(8) The phones are scanned, given serial numbers, and shipped to Malaysia for testing, labeling, and packaging for export.

Scenario II:

The application board and transceiver board are programmed and tested in Malaysia and shipped to Singapore. However, the application board is shipped without an audio jack or a power jack. The jacks are soldered onto the board in Singapore. The telephones are then manufactured in Singapore, as in Scenario I.

Scenario III:

The application board and the transceiver board undergo programming

and functional testing in Singapore, not in Malaysia. The telephones are then manufactured in Singapore, as in Scenario I.

Scenario IV:

The transceiver board undergoes programming and functional testing in Singapore, not in Malaysia. The application board is programmed and tested in Malaysia and shipped to Singapore. The telephones are then manufactured in Singapore, as in Scenario I.

Scenario V:

The application board is programmed and tested in Singapore, not in Malaysia. The transceiver board is programmed and tested in Malaysia and shipped to Singapore. The telephones are then manufactured in Singapore, as in Scenario I.

Scenario VI:

The IC that stores the firmware which controls the functionality of the phone is programmed in Singapore and then shipped to Malaysia, where it is incorporated into the transceiver board. The programmed transceiver board is then shipped to Singapore. The application board is programmed and tested in Malaysia and shipped to Singapore. The telephones are then manufactured in Singapore, as in Scenario I.

ISSUE:

For each scenario, what is the country of origin of the Iridium 9555 satellite telephone for purposes of U.S. government procurement and country of origin marking?

LAW AND ANALYSIS:

Country of Origin

Pursuant to Subpart B of Part 177, 19 C.F.R. § 177.21 et seq., which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

Under the rule of origin set forth under 19 U.S.C. § 2518(4)(B):

An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce

with a name, character, or use distinct from that of the article or articles from which it was so transformed.

See also 19 C.F.R. § 177.22(a).

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 573 F. Supp. 1149 (Ct. Int'l Trade 1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. In Customs Service Decisions (C.S.D.) 85-25, 19 Cust. Bull. 844 (1985), CBP held that for purposes of the Generalized System of Preferences ("GSP"), the assembly of a large number of fabricated components onto a printed circuit board in a process involving a considerable amount of time and skill resulted in a substantial transformation. In that case, in excess of 50 discrete fabricated components (such as resistors, capacitors, diodes, integrated circuits, sockets, and connectors) were assembled.

In *Data General v. United States*, 4 Ct. Int'l Trade 182 (1982), the court determined that for purposes of determining eligibility under item 807.00, Tariff Schedules of the United States (predecessor to subheading 9802.00.80, Harmonized Tariff Schedule of the United States), the programming of a foreign PROM (Programmable Read-Only Memory chip) in the United States substantially transformed the PROM into a U.S. article. In programming the imported PROMs, the U.S. engineers systematically caused various distinct electronic interconnections to be formed within each integrated circuit. The programming bestowed upon each circuit its electronic function, that is, its "memory" which could be retrieved. A distinct physical change was effected in the PROM by the opening or closing of the fuses, depending on the method of programming. This physical alteration, not visible to the naked eye, could be discerned by electronic testing of the PROM. The court noted that the programs were designed by a U.S. project engineer with many years of experience in "designing and building hardware." While replicating the program pattern from a "master" PROM may be a quick one-step process, the development of the pattern and the production of the "master" PROM required much time and expertise. The court noted that it was undisputed that programming altered the character of a

PROM. The essence of the article, its interconnections or stored memory, was established by programming. The court concluded that altering the non-functioning circuitry comprising a PROM through technological expertise in order to produce a functioning read only memory device, possessing a desired distinctive circuit pattern, was no less a "substantial transformation" than the manual interconnection of transistors, resistors and diodes upon a circuit board creating a similar pattern.

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

Scenario I:

In this scenario, the application and transceiver boards are assembled and programmed in Malaysia with U.K.-origin software and shipped to Singapore. After importation into Singapore, the boards are assembled with other originating and non-originating components into satellite phones. The completed phones are then shipped to Malaysia for testing, labeling and packaging.

You claim that as a result of the assembly operations performed in Singapore, the application board and the transceiver board from Malaysia as well as the other non-originating components undergo a substantial transformation, such that the finished telephones become products of Singapore for purposes of U.S. Government procurement. You cite Headquarters Ruling Letter (HQ) 557208 (July 24, 1993), and New York Ruling Letter (NY) R02686 (Oct. 28, 2005), in support of your position.

HQ 557208 concerned the eligibility of cordless phones imported from Mexico to benefit from the Generalized System of Preferences (GSP). The phones were manufactured in Mexico by assembling three PCB subassemblies

(a base unit circuit board, a base unit control board, and a handset main board) of Mexican origin with various other components, such as speakers, microphones, and antennas. CBP found that the process of assembling the various components onto the three boards resulted in a substantial transformation of the imported components, such that the PCB subassemblies were new and different articles with a new name, character, and use. CBP also found that the assembly operations in Mexico substantially transformed the PCB subassemblies into cordless telephones. We note that HQ 557208 is distinguishable from the instant case because all the operations in HQ 557208, including the assembly of the PCBs, were performed in one country (Mexico). In this case, manufacturing operations take place in both Malaysia and Singapore.

NY R02686 concerned the country of origin marking of a cellular phone. CBP found that a digital mobile telephone was substantially transformed in China, where final assembly took place, although the manufacturing process took place in both Korea and China. The phone's printed circuit board was fully fabricated in Korea and then shipped to China, where it was combined with the keypad, housing, antenna, and battery pack to form a complete and fully functional cellular phone. The decision does not indicate the origin of these components. CBP found that the Chinese manufacturing operations produced a new and different article of commerce with a distinctive name, character and use, such that the phone should be marked "Made in China".

In this case, the transceiver board causes the phone to communicate with the satellite and demodulates its signals, which it sends on to the application board. The transceiver board also receives commands from the application board and modulates its signals so that the phone can communicate with the Iridium network. The application board contains all the interfaces that allow a user to use the phones, significantly, the microphone, speaker, earpiece and keypad, which control the functionality of the phones and convey their essential character.

In Scenario I, a large number of parts are assembled in Malaysia and programmed to form the Malaysian-origin boards. Upon importation into Singapore, the boards are assembled with components such as covers, housing, an antenna, and cables by means of insertion, stacking, screwing, and fitting together with clips. We find that these operations are not sufficiently complex and meaningful to transform

the Malaysian boards, which are the essence of the phones, into a new article with a new name, use and identity. Moreover, these boards are combined with components of various origins in a third country, namely Singapore, which is a distinguishable fact from HQ 557208 and NY R02686. See *Belcrest Linens supra*. As a result, in Scenario I we find that the country in which the last substantial transformation takes place is Malaysia, which is the country of origin of the phones.

Scenario II:

For Scenarios II through VI, you argue that because U.K.-origin software is loaded onto certain components in Singapore, additional value is added by the Singaporean operations, and that the components and subassemblies are, therefore, substantially transformed in Singapore. In support of your view you cite *Data General*, discussed *supra*, Customs Service Decisions (C.S.D.) 84-85 (April 2, 1984), and HQ 733085 (July 13, 1990). At issue in C.S.D. 84-85 was whether the programming of an EPROM (erasable programmable read only memory) was a manufacturing process that resulted in a new article for purposes of determining country of origin. CBP found that the rationale of the court in *Data General*, that is, programming a PROM is no less a substantial transformation than the manual interconnection of the components on a circuit board, could be applied to support the principle that the essence of an integrated circuit memory storage device is established by programming. Consequently, in C.S.D. 84-85 the programming or reprogramming of an EPROM was found to result in a new and different article of commerce. In HQ 733085, applying *Data General*, CBP found that programming in the United States of a foreign identification card to make it secure changed the name, character and use of the card. The card could not function with the computer security system for which it was designed until it had been properly programmed. Programming done in the United States using a binary code of U.S. origin substantially transformed the ID cards.

As in Scenario I, in Scenario II the application board and transceiver board are assembled and programmed with U.K.-origin software in Malaysia. However, in this scenario, the audio jack and the power jack for the application board are soldered onto it in Singapore, not Malaysia. Once in Singapore, the boards are assembled with other originating and non-originating components into satellite phones. The phones are then shipped to

Malaysia for testing, labeling, and packaging.

As discussed under Scenario I, as a result of the assembly and programming operations in Malaysia, we find that the boards are products of Malaysia and convey the essential character of the phones. Applying the principle in *Belcrest Linens* and C.S.D. 85-25, we find that soldering the jacks onto the application board in Singapore is not a sufficiently complex and meaningful process that transforms the Malaysian application board into a new article with a new name, use and identity. As in Scenario I, we find that the assembly in Singapore of the transceiver and application boards with components such as covers and housing by means of inserting, screwing, clipping together and the like, does not substantially transform the boards, which convey the essential character of the phones, into a new and different article. Further, unlike HQ 733085 where U.S. code was programmed onto cards in the U.S., here U.K. software is programmed in Malaysia. Consequently, we find that the country of origin of the phones in this scenario is Malaysia.

Scenario III:

In the rest of the scenarios, handset programming may take place wholly, or in part, in Singapore.

In this scenario, the application and transceiver boards are assembled in Malaysia, but programmed with U.K.-origin software in Singapore. The phones are then assembled in Singapore, as described in Scenario I. Accordingly, in this scenario, there are three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore. In this scenario, no one country's operations dominate the manufacturing operations of the telephones. The boards assembled in Malaysia are important to the function of the phone, as is the U.K. software. But the assembly in Singapore completed the phone. Therefore, we find that the last substantial transformation occurred in Singapore. Consequently, we find that the country of origin of the phones in this scenario is Singapore.

Scenario IV:

In this scenario, the transceiver board is assembled in Malaysia and programmed in Singapore. However, the application board is assembled and programmed in Malaysia. The phones are assembled in Singapore, as described in Scenario I.

Relying on previous discussion, we find that the programming and assembly operations performed in Singapore

substantially transform the boards into products of Singapore. Consequently, we find that the country of origin of the phones in this scenario is Singapore.

Scenario V:

This scenario is the inverse of Scenario IV. Here, the application board is assembled in Malaysia and programmed in Singapore. The transceiver board is assembled and programmed in Malaysia. The phones are assembled in Singapore, as described in Scenario I.

Similar to Scenario IV, we find that the programming and assembly operations in Singapore substantially transform the boards into products of Singapore. Consequently, we find that the country of origin of the phones in this scenario is Singapore.

Scenario VI:

In this scenario, the ICs for the transceiver boards that store the phones' U.K.-origin firmware are programmed in Singapore, prior to being incorporated into the transceiver boards assembled in Malaysia. The application board is assembled and programmed in Malaysia. The phones are then assembled in Singapore, as described in Scenario I.

As in Scenario I, we find that the country where the last substantial transformation takes place is Malaysia, which is the country of origin of the phones.

Marking

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or its container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States, the English name of the country of origin of the article. Congressional intent in enacting 19 U.S.C. § 1304 was "that the ultimate purchaser should be able to know by an inspection of the marking on the imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will." *United States v. Friedlander & Co.*, 27 C.C.P.A. 297 at 302; C.A.D. 104 (1940).

Part 134, CBP Regulations (19 C.F.R. § 134) implements the country of origin marking requirements and exceptions of 19 U.S.C. § 1304. Section 134.1(b), CBP Regulations (19 C.F.R. § 134.1(b)),

defines "country of origin" as "the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the 'country of origin' within the meaning of [the marking laws and regulations]." For country of origin marking purposes, a substantial transformation of an article occurs when it is used in manufacture, which results in an article having a name, character, or use differing from that of the article before the processing. However, if the manufacturing or combining process is merely a minor one that leaves the identity of the article intact, a substantial transformation has not occurred. See *Uniroyal, Inc. v. United States*, 3 Ct. Int'l Trade 220, 543 F. Supp. 1026, 1029 (1982), *aff'd*, 702 F.2d 1022 (Fed. Cir. 1983).

In Scenarios I, II, and VI, the country where the last substantial transformation occurs is Malaysia. Accordingly, in these scenarios the country of origin for marking purposes is Malaysia, and the phones may be marked "Made in Malaysia". In Scenarios III through V, the country where the last substantial transformation takes place is Singapore. Therefore, in these scenarios the country of origin for marking purposes is Singapore, and the phones may be marked "Made in Singapore". Your suggested marking, "Substantially Transformed in [country]", would be confusing to the ultimate purchaser.

HOLDING:

Based on the facts of this case, we find that in Scenarios I, II and VI, the country where the last substantial transformation takes place is Malaysia. The country of origin of the Iridium 9555 satellite phones is Malaysia for purposes of U.S. Government procurement and country of origin marking.

In Scenarios III through V, the country where the last substantial transformation takes place is Singapore. The country of origin of the Iridium 9555 satellite phones is Singapore for purposes of U.S. Government procurement and country of origin marking.

Notice of this final determination will be given in the Federal Register, as required by 19 C.F.R. § 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 C.F.R. § 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 C.F.R.

§ 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the Court of International Trade.

Sincerely,
Sandra L. Bell,
Executive Director, Regulations and Rulings Office of International Trade.

[FR Doc. 2011-19559 Filed 8-1-11; 8:45 am]

BILLING CODE P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-R5-R-2009-N184; BAC-4311-K9-S3]

Nantucket National Wildlife Refuge, Nantucket, MA; Draft Comprehensive Conservation Plan, Land Protection Plan, and Environmental Assessment

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce the availability of a draft comprehensive conservation plan (CCP), including a land protection plan (LPP), and environmental assessment (EA) for Nantucket National Wildlife Refuge (NWR) for public review and comment. The draft CCP/EA describes our proposal for managing the refuge for the next 15 years.

DATES: To ensure consideration, please send your written comments by September 1, 2011. We will hold at least one public meeting in Nantucket, MA, during the public comment period to receive comments and provide information on the draft plan. We will also announce opportunities for public input in local news media, our project mailing list, and on our regional planning Web site: <http://www.fws.gov/northeast/planning/nantucket/ccp.html>.

ADDRESSES: You may submit comments or requests for copies or more information by any one of the following methods. You may request hard copies or a CD-ROM of the documents.

E-mail: northeastplanning@fws.gov. Include "Nantucket NWR draft CCP/EA" in the subject line of the message.

Fax: Attention: Carl Melberg, 978-443-2898.

U.S. Mail: Eastern Massachusetts NWR Complex, 73 Weir Hill Road, Sudbury, MA 01776.

In-Person Drop-off, Viewing, or Pickup: Call 978-443-4661 to make an

appointment (necessary for view/pickup only) during regular business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Carl Melberg, Planning Team Leader, 978-443-4661, extension 32 (phone); northeastplanning@fws.gov (e-mail).

SUPPLEMENTARY INFORMATION:

Introduction

With this notice, we continue the CCP process for Nantucket NWR, on Nantucket Island in the Town of Nantucket, Massachusetts. We started this process through a notice in the **Federal Register** (73 FR 18806; April 7, 2008).

Nantucket NWR was established in 1973, under an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes (16 U.S.C. 667b, Pub. L. 80-537), which authorized the U.S. Coast Guard (USCG) to transfer the property to the Service, because of "its particular value in carrying out the Migratory Bird Act." The USCG currently maintains ownership of a 1-acre inholding on the refuge that contains the Great Point Lighthouse. Nantucket NWR lies at the northern tip of a narrow peninsula that forms the northernmost point of Nantucket Island. The tip is known locally as "Great Point," and the peninsula is known as the "Coskata-Coatue Peninsula." The only way visitors can access the refuge by land is via a road through The Trustees of Reservations' (TTOR) Coskata-Coatue Refuge and Nantucket Conservation Foundation (NCF) properties, both of which lie due south of the refuge on the peninsula.

The refuge erodes and accretes constantly, but averages 20 acres in size. The refuge is a barrier beach system, where two longshore currents meet to form a rip current and dynamically erode and/or build the spit. The refuge is composed of beach and dune habitat that serves the needs of a wide diversity of water and land birds of conservation concern, including seabirds, colonial nesting birds such as common and roseate terns, shorebirds such as piping plover and oystercatcher, and marine mammals such as gray seals. Nantucket NWR is one of eight refuges in the Eastern Massachusetts NWR Complex.

Background

The CCP Process

The National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee) (Refuge Administration Act), as amended by the National Wildlife Refuge System Improvement Act of 1997, requires us to develop a CCP for each national wildlife refuge.

The purpose for developing a CCP is to provide refuge managers with a 15-year plan for achieving refuge purposes and contributing toward the mission of the National Wildlife Refuge System (NWRS), consistent with sound principles of fish and wildlife management, conservation, legal mandates, and our policies. In addition to outlining broad management direction or conserving wildlife and their habitats, CCPs identify wildlife-dependent recreational opportunities available to the public, including opportunities for hunting, fishing, wildlife observation and photography, and environmental education and interpretation. We will review and update the CCP at least every 15 years in accordance with the Refuge Administration Act.

Public Outreach

The extensive planning history for this refuge began with the publication of a notice in the **Federal Register** (64 FR 9166; February 24, 1999) announcing we were preparing a CCP and environmental impact statement (EIS) for all eight refuges in what was then known as the Great Meadows NWR Complex. In 2001, we determined it was not feasible to prepare a single CCP for all eight refuges, and thus prepared another notice in the **Federal Register** (66 FR 10506; February 15, 2001), to indicate that a CCP/EIS would be prepared for Monomoy, Nantucket, and Nomans Land Island NWRs. However, no work was initiated on the plan at that time. In 2008, because of the different issues facing the refuges, the Service determined it was more efficient to proceed through the CCP process for each refuge separately, and published a notice in the **Federal Register** (73 FR 18806; April 7, 2008) to begin a separate CCP/EA process for Nantucket NWR. At that time, and throughout the process, we requested public comments and considered and incorporated them in numerous ways.

The CCP planning team consisted of Service staff from refuges, planning, visitor services, migratory bird, and endangered species, as well as representatives from the Massachusetts Division of Fisheries and Wildlife, the Wampanoag Tribe of Gay Head (Aquinnah) (WTOGHA), and the Mashpee Wampanoag Tribe (MWT). Partner and public meetings were held during October 2008. Attendees to the partner and public meetings included the Service, WTOGHA, MWT, TTOR, NCF, Massachusetts Audubon, Nantucket Anglers Club, Maria Mitchell Association, Nantucket Civic League, Nantucket Land Council, Nantucket

Wetlands Board, and numerous unaffiliated individuals.

Issues from the public comment period focused on maintaining a balance between resource protection and beach access, increasing education and interpretation of the resources, increasing communications about management decisions, and cooperating in land management with adjacent land managers. Other issues included potential effects on public recreation by the presence of seals, staffing and enforcement needs, determining compatibility for recreational uses, creating a protocol for cultural resource protection, and planning for future land acquisition opportunities. We have considered and evaluated all of these comments, and have addressed many of them by incorporating them into the various alternatives in the draft CCP/EA.

CCP Alternatives We Are Considering

Our draft CCP/EA includes a full description of each issue noted above. To address these issues, we developed and evaluated the following alternatives in the draft CCP/EA, summarized below.

Alternative A (Current Management)

This alternative is the "No Action" alternative required by the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*). Alternative A defines our current management activities, and serves as the baseline against which to compare the other alternatives. This alternative describes current refuge programs on approximately 20 acres for habitat management, fish and wildlife inventories and monitoring, administrative infrastructure and staffing, and visitor services. Under this alternative, TTOR would continue to provide on-site management of Nantucket NWR, and the Service would continue its passive management role and minimal presence on the refuge. The remote location of the refuge, along with limited staffing and funding resources, restricts our ability to maintain a consistent presence, or to actively oversee and implement management actions. Instead, we would continue to coordinate with TTOR for installing symbolic fencing and implementing beach closures to protect breeding and staging birds and seal haulout sites on the refuge.

Under alternative A, the Service would maintain oversight, but visitor services programs would continue to be implemented primarily by partners, such as TTOR. The Service's role has not been visible, and many visitors are unaware that the tip of Great Point is a NWR. Priority public uses, such as wildlife observation, photography,

environmental education, interpretation, and fishing, are currently allowed on the refuge and would continue where beach access is permitted. Hunting is the only priority public use that is not allowed on the refuge due to the refuge's small size and types of habitat.

In this alternative, refuge staffing would remain at current levels stationed at the Eastern Massachusetts NWR Complex headquarters in Sudbury, Massachusetts. We would continue discussions to pursue a partnership agreement with TTOR, which would include resource management, visitor use, and shared funding sources to help contribute to refuge operations.

Alternative B (Enhanced Wildlife and Visitor Services) (Service-Preferred Alternative)

Alternative B is the alternative our planning team proposes to recommend to our Regional Director for implementation. It includes an array of management actions that, in our professional judgment, work best towards achieving the refuge's purposes, vision, and goals, and would make an important contribution to conserving Federal trust resources of concern. This alternative provides the most appropriate level and type of management for Service staff managing the eight refuges in the Eastern Massachusetts NWR Complex. We believe this is the most reasonable, feasible, and practicable alternative.

This alternative describes increased Service management and presence over the next 15 years on the 20-acre refuge, and on the additional 1,790 acres proposed for Service acquisition from willing sellers in fee or easement, as funding and staffing levels permit. Additionally, it strives to provide a balance between habitat and species conservation and public use and access. We would increase our presence on the refuge to both implement and monitor habitat management actions, and provide higher quality opportunities for the five priority public uses currently allowed. It would also enhance partnerships with local conservation organizations and civic groups.

Under this alternative, the Service would take a more active role in habitat and species management on the refuge, targeting the protection of dynamic coastal beach and dune systems and the avian and mammalian species that rely on them for critical nesting, resting, foraging, and staging habitat. The additional protection proposed would likely result in access restrictions and/or closures on the refuge during certain seasons or in some years. Species

management would follow Federal piping plover recovery guidelines and State plover and tern guidelines, and would benefit other species such as nesting American oystercatchers. In the late summer/early fall, we would provide additional habitat protection for staging terns from vehicular and pedestrian disturbance. We would also continue to work closely with TTOR, NCF, and our other partners to accomplish these management actions with an emphasis on landscape-level conservation and more consistent management between peninsula partners.

The Service would pursue acquisition of Federal (excess and surplus) land, including the old USCG Long Range Navigation and Federal Aviation Administration facilities, as well as easements and acquisitions from willing sellers on key parcels on the Coskata-Coatue Peninsula on or near Nantucket Island, to further enhance landscape-level conservation. A draft LPP, which requires Director's approval before it can be implemented, is included as Appendix G.

Under alternative B, we would also increase priority public-use opportunities, with an emphasis on fishing, wildlife observation, environmental education, and interpretation, which would be accomplished by working with partners. Subject to funding availability, we would conduct a study to evaluate alternative means of transporting people to the refuge without the use of individual vehicles. A primitive foot trail is proposed from the lighthouse to the refuge's eastern beach for pedestrian and fishing access. We would also explore the opportunity to install a webcam on the lighthouse, and facilitate outreach opportunities and activities for visitors and residents of Nantucket Island to highlight the Service's role as a steward of natural resources.

Under alternative B, we propose a level of staffing that meets the minimum requirements for a refuge of this complexity by adding a part-time, year-round visitor services specialist and a full-time biologist stationed on Nantucket Island, and a new law enforcement officer stationed at Monomoy NWR in Chatham, Massachusetts.

Alternative C (Wildlife Diversity and Natural Processes Emphasis)

This alternative would focus on managing for wildlife diversity and natural coastal processes. It would emphasize species and habitat protection on the refuge through actions such as not allowing over-sand vehicles

(OSV) over most of the refuge during April 1 through September 15. This would be implemented to minimize disturbance to nesting and migrating birds, and to reduce the impacts on macroinvertebrates, vegetative communities, and dune structure and function. Staff would monitor and evaluate nesting success and productivity for priority bird species of conservation concern.

Alternative C includes expansion of current management and staffing over the next 15 years on the refuge. It would also involve targeted fee and easement acquisition of excess and surplus Federal lands and other key conservation properties on Nantucket Island as opportunities arise.

Visitor services would be the same as under alternative B, except for the longer, more restrictive OSV closure zones from April 1 through September 15 each year. Also, the Service would collaborate with partners to disseminate information on this seasonal OSV restriction on the refuge.

Similar to alternative B, this alternative proposes a joint visitor facility with TTOR and NCF, a kiosk and interpretive panels, and a trail through the refuge with a viewing platform and/or photo blind. Also similar to alternative B, we would explore the opportunity to install a webcam on the lighthouse, and facilitate outreach opportunities and activities for visitors and residents of Nantucket Island to highlight the Service's role as a steward of natural resources.

Public Availability of Documents

In addition to any methods in **ADDRESSES**, you can view or obtain documents on our regional planning Web site: <http://www.fws.gov/northeast/planning/nantucket/ccphome.html>.

Public Meetings

We will hold at least one public meeting during the public comment period. For more information on the meeting schedule, contact the person under **FOR FURTHER INFORMATION CONTACT**.

Next Steps

After this comment period ends, we will analyze the comments and address them in the form of a final CCP and finding of no significant impact.

Public Availability of Comments

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may

be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Dated: May 20, 2011.

Wendi Weber,

*Acting Regional Director, Northeast Region,
U.S. Fish and Wildlife Service, Hadley,
Massachusetts.*

[FR Doc. 2011-19503 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLMT926000-L19100000-BJ0000-
LRCME0R04762]

Notice of Filing of Plats of Survey; Montana

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of filing of plats of survey.

SUMMARY: The Bureau of Land Management (BLM) will file the plat of survey of the lands described below in the BLM Montana State Office, Billings, Montana, on September 1, 2011.

DATES: Protests of the survey must be filed before September 1, 2011 to be considered.

ADDRESSES: Protests of the survey should be sent to the Branch of Cadastral Survey, Bureau of Land Management, 5001 Southgate Drive, Billings, Montana 59101-4669.

FOR FURTHER INFORMATION CONTACT: Marvin Montoya, Cadastral Surveyor, Branch of Cadastral Survey, Bureau of Land Management, 5001 Southgate Drive, Billings, Montana 59101-4669, telephone (406) 896-5124 or (406) 896-5009, Marvin_Montoya@blm.gov. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 to contact the above individual during normal business hours. The FIRS is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION: This survey was executed at the request of the Bureau of Indian Affairs, Rocky Mountain Region, Billings, Montana, and was necessary to determine individual and tribal trust lands.

The lands we surveyed are:

Principal Meridian, Montana

T. 27 N., R. 47 E.

The plat, in one sheet, representing the dependent resurvey of a portion of the subdivisional lines, a portion of the subdivision of section 30, the adjusted original meanders of the former left bank of the Missouri River, downstream, through section 30, the left bank of a relicted channel of the Missouri River, in front of section 30, and certain division of accretion and partition lines, the subdivision of section 30, and the survey of the left bank and the medial line of a relicted channel of the Missouri River, in front of section 30, and a certain partition line, Township 27 North, Range 47 East, Principal Meridian, Montana, was accepted July 25, 2011.

We will place a copy of the plat, in one sheet, and related field notes we described in the open files. They will be available to the public as a matter of information. If the BLM receives a protest against this survey, as shown on this plat, in one sheet, prior to the date of the official filing, we will stay the filing pending our consideration of the protest. We will not officially file this plat, in one sheet, until the day after we have accepted or dismissed all protests and they have become final, including decisions or appeals.

Authority: 43 U.S.C. Chap. 3.

James D. Claflin,

*Chief Cadastral Surveyor, Division of
Resources.*

[FR Doc. 2011-19455 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-DN-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLORV00000.L10200000.DD0000; HAG 11-
0296]

Notice of Public Meeting, Southeast Oregon Resource Advisory Council

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of public meeting.

SUMMARY: Pursuant to the Federal Land Policy and Management Act and the Federal Advisory Committee Act, the U.S. Department of the Interior, Bureau of Land Management (BLM) Southeast Oregon Resource Advisory Council (RAC) will meet as indicated below.

DATES: The meetings will be held on September 7, 2011 and September 8, 2011.

ADDRESSES: The meetings will take place at the Sunridge Inn, 1 Sunridge Lane, Baker City, Oregon 97814.

FOR FURTHER INFORMATION CONTACT:

Mark Wilkening, 100 Oregon Street, Vale, Oregon 97918, (541) 473-6218 or e-mail mwilkeni@blm.gov. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 to contact the above individual during normal business hours. The FIRS is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION:

The meetings will be held at the Sunridge Inn Conference Room, 1 Sunridge Lane, Baker City, Oregon. On September 7, the meeting will be held from 8 a.m. to 5 p.m. Pacific Daylight Time (PDT). This will be a joint meeting of the Southeast Oregon and the John Day-Snake RACs. Topics may include: Oregon Department of Fish and Wildlife Sage-grouse Plan, Blue Mountains Forest Plan revisions, Wilderness Characteristics Inventories, Power/Energy Transmission options, BLM Vegetation EA step down to the Districts and other matters as may reasonably come before the RAC. On September 8, the meeting will be held from 8:30 a.m. to 4:30 p.m. PDT. Topics may include: Vale District Cultural Inventories; Federal manager reports on litigation, energy projects, and other issues affecting their districts/units; and other matters as may reasonably come before the RAC. The public is welcome to attend all portions of the meetings and may make oral comments to the RAC at 1:15 p.m. on September 7, 2011 and/or at 1 p.m. on September 8, 2011.

Those who verbally address the RAC are asked to provide a written statement of their comments or presentation. Unless otherwise approved by the RAC Chair, the public comment period will last no longer than 15 minutes, and each speaker may address the RAC for a maximum of five minutes. If reasonable accommodation is required, please contact the BLM Vale District Office at (541) 473-6218 as soon as possible. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we

cannot guarantee that we will be able to do so.

Larry Frazier,

BLM Vale Associate District Manager.

[FR Doc. 2011-19435 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-33-P

DEPARTMENT OF THE INTERIOR

Bureau Of Land Management

[LLORP00000.L10200000.PI0000; HAG 11-0295]

Notice of Public Meeting, John Day-Snake Resource Advisory Council

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Public Meeting.

SUMMARY: Pursuant to the Federal Land Policy and Management Act and the Federal Advisory Committee Act, the U.S. Department of the Interior, Bureau of Land Management (BLM) John Day-Snake Resource Advisory Council (RAC) will meet as indicated below:

DATES: The RAC meeting will be held on September 7, 2011 and September 8, 2011.

ADDRESSES: A joint meeting of the John Day-Snake and the Southeast Oregon RACs will be held at 1 Sunridge Lane, Baker City, Oregon, on September 7, 2011. The John Day-Snake RAC will also hold a business meeting at The Always Welcome Inn, 175 Campbell Street, Baker City, Oregon, on September 8, 2011.

FOR FURTHER INFORMATION CONTACT: Mark Wilkening, 100 Oregon Street, Vale, Oregon 97918, (541) 473-6218 or e-mail mwilkeni@blm.gov. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 to contact the above individual during normal business hours. The FIRS is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION: The September 7 meeting will be held from 8 a.m. to 5 p.m. Pacific Daylight Time (PDT) at the Sunridge Inn. Topics may include: The Oregon Sage-grouse Plan, Blue Mountains Forest Plan revision, BLM District's Vegetation EA stepdown, Wilderness Characteristics Inventories, Power/Energy Transmission options, and other matters as may reasonably come before the RACs. The September 8 meeting will be held from 8:30 a.m. to 4:30 p.m. PDT at the Always

Welcome Inn. Topics may include Vale District Cultural Inventories, updates by Federal managers on litigation, energy projects, and other issues affecting their districts/units; and other matters as may reasonably come before the Council. All RAC meetings are open to the public; time is set aside for oral comments at 1:15 p.m. on September 7, 2011, and at 1 p.m. on September 8, 2011. Those who verbally address the RAC are asked to provide a written statement of their presentation. Unless otherwise approved by the RAC Chair, the public comment period will last no longer than 15 minutes; each speaker may address the RAC for a maximum of five minutes. If reasonable accommodation is required, please contact the BLM Vale District Office at (541) 473-6218 as soon as possible. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, please be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Larry Frazier,

BLM Vale Associate District Manager.

[FR Doc. 2011-19438 Filed 8-1-11; 8:45 am]

BILLING CODE: 4310-33-P

DEPARTMENT OF THE INTERIOR

National Park Service

[4240-CEBE-409]

Record of Decision

AGENCY: National Park Service, Interior.

ACTION: Notice of Availability of the Record of Decision on the General Management Plan/Environmental Impact Statement for Cedar Creek and Belle Grove National Historic Park.

SUMMARY: Pursuant to the National Environmental Policy Act of 1969, as amended [42 U.S.C. 4332(2)(C)], the National Park Service (NPS) announces the availability of the Record of Decision for the General Management Plan/Environmental Impact Statement (GMP/EIS) for Cedar Creek and Belle Grove National Historic Park (NHP) in Frederick, Shenandoah, and Warren Counties, Virginia. The Regional Director, Northeast Region, approved the Record of Decision for the GMP/EIS, selecting Action Alternative D, the NPS preferred alternative, as described in the Final GMP/EIS issued on January 21,

2011. The Record of Decision (ROD) includes a statement of the decision made, a synopsis of other alternatives considered, the basis for the decision, a description of the environmentally preferable alternative, a finding on impairment of park resources and values, a listing of measures to minimize environmental harm, and an overview of public involvement in the decision-making process. The approved General Management Plan will guide long-term management of Cedar Creek and Belle Grove NHP. As soon as practicable, the NPS will begin to implement the selected alternative.

FOR FURTHER INFORMATION CONTACT:

Diann Jacox, Superintendent, Cedar Creek and Belle Grove National Historical Park, 7718 1/2 Main Street, Middletown, Virginia 22645, (540) 868-9176.

SUPPLEMENTARY INFORMATION:

Cedar Creek and Belle Grove NHP was created by Congress in December 2002 to help preserve, protect, and interpret a nationally significant Civil War landscape and antebellum plantation; to tell the rich story of Shenandoah Valley history; to preserve historic, natural, cultural, military, and scenic resources; and to serve as a focal point within the Shenandoah Valley Battlefields National Historic District. Cedar Creek and Belle Grove NHP is a partnership park, currently with limited property in federal ownership, that works collaboratively with other entities who provide the foundation for protecting, preserving, and interpreting park resources by virtue of their ownership of significant acreage within the park, their commitment to a shared preservation ethic, their willingness to provide visitor services and public access, and their consent to manage their property as part of the national historical park.

The approved general management plan provides the NPS and key partners with the necessary framework to guide the management of the park for the next 15 to 20 years. This is the first general management plan for the park; it is intended to be a useful, long-term decision-making tool, providing a logical and trackable rationale for decisions about protection and public use of park resources.

The Final GMP/EIS presented and evaluated four management alternatives developed around the need to define an appropriate role for the NPS at the park. Among the alternatives considered, Action Alternative D, the selected alternative, best protects the diversity of park resources while also maintaining a range of quality visitor experiences.

The selected alternative will enable visitors to experience the park at an NPS developed and managed visitor center and at visitor focal areas owned and managed by the NPS and key partners. The NPS and the key partners will coordinate interpretive programs at these sites. Visitors will access the park via auto-touring routes and an extensive system of non-motorized trails that provide opportunities for interpretation and recreation, connect focal areas, and tie to communities and resources outside the park. The NPS and the key partners will develop a coordinated land protection plan focused on acquisition of cultural landscapes, sensitive natural resource areas, and lands providing connections between NPS and key partner properties. The NPS and the key partners will have formal agreements that define responsibilities for special projects, programs, events, and specific park operations.

This decision is the result of a public planning process that began in 2005. Between 2005 and 2008, prior to the release of the Draft GMP/EIS, NPS staff met with and briefed representatives from numerous agencies and organizations about the GMP and NPS's future plans Cedar Creek and Belle Grove NHP. Additional public involvement activities followed the release of the Draft GMP/EIS and a detailed analysis of public comments received and NPS responses are provided in Appendix F of the Final GMP/EIS.

Copies of the Record of Decision may be obtained from the above contact or online at <http://parkplanning.nps.gov/cebe>.

Dated: April 15, 2011.

Dennis R. Reidenbach,

Regional Director, Northeast Region, National Park Service.

[FR Doc. 2011-19520 Filed 8-1-11; 6:45 am]

BILLING CODE 4310-AR-P

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

Agency Information Collection Activities Under OMB Review; Renewal of a Currently Approved Collection (OMB Control Number 1006-0028)

AGENCY: Bureau of Reclamation, Interior.

ACTION: Notice and request for comments.

SUMMARY: The Bureau of Reclamation has forwarded the following Information Collection Request (ICR) to the Office of Management and Budget (OMB) for review and approval: Recreation Visitor Use Surveys. The ICR describes the nature of the information collection and its expected cost burden.

DATES: OMB has up to 60 days to approve or disapprove this information collection, but may respond after 30 days; therefore, public comment must be received on or before September 1, 2011.

ADDRESSES: Please send your comments to the Desk Officer for the Department of the Interior at the Office of Management and Budget, Office of Information and Regulatory Affairs, via facsimile to (202) 395-5806, or e-mail to OIRA_DOCKET@omb.eop.gov. A copy of your comments should also be directed to the Bureau of Reclamation, Attention: Jerome Jackson (84-53000), P.O. Box 25007, Denver, CO 80225-0007, or directed via e-mail to jljackson@usbr.gov. Please reference OMB No. 1006-0028 in your comments.

FOR FURTHER INFORMATION CONTACT: For further information or a copy of the proposed forms, contact Jerome Jackson at the above address, or at (303) 445-2712.

SUPPLEMENTARY INFORMATION:

Title: Recreation Visitor Use Surveys.

Abstract: The Bureau of Reclamation is responsible for recreation development at all of its reservoirs.

Presently, there are 289 designated recreation areas on our lands within the 17 Western States. We must be able to respond to emerging trends, changes in the demographic profile of users, changing values, needs, wants and desires, and conflicts between user groups. Statistically valid and up-to-date data derived from the user is essential to developing and providing recreation programs relevant to today's visitor.

The required 60-day comment period for the Recreation Visitor Use Surveys was initiated by a notice published in the **Federal Register** on March 22, 2011 (76 FR 15997). One comment regarding the surveys was received on March 22, 2011. The comment suggested that the surveys are expensive, a waste of time, should not be conducted more often than every 5 years, or defunded and alleviated. However, implementation of the survey is in compliance with the Federal Lands Recreation Enhancement Act (REA), Public Law 108-447, enacted on December 8, 2004. The 11 surveys are each designed to enhance visitor satisfaction of Reclamation recreation areas and response to the surveys is completely voluntary.

Frequency: One time survey.

Respondents: Respondents to the surveys will be members of the public engaged in recreational activities on our lands. The surveys target people engaged in specific activities such as boating on a specific lake/river, or people camping at a developed campground. Visitors will primarily consist of local residents, people from large metropolitan areas in the vicinity of the lake/river, and visitors from out of state.

Estimated Total Number of Respondents: 6,141.

Estimated Number of Responses per Respondent: 1.0.

Estimated Total Number of Annual Responses: 6,141.

Estimated Total Annual Burden on Respondents: 2,044.

ESTIMATE OF BURDEN FOR EACH FORM

Survey instrument	Burden estimate per survey (in minutes)	Number of surveys (times/yr.)	Number of respondents per survey	Total Estimated number of respondents	Total Annual hour burden
Marina Survey	20	2	278	556	185
Campground Survey	25	2	278	556	232
River Instream Flow Survey	25	2	278	556	232
Reservoir Preferred Water Level Survey	25	2	278	556	232
Lake and River Visit Expenditure Survey	15	2	278	556	139
Recreation Activities Survey	25	2	278	556	232
Recreation Management Survey	20	2	278	556	185
Recreation Fee Survey	10	1	581	581	97
Recreation Development Survey	10	2	278	556	93
Water Level Impact on Recreation Boating Use Survey	20	2	278	556	185

ESTIMATE OF BURDEN FOR EACH FORM—Continued

Survey instrument	Burden estimate per survey (in minutes)	Number of surveys (times/yr.)	Number of respondents per survey	Total Estimated number of respondents	Total Annual hour burden
River Recreation Quality Survey	25	2	278	556	232
Totals				6,141	2,044

In addition, there are an estimated 1,575 number of contacts who will not respond.

These nonrespondents account for 13 total burden hours per year.

Comments

Comments are invited on:

(a) Whether the proposed collection of information is necessary for the proper performance of our functions, including whether the information will have practical use;

(b) The accuracy of our burden estimate for the proposed collection of information, including the validity of the methodology and assumptions used;

(c) Ways to enhance the quality, usefulness, and clarity of the information to be collected; and

(d) Ways to minimize the burden of the collection of information on respondents.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Reclamation will display a valid OMB control number on the forms.

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Dated: July 26, 2011.

Roseann Gonzales,

Director, Policy and Administration,

[FR Doc. 2011-19514 Filed 8-1-11; 8:45 am]

BILLING CODE 4310-MN-P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 701-TA-382 and 731-TA-798-803 (Second Review)]

Stainless Steel Sheet and Strip From Germany, Italy, Japan, Korea, Mexico, and Taiwan

Determination

On the basis of the record¹ developed in the subject five-year reviews, the United States International Trade Commission (Commission) determines, pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C.1675(c)), that revocation of the antidumping duty orders on stainless steel sheet and strip from Germany, Italy, and Mexico² would not be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time and that revocation of the countervailing duty order on stainless steel sheet and strip from Korea and revocation of the antidumping duty orders on stainless steel sheet and strip from Japan, Korea, and Taiwan³ would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

Background

The Commission instituted this review on June 1, 2010 (75 FR 30437) and determined on September 7, 2010 that it would conduct a full review (75 FR 59744, September 28, 2010). Notice of the scheduling of the Commission's review and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission,

¹ The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

² Commissioner Charlotte R. Lane dissenting with respect to stainless steel sheet and strip from Germany, Italy, and Mexico, and Commissioner Dean A. Pinkert dissenting with respect to stainless steel sheet and strip from Mexico.

³ Chairman Deanna Tanner Okun and Commissioner Daniel R. Pearson dissenting with respect to stainless steel sheet and strip from Japan, Korea, and Taiwan.

Washington, DC, and by publishing the notice in the **Federal Register** on December 27, 2010 (75 FR 81308). The hearing was held in Washington, DC, on May 25, 2011, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission transmitted its determination in these reviews to the Secretary of Commerce on July 27, 2011. The views of the Commission are contained in USITC Publication 4244 (July 2011), entitled *Stainless Steel Sheet and Strip From Germany, Italy, Japan, Korea, Mexico, and Taiwan: Investigation Nos. 701-TA-382 and 731-TA-798-803 (Second Review)*.

Issued: July 27, 2011.

By order of the Commission.

James R. Holbein,

Secretary to the Commission.

[FR Doc. 2011-19475 Filed 8-1-11; 8:45 am]

BILLING CODE 7020-02-P

INTERNATIONAL TRADE COMMISSION

Notice of Receipt of Complaint; Solicitation of Comments Relating to the Public Interest

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has received a complaint entitled *In Re Certain Light-Emitting Diodes and Products Containing Same*, DN 2837; the Commission is soliciting comments on any public interest issues raised by the complaint.

FOR FURTHER INFORMATION CONTACT:

James R. Holbein, Secretary to the Commission, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone (202) 205-2000. The public version of the complaint can be accessed on the Commission's electronic docket (EDIS) at <http://edis.usitc.gov>, and will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S.

International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone (202) 205-2000.

General information concerning the Commission may also be obtained by accessing its Internet server (<http://www.usitc.gov>). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at <http://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission has received a complaint filed on behalf of LG Electronics Inc. and LG Innotek Co., Ltd. on July 27, 2011. The complaint alleges violations of section 337 of the Tariff Act of 1930 (19 U.S.C. 1337) in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain light-emitting diodes and products containing same. The complaint names as respondents OSRAM GmbH of Germany; OSRAM Sylvania Inc. of MA; and OSRAM Opto Semiconductors GmbH of Germany.

The complainant, proposed respondents, other interested parties, and members of the public are invited to file comments, not to exceed five pages in length, on any public interest issues raised by the complaint. Comments should address whether issuance of an exclusion order and/or a cease and desist order in this investigation would negatively affect the public health and welfare in the United States, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, or United States consumers.

In particular, the Commission is interested in comments that:

- (i) Explain how the articles potentially subject to the orders are used in the United States;
- (ii) identify any public health, safety, or welfare concerns in the United States relating to the potential orders;
- (iii) indicate the extent to which like or directly competitive articles are produced in the United States or are otherwise available in the United States, with respect to the articles potentially subject to the orders; and
- (iv) indicate whether Complainant, Complainant's licensees, and/or third party suppliers have the capacity to replace the volume of articles potentially subject to an exclusion order and a cease and desist order within a commercially reasonable time.

Written submissions must be filed no later than by close of business, five business days after the date of publication of this notice in the **Federal Register**. There will be further opportunities for comment on the public interest after the issuance of any final initial determination in this investigation.

Persons filing written submissions must file the original document and 12 true copies thereof on or before the deadlines stated above with the Office of the Secretary. Submissions should refer to the docket number ("Docket No. 2837") in a prominent place on the cover page and/or the first page. The Commission's rules authorize filing submissions with the Secretary by facsimile or electronic means only to the extent permitted by section 201.8 of the rules (see Handbook for Electronic Filing Procedures, http://www.usitc.gov/secretary/fed_reg_notices/rules/documents/handbook_on_electronic_filing.pdf). Persons with questions regarding electronic filing should contact the Secretary (202-205-2000).

Any person desiring to submit a document to the Commission in confidence must request confidential treatment. All such requests should be directed to the Secretary to the Commission and must include a full statement of the reasons why the Commission should grant such treatment. See 19 CFR 201.6. Documents for which confidential treatment by the Commission is properly sought will be treated accordingly. All nonconfidential written submissions will be available for public inspection at the Office of the Secretary.

This action is taken under the authority of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and of sections 201.10 and 210.50(a)(4) of the Commission's Rules of Practice and Procedure (19 CFR 201.10, 210.50(a)(4)).

Issued: July 27, 2011.

By order of the Commission.

James R. Holbein,
Secretary to the Commission.

[FR Doc. 2011-19474 Filed 8-1-11; 8:45 am]

BILLING CODE 7020-02-P

DEPARTMENT OF JUSTICE

[OMB Number 1105-0052]

Agency Information Collection Activities: Proposed Collection; Comments Requested: Extension of a Currently Approved Collection; Claims Under the Radiation Exposure Compensation Act

ACTION: 60-Day Notice of Information Collection Under Review.

The Department of Justice (DOJ), Civil Division, will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted for "sixty days" until October 3, 2011. This process is conducted in accordance with 5 CFR 1320.10.

Written comments concerning this information collection should be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Attn: DOJ Desk Officer. The best way to ensure your comments are received is to e-mail them to oir_submission@omb.eop.gov or fax them to 202-395-7285. All comments should reference the 8 digit OMB number for the collection or the title of the collection. If you have questions concerning the collection, please contact the Radiation Exposure Compensation Program, ATTN: Dianne Spellberg, U.S. Department of Justice, P.O. Box 146, Ben Franklin Station, Washington, DC 20044-0146 or the DOJ Desk Officer at 202-395-3176.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
 - Enhance the quality, utility, and clarity of the information to be collected; and
 - Minimize the burden of the collection of information on those who are to respond, including through the

use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* Extension of a currently approved collection.

(2) *Title of the Form/Collection:* Claims Under the Radiation Exposure Compensation Act.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* Form Number: N/A. DOJ Component: Civil Division

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: Individuals or households. Abstract: Information is collected to determine whether an individual is entitled to compensation under the Radiation Exposure Compensation Act.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* It is estimated that there will be 2,000 respondents annually, and each respondent will require 2.5 hours to complete the information collection.

(6) *An estimate of the total public burden (in hours) associated with the collection:* There are an estimated 5,000 total annual burden hours associated with this collection.

If additional information is required contact: Jerri Murray, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street, NE, Room 2E-508, Washington, DC 20530.

Jerri Murray,
Department Clearance Officer, PRA, U.S.
Department of Justice.

[FR Doc. 2011-19442 Filed 8-1-11; 8:45 am]

BILLING CODE 4410-12-P

DEPARTMENT OF JUSTICE

Notice of Lodging of Stipulated Order Under the Clean Water Act

Notice is hereby given that on July 22, 2011, a proposed Stipulated Order in *United States v. Government of the Virgin Islands et al.*, No. 84-104, was lodged with the United States District Court for the District of the Virgin Islands. On March 11, 2010, the United States filed an emergency motion in this action requesting that the Court order

the Virgin Islands Waste Management Authority ("VIWMA") and the Government of the Virgin Islands ("VI") (collectively the "Defendants") to (a) Immediately cease the unlawful discharge of raw sewage into the ocean as a result of the failure of the Figtree Pump Station located on St. Croix, and (b) implement repairs at the Figtree Pump Station, the Barren Spot Pump Station, also located on St. Croix, and the Cancryn Pump Station, located on St. Thomas. On March 18, 2010, the Court issued an order for short-term relief. The United States, VIWMA, and the VI have now stipulated to a further Order that provides additional relief with respect to the emergency motion. Pursuant to the Stipulated Order, the Defendants have agreed, among other things, to: (a) Place \$300,000 into a revolving fund to be used if needed for the emergency repair or replacement of failed pumps or other equipment in the wastewater collection system operated by VIWMA, (b) have at least two house pumps and an emergency backup pump available at the Figtree, Barren Spot, LBJ, and Lagoon Street pump stations located on St. Croix, as well as at the Cancryn pump station located on St. Thomas, within 180 days of the date of the Court's approval of the Stipulated Order, (c) develop and implement a comprehensive Collection System Emergency Response Plan, (d) develop and implement a comprehensive Collection System Operation and Maintenance Plan, and (e) implement six capital projects at a total cost of about \$7 million (improvements to the Barren Spot, Lagoon Street, Figtree and LBJ pump stations located on St. Thomas and to the Cancryn pump station located on St. Croix, as well as repair of the Krause Lagoon sewer line located on St. Croix), a portion of which may be paid for with federal grant funds.

For a period of thirty days from the date of this publication, the Department of Justice will receive and consider comments relating to the Consent Decree. All comments must be received by the Department of Justice within this thirty-day period. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and either e-mailed to pubcomment-ees.enrd@usdoj.gov or mailed to P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044, and should refer to *United States v. Government of the Virgin Islands et al.*, No. 84-104 (D.V.I.) and D.J. Ref. No. 90-5-1-1-1911A. A copy of any comments should be sent to Donald G. Frankel, Senior Counsel, Department of

Justice, Environmental Enforcement Section, One Gateway Center, Suite 616, Newton, MA 02458, or e-mailed to donald.frankel@usdoj.gov.

The Stipulated Order may be examined at the Office of the United States Attorney, District of the Virgin Islands, Federal Building and United States Courthouse, 5500 Veterans Drive, Suite 260, Charlotte Amalie, St. Thomas, Virgin Islands 00802-6424 (contact Joycelyn Hewlett at 617-748-3100). During the public comment period, the Stipulated Order may also be examined on the following Department of Justice website, http://www.usdoj.gov/enrd/Consent_Decrees.html. A copy of the Stipulated Order may also be obtained by mail from the Consent Decree Library, P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044-7611, or by faxing or e-mailing a request to Tonia Fleetwood (tonia.fleetwood@usdoj.gov), fax no. (202) 514-0097, phone confirmation number (202) 514-1547. In requesting a copy of the Stipulated Order from the Consent Decree Library, please enclose a check in the amount of \$7.50 (25 cents per page reproduction cost) payable to the U.S. Treasury (if the request is by fax or e-mail, forward a check to the Consent Decree library at the address stated above).

Ronald G. Gluck,

Assistant Section Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2011-19453 Filed 8-1-11; 8:45 am]

BILLING CODE 4410-15-P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[OMB Number 1117-NEW]

Agency Information Collection Activities: Proposed Collection; Comments Requested: Red Ribbon Week Patch DEA Form 316 and 316A

ACTION: 30-Day Notice of Information Collection under Review.

The Department of Justice (DOJ), Drug Enforcement Administration (DEA) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** Volume 76, Number 106, Pages

31988–31989, June 2, 2011, allowing for a 60 day comment period.

The purpose of this notice is to allow for an additional 30 days for public comment until September 1, 2011. This process is conducted in accordance with 5 CFR 1320.10.

If you have comments, especially on the estimated public burden or associated response time, suggestions, or need a copy of the proposed information collection instrument with instructions or additional information, please contact Eric Akers, Chief, Demand Reduction Section, 8701 Morrisette Drive, Springfield, VA 22152; (202) 307-7988.

Written comments concerning this information collection should be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Attn: DOJ Desk Officer. The best way to ensure your comments are received is to email them to oir_submission@omb.eop.gov or fax them to (202) 395-7285. All comments should reference the eight-digit OMB number for the collection or the title of the collection. If you have questions concerning the collection, please contact Eric Akers, Chief, Demand Reduction Section, 8701 Morrisette Drive, Springfield, VA 22152, (202) 307-7988, or the DOJ Desk Officer at (202) 395-3176.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
 - Enhance the quality, utility, and clarity of the information to be collected; and
 - Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of Information Collection 1117-00XX:

(1) *Type of Information Collection:* New collection.

(2) *Title of the Form/Collection:* Intent to Participate and Red Ribbon Week Patch Activity Report.

(3) *Agency form number, if any, and the applicable component of the Department sponsoring the collection:*

Form number: DEA Form 316 and DEA Form 316A.

Component: Office of Congressional and Public Affairs, Drug Enforcement Administration, Department of Justice.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:*

Primary: Individuals and households.

Other: None.

Abstract: The Drug Enforcement Administration requests the information from Boy/Girl Scout Troop Leaders that express an interest in participating in DEA Red Ribbon Week activities. This information is then used to mail patches to participants indicating completion of the suggested activities.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* It is estimated that 200 persons will complete the DEA-316, Intent to Participate, at 2 minutes per form, for an annual burden of 6.6 hours. It is estimated that 500 persons will complete the DEA-316A, Red Ribbon Week Patch Activity Report, at 10 minutes per form, for an annual burden of 83.3 hours.

(6) *An estimate of the total public burden (in hours) associated with the collection:* It is estimated that there are 89.9 annual burden hours associated with this collection.

If additional information is required contact: Jerri Murray, Department Clearance Officer, Policy and Planning Staff, Justice Management Division, Department of Justice, Two Constitution Square, 145 N Street, NE., Suite 2E-508, Washington, DC 20530.

Jerri Murray,

Department Clearance Officer, PRA, U.S. Department of Justice.

[FR Doc. 2011-19454 Filed 8-1-11; 8:45 am]

BILLING CODE 4410-09-P

DEPARTMENT OF JUSTICE

Office of Justice Programs

National Institute of Justice

[OMB Number 1121-NEW]

Agency Information Collection Activities; Proposed Collection; Comments Requested: Understanding Trends in Hate Crimes Against Immigrants and Hispanic Americans

ACTION: 60-Day Notice of Information Collection Under Review.

The Department of Justice (DOJ), National Institute of Justice (NIJ) and Office of Justice Programs (OJP) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted for sixty days until October 3, 2011. This process is conducted in accordance with 5 CFR 1320.10.

Written comments concerning this information collection should be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Attn: DOJ Desk Officer. The best way to ensure your comments are received is to e-mail them to oir_submission@omb.eop.gov or fax them to 202-395-7285. All comments should reference the 8 digit OMB number for the collection or the title of the collection. If you have questions concerning the collection, please call Carrie Mulford at 202-307-2959 or the DOJ Desk Officer at 202-395-3176.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of

appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* New Collection.

(2) *Title of the Form/Collection:* Understanding Trends in Hate Crimes Against Immigrants and Hispanic Americans.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* Form Number: N/A. National Institute of Justice, Office of Justice Programs.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: Law enforcement chiefs and sheriffs. Secondary: Patrol officers, directors of advocacy organizations for immigrants, and clients of immigration advocacy organizations. While there has been great progress in understanding and measuring hate crime, many fundamental questions remain unanswered. To address these questions, we are employing a multi-method analysis of hate crime in the United States with a special focus on trends in crimes against Hispanic Americans and others perceived to be immigrants. The first phase of the project, already complete, involved gathering and analyzing relevant secondary data sets. Phase two of the project will involve a survey of a sample

of 500 police departments, focus groups with law enforcement personnel and NGOs addressing hate crime in five selected sites, and interviews with expert law enforcement practitioners, trainers and researchers.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* We hope to gather 500 responses to the law enforcement survey. Agencies selected for the survey will be based on a disproportionate stratified random sample design with oversampling of agencies serving populations over 50,000. Further, we estimate that we will conduct about 20 focus groups, each time with about eight individuals, and at least 60 individual interviews. The table below shows the estimated number of respondents for each portion of data collection.

LAW ENFORCEMENT SURVEY

State	Arizona	California	Michigan	New Jersey	Texas
Police Chiefs	64	174	79	82	101
Focus Groups					
Patrol Officers	16	16	16	16	16
Clients of NGOs	16	16	16	16	16
Law Enforcement	6	6	6	6	6
NGO directors	6	6	6	6	6

The law enforcement survey will take about 30 minutes to complete. Each of the focus groups will last for approximately one hour. Individual

interviews will last between 30 minutes and one hour.

(6) *An estimate of the total public burden (in hours) associated with the*

collection: There are an estimated 470 annual total public burden hours associated with this collection.

Task	Estimated time (minutes)	Total participants	Total minutes per task
Law Enforcement Survey	30	500	15,000
Focus Groups	60	160	9,600
Interviews	60	60	3,600
Total			28,200 (= 470 hours)

If additional information is required contact: Jerri Murray, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street, NE., Room 2E-508, Washington, DC 20530.

Jerri Murray,

Department Clearance Officer, U.S. Department of Justice.

[FR Doc. 2011-19431 Filed 8-1-11; 8:45 am]

BILLING CODE 4410-18-P

DEPARTMENT OF JUSTICE

National Institute of Justice

[OMB Number 1121-NEW]

Agency Information Collection Activities: Proposed Collection; Comments Requested Survey of the Interoperability of Automated Fingerprint Identification Systems Regarding Latent Fingerprint Exchange

ACTION: 60-Day Notice of Information Collection Under Review.

The Department of Justice (DOJ), National Institute of Justice (NIJ), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted for "sixty days" until October 3, 2011. This process is conducted in accordance with 5 CFR 1320.10.

Written comments concerning this information collection should be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Attn: DOJ Desk Officer. The best way to ensure your comments are received is to email them to oir_submission@omb.eop.gov or fax them to 202-395-7285. All comments should reference the 8 digit OMB number for the collection or the title of the collection. If you have questions concerning the collection, please call Mark E. Greene at 202-305-9630 or the DOJ Desk Officer at 202-395-3176.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—Evaluate whether the proposed collection of information is necessary

for the proper performance of the functions of the agency, including whether the information will have practical utility;

- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* Establishment survey and initial approval of collection.

(2) *Title of Form/Collection:* Latent Fingerprint Interoperability Survey.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* Form Number: None. National Institute of Justice, Office of Justice Programs, Department of Justice.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: State and Local law enforcement agencies with Automated Fingerprint Identification Systems (AFIS). The proposed collection is the only effort that provides an ability to establish the level of interoperability of automated fingerprint identification systems maintained by State and Local law enforcement agencies regarding the electronic exchange of latent fingerprints to support criminal investigations. This collection will enable NIJ; Federal, State, Local, and Tribal law enforcement and government administrators; legislators; and researchers; to understand the technology and policy barriers to local, regional, and national interoperability from the perspective of State and Local criminal investigations requiring the exchange of latent fingerprints across jurisdictional boundaries. Information collected in the core survey and survey addenda will provide critical data on the types and functionalities of fielded AFIS systems in State and Local agencies; the current policy agreements among jurisdictions to permit the sharing, exchange, and searching of latent fingerprints electronically; and the technology-related and policy-related impediments regarding the

electronic sharing, exchange, and searching of latent fingerprints across various jurisdictions at the State and Local levels.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* It is estimated that 350 to 400 respondents will complete the core survey and one of two relevant addenda depending on whether the respondent is from a State or Local agency in approximately 60 minutes.

(6) *An estimate of the total public burden (in hours) associated with the collection:* There are an estimated 21,000 to 24,000 total burden hours associated with this collection. If additional information is required contact: Jerri Murray, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street, NE., Room 2E-508, Washington, DC 20530.

Jerri Murray,

Department Clearance Officer, U.S. Department of Justice.

[FR Doc. 2011-19430 Filed 8-1-11; 8:45 am]

BILLING CODE 4410-18-P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Notice of Information Collection

AGENCY: National Aeronautics and Space Administration (NASA).

NOTICE: (11-072).

ACTION: Notice of information collection.

SUMMARY: The National Aeronautics and Space Administration, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995 (Pub. L. 104-13, 44 U.S.C. 3506(c)(2)(A)).

DATES: All comments should be submitted within 30 calendar days from the date of this publication.

ADDRESSES: All comments should be addressed to Lori Parker, National Aeronautics and Space Administration, Washington, DC 20546-0001.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument(s) and instructions should be directed to Lori Parker, NASA Clearance Officer, NASA Headquarters, 300 E Street SW., JF0000, Washington,

DC 20546, (202) 358-1351.
Lori.Parker@nasa.gov.

SUPPLEMENTARY INFORMATION:

I. Abstract

AARIN is application for the public to fly in SSC's restricted air space. The application distributes to the information to the appropriate employees, such as security for badging. The application produces a permit number when it is approved or a notification when it is rejected. At the moment, this process is preformed through a series of emails, whereas AARIN's data will be in an electronic database.

II. Method of Collection

Electronic.

III. Data

Title: Application for Air Range Information and Notification (AARIN).
OMB Number: 2700-XXXX.

Type of Review: Existing collection in use without an OMB control number.

Affected Public: Federal Government; State, Local, or Tribal Government; individuals or households; business or other for-profit; not-for-profit institutions.

Estimated Number of Respondents: 50.

Estimated Number of Responses per Respondent: 1.

Estimated Time Per Response: 1 hour.
Estimated Total Annual Burden Hours: 50 hours.

Estimated Total Annual Cost: \$0.00.

IV. Request for Comments

Comments are invited on: (1) Whether the proposed collection of information is necessary for the proper performance of the functions of NASA, including whether the information collected has practical utility; (2) the accuracy of NASA's estimate of the burden (including hours and cost) of the proposed collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including automated collection techniques or the use of other forms of information technology.

Comments submitted in response to this notice will be summarized and included in the request for OMB approval of this information collection. They will also become a matter of public record.

Lori Parker,

NASA Clearance Officer.

[FR Doc. 2011-19432 Filed 8-1-11; 8:45 am]

BILLING CODE P

NUCLEAR REGULATORY COMMISSION

[Docket No. 72-9 NRC-2010-0188]

Notice of Issuance of Renewed Materials License No. SNM-2504; Department of Energy; Fort St. Vrain Independent Spent Fuel Storage Installation

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of renewal of license.

FOR FURTHER INFORMATION CONTACT:

Christopher Staab, Project Manager, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Telephone: 301-492-3321; fax number: 301-492-3342; e-mail: Christopher.Staab@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued renewed Materials License No. SNM-2504 to the Department of Energy (DOE) for the receipt, possession, transfer, and storage of spent fuel at the Fort St. Vrain (FSV) Independent Spent Fuel Storage Installation (ISFSI), located in Weld County, Colorado. The renewed license authorizes operation of the FSV ISFSI in accordance with the provisions of the renewed license and its Technical Specifications. The renewed license expires on November 30, 2031.

II. Background

By application dated November 10, 2009, as supplemented by DOE letter dated December 23, 2010, DOE requested renewal of its operating license for the FSV ISFSI. DOE requested the renewal of the original ISFSI license for a renewal period of 20 years.

III. Findings

The application for the renewed license complies with the standards and requirements of the Atomic Energy Act of 1954 (the Act), as amended, and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in Title 10 of the *Code of Federal Regulations*, Chapter 1, which are set forth in the license. Public notice of the proposed action and opportunity for hearing regarding the proposed issuance of the renewed license was published in

the **Federal Register** on May 28, 2010 (75 FR 30075).

FOR FURTHER INFORMATION CONTACT:

Supporting documentation is available for inspection online in the NRC Library at: <http://www.nrc.gov/reading-rm/adams.html>. A copy of the license application, dated November 10, 2009, and the staff's Environmental Assessment, dated May 25, 2011, can be found at this site using the Agencywide Documents Access and Management System (ADAMS) Accession Numbers ML093230788 and ML111110339. The staff Notice of Availability of Environmental Assessment and Finding of No Significant Impact for this action was published in the **Federal Register** on May 25, 2011 (76 FR 30399).

Dated at Rockville, Maryland, this 21st day of July, 2011.

For the Nuclear Regulatory Commission,

Michael D. Waters,

Chief, Licensing Branch, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2011-19487 Filed 8-1-11; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[NRC-2011-0006]

Sunshine Federal Register Notice

AGENCY HOLDING THE MEETINGS: Nuclear Regulatory Commission.

DATE: Weeks of August 1, 8, 15, 22, 29, September 5, 2011.

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public and closed.

Week of August 1, 2011

There are no meetings scheduled for the week of August 1, 2011.

Week of August 8, 2011—Tentative

There are no meetings scheduled for the week of August 8, 2011.

Week of August 15, 2011—Tentative

There are no meetings scheduled for the week of August 15, 2011.

Week of August 22, 2011—Tentative

There are no meetings scheduled for the week of August 22, 2011.

Week of August 29, 2011—Tentative

Tuesday, August 30, 2011

9 a.m. Information Briefing on Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Related Activities (Public Meeting)

(Contact: Aida Rivera-Varona, 301-251-4001).

This meeting will be webcast live at the Web address—<http://www.nrc.gov>.

Week of September 5, 2011—Tentative

There are no meetings scheduled for the week of September 5, 2011.

* * * * *

*The schedule for Commission meetings is subject to change on short notice. To verify the status of meetings, call (recording)—(301) 415-1292. Contact person for more information: Rochelle Baval, (301) 415-1651.

* * * * *

The NRC Commission Meeting Schedule can be found on the Internet at: <http://www.nrc.gov/public-involve/public-meetings/schedule.html>.

* * * * *

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If you need a reasonable accommodation to participate in these public meetings, or need this meeting notice or the transcript or other information from the public meetings in another format (e.g. braille, large print), please notify Bill Dosch, Chief, Work Life and Benefits Branch, at 301-415-6200, TDD: 301-415-2100, or by e-mail at william.dosch@nrc.gov. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

* * * * *

This notice is distributed electronically to subscribers. If you no longer wish to receive it, or would like to be added to the distribution, please contact the Office of the Secretary, Washington, DC 20555 (301-415-1969), or send an e-mail to darlene.wright@nrc.gov.

Dated: July 28, 2011.

Rochelle C. Baval,

Policy Coordinator, Office of the Secretary.

[FR Doc. 2011-19624 Filed 7-29-11; 11:15 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[NRC-2009-0568]

NUREG-1934, Nuclear Power Plant Fire Modeling Application Guide (NPP FIRE MAG); Second Draft Report for Comment

AGENCY: Nuclear Regulatory Commission.

ACTION: Announcement of issuance for public comment, availability.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued for public comment a document entitled, NUREG-1934 (EPRI 1023259), "Nuclear Power Plant Fire Modeling Application Guide (NPP FIRE MAG), Second Draft Report for Comment."

DATES: Please submit comments by August 31, 2011. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Please include Docket ID NRC-2009-0568 in the subject line of your comments. Comments submitted in writing or in electronic form will be posted on the NRC Web site and on the Federal rulemaking Web site, <http://www.regulations.gov>. Because your comments will not be edited to remove any identifying or contact information, the NRC cautions you against including any information in your submission that you do not want to be publicly disclosed.

The NRC requests that any party soliciting or aggregating comments received from other persons for submission to the NRC inform those persons that the NRC will not edit their comments to remove any identifying or contact information, and therefore, they should not include any information in their comments that they do not want publicly disclosed. You may submit comments by any one of the following methods:

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for documents filed under Docket ID NRC-2009-0568. Address questions about NRC dockets to Carol Gallagher, telephone: 301-492-3668; e-mail: Carol.Gallagher@nrc.gov.

- *Mail comments to:* Cindy Bladley, Chief, Rules, Announcements, and Directives Branch (RADB), Office of Administration, Mail Stop: TWB-05-B01M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

- *Fax comments to:* RADB at 301-492-3446.

You can access publicly available documents related to this document using the following methods:

- *NRC's Public Document Room (PDR):* The public may examine and have copied, for a fee, publicly available documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

- *NRC's Agencywide Documents Access and Management System*

(ADAMS): Publicly available documents created or received at the NRC are available online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. From this page, the public can gain entry into ADAMS, which provides text and image files of the NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC's PDR reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. NUREG-1934 (EPRI 1023259), "Nuclear Power Plant Fire Modeling Application Guide (NPP FIRE MAG), Second Draft for Comment," is available electronically under ADAMS Accession Number ML11200A097.

- *Federal Rulemaking Web site:* Public comments and supporting materials related to this notice can be found at <http://www.regulations.gov> by searching on Docket ID NRC-2009-0568.

FOR FURTHER INFORMATION CONTACT: David Stroup, Division of Risk Analysis, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Telephone: 301-251-7609; e-mail: David.Stroup@nrc.gov.

SUPPLEMENTARY INFORMATION: The NRC has used risk-informed insights as a part of its regulatory decision-making since the 1990s. In 2002, the National Fire Protection Association (NFPA) issued the first edition of NFPA 805, "Performance-Based Standard for Fire Protection for Light-Water Reactor Electric Generating Plants." In July 2004, NRC amended its fire protection requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.48 to permit existing reactor licensees to voluntarily adopt fire protection requirements contained in NFPA 805 as an alternative to the existing deterministic requirements. One important element in a performance-based analysis is the estimation of the consequences of fire. Fire modeling is one possible approach to determine the impact of postulated fire scenarios in nuclear power plants.

NUREG-1934 (EPRI 1023259) "Nuclear Power Plant Fire Modeling Application Guide (NPP FIRE MAG)" was written as a collaborative effort by NRC's Office of Nuclear Regulatory Research (RES) and the Electric Power Research Institute (EPRI) as a part of the NRC/RES-EPRI Memorandum of Understanding to provide guidance on using fire modeling for nuclear power plant applications. This report will assist both the user performing the

calculation and the reviewers. It includes guidance on selecting appropriate models for a given fire scenario and on understanding the levels of confidence that can be attributed to the model results. In addition, the report discusses the features and limitations of the five fire models documented in NUREG-1824 (EPRI 1011999), "Verification & Validation of Selected Fire Models for Nuclear Power Plant Applications." The report also will form the foundation for future fire model training being developed by RES and EPRI.

The first draft of NUREG-1934 was released in December 29, 2009, for a 60-day public comment period (74 FR 68872). Numerous comments were received, and they have been addressed in this second draft. Because of the extensive interest generated by the first public comment period, the revised draft is being issued for an additional 30-day public comment period.

Dated at Rockville, Maryland, this 22nd day of July, 2011.

For the Nuclear Regulatory Commission,
Richard P. Correia,
 Director, Division of Risk Analysis, Office of Nuclear Regulatory Research.

[FR Doc. 2011-19489 Filed 8-1-11; 8:45 am]

BILLING CODE 7590-01-P

POSTAL REGULATORY COMMISSION

[Docket No. A2011-29; Order No. 772]

Post Office Closing

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: This document informs the public that an appeal of the closing of the Bigelow, Arkansas post office has been filed. It identifies preliminary steps and provides a procedural schedule. Publication of this document will allow the Postal Service, petitioners, and others to take appropriate action.

DATES: *Administrative record due (from Postal Service):* August 10, 2011; *deadline for notices to intervene:* August 22, 2011. See the Procedural Schedule in the **SUPPLEMENTARY INFORMATION** section for other dates of interest.

ADDRESSES: Submit comments electronically by accessing the "Filing Online" link in the banner at the top of the Commission's Web site (<http://www.prc.gov>) or by directly accessing the Commission's Filing Online system at <https://www.prc.gov/prc-pages/filing-online/login.aspx>. Commenters who cannot submit their views electronically should contact the person identified in

the **FOR FURTHER INFORMATION CONTACT** section as the source for case-related information for advice on alternatives to electronic filing.

FOR FURTHER INFORMATION CONTACT: Stephen L. Sharfman, General Counsel, at 202-789-6820 (case-related information) or DocketAdmins@prc.gov (electronic filing assistance).

SUPPLEMENTARY INFORMATION: Notice is hereby given that, pursuant to 39 U.S.C. 404(d), on July 26, 2011, the Commission received a petition for review of the Postal Service's determination to close the post office in Bigelow, Arkansas. The petition was filed by Brad Akridge, Mayor (Petitioner) and is postmarked July 18, 2011. The Commission hereby institutes a proceeding under 39 U.S.C. 404(d)(5) and establishes Docket No. A2011-29 to consider Petitioner's appeal. If Petitioner would like to further explain his position with supplemental information or facts, Petitioner may either file a Participant Statement on PRC Form 61 or file a brief with the Commission no later than August 30, 2011.

Categories of issues apparently raised. Petitioner contends that: (1) The Postal Service failed to adequately consider the economic savings resulting from the closure (*see* 39 U.S.C. 404(d)(2)(A)(iv)); (2) the Postal Service failed to consider whether or not it will continue to provide a maximum degree of effective and regular postal services to the community (*see* 39 U.S.C. 404(d)(2)(A)(iii)); and (3) the Postal Service failed to consider the effect of the closing on the community (*see* 39 U.S.C. 404(d)(2)(A)(i)).

After the Postal Service files the administrative record and the Commission reviews it, the Commission may find that there are more legal issues than those set forth above, or that the Postal Service's determination disposes of one or more of those issues. The deadline for the Postal Service to file the applicable administrative record with the Commission is August 10, 2011. *See* 39 CFR 3001.113. In addition, the due date for any responsive pleading by the Postal Service to this notice is August 10, 2011.

Availability; Web site posting. The Commission has posted the appeal and supporting material on its Web site at <http://www.prc.gov>. Additional filings in this case and participants' submissions also will be posted on the Commission's Web site, if provided in electronic format or amenable to conversion, and not subject to a valid protective order. Information on how to use the Commission's Web site is

available online or by contacting the Commission's webmaster via telephone at 202-789-6873 or via electronic mail at prc-webmaster@prc.gov.

The appeal and all related documents are also available for public inspection in the Commission's docket section. Docket section hours are 8 a.m. to 4:30 p.m., Monday through Friday, except on Federal government holidays. Docket section personnel may be contacted via electronic mail at prc-dockets@prc.gov or via telephone at 202-789-6846.

Filing of documents. All filings of documents in this case shall be made using the Internet (Filing Online) pursuant to Commission rules 9(a) and 10(a) at the Commission's Web site, <http://www.prc.gov>, unless a waiver is obtained. *See* 39 CFR 3001.9(a) and 3001.10(a). Instructions for obtaining an account to file documents online may be found on the Commission's Web site or by contacting the Commission's docket section at prc-dockets@prc.gov or via telephone at 202-789-6846.

The Commission reserves the right to redact personal information which may infringe on an individual's privacy rights from documents filed in this proceeding.

Intervention. Persons, other than the Petitioner and respondent, wishing to be heard in this matter are directed to file a notice of intervention. *See* 39 CFR 3001.111(b). Notices of intervention in this case are to be filed on or before August 22, 2011. A notice of intervention shall be filed using the Internet (Filing Online) at the Commission's Web site unless a waiver is obtained for hardcopy filing. *See* 39 CFR 3001.9(a) and 3001.10(a).

Further procedures. By statute, the Commission is required to issue its decision within 120 days from the date it receives the appeal. *See* 39 U.S.C. 404(d)(5). A procedural schedule has been developed to accommodate this statutory deadline. In the interest of expedition, in light of the 120-day decision schedule, the Commission may request the Postal Service or other participants to submit information or memoranda of law on any appropriate issue. As required by the Commission rules, if any motions are filed, responses are due 7 days after any such motion is filed. *See* 39 CFR 3001.21.

It is ordered:

1. The Postal Service shall file the applicable administrative record regarding this appeal no later than August 10, 2011.

2. Any responsive pleading by the Postal Service to this notice is due no later than August 10, 2011.

3. The procedural schedule listed below is hereby adopted.

4. Pursuant to 39 U.S.C. 505, Emmett Rand Costich is designated officer of the Commission (Public Representative) to

represent the interests of the general public.

5. The Secretary shall arrange for publication of this notice and order in the **Federal Register**.

PROCEDURAL SCHEDULE

July 26, 2011	Filing of Appeal.
August 10, 2011	Deadline for the Postal Service to file the applicable administrative record in this appeal.
August 10, 2011	Deadline for the Postal Service to file any responsive pleading.
August 22, 2011	Deadline for notices to intervene (<i>see</i> 39 CFR 3001.111(b)).
August 30, 2011	Deadline for Petitioners' Form 61 or initial brief in support of petition (<i>see</i> 39 CFR 3001.115(a) and (b)).
September 19, 2011	Deadline for answering brief in support of the Postal Service (<i>see</i> 39 CFR 3001.115(c)).
October 4, 2011	Deadline for reply briefs in response to answering briefs (<i>see</i> 39 CFR 3001.115(d)).
October 11, 2011	Deadline for motions by any party requesting oral argument; the Commission will schedule oral argument only when it is a necessary addition to the written filings (<i>see</i> 39 CFR 3001.116).
November 15, 2011	Expiration of the Commission's 120-day decisional schedule (<i>see</i> 39 U.S.C. 404(d)(5)).

By the Commission.
Shoshana M. Grove,
Secretary.

[FR Doc. 2011-19436 Filed 8-1-11; 8:45 am]

BILLING CODE 7710-FW-P

POSTAL REGULATORY COMMISSION

[Docket No. A2011-31; Order No. 774]

Post Office Closing

AGENCY: Postal Regulatory Commission.
ACTION: Notice.

SUMMARY: This document informs the public that an appeal of the closing of the Minneapolis, North Carolina post office has been filed. It identifies preliminary steps and provides a procedural schedule. Publication of this document will allow the Postal Service, petitioners, and others to take appropriate action.

DATES: *Administrative record due (from Postal Service):* August 10, 2011; *deadline for notices to intervene:* August 22, 2011. *See* the Procedural Schedule in the **SUPPLEMENTARY INFORMATION** section for other dates of interest.

ADDRESSES: Submit comments electronically by accessing the "Filing Online" link in the banner at the top of the Commission's Web site (<http://www.prc.gov>) or by directly accessing the Commission's Filing Online system at <https://www.prc.gov/prc-pages/filing-online/login.aspx>. Commenters who cannot submit their views electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section as the source for case-related information for advice on alternatives to electronic filing.

FOR FURTHER INFORMATION CONTACT: Stephen L. Sharfman, General Counsel, at 202-789-6820 (case-related information) or DocketAdmins@prc.gov (electronic filing assistance).

SUPPLEMENTARY INFORMATION: Notice is hereby given that, pursuant to 39 U.S.C. 404(d), on July 26, 2011, the Commission received a petition for review of the Postal Service's determination to close the post office in Minneapolis, North Carolina. The petition was filed by Ryan Carter (Petitioner) and is postmarked July 19, 2011. The Commission hereby institutes a proceeding under 39 U.S.C. 404(d)(5) and establishes Docket No. A2011-31 to consider Petitioner's appeal. If Petitioner would like to further explain his position with supplemental information or facts, Petitioner may either file a Participant Statement on PRC Form 61 or file a brief with the Commission no later than August 30, 2011.

Categories of issues apparently raised. Petitioner contends that: (1) The Postal Service failed to consider whether or not it will continue to provide a maximum degree of effective and regular postal services to the community (*see* 39 U.S.C. 404(d)(2)(A)(iii)); and (2) the Postal Service failed to consider the effect of the closing on the community (*see* 39 U.S.C. 404(d)(2)(A)(i)).

After the Postal Service files the administrative record and the Commission reviews it, the Commission may find that there are more legal issues than those set forth above, or that the Postal Service's determination disposes of one or more of those issues. The deadline for the Postal Service to file the applicable administrative record with the Commission is August 10, 2011. *See* 39 CFR 3001.113. In addition, the due date for any responsive pleading by the Postal Service to this notice is August 10, 2011.

Availability; Web site posting. The Commission has posted the appeal and supporting material on its Web site at <http://www.prc.gov>. Additional filings in this case and participants'

submissions also will be posted on the Commission's Web site, if provided in electronic format or amenable to conversion, and not subject to a valid protective order. Information on how to use the Commission's Web site is available online or by contacting the Commission's webmaster via telephone at 202-789-6873 or via electronic mail at prc-webmaster@prc.gov.

The appeal and all related documents are also available for public inspection in the Commission's docket section. Docket section hours are 8 a.m. to 4:30 p.m., Monday through Friday, except on Federal government holidays. Docket section personnel may be contacted via electronic mail at prc-dockets@prc.gov or via telephone at 202-789-6846.

Filing of documents. All filings of documents in this case shall be made using the Internet (Filing Online) pursuant to Commission rules 9(a) and 10(a) at the Commission's Web site, <http://www.prc.gov>, unless a waiver is obtained. *See* 39 CFR 3001.9(a) and 3001.10(a). Instructions for obtaining an account to file documents online may be found on the Commission's Web site or by contacting the Commission's docket section at prc-dockets@prc.gov or via telephone at 202-789-6846.

The Commission reserves the right to redact personal information which may infringe on an individual's privacy rights from documents filed in this proceeding.

Intervention. Persons, other than the Petitioner and respondent, wishing to be heard in this matter are directed to file a notice of intervention. *See* 39 CFR 3001.111(b). Notices of intervention in this case are to be filed on or before August 22, 2011. A notice of intervention shall be filed using the Internet (Filing Online) at the Commission's Web site unless a waiver is obtained for hardcopy filing. *See* 39 CFR 3001.9(a) and 3001.10(a).

Further procedures. By statute, the Commission is required to issue its decision within 120 days from the date it receives the appeal. See 39 U.S.C. 404(d)(5). A procedural schedule has been developed to accommodate this statutory deadline. In the interest of expedition, in light of the 120-day decision schedule, the Commission may request that the Postal Service or other participants submit information or memoranda of law on any appropriate

issue. As required by the Commission rules, if any motions are filed, responses are due 7 days after any such motion is filed. See 39 CFR 3001.21.

It is ordered:

1. The Postal Service shall file the applicable administrative record regarding this appeal no later than August 10, 2011.

2. Any responsive pleading by the Postal Service to this notice is due no later than August 10, 2011.

3. The procedural schedule listed below is hereby adopted.

4. Pursuant to 39 U.S.C. 505, Tracy N. Ferguson is designated officer of the Commission (Public Representative) to represent the interests of the general public.

5. The Secretary shall arrange for publication of this notice and order in the **Federal Register**.

PROCEDURAL SCHEDULE

July 26, 2011	Filing of Appeal.
August 10, 2011	Deadline for the Postal Service to file the applicable administrative record in this appeal.
August 10, 2011	Deadline for the Postal Service to file any responsive pleading.
August 22, 2011	Deadline for notices to intervene (see 39 CFR 3001.111(b)).
August 30, 2011	Deadline for Petitioners' Form 61 or initial brief in support of petition (see 39 CFR 3001.115(a) and (b)).
September 19, 2011	Deadline for answering brief in support of the Postal Service (see 39 CFR 3001.115(c)).
October 4, 2011	Deadline for reply briefs in response to answering briefs (see 39 CFR 3001.115(d)).
October 11, 2011	Deadline for motions by any party requesting oral argument; the Commission will schedule oral argument only when it is a necessary addition to the written filings (see 39 CFR 3001.116).
November 16, 2011	Expiration of the Commission's 120-day decisional schedule (see 39 U.S.C. 404(d)(5)).

By the Commission.

Shoshana M. Grove,

Secretary.

[FR Doc. 2011-19472 Filed 8-1-11; 8:45 am]

BILLING CODE 7710-FW-P

POSTAL REGULATORY COMMISSION

[Docket No. A2011-30; Order No. 773]

Post Office Closing

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: This document informs the public that an appeal of the closing of the East Camden Branch, Arkansas post office has been filed. It identifies preliminary steps and provides a procedural schedule. Publication of this document will allow the Postal Service, petitioners, and others to take appropriate action.

DATES: *Administrative record due (from Postal Service):* August 10, 2011; *deadline for notices to intervene:* August 22, 2011. See the Procedural Schedule in the **SUPPLEMENTARY INFORMATION** section for other dates of interest.

ADDRESSES: Submit comments electronically by accessing the "Filing Online" link in the banner at the top of the Commission's Web site (<http://www.prc.gov>) or by directly accessing the Commission's Filing Online system at <https://www.prc.gov/prc-pages/filing-online/login.aspx>. Commenters who cannot submit their views electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section as the source for case-related

information for advice on alternatives to electronic filing.

FOR FURTHER INFORMATION CONTACT:

Stephen L. Sharfman, General Counsel, at 202-789-6820 (case-related information) or DocketAdmins@prc.gov (electronic filing assistance).

SUPPLEMENTARY INFORMATION: Notice is hereby given that, pursuant to 39 U.S.C. 404(d), on July 26, 2011, the Commission received a petition for review of the Postal Service's determination to close the post office in East Camden, Arkansas. The petition was filed by Gene Hill (Petitioner) and is postmarked July 19, 2011. The Commission hereby institutes a proceeding under 39 U.S.C. 404(d)(5) and establishes Docket No. A2011-30 to consider Petitioner's appeal. If Petitioner would like to further explain his position with supplemental information or facts, Petitioner may either file a Participant Statement on PRC Form 61 or file a brief with the Commission no later than August 30, 2011.

Categories of issues apparently raised. Petitioner contends that: (1) The Postal Service failed to adequately consider the economic savings resulting from the closure (see 39 U.S.C. 404(d)(2)(A)(iv)); and (2) there are factual errors contained in the Final Determination.

After the Postal Service files the administrative record and the Commission reviews it, the Commission may find that there are more legal issues than those set forth above, or that the Postal Service's determination disposes of one or more of those issues. The deadline for the Postal Service to file the

applicable administrative record with the Commission is August 10, 2011. See 39 CFR 3001.113. In addition, the due date for any responsive pleading by the Postal Service to this notice is August 10, 2011.

Availability; Web site posting. The Commission has posted the appeal and supporting material on its Web site at <http://www.prc.gov>. Additional filings in this case and participants' submissions also will be posted on the Commission's Web site, if provided in electronic format or amenable to conversion, and not subject to a valid protective order. Information on how to use the Commission's Web site is available online or by contacting the Commission's webmaster via telephone at 202-789-6873 or via electronic mail at prc-webmaster@prc.gov.

The appeal and all related documents are also available for public inspection in the Commission's docket section. Docket section hours are 8 a.m. to 4:30 p.m., Monday through Friday, except on Federal government holidays. Docket section personnel may be contacted via electronic mail at prc-dockets@prc.gov or via telephone at 202-789-6846.

Filing of documents. All filings of documents in this case shall be made using the Internet (Filing Online) pursuant to Commission rules 9(a) and 10(a) at the Commission's Web site, <http://www.prc.gov>, unless a waiver is obtained. See 39 CFR 3001.9(a) and 3001.10(a). Instructions for obtaining an account to file documents online may be found on the Commission's Web site or by contacting the Commission's docket

section at prc-dockets@prc.gov or via telephone at 202-789-6846.

The Commission reserves the right to redact personal information which may infringe on an individual's privacy rights from documents filed in this proceeding.

Intervention. Persons, other than the Petitioner and respondent, wishing to be heard in this matter are directed to file a notice of intervention. See 39 CFR 3001.111(b). Notices of intervention in this case are to be filed on or before August 22, 2011. A notice of intervention shall be filed using the Internet (Filing Online) at the Commission's Web site unless a waiver

is obtained for hardcopy filing. See 39 CFR 3001.9(a) and 3001.10(a).

Further procedures. By statute, the Commission is required to issue its decision within 120 days from the date it receives the appeal. See 39 U.S.C. 404(d)(5). A procedural schedule has been developed to accommodate this statutory deadline. In the interest of expedition, in light of the 120-day decision schedule, the Commission may request the Postal Service or other participants to submit information or memoranda of law on any appropriate issue. As required by the Commission rules, if any motions are filed, responses are due 7 days after any such motion is filed. See 39 CFR 3001.21.

It is ordered:

1. The Postal Service shall file the applicable administrative record regarding this appeal no later than August 10, 2011.
2. Any responsive pleading by the Postal Service to this notice is due no later than August 10, 2011.
3. The procedural schedule listed below is hereby adopted.
4. Pursuant to 39 U.S.C. 505, Emmett Rand Costich is designated officer of the Commission (Public Representative) to represent the interests of the general public.
5. The Secretary shall arrange for publication of this notice and order in the **Federal Register**.

PROCEDURAL SCHEDULE

July 26, 2011	Filing of Appeal.
August 10, 2011	Deadline for the Postal Service to file the applicable administrative record in this appeal.
August 10, 2011	Deadline for the Postal Service to file any responsive pleading.
August 22, 2011	Deadline for notices to intervene (see 39 CFR 3001.111(b)).
August 30, 2011	Deadline for Petitioners' Form 61 or initial brief in support of petition (see 39 CFR 3001.115(a) and (b)).
September 19, 2011	Deadline for answering brief in support of the Postal Service (see 39 CFR 3001.115(c)).
October 4, 2011	Deadline for reply briefs in response to answering briefs (see 39 CFR 3001.115(d)).
October 11, 2011	Deadline for motions by any party requesting oral argument; the Commission will schedule oral argument only when it is a necessary addition to the written filings (see 39 CFR 3001.116).
November 16, 2011	Expiration of the Commission's 120-day decisional schedule (see 39 U.S.C. 404(d)(5)).

By the Commission.

Shoshana M. Grove,
Secretary.

[FR Doc. 2011-19464 Filed 8-1-11; 8:45 am]

BILLING CODE 7710-FW-P

POSTAL REGULATORY COMMISSION

[Docket No. A2011-32; Order No. 775]

Post Office Closing

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: This document informs the public that an appeal of the closing of the Chillicothe, Iowa post office has been filed. It identifies preliminary steps and provides a procedural schedule. Publication of this document will allow the Postal Service, petitioners, and others to take appropriate action.

DATES: *Administrative record due (from Postal Service):* August 10, 2011; *deadline for notices to intervene:* August 22, 2011. See the Procedural Schedule in the **SUPPLEMENTARY INFORMATION** section for other dates of interest.

ADDRESSES: Submit comments electronically by accessing the "Filing Online" link in the banner at the top of the Commission's Web site (<http://www.prc.gov>) or by directly accessing the Commission's Filing Online system at <https://www.prc.gov/prc-pages/filing-online/login.aspx>. Commenters who cannot submit their views electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section as the source for case-related information for advice on alternatives to electronic filing.

FOR FURTHER INFORMATION CONTACT: Stephen L. Sharfman, General Counsel, at 202-789-6820 (case-related information) or DocketAdmins@prc.gov (electronic filing assistance).

SUPPLEMENTARY INFORMATION: Notice is hereby given that, pursuant to 39 U.S.C. 404(d), on July 26, 2011, the Commission received a petition for review of the Postal Service's determination to close the post office in Chillicothe, Iowa. The petition was filed by Jason Van Der Veer (Petitioner) and is postmarked July 19, 2011. The Commission hereby institutes a proceeding under 39 U.S.C. 404(d)(5) and establishes Docket No. A2011-32 to consider Petitioner's appeal. If Petitioner would like to further explain his position with supplemental information or facts, Petitioner may either file a Participant Statement on PRC Form 61 or file a brief with the

Commission no later than August 30, 2011.

Categories of issues apparently raised. Petitioner contends that: (1) The Postal Service failed to consider whether or not it will continue to provide a maximum degree of effective and regular postal services to the community (see 39 U.S.C. 404(d)(2)(A)(iii)); and (2) the Postal Service failed to consider the effect of the closing on the community (see 39 U.S.C. 404(d)(2)(A)(i)).

After the Postal Service files the administrative record and the Commission reviews it, the Commission may find that there are more legal issues than the one set forth above, or that the Postal Service's determination disposes of one or more of those issues. The deadline for the Postal Service to file the applicable administrative record with the Commission is August 10, 2011. See 39 CFR 3001.113. In addition, the due date for any responsive pleading by the Postal Service to this notice is August 10, 2011.

Availability; Web site posting. The Commission has posted the appeal and supporting material on its Web site at <http://www.prc.gov>. Additional filings in this case and participants' submissions also will be posted on the Commission's Web site, if provided in electronic format or amenable to

conversion, and not subject to a valid protective order. Information on how to use the Commission's Web site is available online or by contacting the Commission's webmaster via telephone at 202-789-6873 or via electronic mail at prc-webmaster@prc.gov.

The appeal and all related documents are also available for public inspection in the Commission's docket section. Docket section hours are 8 a.m. to 4:30 p.m., Monday through Friday, except on Federal government holidays. Docket section personnel may be contacted via electronic mail at prc-dockets@prc.gov or via telephone at 202-789-6846.

Filing of documents. All filings of documents in this case shall be made using the Internet (Filing Online) pursuant to Commission rules 9(a) and 10(a) at the Commission's Web site, <http://www.prc.gov>, unless a waiver is obtained. See 39 CFR 3001.9(a) and 3001.10(a). Instructions for obtaining an account to file documents online may be found on the Commission's Web site or by contacting the Commission's docket

section at prc-dockets@prc.gov or via telephone at 202-789-6846.

The Commission reserves the right to redact personal information which may infringe on an individual's privacy rights from documents filed in this proceeding.

Intervention. Persons, other than the Petitioner and respondent, wishing to be heard in this matter are directed to file a notice of intervention. See 39 CFR 3001.111(b). Notices of intervention in this case are to be filed on or before August 22, 2011. A notice of intervention shall be filed using the Internet (Filing Online) at the Commission's Web site unless a waiver is obtained for hardcopy filing. See 39 CFR 3001.9(a) and 3001.10(a).

Further procedures. By statute, the Commission is required to issue its decision within 120 days from the date it receives the appeal. See 39 U.S.C. 404(d)(5). A procedural schedule has been developed to accommodate this statutory deadline. In the interest of expedition, in light of the 120-day

decision schedule, the Commission may request the Postal Service or other participants to submit information or memoranda of law on any appropriate issue. As required by the Commission rules, if any motions are filed, responses are due 7 days after any such motion is filed. See 39 CFR 3001.21.

It is ordered:

1. The Postal Service shall file the applicable administrative record regarding this appeal no later than August 10, 2011.

2. Any responsive pleading by the Postal Service to this notice is due no later than August 10, 2011.

3. The procedural schedule listed below is hereby adopted.

4. Pursuant to 39 U.S.C. 505, Cassandra L. Hicks is designated officer of the Commission (Public Representative) to represent the interests of the general public.

5. The Secretary shall arrange for publication of this notice and order in the **Federal Register**.

PROCEDURAL SCHEDULE

July 26, 2011	Filing of Appeal.
August 10, 2011	Deadline for the Postal Service to file the applicable administrative record in this appeal.
August 10, 2011	Deadline for the Postal Service to file any responsive pleading.
August 22, 2011	Deadline for notices to intervene (see 39 CFR 3001.111(b)).
August 30, 2011	Deadline for Petitioners' Form 61 or initial brief in support of petition (see 39 CFR 3001.115(a) and (b)).
September 19, 2011	Deadline for answering brief in support of the Postal Service (see 39 CFR 3001.115(c)).
October 4, 2011	Deadline for reply briefs in response to answering briefs (see 39 CFR 3001.115(d)).
October 11, 2011	Deadline for motions by any party requesting oral argument; the Commission will schedule oral argument only when it is a necessary addition to the written filings (see 39 CFR 3001.116).
November 16, 2011	Expiration of the Commission's 120-day decisional schedule (see 39 U.S.C. 404(d)(5)).

By the Commission.

Shoshana M. Grove,

Secretary.

[FR Doc. 2011-19502 Filed 8-1-11; 8:45 am]

BILLING CODE 7710-FW-P

SECURITIES AND EXCHANGE COMMISSION

Proposed Collection; Comment Request

Upon Written Request, Copies Available From: Securities and Exchange Commission, Office of Investor Education and Advocacy, Washington, DC 20549-0123.

Extension:

Form 3; OMB Control No. 3235-0104 ; SEC File No. 270-125.

Notice is hereby given that, pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission

("Commission") is soliciting comments on the collection of information summarized below. The Commission plans to submit this existing collection of information to the Office of Management and Budget for extension and approval.

Under Section 16(a) of the Securities Exchange Act of 1934 ("Exchange Act") (15 U.S.C. 78a *et seq.*) every person who is directly or indirectly the beneficial owner of more than 10 percent of any class of any equity security (other than an exempted security) which registered under Section 12 of the Exchange Act (15 U.S.C. 78l), or who is a director or an officer of the issuer of such security (collectively "insiders"), must file a statement with the Commission reporting their ownership. Form 3 (17 CFR 249.103) is an initial statement of beneficial ownership of securities. The information is used for the purpose of disclosing the equity holdings of insiders of reporting companies.

Approximately 29,000 insiders file Form 3 annually and it takes approximately 0.5 hours to prepare for a total of 14,500 annual burden hours.

Written comments are invited on: (a) Whether this proposed collections of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden imposed by the collection of information; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collections of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted in writing within 60 days of this publication.

Please direct your written comments to Thomas Bayer, Director/Chief

Information Officer, Securities and Exchange Commission, c/o Remi Pavlik-Simon, 6432 General Green Way, Alexandria, Virginia 22312; or send an e-mail to: PRA_Mailbox@sec.gov.

Dated: July 27, 2011.

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19457 Filed 8-1-11; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

Proposed Collection; Comment Request

Upon Written Request, Copies Available From: U.S. Securities and Exchange Commission, Office of Investor Education and Advocacy, Washington, DC 20549-0213.

Extension:

Rule 17Ad-17; OMB Control No. 3235-0469; SEC File No. 270-412.

Notice is hereby given that pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission ("Commission") is soliciting comments on the collection of information summarized below. The Commission plans to submit this existing collection of information to the Office of Management and Budget for extension and approval.

- Rule 17Ad-17 Transfer Agents' Obligation to Search for Lost Securityholders.
- Rule 17Ad-17 Brokers and Dealers' Obligation to Search for Lost Securityholders.
- Rule 17Ad-17 Paying Agents' Obligation to Notify Missing Securityholders.

Rule 17Ad-17 (17 CFR 240.17Ad-17) requires approximately 508 registered transfer agents and approximately 5,063 broker-dealers to conduct searches using third party database vendors to attempt to locate lost securityholders. These recordkeeping requirements assist the Commission and other regulatory agencies with monitoring transfer agents and ensuring compliance with the rule.

The staff estimates that the average number of hours necessary for each transfer agent to comply with Rule 17Ad-17 is ten hours annually. The total burden is approximately 5,080 hours annually for all transfer agents (508 transfer agents times 10 hours). The cost of compliance for each individual transfer agent depends on the number of lost securityholder accounts for which it is responsible. Based on information received from transfer agents, we

estimate that the annual cost industry-wide for transfer agents is \$5.08 million (5,080 hours times \$100). The staff estimates that the average number of hours necessary for each broker and dealer to comply with Rule 17Ad-17 is 98.8 hours annually (500,000 searches divided by 5,063 brokers and dealers). The cost of compliance for each broker and dealer will depend on the number of lost securityholder accounts for which it is responsible. The staff estimates that the annual cost industry-wide for brokers and dealers is \$9.88 million (98.8 hours times \$100).

The staff estimates that the average number of hours necessary for each paying agent to comply with Rule 17Ad-17 is 50 hours annually. The total burden is approximately 5,000 hours annually for all paying agents (1,000 paying agents times 50 hours). The cost of compliance for each individual paying agent depends on the number of missing securityholder accounts for which it is responsible. The staff estimates that the annual cost industry-wide for paying agents is \$500,000 (5,000 hours times \$100).

Written comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimates of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted in writing within 60 days of this publication.

Comments should be directed to: Thomas Bayer, Director/Chief Information Officer, Securities and Exchange Commission, c/o Remi Pavlik-Simon, 6432 General Green Way, Alexandria, Virginia 22312 or send an e-mail to: PRA_Mailbox@sec.gov.

Dated: July 28, 2011.

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19531 Filed 8-1-11; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

Proposed Collection; Comment Request

Upon Written Request, Copies Available From: Securities and Exchange Commission, Office of Investor Education and Advocacy, Washington, DC 20549-0123.

Extension:

Form 4 ; OMB Control No. 3235-0287; SEC File No. 270-126.

Notice is hereby given that, pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission ("Commission") is soliciting comments on the collection of information summarized below. The Commission plans to submit this existing collection of information to the Office of Management and Budget for extension and approval.

Under Section 16(a) of the Securities Exchange Act of 1934 ("Exchange Act") (15 U.S.C. 78a *et seq.*) every person who is directly or indirectly the beneficial owner of more than 10 percent of any class of any equity security (other than an exempted security) which registered under Section 12 of the Exchange Act (15 U.S.C. 78l), or who is a director or an officer of the issuer of such security (collectively "insiders"), must file a statement with the Commission reporting their ownership. Form 4 is a statement to disclose changes in an insiders ownership of securities. The information is used for the purpose of disclosing the equity holdings of insiders of reporting companies. Approximately 225,000 insiders file Form 4 annually and it takes approximately 0.5 hours to prepare for a total of 112,500 annual burden hours.

Written comments are invited on: (a) Whether this proposed collections of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden imposed by the collections of information; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collections of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted in writing within 60 days of this publication.

Please direct your written comments to Thomas Bayer, Director/Chief

Information Officer, Securities and Exchange Commission, c/o Remi Pavlik-Simon, 6432 General Green Way, Alexandria, Virginia 22312; or send an e-mail to: PRA_Mailbox@sec.gov.

Dated: July 27, 2011.

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19458 Filed 8-1-11; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

Sunshine Act Meeting

Notice is hereby given, pursuant to the provisions of the Government in the Sunshine Act, Public Law 94-409, that the Securities and Exchange Commission will hold a Closed Meeting on Tuesday, August 2, 2011 at 2 p.m.

Commissioners, Counsel to the Commissioners, the Secretary to the Commission, and recording secretaries will attend the Closed Meeting. Certain staff members who have an interest in the matters also may be present.

The General Counsel of the Commission, or his designee, has certified that, in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552b(c)(5), (7), 9(B) and (10) and 17 CFR 200.402(a)(5), (7), 9(ii) and (10), permit consideration of the scheduled matters at the Closed Meeting.

Commissioner Casey, as duty officer, voted to consider the items listed for the Closed Meeting in a closed session, and determined that no earlier notice thereof was possible.

The subject matter of the Closed Meeting scheduled for Tuesday, August 2, 2011 will be:

- Settlement of injunctive actions;
- Institution and settlement of administrative proceedings; and
- Other matters relating to enforcement proceedings.

At times, changes in Commission priorities require alterations in the scheduling of meeting items.

For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact:

The Office of the Secretary at (202) 551-5400.

Dated: July 29, 2011.

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19648 Filed 7-29-11; 4:15 pm]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-64977; File No. SR-BX-2011-044]

Self-Regulatory Organizations; NASDAQ OMX BX; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Increase the Position Limit for Options on the SPDR®

July 27, 2011.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that, on July 13, 2011, NASDAQ OMX BX (the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Exchange has designated the proposed rule change as constituting a non-controversial rule change under Rule 19b-4(f)(6) under the Act,³ which renders the proposal effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of the Substance of the Proposed Rule Change

The Exchange proposes to amend Chapter III, Section 7 (Position Limits) of the Rules of the Boston Options Exchange Group, LLC ("BOX") to increase the position limit for options on the Standard and Poor's Depository Receipts ("SPDRs®").⁴

Although the proposed rule change would not amend the text of Chapter III, Section 9 of the BOX Rules (Exercise Limits), the proposed change would have the effect of increasing the exercise limits for options on SPDRs®. Chapter III, Section 9 of the BOX Rules establishes exercise limits that are similar to the position limits in Chapter III, Section 7 of the BOX Rules.⁵

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ 17 CFR 240.19b-4(f)(6).

⁴ "SPDRs®", "Standard & Poor's®", "S&P®", "S&P 500®", "Standard & Poor's 500", and "500" are trademarks of The McGraw-Hill Companies, Inc. SPDRs®, also sometimes referred to colloquially as "spiders", are exchange traded funds ("ETFs") based on the S&P 500® Index. Each share of the traditional SPDRs® ETF (SPDRs® Trust Series 1) holds a stake in the 500 stocks represented by the S&P 500®, SPDRs®, and options thereon, are generally used by large institutions and traders as bets on the overall direction of the market. They are also used by individual retail investors who believe in passive management (index investing).

⁵ Index options position limits are established in Chapter XIV, Sections 5 and 6 of the BOX Rules and

The text of the proposed rule change is available at the Exchange's Web site at <http://www.nyse.com>, on the Commission's Web site at <http://www.sec.gov>, at the Exchange's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposal is to amend Supplementary Material .02 to Chapter III, Section 7 of the BOX Rules to increase the position limit applicable to options on SPDRs®, which are trading under the symbol SPY, from 300,000 to 900,000 contracts on the same side of the market.⁶ This proposal is similar to a rule change recently proposed by the NASDAQ OMX PHLX, Inc. ("PHLX").⁷

BOX began trading options on SPDRs® on January 10, 2005. That year, the position limit for these options was increased to the current limit of 300,000 contracts on the same side of the market, and has remained unchanged.⁸

index options exercise limits are established in Chapter XIV, Section 8 of the BOX Rules, and have a relationship similar to that of Chapter III, Section 9 and Chapter III, Section 7 of the BOX Rules.

⁶ By virtue of Chapter III, Section 9 of the BOX Rules, which is not amended by this filing, exercise limits on options on SPDRs® would be similar to position limits established in Chapter III, Section 7 of the BOX Rules.

⁷ See Securities Exchange Act Release No. 64348 (April 27, 2011), 76 FR 24951 (May 3, 2011) (SR-Phlx-2011-58). See also Securities Exchange Act Release No. 64695 (June 17, 2011), 76 FR 36942 (June 23, 2011) (SR-Phlx-2011-58).

⁸ See Securities Exchange Act Release No. 51069 (January 21, 2005), 70 FR 5260 (February 1, 2005) (SR-BSE-2005-05) (approval order increasing position and exercise limits for options on SPDRs® from 75,000 to 300,000 contracts on the same side of the market) (the "last position increase order"). See also Securities Exchange Act Release Nos. 51071 (January 21, 2005), 70 FR 4911 (January 31, 2005) (SR-Phlx-2005-05) (approval order); 51043 (January 14, 2005), 70 FR 3402 (January 24, 2005) (SR-Amex-2005-06) (approval order); 51041

Continued

However, institutional and retail traders have greatly increased their demand for options on SPDRs[®] for hedging and trading purposes, such that these options have experienced an explosive gain in popularity and have been the most actively traded options for the last two years. For example, options on SPDRs[®] (SPY), the most actively traded options in the U.S. in terms of volume, traded a total of 33,341,698 contracts across all exchanges from March 1, 2011 through March 16, 2011. In contrast, over the same time period options on the Nasdaq-100 Index[®] Tracking Stock ("QQQSM"),⁹ the third most actively traded options, traded a total of 8,730,718 contracts (less than 26.2% of the volume of options on SPDRs[®]).

Currently, SPY options have a position limit of only 300,000 contracts on the same side on the market while the significantly lesser-volume QQQSM options, which are comparable to SPY options, have a position limit of 900,000 contracts on the same side of the market. BOX believes that SPY options should, like options on QQQSM, have a position limit of 900,000 contracts. Given the increase in volume and continuous unprecedented demand for trading options on SPDRs[®], BOX believes that the current position limit of 300,000 contracts¹⁰ is entirely too low and inadequate and is a deterrent to the optimal use of the product for hedging and trading purposes. There are multiple reasons to increase the position limit for SPY options.

First, traders generally believe that the current SPY option position limit of 300,000 contracts, which has remained the same for more than five years despite the tremendous trading volume increase, is no longer sufficient for optimal trading and hedging purposes. SPY options are, as noted, used by large institutions and traders as a means to invest in or hedge the overall direction of the market. Second, options on SPDRs[®] are 1/10th the size of options on the S&P 500[®] Index, traded under the symbol SPX. Thus, a position limit of 300,000 contracts in options on SPDRs[®] is equivalent to a 30,000 contract position limit in options on SPX.¹¹ Traders who trade options on

SPDRs[®] to hedge positions in SPX options (and the SPDRs[®] ETF based on SPX, SPDRs[®] Trust Series 1) have indicated that the current position limit for options on SPDRs[®] is simply too restrictive,¹² which may adversely affect their (and BOX's) ability to provide liquidity in this product. And third, the products that are perhaps most comparable to options on SPDRs[®], namely options on QQQSM, are subject to a 900,000 contract position limit on the same side of the market.¹³ This has, in light of the huge run-up in SPY option trading making them the number one nationally ranked option in terms of volume, resulted in a skewed and unacceptable SPY option position limit. Specifically, the position limit for options on SPDRs[®] at 300,000 contracts is but 33% of the position limit for the less active options on QQQSM at 900,000 contracts.¹⁴ The Exchange proposes that options on SPDRs[®] similarly be subject to a position limit of 900,000 contracts.¹⁵

The options reporting requirement would continue unabated. Thus, the Exchange would require that, just like for options on QQQSM, each Options Participant that maintains a position in SPDRs[®] options on the same side of the market, for its own account or for the account of a customer, must report certain information. This information would include, but would not be limited to, the option position, whether such position is hedged and if so, a description of the hedge and if applicable, the collateral used to carry the position. In addition, the general reporting requirement for customer

is no position limit on SPX options. See CBOE Rule 24.4 and Securities Exchange Act Release No. 44994 (October 26, 2001), 66 FR 55722 (November 2, 2001) (SR-CBOE-2001-22) (order approving permanent elimination of SPX options position limit).

¹² See *supra* note 4.

¹³ See Supplementary Material .02 to Chapter III, Section 7 of the BOX Rules and Securities Exchange Act Release No. 51317 (March 3, 2005), 70 FR 12254 (March 11, 2005) (SR-BSE-2005-10) (notice of filing and immediate effectiveness).

¹⁴ Similarly to options on SPDRs[®] (SPY) being 1/10th the size of options on the related index S&P 500[®] Index (SPX), so options on the Nasdaq-100 Index[®] Tracking Stock (QQQSM) are 1/10th the size of options on the related index NASDAQ-100 Index (NDX). The position limit for QQQSM options and its related index NDX have a comparable relationship to that of SPY options and SPX. That is, the position limit for options on QQQSM is 900,000 contracts and there is no positions limit for NDX options. See *supra* note 7 [sic] and Securities Exchange Act Release No. 52650 (October 21, 2005), 70 FR 62147 (October 28, 2005) (SR-CBOE-2001-41) (order approving elimination of NDX options position limit).

¹⁵ The position limit for IWM options on yet another large ETF entitled iShares Russell 2000 Index Fund, (which options have significantly less trading volume than the number one ranked SPY options, as also the QQQSM options) are set at 500,000 contracts.

accounts that maintain an aggregate position of 200 or more option contracts ("large positions") would remain at this level for options on SPDRs[®].¹⁶

BOX believes that position and exercise limits, at their current levels, no longer serve their stated purpose. There has been a steadfast and significant increase over the last decade in the overall volume of exchange-traded options; position limits, however, have not kept up with the volume. Part of this volume is attributable to a corresponding increase in the number of overall market participants, which has, in turn, brought about additional depth and increased liquidity in exchange-traded options.¹⁷

The Exchange believes that the existing surveillance procedures and reporting requirements at the Exchange, other options exchanges, and at the several clearing firms are capable of properly identifying unusual and/or illegal trading activity. These procedures utilize daily monitoring of market movements via automated surveillance techniques to identify unusual activity in both options and underlying stocks.¹⁸

Furthermore, large stock holdings must be disclosed to the Commission by way of Schedules 13D or 13G.¹⁹ Options positions are part of any reportable positions and, thus, cannot be legally hidden. Moreover, the previously noted reporting requirement in Chapter III, Section 10 of the BOX Rules that Options Participants file reports with the Exchange for any customer who held aggregate large long or short positions of any single class for the previous day will continue to serve as an important part of the Exchange's surveillance efforts.

BOX believes that the current financial requirements imposed by the Exchange and by the Commission

¹⁶ For reporting requirements, see Chapter III, Section 10 of the BOX Rules.

¹⁷ The Commission has previously observed that: Since the inception of standardized options trading, the options exchanges have had rules imposing limits on the aggregate number of options contracts that a member or customer could hold or exercise. These rules are intended to prevent the establishment of options positions that can be used or might create incentives to manipulate or disrupt the underlying market so as to benefit the options position. In particular, position and exercise limits are designed to minimize the potential for manipulations and for corners or squeezes of the underlying market. In addition such limits serve to reduce the possibility for disruption of the options market itself, especially in illiquid options classes. See Securities Exchange Act Release No. 39489 (December 24, 1997), 63 FR 276 (January 5, 1998) (SR-CBOE-97-11) (order approving).

¹⁸ These procedures have been effective for the surveillance of SPY options trading and will continue to be employed.

¹⁹ 17 CFR 240.13d-1.

(January 14, 2005), 70 FR 3408 (January 24, 2005) (SR-CBOE-2005-06) (approval order); and 51042 (January 14, 2005), 70 FR 3412 (January 24, 2005) (SR-ISE-2005-05) (approval order).

⁹ QQQSM options were formerly traded under the ticker symbol QQQQSM. QQQSM, Nasdaq-100[®], Nasdaq-100 Index[®], Nasdaq[®], Nasdaq-100 Index Tracking StockSM, and are trademarks or service marks of The Nasdaq Stock Market, Inc. ("Nasdaq").

¹⁰ Supplementary Material .02 to Chapter III, Section 7 of the BOX Rules.

¹¹ Chicago Board Options Exchange, which lists and trades SPX options, has established that there

adequately address concerns that an Options Participant or its customer may try to maintain an inordinately large unhedged position in an option, particularly on SPDRs[®]. Current margin and risk-based haircut methodologies serve to limit the size of positions maintained by any one account by increasing the margin and/or capital that an Options Participant must maintain for a large position held by itself or by its customer. It should also be noted that the Exchange has the authority under Chapter XIII, Section 4(b) of the BOX Rules to impose a higher margin requirement upon a BOX Options Participant when the Exchange determines a higher requirement is warranted. In addition, the Commission's net capital rule, Rule 15c3-1 under the Act,²⁰ imposes a capital charge on Participants to the extent of any margin deficiency resulting from the higher margin requirement.

BOX believes that the position limit increase [sic] on options on QQQsSM, which as noted are similar to options on SPDRs[®] have been gradually increased from 75,000 contracts in 2005 to the current level of 900,000 contracts, and there has been no adverse effects on the market as a result of this increase. Likewise, there have been no adverse effects on the market from the expansion of the position limit for options on SPDRs[®] from 75,000 contracts to the current level of 300,000 contracts.

BOX believes that restrictive option position limits prevent large customers, such as mutual funds and pension funds, from using options to gain meaningful exposure to and hedging protection through the use of options on SPDRs[®]. This can result in lost liquidity in both the options market and the equity market. The proposed position limit increase will remedy this situation to the benefit of large as well as retail traders, investors, and public customers. BOX believes that increasing position and exercise limits for options on SPDRs[®] would lead to a more liquid and competitive market environment for these options and would benefit customers interested in this product.

2. Statutory Basis

The Exchange believes that the proposal is consistent with the requirements of Section 6(b) of the Act,²¹ in general, and furthers the objectives of Section 6(b)(5) of the Act,²² in particular, in that it is designed to

prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, and to remove impediments to and perfect the mechanisms of a free and open market and a national market system. The Exchange is proposing to expand the position limit on options on SPDRs[®]. The Exchange believes that this proposal will be beneficial to large market makers (which generally have the greatest potential and actual ability to provide liquidity and depth in the product), as well as retail traders, investors, and public customers.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the proposed rule change does not (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, provided that the self-regulatory organization has given the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change or such shorter time as designated by the Commission, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act²³ and Rule 19b-4(f)(6) (iii) thereunder.²⁴

A proposed rule change filed under Rule 19b-4(f)(6)²⁵ normally does not

become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b-4(f)(6)(iii),²⁶ the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has requested that the Commission waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest, because increasing position and exercise limits for SPY options would lead to a more liquid and competitive market environment that would benefit customers interested in this product. Additionally, it would allow the Exchange to seamlessly continue to offer traders and the investing public the ability to use this product as an effective hedging and trading vehicle. Lastly, it will enable the Exchange's position and exercise limits for SPDR[®] options to be consistent with those of other exchanges that have already adopted the higher position and exercise limits. Therefore, the Commission designates the proposal operative upon filing.²⁷

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-BX-2011-044 on the subject line.

such shorter time as designated by the Commission. The Commission notes that the Exchange has satisfied this requirement.

²⁰ 17 CFR 240.19b-4(f)(6)(iii).

²⁷ For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

²⁰ 17 CFR 240.15c3-1.

²¹ 15 U.S.C. 78f(b).

²² 15 U.S.C. 78f(b)(5).

²³ 15 U.S.C. 78s(b)(3)(A).

²⁴ 17 CFR 240.19b-4(f)(6).

²⁵ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6)(iii) requires that a self-regulatory organization submit to the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the filing of the proposed rule change, or

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-BX-2011-044. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR-BX-2011-044 and should be submitted on or before August 23, 2011.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁸

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19451 Filed 8-1-11; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-64969; File No. SR-FINRA-2009-028]

Self-Regulatory Organizations; Financial Industry Regulatory Authority, Inc.; Notice of Filing of Amendment No. 1 to Proposed Rule Change To Adopt FINRA Rule 2231 (Customer Account Statements) in the Consolidated FINRA Rulebook

July 26, 2011.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act" or "SEA")¹ and Rule 19b-4 thereunder,² notice is hereby given that on April 22, 2009, Financial Industry Regulatory Authority, Inc. ("FINRA") (f/k/a National Association of Securities Dealers, Inc. ("NASD")) filed with the Securities and Exchange Commission ("SEC" or "Commission") the proposed rule change. The proposed rule change was published for comment in the **Federal Register** on May 21, 2009.³ On July 12, 2011, FINRA filed Amendment No. 1 to the proposed rule change, which addresses the comments and proposes responsive amendments. Amendment No. 1 is described in Items I, II, and III below, which Items have been prepared by FINRA. The Commission is publishing this notice to solicit comments on Amendment No. 1 to the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

FINRA is proposing this Amendment No. 1 to SR-FINRA-2009-028, a proposed rule change to adopt NASD Rule 2340 (Customer Account Statements) as FINRA Rule 2231 in the consolidated FINRA rulebook with moderate changes. The proposed rule change would delete Incorporated NYSE Rule 409 (Statements of Accounts of Customers), except for paragraph (f).⁴

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ Amendment No. 1 to SR-FINRA-2009-028 responds to comments received on the original proposed rule change and proposes amendments to the original rule change pursuant to the comments. See Securities Exchange Act Release No. 59921 (May 14, 2009), 74 FR 23912 (May 21, 2009) ("Notice").

⁴ The SEC approved the deletion of Incorporated NYSE Rule 409(f) in connection with the adoption of FINRA Rule 2232 (Customer Confirmations). See Securities Exchange Act Release No. 63150 (October 21, 2010); 75 FR 66173 (October 27, 2010) (Order Granting Accelerated Approval of Proposed Rule Change, as Modified by Amendment No. 1, To Adopt FINRA Rule 2232 (Customer Confirmations) in the Consolidated FINRA Rulebook and To Delete NASD Rule 2230, NASD IM-2110-6 and

and certain of its related interpretations. FINRA filed SR-FINRA-2009-028 with the Commission on April 22, 2009. On May 21, 2009, the Commission published the proposed rule change for comment in the **Federal Register**⁵ and received 12 comment letters.⁶ Based on the comments received, FINRA is filing this Amendment No. 1 to respond to the comments received and to propose amendments, where appropriate. FINRA requests that the Commission publish Amendment No. 1 in the **Federal Register** to allow interested parties the ability to comment on changes made to the proposal in light of comments.

The text of the proposed rule change is available on FINRA's Web site at <http://www.finra.org>, at the principal office of FINRA and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, FINRA included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements

Incorporated NYSE Rule 409(f). The rule change became effective on June 17, 2011. See *Regulatory Notice* 10-62 (December 2010).

⁵ See Securities Exchange Act Release No. 59921 (May 19, 2009), 74 FR 23912 (May 21, 2009) ("Proposing Release"). The comment period closed on June 11, 2009.

⁶ Letter from Gene Woodham, Chief Operating Officer, Sterne Agee Group, Inc., dated June 9, 2009 ("Sterne Agee Letter"); letter from Tomaro K. Solmon, Senior Associate Counsel, Investment Company Institute, dated June 10, 2009 ("ICI Letter"); letter from Jesse Hill, Director of Regulatory Services, Edward Jones, dated June 10, 2009 ("Edward Jones Letter"); letter from Dole E. Brown, President & CEO, Financial Services Institute, Inc., dated June 11, 2009 ("FSI Letter"); letter from Seon C. Dovy, Managing Director, Corporate Credit Markets Division, Securities Industry and Financial Markets Association (SIFMA), New York, New York, dated June 11, 2009 ("SIFMA Letter"); letter from David J. Peorlinon, Choir, Regulatory Affairs Committee, College Savings Foundation, dated June 11, 2009 ("College Savings Foundation Letter"); letter from John S. Morkle, Deputy General Counsel, Regulatory Operations, TD AMERITRADE Holding Corporation, dated June 11, 2009 ("TD Ameritrade Letter"); letter from Bori Hovlik, Chief Compliance Officer, Senior Vice President, Charles Schwab & Co., Inc., dated June 11, 2009 ("Schwab Letter"); letter from John Muschok, Managing Director, Clearing Services Division, First Southwest Company, dated June 11, 2009 ("First Southwest Company Letter"); letter from Jonathan Feigelson, SVP, General Counsel, TIAA-CREF, New York, New York, dated June 11, 2009 ("TIAA-CREF June Letter"); letter from Sutherland Asbill & Brennan LLP on behalf of the Committee of Annuity Insurers, dated June 11, 2009 ("Sutherland Asbill & Brennan Letter"); and letter from Jonathan Feigelson, SVP, General Counsel, TIAA-CREF, New York, New York, dated June 13, 2009 ("TIAA-CREF July Letter").

²⁸ 17 CFR 200.30-3(a)(12).

may be examined at the places specified in Item IV below. FINRA has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

As part of the process of developing a new consolidated rulebook ("Consolidated FINRA Rulebook"),⁷ FINRA is proposing to adopt NASD Rule 2340 (Customer Account Statements) as FINRA Rule 2231 in the Consolidated FINRA Rulebook with moderate changes. The proposed rule change would delete: (1) Incorporated NYSE Rule 409 (Statements of Accounts of Customers), except for paragraph (f);⁸ and (2) Incorporated NYSE Rule Interpretations 409(a) and 409(b), except for paragraphs 409(a)/01 and 409(a)/03, as such rule and its related interpretations are, in main part, duplicative of NASD Rule 2340. However, as further described herein, the proposed rule change would incorporate certain provisions of Incorporated NYSE Rule 409 and its interpretations into new FINRA Rule 2231.

Rule Filing History

On April 22, 2009, FINRA filed with the Commission SR-FINRA-2009-028, a proposed rule change to adopt FINRA Rule 2231 (Customer Account Statements) in the Consolidated FINRA Rulebook. The proposed rule change would require each general securities member to send account statements at least once each calendar month to each customer whose account had account activity during the period since the last statement was sent to the customer, subject to certain new exceptions proposed in this Amendment No. 1; and at least once every calendar quarter to each customer whose account had a security position or money balance during the period since the last

statement was sent to the customer. The proposed rule change would also continue the exception (subject to specified conditions) for customer accounts carried solely for the purpose of execution on a delivery versus payment/receive versus payment (DVP/RVP) basis.

On May 21, 2009, the SEC published the proposed rule change for comment in the *Federal Register*⁹ and received 12 comment letters.¹⁰ Based on the comments received, FINRA is filing this Amendment No. 1 to respond to the comments received and to propose amendments, where appropriate.

FINRA requests that the Commission publish Amendment No. 1 in the *Federal Register* to allow interested parties the ability to comment on changes made to the proposal in light of comments.

Proposed Changes in Amendment No. 1

In light of the comments, FINRA is proposing to exclude certain account activities from the proposed monthly account statement delivery requirement by adding new paragraph (c) to proposed FINRA Rule 2231. Proposed paragraph (c) of FINRA Rule 2231 would expressly exclude certain account activities from the monthly account statement delivery requirement. These activities would continue to require delivery of quarterly account statements, subject to new proposed Supplementary Material .01 (Compliance with SEA Rule 10b-10) that provides a general reminder that members remain subject to any conditions or requirements specified in any release, interpretation, "no-action" position or exemption issued by the SEC or its staff in the context of SEA Rule 10b-10 (Confirmation of Transactions) that a member may rely on for relief from certain delivery obligations of trade confirmations as specified in such rule (e.g., the manner and frequency of delivering periodic account statements in lieu of immediate trade confirmations) and FINRA Rule 2231 is not intended to alter any such conditions or requirements. FINRA also is proposing to amend proposed Supplementary Material .02 (Transmission of Customer Account Statements to Other Persons or Entities)¹¹ to: (1) Clarify that members are not required to obtain prior written consent to send duplicate account

statements or other communications for accounts of associated persons of another member to such other member in complying with NASD Rule 3050 and Incorporated NYSE Rule 407;¹² (2) clarify (consistent with any SEC release, interpretation, "no-action" position or exemption issued by the SEC or its staff in the context of SEA Rule 10b-10 that have established the policy that customers should continue to receive periodic account statements when not receiving immediate trade confirmations under SEA Rule 10b-10) that members must continue to deliver customer account statements to customers as provided in the proposed rule even when directed by the customer in writing to send duplicates to a third party;¹³ and (3) delete the term "confirmation," from the proposed rule text as delivery requirements for confirmations are governed by SEA Rule 10b-10 and FINRA Rule 2232.¹⁴

Comments to the Proposed Rule Change

The commenters express general support for the proposed rule change, but have concerns with certain aspects of the proposed rule. Most commenters believe the proposal is too broad. Specifically, most of the comments focus on the following two issues: (1) The proposal to change the delivery requirement for customer account statements from quarterly to monthly; and (2) the proposal's potential conflict with SEA Rule 10b-10 and related guidance. Commenters also raised concerns regarding the general utility of customer account statements, potential environmental impact, availability of alternatives, need for written customer consent to transmit customer account statements to third parties, clarification of provisions requiring display of the identity of clearing firms and other issues. In addition, several commenters requested sufficient time to comply with the proposal if it is approved. FINRA discusses its responses to these comments below.

a. General

Three commenters questioned the value of customer account statements generally and stated that the significance of customer account statements has diminished in recent

⁷ The current FINRA rulebook consists of (1) FINRA Rules; (2) NASD Rules; and (3) rules incorporated from NYSE ("Incorporated NYSE Rules") (together, the NASD Rules and Incorporated NYSE Rules are referred to as the "Transitional Rulebook"). While the NASD Rules generally apply to all FINRA members, the Incorporated NYSE Rules apply only to those members of FINRA that are also members of the NYSE ("Dual Members"). The FINRA Rules apply to all FINRA members, unless such rules have a more limited application by their terms. For more information about the rulebook consolidation process, see *Information Notice*, March 12, 2008 (Rulebook Consolidation Process).

⁸ See *supra* note 4.

⁹ See *supra* note 5.

¹⁰ See *supra* note 6.

¹¹ FINRA is proposing to add new Supplementary Material .01 (Compliance with SEA Rule 10b-10) as part of this Amendment No. 1 and has therefore renumbered the other proposed Supplementary Material items.

¹² FINRA is proposing to adopt FINRA Rule 3210 (Personal Securities Transactions for or by Associated Persons), which combines and streamlines certain provisions of NASD Rule 3050 and Incorporated NYSE Rule 407. See *Regulatory Notice* 09-22 (April 2009).

¹³ See Securities Exchange Act Release No. 34962 (November 10, 1994); 59 FR 59612 (November 17, 1994) (Confirmation of Transactions).

¹⁴ See *supra* note 4.

years.¹⁵ Several commenters argue that customer account statements are outdated the day after they are generated and customers now routinely use other up-to-date mediums to review current account activities such as on-line account access, automated phone systems and call centers.¹⁶ In addition, several commenters expressed concern that customer account statements are less effective at helping customers' spot errors, identify theft or other potential problems than these more timely alternatives.¹⁷ One commenter urged FINRA to encourage firms to include disclosure on customer account statements apprising customers of available alternatives for obtaining the most current information.¹⁸ FINRA, however, disagrees with the notion that customer account statements have little or limited utility. FINRA believes that customer account statements continue to serve a significant regulatory purpose and that customers benefit from the receipt of periodic customer account statements.

Several commenters also raised concerns regarding the environmental impact of the proposal.¹⁹ One commenter estimates the proposal will generate 60 million additional pages each year. The commenter estimates that this would be the equivalent of 7,200 trees or 300 tons of paper annually—almost a half of it destined for landfills.²⁰ While FINRA is mindful of the potential impact of its rulemaking on the environment and related burdens on its members, FINRA believes customer account statements serve a significant purpose in protecting customers and enhancing the overall integrity of the securities market. Moreover, consistent with current guidance, FINRA is proposing to adopt Supplementary Material .03 (Use of Electronic Media to Satisfy Delivery Obligations) which allows a firm to provide electronic delivery of customer statements upon affirmative consent of the customer.²¹

¹⁵ See SIFMA Letter, TIAA-CREF June Letter and Schwab Letter.

¹⁶ See TD Ameritrade Letter, TIAA-CREF June Letter and First Southwest Company Letter.

¹⁷ See FSI Letter, TIAA-CREF June Letter and First Southwest Company Letter.

¹⁸ See TIAA-CREF June Letter.

¹⁹ See TIAA-CREF June Letter and First Southwest Company Letter.

²⁰ See TIAA-CREF June Letter.

²¹ SEC guidance to date on the use of electronic media continues to require the affirmative consent of the investor/customer, and FINRA believes such consent should be required for electronic delivery of customer account statements. See *Notice to Members* 98-3 (January 1998). See also Securities Exchange Act Release No. 42728 (April 28, 2000); 65 FR 25843 (May 4, 2000).

b. Proposed Monthly Account Statement Delivery Requirement

1. Monthly Delivery Is Not Industry Standard

As set forth in the Proposing Release, paragraph (a) of the proposed rule would impose a new requirement that each general securities member firm send a customer account statement not less than once every calendar month to each customer whose account had account activity during the period since the last statement, and continue to require that such firms send customer account statements not less than once every calendar quarter to each customer whose account had a security position or money balance during the period since the last statement. All 12 commenters objected to the scope of the proposed monthly delivery requirement.²²

Several commenters state that current industry practice continues to be providing customers with account statements on a quarterly-basis, not monthly.²³ They contend that FINRA offers little support for the statement that requiring monthly account statements for customer accounts with account activity "better reflects current industry practice."²⁴ Another commenter notes that quarterly reporting is the retirement plan industry legal standard and monthly reporting would be at odds with other rules governing the retirement plan industry, including laws enacted by Congress.²⁵

Another commenter notes that although a majority of its customers already receive monthly account statements, some customers have expressed a desire to receive them quarterly and mandatory monthly delivery would be costly.²⁶ Several commenters project that the cost to comply with the new requirement, e.g., to produce, print, stuff and mail additional statements, plus train personnel, would be in the millions.²⁷ One commenter argues that "[s]caling up the member's compliance systems, training programs, personnel, policies

²² See *supra* note 6.

²³ See TIAA-CREF July Letter, SIFMA Letter, TD Ameritrade Letter, FSI Letter and Schwab Letter and Sutherland Asbill & Brennan Letter.

²⁴ *Id.*

²⁵ See TIAA-CREF June Letter.

²⁶ See Schwab Letter.

²⁷ TD Ameritrade estimates the new requirement will increase costs by \$4-\$7 million annually and by tens of millions or more across the industry. TIAA-CREF estimates that the move to monthly statements will cost an additional \$16 million in printing and postage expenses per year, which would be passed on to customers. Edward Jones estimates the cost of monthly account statements in 2009 would have been \$1.5 million.

and procedures, and acquiring the resources necessary for such an undertaking, would impose immense administrative costs and burdens on these firms, and ultimately result in the imposition of increased costs on customers."²⁸ Commenters state that the practical benefits received by investors from monthly statements versus quarterly statements are substantially disproportionate to the inherent cost under a cost benefit analysis.²⁹

One commenter further contends that the proposed move to monthly account statement delivery requirements contradicts the 2008 Rand Study and recent efforts by the SEC to streamline disclosures to investors to make them more user-friendly and readable.³⁰ Another commenter suggests that customers should be permitted to affirmatively elect quarterly delivery of customer account statements with the right to revert to monthly delivery anytime they choose.³¹ Another commenter recommends that firms be able to condition the customer's right to receive monthly statements upon consent to electronic delivery.³²

In light of the comments, FINRA is proposing to exclude certain account activities from the proposed monthly account statement delivery requirement. FINRA believes the proposed exclusions (outlined in detail below) strike the correct balance between investor protection and the concerns raised by the commenters.

2. Monthly Delivery Is Inconsistent With SEA Section 15A

One commenter asserts that the monthly statement requirement is inconsistent with the statutory requirements of Sections 6 and 15A of the SEA and therefore the proposal should not be approved by the SEC.³³ The commenter contends that FINRA's statement on burden on competition in the rule filing is cursory and falls short of satisfying the instructions in Form 19b-4 to provide detailed and specific statements.

FINRA has complied with all rulemaking obligations imposed by the SEA. As required under Section 19(b)(1)

²⁸ See Sutherland Asbill & Brennan LLP Letter.

²⁹ See Sterne Agee Letter, ICI Letter, Edward Jones Letter, FSI Letter, SIFMA Letter, TD Ameritrade Letter, Schwab Letter, First Southwest Company Letter, TIAA-CREF June Letter, Sutherland Asbill & Brennan Letter and TIAA-CREF July Letter.

³⁰ See FSI Letter.

³¹ See Schwab Letter.

³² See TIAA-CREF June Letter.

³³ See TIAA-CREF July Letter. FINRA notes that is not a "national securities exchange" and therefore is not subject to the requirements of Section 6 of the SEA.

of the SEA, FINRA submitted to the SEC a concise general statement of the basis and purpose of the proposed rule. As stated in its rule filing, FINRA believes that the proposed rule change will provide customers with critical information regarding their accounts and will allow them to review their statements in a timely manner, while also clarifying and streamlining the customer account rules for adoption as FINRA rules in the Consolidated FINRA Rulebook. In addition, as also stated in the rule filing, the proposed rule change does not create "a burden on competition not necessary or appropriate in furtherance of the purposes of [the SEA]." ³⁴ Further, FINRA tailors its proposed rule changes as narrowly as possible to achieve the intended and necessary regulatory benefit. In this regard, FINRA notes that, as further detailed below, in response to commenters' concerns, it is proposing to exclude certain account activities from the proposed monthly account statement delivery requirement.

3. Monthly Delivery Creates Potential Conflict With SEA Rule 10b-10

All commenters contend that the adoption of a monthly delivery requirement for customer account statements would cause the proposed rule change to conflict with SEA Rule 10b-10 (Confirmation of Transactions) and its related interpretations and guidance. ³⁵

Several commenters note that SEA Rule 10b-10 generally requires that at, or before, the completion of a securities transaction for a customer, a broker-dealer must deliver to the customer written notification (a "confirmation") that contains certain prescribed information about the transaction. ³⁶ Commenters assert that the more immediate nature of transaction confirmations makes them a very effective tool for customers for identifying discrepancies in a customer's account related to erroneous transactions, identity theft, or other potential problems. ³⁷

All commenters also emphasize that the Commission, through SEA Rule 10b-10(b), rule interpretations, no-action guidance and exemptive relief, has considered the disclosures appropriate for certain types of transactions, balanced risks to investor protection against cost savings for broker-dealers, and determined that it is unnecessary for broker-dealers to send

confirmations of certain transactions if certain information regarding the transactions is disclosed in a quarterly statement. ³⁸ The commenters state that these transactions include, but are not limited to, transactions effected pursuant to a "periodic plan" or "investment company plan," the automatic reinvestment of dividends in the shares of money market funds, other open-end investment companies and unit investment trusts and transactions in certain sorts of "wrap fee" or "payroll deduction" arrangements. ³⁹

In light of the comments, as further detailed below, FINRA is proposing to add new paragraph (c) to exclude certain account activities from the proposed monthly account statement delivery requirement. ⁴⁰

4. Monthly Delivery Creates Potential Conflict With ERISA and Rules Relating to Retirement Plans and MSRB Rules Relating to 529 College Savings Plans

Two commenters are concerned that the proposed monthly delivery requirement for customer account statements will conflict with current quarterly reporting standards in the retirement plan industry. ⁴¹ The commenters note that multiple service providers, including broker-dealers, banks and trust companies, offer services to retirement plan participants. These parties are subject to SEA Rule 10b-10, Section 105 of the Employee Retirement Income Securities Act of 1974, as amended ("ERISA"), and applicable banking regulations. The commenters state that these various regulations recognize quarterly statements and changing the requirement for broker-dealers would add confusion and place broker-dealers at a competitive disadvantage with few, if any, benefits.

Similarly, another commenter is concerned that the proposed monthly delivery requirement is at odds with Rule G-15 of the Municipal Securities Rulemaking Board ("MSRB"), which permits that confirmation of transaction in college savings plan transactions may be done on a quarterly basis provided

that they are part of a regular investment program meeting the definition of "periodic municipal fund security plan" under the applicable MSRB Rules. ⁴² The commenter states the proposed rule would create an anomaly because a broker-dealer would be required to provide a monthly statement under FINRA Rules, but would be permitted under MSRB Rules to provide a quarterly statement. Moreover, they argue that such periodic activity does not seem to be the sort that would lend itself to account security issues and/or identity theft concerns. FINRA notes that nothing in this rule proposal is intended to alter the balance of jurisdiction between FINRA and the MSRB and the continued application of MSRB Rules to municipal fund securities. Further, FINRA believes that proposed paragraph (c) that establishes exceptions from the proposed monthly delivery requirement would generally make the proposed rule consistent with the frequency of delivery requirements in MSRB Rule G-15. ⁴³

5. Carve-Outs From Monthly Delivery Recommended by Commenters

Several commenters recommend that FINRA should permit quarterly account reporting where the only activity in the customer's account consists of (A) certain types of routine activity that does not involve the active participation of the customer ("Passive Activity"); (B) activity that the Commission has determined need only be reported on quarterly account statements rather than in Rule 10b-10 transaction confirmations ("10b-10 Exempt Activity"); and (C) occasional transactions in retirement accounts for which an immediate confirmation is sent to the customer when the predominant activities in such account are either Passive Activity or 10b-10 Exempt Activity. ⁴⁴ In addition, one commenter notes that similar activity with respect to ERISA plans should be exempted as well from the monthly delivery requirements. ⁴⁵ The commenters note that the activities described above are generally routine

³⁸ See *supra* note 6.

³⁹ See SIFMA Letter.

⁴⁰ In proposing the exceptions in new paragraph (c), FINRA reminds firms that they remain subject to any conditions or requirements specified in any release, interpretation, "no-action" position or exemption issued by the SEC or its staff in the context of SEA Rule 10b-10 that a firm may rely on for relief from certain delivery obligations of trade confirmations as specified in such rule (e.g., the manner and frequency of delivering periodic account statements in lieu of immediate trade confirmations) and proposed FINRA Rule 2231 is not intended to alter any such conditions or requirements. See proposed FINRA Rule 2231.01.

⁴¹ See TIAA-CREF June Letter and ICI Letter.

⁴² See College Savings Foundation Letter.

⁴³ See MSRB Rule G-15(a) (Confirmation, Clearance, Settlement and Other Uniform Practice Requirements with Respect to Transactions with Customers), which provides in relevant part that "such broker, dealer or municipal securities dealer gives or sends to such customer within five business days after the end of each quarterly period, in the case of a customer participating in a periodic municipal fund security plan, or each monthly period, in the case of a customer participating in a non-periodic municipal fund security program, a written statement disclosing * * *"

⁴⁴ See SIFMA Letter, FSI Letter, Sutherland Asbill & Brennan Letter and TIAA-CREF June Letter.

⁴⁵ See TIAA-CREF June Letter.

³⁴ See 15 U.S.C. 78o-3(b)(9).

³⁵ See *supra* note 6.

³⁶ See Schwab Letter and SIFMA Letter.

³⁷ See Sutherland Asbill & Brennan Letter.

and recurring activities in a customer's account that are better suited to quarterly reporting. In addition, they state that these routine and regular activities in a customer's account are of the type that typically do not raise fraud and/or identity theft concerns.⁴⁶

6. FINRA Response to Monthly Delivery Comments

In response to the comments raised, FINRA is proposing to add new paragraph (c) to proposed FINRA Rule 2231. Proposed paragraph (c) would expressly exclude certain account activities from the monthly account statement delivery requirement. These activities would continue to require delivery of quarterly account statements, subject to new proposed Supplementary Material .01 (Compliance with SEA Rule 10b-10) that provides a general reminder that members remain subject to any conditions or requirements specified in any release, interpretation, "no-action" position or exemption issued by the SEC or its staff in the context of SEA Rule 10b-10 (Confirmation of Transactions) that a member may rely on for relief from certain delivery obligations of trade confirmations as specified in such rule (e.g., the manner and frequency of delivering periodic account statements in lieu of immediate trade confirmations) and FINRA Rule 2231 is not intended to alter any such conditions or requirements.

Specifically, subject to proposed Supplementary Material .01, a member could send quarterly account statements to customers instead of monthly account statements pursuant to paragraph (a) of the proposed rule if:

(1) The member relies on an appropriate rule, regulation, release, interpretation, "no-action" position or exemption issued by the SEC or its staff that (A) specifically applies to the fact situation of the activity; (B) provides relief from the immediate transaction confirmation delivery requirements of SEA Rule 10b-10; and (C) permits quarterly delivery of customer account statements; or

(2) The activity to the account consists only of the kind listed below:

(A) The receipt of funds in the account that are not directly from a purchase or sale transaction, including the receipt of interest and dividends;

(B) The automatic reinvestment of funds in the account pursuant to and in accordance with a customer's standing instructions (e.g., a dividend reinvestment plan);

(C) The transfer of uninvested customer credit balances into or out of money market mutual funds or bank deposits pursuant to a "sweep program" pursuant to consent of the customer and implemented consistent with applicable regulatory guidance, except where the customer's balance in the bank deposit "sweep program" during the period exceeds the amount insured by the FDIC coverage;

(D) All fees and charges to the account that have been fully disclosed to the customer and comply with all disclosure and applicable regulatory requirements (e.g., account fees, short position charges, interest on debit balances or charges for dividends on securities held short in the account).

(3) A member may rely on an exclusion under this paragraph (c) only if customers are provided access to current information on their accounts via the Internet and by telephone.

FINRA believes the proposed exclusions for these types of account activities are appropriate as they strike the correct balance between investor protection and the concerns raised by the commenters.

c. Proposed Supplementary Material .02 (Transmission of Customer Account Statements to Other Persons or Entities)

Proposed Supplementary Material .02 would require written instructions from the customer to address and/or send customer statements or other communications relating to the customer's account to other persons or entities. One commenter contends that this requirement would conflict with Incorporated NYSE Rule 407 and NASD Rule 3050.⁴⁷ As further detailed therein, these rules generally address the obligation of a member carrying an account in which an associated person of another member has an interest to send duplicate confirmations and account statements to such other member. The commenter seeks clarification that members are not required to obtain the written consent of the customer before sending duplicate statements, confirmations or other communications pursuant to NYSE Rule 407 or NASD Rule 3050. FINRA agrees that compliance with such rules should not be deemed a violation of this provision and is proposing to revise the proposed rule text to make this clear.

Two commenters assert that the proposed rule should allow a customer's oral consent to be sufficient to send a duplicate account statement, confirmation, or other communication, provided that the customer also receives

such account statement, confirmation or other communication and the member relying on such oral consent lists on the customer's (quarterly or monthly) account statement the names of any other persons to whom duplicate communications are being sent.⁴⁸ One of these commenters notes that firms are permitted to accept oral instructions for a variety of customer transactions and contends that customers should be afforded the same level of convenience in this regard so long as the firm has adequate controls in place.⁴⁹ FINRA does not believe that oral instructions are sufficient in this context. Due to several concerns (e.g., identify theft, privacy concerns, etc.), FINRA believes firms must be able to document and record customer consent to send customer account statements to third parties. FINRA has permitted firms to act on oral instructions from customers in other contexts (e.g., trading instructions) largely to allow customer and firms to act expeditiously to execute securities transactions that are time-sensitive in nature. However, the delivery of customer account statements presents no such concerns and therefore should require written customer consent.

Accordingly, in response to comments, FINRA is proposing to amend proposed Supplementary Material .02 to: (1) Clarify that members are not required to obtain prior written consent to send duplicate account statements or other communications for accounts of associated persons of another member to such other member in complying with NASD Rule 3050 and Incorporated NYSE Rule 407; (2) clarify (consistent with any SEC release, interpretation, "no-action" position or exemption issued by the SEC or its staff in the context of SEA Rule 10b-10 that have established the policy that customers should continue to receive periodic account statements when not receiving immediate trade confirmations under SEA Rule 10b-10) that members must continue to deliver customer account statements to customers as provided in the proposed Rule even when directed by the customer in writing to send duplicates to a third party;⁵⁰ and (3) delete the term "confirmation," from the proposed rule text as delivery requirements for confirmations are governed by SEA Rule 10b-10 and FINRA Rule 2232.⁵¹

⁴⁸ See SIFMA Letter and Schwab Letter.

⁴⁹ See Schwab Letter.

⁵⁰ See *supra* note 13.

⁵¹ See *supra* note 4.

⁴⁶ See *supra* note 44.

⁴⁷ See SIFMA Letter. See also *supra* note 12.

d. Proposed Supplementary Material .03 (Use of Electronic Media To Satisfy Delivery Obligations)

One commenter urges FINRA to adopt electronic delivery of customer account statements as the default delivery mechanism.⁵² The commenter argues that electronic delivery provides more timely information to customers and a cost savings to firms. However, another commenter is concerned that requiring individual customers to affirmatively opt for electronic delivery will act to negate these benefits, but notes that further use of electronic delivery methods raises larger issues that FINRA should consider on a more global basis, rather than solely in the context of periodic customer account statements.⁵³ FINRA believes that proposed Supplementary Material .03 is consistent with current SEC guidance on the use of electronic media which, among other things, requires affirmative consent of the customer for electronic delivery of certain documents.⁵⁴

e. Proposed Supplementary Material .04 (Information To Be Disclosed on Statement)

One commenter seeks clarification of the requirements in paragraphs (a) and (b) and contends that the requirements are in conflict.⁵⁵ Proposed paragraph (a) requires disclosure of the identity of the introducing firm and the clearing firm, if different, and their respective contact information on the front of the statement, but allows the identity and contact information of the clearing firm to be appear on the back of the statement so long as it is bold and prominent. Proposed paragraph (b) requires that the front of the statement must clearly disclose that the clearing firm is a member of SIPC. FINRA believes the two provisions are not inconsistent. Proposed paragraph (a) gives firms the option to provide the identity and contact information of the clearing firm on the back of the statement if the firm chooses; it does not require such placement. Proposed paragraph (b) simply requires SIPC disclosure, which can be accomplished either by a general statement or by identifying the clearing firm by name. FINRA believes these provisions allow firms some flexibility in providing this information, while also ensuring that the SIPC status of the clearing firm is disclosed on the front of the statement.

⁵² See TIAA-CREF June Letter.

⁵³ See Sutherland Asbill & Brennan Letter.

⁵⁴ See *supra* note 21.

⁵⁵ See SIFMA Letter.

f. Proposed Supplementary Material .07 (Use of Summary Statements)

One commenter objects to proposed Supplementary Material .07 (as renumbered in this Amendment No. 1) on the Use of Summary Statements.⁵⁶ The supplementary material would require, among other things, that the "beginning and end of each separate statement (e.g., summary, brokerage, mutual fund, banking, insurance, etc.) be clearly distinguishable by color, pagination or other distinct form of demarcation." The commenter asks FINRA to "clarify that the use of prominent disclosure within summary statements that aggregate accounts held or serviced by multiple parties is adequate to satisfy, or may be used in lieu of, [the above set forth requirement]." FINRA believes the term "other distinct form of demarcation," provides firms the flexibility to format summary statements. Firms are not required to place separate statements on separate pages, but are required to format the statements in such a manner as to make them distinguishable on their face. The use of prominent disclosure with footnotes or other distinct forms of demarcation can be sufficient so long as accounts held or serviced by multiple parties are clearly distinguishable. FINRA believes these guidelines are beneficial because they establish standards to provide clarity and reduce confusion to customers when receiving summary statements.

g. Miscellaneous Comments

One commenter seeks clarification on what constitutes a "general securities business" for purposes of triggering the customer account statement delivery requirement.⁵⁷ They argue that a firm that has multiple business lines which include varied brokerage and securities products and services may carry customer accounts or receive or hold customer funds or securities in connection with one business line or product or service but not another. They seek clarification that the rule will apply only to those portions of a firm's business which triggers the classification—not all lines or services. Another commenter requests clarification that a "general securities member" does not include members that are relying on an SEC Exemptive Order relating to FINRA Rule 2330 (formerly NASD Rule 2821), which established sales practice standards regarding recommended purchases and

⁵⁶ See TIAA-CREF June Letter.

⁵⁷ *Id.*

exchanges of deferred variable annuities.⁵⁸

In defining the term "general securities member," current NASD Rule 2340 and proposed FINRA Rule 2231 provide that a member that does not carry customer accounts and does not hold customer funds or securities is exempt from the provisions of this rule. FINRA notes that the proposed rule change does not amend the current definition of "general securities member" as set forth in NASD Rule 2340 and nothing in this proposal is intended to alter the obligations between clearing firms and introducing firms. If the commenter or others have concerns about the application of the rule in particular situations based on the structure of the firm, FINRA believes that such questions can be best resolved through its interpretative letter process.

One commenter seeks confirmation that the proposal is not intended to require members to send account statements to other broker-dealers.⁵⁹ The commenter notes that NASD Rule 0120(g) defines the term "customer" to exclude a broker or dealer. The commenter seeks clarification because NASD Rule 0120(g) has not been adopted into the Consolidated FINRA Rulebook at this time. NASD Rule 2340 and NYSE 409 have not required firms to send account statements to other broker-dealers, and FINRA does not intend to broaden the scope of the rules.⁶⁰

Another commenter expressed support of proposed Supplementary Material .05 (as renumbered in this Amendment No. 1) (Assets Externally Held and Included on Statements Solely as a Service to Customers), which adopts Incorporated NYSE Rule Interpretation 409(a)/04, as appropriately recognizing the responsibilities of member firms.⁶¹

⁵⁸ See Sutherland Asbill & Brennan Letter. See also Securities Exchange Act Release No. 56376 (September 7, 2007) ("Exemptive Order"). The Exemptive Order issued in conjunction with the approval of FINRA Rule 2330 provides that a broker-dealer will not be "deemed" to hold customer funds for purposes of SEA Rule 15c3-1 and SEA Rule 15c3-3 if, among other things, the transaction to which the check relates is subject to the registered principal requirement of the Rule and the broker-dealer promptly transmits the check after the principal's review has been completed.

⁵⁹ See SIFMA Letter.

⁶⁰ See SR-FINRA-2008-021 (Proposed Rule Change Relating to the Adoption of NASD Rules 4000 through 10000 Series and the 12000 through 14000 Series as FINRA Rules in the New Consolidated FINRA Rulebook) (discussing "Rules of General Applicability," including NASD Rule 0120); Securities Exchange Act Release No. 58176 (July 16, 2008); 73 FR 42844 (July 23, 2008).

⁶¹ See Sutherland Asbill & Brennan Letter.

h. Implementation Timeframe

Assuming the SEC approves the proposal, several commenters requested additional time to comply with the proposed requirements, particularly if the monthly delivery obligations remain as originally proposed.⁶² FINRA appreciates these factors and notes that in response to commenters' concerns, it is proposing to exclude certain activities from the monthly account statement requirement. Such change should significantly reduce the potential costs and burdens on firms. Nonetheless, FINRA intends to give firms sufficient time to comply with new FINRA Rule 2231.

As noted above, FINRA will announce the implementation date of the proposed rule change in a *Regulatory Notice* to be published no later than 90 days following Commission approval. The implementation date will be no later than 365 days following Commission approval.

2. Statutory Basis

FINRA believes that the proposed rule change is consistent with the provisions of Section 15A(b)(6) of the Act,⁶³ which requires, among other things, that FINRA rules must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest. FINRA believes that the proposed rule change will provide customers with critical information regarding their accounts and will allow them to review their statements in a timely manner, while also clarifying and streamlining the customer account rules for adoption as FINRA Rules in the Consolidated FINRA Rulebook.

B. Self-Regulatory Organization's Statement on Burden on Competition

FINRA does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments on the proposed rule change were solicited by the Commission in response to the publication of SR-FINRA-2009-028.⁶⁴ The SEC received 12 comment letters. The comments are summarized above.

FINRA is submitting its response to comments on the original filing contemporaneously with this Amendment No. 1.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the **Federal Register** or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

- (A) By order approve or disapprove such proposed rule change, or
- (B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning Amendment No. 1, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-FINRA-2009-028 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-FINRA-2009-028. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and

printing in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of FINRA. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-FINRA-2009-028 and should be submitted on or before August 23, 2011.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.⁶⁵

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19420 Filed 8-1-11; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-64973; File No. SR-OCC-2011-09]

Self-Regulatory Organizations; The Options Clearing Corporation; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Allow for the Clearing of Real Estate Index Futures Contracts

July 27, 2011.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934,¹ notice is hereby given that on July 19, 2011, The Options Clearing Corporation ("OCC") filed with the Securities and Exchange Commission the proposed rule change as described in Items I and II below, which items have been prepared primarily by OCC. OCC filed the proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act² and Rule 19b-4(f)(4) thereunder³ so that the proposal was effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of Terms of Substance of the Proposed Rule Change

The proposed rule change would accommodate the clearing and settling of certain futures on real estate indexes ("Real Estate Index Futures") proposed

⁶² See Sutherland Asbill & Brennan Letter, TIAA-CREF June Letter and SIFMA Letter.

⁶³ 15 U.S.C. 78o-3(b)(6).

⁶⁴ See Proposing Release.

⁶⁵ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 15 U.S.C. 78s(b)(3)(A)(iii).

³ 17 CFR 240.19b-4(f)(4).

to be traded by CBOE Futures Exchange, LLC ("CFE").

II. Self-Regulatory Organization's Statement of Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, OCC included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. OCC has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of Purpose of, and Statutory Basis for, the Proposed Rule Change

The purpose of this proposed rule change is to accommodate Real Estate Index Futures that are currently proposed to be traded by CFE. Real Estate Index Futures are futures contracts on various proprietary indexes that are based on the aggregate residential real estate transaction prices in specific geographic regions over a 28-day calendar period. Unlike other index futures currently cleared by OCC, Real Estate Index Futures have a final settlement price determined as of a date well before the maturity date. The indexes underlying Real Estate Index Futures are based on real estate transaction prices in specific geographic regions over a 28-day calendar period, but the index value is not published until 63 days after the end of that 28-day calendar period. This publication date is also the maturity date for Real Estate Index Futures and the date on which the final settlement price is then determined. OCC is proposing to amend "maturity date" to include the day "as of which" the final settlement price is determined or, as in the case of Real Estate Index Futures, the day "on which" the final settlement price is determined.

OCC has submitted a copy of the Clearing Agreement and a new Schedule C-6 providing for the clearance of futures on non-securities indexes, such as Real Estate Index Futures, which is attached to File No. SR-OCC-2011-09 as Exhibit 5.

The proposed change is consistent with the purposes and requirements of Section 17A of the Act⁴ because it is designed to permit OCC to perform clearing services for products that are subject to the jurisdiction of the CFTC without adversely affecting OCC's obligations with respect to the prompt

and accurate clearance and settlement of securities transactions or the protection of investors and the public interest. The proposed rule change is not inconsistent with any rules of OCC.

B. Self-Regulatory Organization's Statement on Burden on Competition

OCC does not believe that the proposed rule change will have any impact or impose any burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

OCC has not solicited or received written comments relating to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act⁵ and Rule 19b-4(f)(4)⁶ because it effects a change in an existing service of a registered clearing agency that does not adversely affect the safeguarding of securities or funds in the custody or control of the clearing agency or for which it is responsible and does not significantly affect the respective rights or obligations of the clearing agency or persons using the service. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>) or
- Send an e-mail to rule-comments@sec.gov. Please include File No. SR-OCC-2011-09 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary,

Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File No. SR-OCC-2011-09. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filings also will be available for inspection and copying at OCC's principal office and OCC's Web site (http://www.theocc.com/components/docs/legal/rules_and_bylaws/sr_0cc_11_09.pdf). All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR-OCC-2011-09 and should be submitted on or before August 23, 2011.

For the Commission by the Division of Trading and Markets, pursuant to delegated authority.⁷

Elizabeth M. Murphy,
Secretary.

[FR Doc. 2011-19450 Filed 8-1-11; 8:45 am]

BILLING CODE 8011-01-P

⁴ 15 U.S.C. 78q-1.

⁵ *Supra* note 2.

⁶ *Supra* note 3.

⁷ 17 CFR 200.30-3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-64974; File No. SR-C2-2011-016]

Self-Regulatory Organizations; C2 Options Exchange, Incorporated; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Adopt Fees for the Execution of Complex Orders

July 27, 2011.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on July 22, 2011, C2 Options Exchange, Incorporated (the "Exchange" or "C2") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to adopt fees for the execution of complex orders. The text of the proposed rule change is available on the Exchange's Web site (<http://www.cboe.org/legal>), at the Exchange's Office of the Secretary, and at the Commission.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

In December 2009, the Commission approved adoption of C2's rules, including the process for the execution

of complex orders.³ Beginning on July 25, 2011, C2 intends to permit the execution of complex orders on the Exchange. To that end, the Exchange hereby proposes to adopt a set of fees for such executions. The adoption of such fees will allow the Exchange to equitably assess reasonable fees incurred for processing such orders.

The complex order fees apply to complex orders in multiply-listed, equity and ETF options classes. The complex order fees apply to all components of a complex order itself, but may not apply to both sides of a transaction involving a complex order. For transactions in which straight one-sided orders execute against a complex order, each component of the complex order will be assessed the complex order fees listed in Section 1B of the Fees Schedule, while the straight one-sided orders will be assessed the transaction fees listed in Section 1A of the Fees Schedule. For transactions in which a complex order executes against another complex order, each component of the complex order will be assessed the complex order fees listed in Section 1B of the Fees Schedule. For executions that occur within the Complex Order Auction ("COA") against auction responses, the incoming/auctioned order is considered maker, and auction responses are considered taker.

The Exchange proposes to offer a maker rebate of \$0.25 for complex orders entered by public customers and assess a maker fee of \$0.10 for complex orders entered by C2 market makers and \$0.20 for complex orders entered from all other market participant origins (professional customers, firms, broker/dealers, non-C2 market-makers, etc.). The Exchange proposes to assess taker fees of \$0.00 for complex orders entered by public customers and \$0.35 for complex orders entered from C2 market-makers and all other market participant origins (professional customers, firms, broker/dealers, non-C2 market-makers, etc.). Listed rates for the complex order fees are per contract.

As with straight one-sided orders, the Exchange proposes to charge no fees and offer no rebates to any market participants for trades on the open. Trades on the open involve the matching of undisplayed pre-opening trading interest. As such, there is, in effect, no maker or taker activity occurring. The Exchange would like to encourage users to submit pre-opening orders.

The Exchange also proposes to amend Section 1A of the Fees Schedule to clarify that the fees therein apply to straight one-sided orders, as opposed to the new fees listed in Section 1B, which apply to complex orders.

The proposed complex order fee structure should encourage public customers to execute complex orders on the Exchange.

The proposed rule change will take effect on July 25, 2011.

2. Statutory Basis

The proposed rule change is consistent with Section 6(b) of the Act,⁴ in general, and furthers the objectives of Section 6(b)(4)⁵ of the Act in particular, in that it is designed to provide for the equitable allocation of reasonable dues, fees, and other charges among C2 Trading Permit Holders and other persons using Exchange facilities. The Exchange believes that the assessment of transaction fees for complex orders is an equitable allocation of reasonable fees because such orders require processing and the assessment of such fees allows the Exchange to recoup costs incurred processing such orders, as well as recoup administrative and other costs. The Exchange believes that the amounts of the proposed fees are reasonable because they are comparable or favorable to fees assessed by the International Securities Exchange, LLC ("ISE")⁶ and NASDAQ OMX PHLX, LLC ("PHLX")⁷ for complex order execution.

The Exchange believes that, with respect to complex orders, offering a maker rebate to public customers (and not other market participants) and assessing a lower taker fee for public customers than for other market participants is equitable and not unfairly discriminatory because it will attract public customer order flow to the Exchange and incentivize broker-dealers and firms to execute public customer orders on the Exchange. To the extent that this purpose is achieved, all of the Exchange's market participants should benefit from the improved market liquidity and the greater number of public customer orders with which to trade. Further, the Exchange believes that the public customer maker rebate and taker fee for complex orders is not unfairly discriminatory because the same rebates and fees would be assessed uniformly to all public customers.

The Exchange believes that assessing a lower maker fee for complex orders

⁴ 15 U.S.C. 78f(b).

⁵ 15 U.S.C. 78f(b)(4).

⁶ See ISE Schedule of Fees, page 16.

⁷ See PHLX Fee Schedule, pages 6-8.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ See Securities Exchange Act Release No. 61152 (December 10, 2009), 74 FR 66699 (December 16, 2009).

originating from C2 market-makers than for those originating from all other origins (except Public Customers) is equitable and not unfairly discriminatory because C2 market-makers have affirmative obligations (such as quoting) to the Exchange that other market participants do not have. Further, assessing different complex order fee amounts to different types of market participants on C2 is equitable and not unfairly discriminatory because ISE and PHLX assess different complex order fee amounts to different types of market participants in connection with complex order executions.⁸ Finally, assessing different fee levels based on order origin type is a longstanding practice in the options market.⁹

The Exchange believes that the complex order fees being assessed to C2 market-makers are equitable and not unfairly discriminatory because the same fees would be assessed uniformly to all C2 market-makers. The Exchange also believes that the fees being assessed to complex orders entered by all origins other than public customers and C2 market-makers are equitable and not unfairly discriminatory because the same fees would be assessed to all complex orders entered from origins other than public customers and C2 market-makers.

The Exchange believes that, with respect to complex orders, assessing a fee of \$0.00 for trades on the open is reasonable because it is in line with the fee assessed for straight one-sided trades on the open¹⁰ and is equitable and not unfairly discriminatory because the same fee is assessed to all market participants.

Finally, the Exchange believes that amending Section 1A of the Fees Schedule to clarify that the section applies to straight one-sided orders (as opposed to complex orders) furthers the objectives of Section 6(b)(5)¹¹ of the Act, in that it is designed to avoid investor confusion, thereby removing impediments to and perfecting the mechanism of a free and open market and a national market system. The Exchange operates in a highly competitive market comprised in which [sic] sophisticated and knowledgeable market participants readily can, and do,

⁸ See ISE Schedule of Fees, page 16 and PHLX Fee Schedule, pages 6-8.

⁹ See the Fee Schedules of the BATS Exchange, Inc., BATS Y-Exchange, Inc., Chicago Board Options Exchange, Incorporated, ISE, NASDAQ OMX BX, Inc., PHLX, NYSE Amex, LLC, and NYSE Arca, Inc. In the Fee Schedules of all of these exchanges, these respective exchanges assess different fee levels based on order origin type in a variety of circumstances.

¹⁰ See Exchange Fees Schedule, Section 1A.

¹¹ 15 U.S.C. 78f(b)(5).

send order flow to competing exchanges if they deem fee levels at a particular exchange to be excessive. The Exchange believes that the proposed complex order fees it assesses must be competitive with fees assessed on other options exchanges. The Exchange believes that this competitive marketplace impacts the fees present on the Exchange today and influences the proposals set forth above.

B. Self-Regulatory Organization's Statement on Burden on Competition

C2 does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has designated the proposed rule change as establishing or changing a due, fee, or other charge imposed by the Exchange, thereby qualifying the proposal for effectiveness on filing pursuant to Section 19(b)(3)(A)(ii) of the Act¹² and Rule 19b-4(f)(2)¹³ thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-C2-2011-016 in the subject line.

¹² 15 U.S.C. 78s(b)(3)(A)(ii).

¹³ 17 CFR 240.19b-4(f)(2).

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-C2-2011-016. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-C2-2011-016 and should be submitted on or before August 23, 2011.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹⁴

Elizabeth M. Murphy,

Secretary.

[FR Doc. 2011-19461 Filed 8-1-11; 8:45 am]

BILLING CODE 8011-01-P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #12590 and #12591]

South Dakota Disaster Number SD-00041

AGENCY: U.S. Small Business Administration.

ACTION: Amendment 5.

SUMMARY: This is an amendment of the Presidential declaration of a major disaster for Public Assistance Only for

¹⁴ 17 CFR 200.30-3(a)(12).

the State of South Dakota (FEMA-1984-DR), dated 05/13/2011.

Incident: Flooding.

Incident Period: 03/11/2011 through 07/22/2011.

Effective Date: 07/22/2011.

Physical Loan Application Deadline Date: 07/12/2011.

Economic Injury (EIDL) Loan

Application Deadline Date: 02/13/2012.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing And Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street, SW., Suite 6050, Washington, DC 20416.

SUPPLEMENTARY INFORMATION: The notice of the President's major disaster declaration for Private Non-Profit organizations in the State of South Dakota, dated 05/13/2011, is hereby amended to establish the incident period for this disaster as beginning 03/11/2011 and continuing through 07/22/2011.

All other information in the original declaration remains unchanged.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

James E. Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2011-19448 Filed 8-1-11; 8:45 am]

BILLING CODE 8025-01-P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #12684 and #12685]

Vermont Disaster Number VT-00020

AGENCY: U.S. Small Business Administration.

ACTION: Amendment 1.

SUMMARY: This is an amendment of the Presidential declaration of a major disaster for Public Assistance Only for the State of Vermont (FEMA-4001-DR), dated 07/08/2011.

Incident: Severe storms and flooding.
Incident Period: 05/26/2011 through 05/27/2011.

Effective Date: 07/25/2011.

Physical Loan Application Deadline Date: 09/06/2011.

Economic Injury (EIDL) Loan

Application Deadline Date: 04/09/2012.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street, SW., Suite 6050, Washington, DC 20416.

SUPPLEMENTARY INFORMATION: The notice of the President's major disaster declaration for Private Non-Profit organizations in the State of Vermont, dated 07/08/2011, is hereby amended to include the following areas as adversely affected by the disaster.

Primary Counties: Essex, Orange, Washington.

All other information in the original declaration remains unchanged.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

James E. Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2011-19452 Filed 8-1-11; 8:45 am]

BILLING CODE 8025-01-P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #12711 and #12712]

Kentucky Disaster #KY-00043

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the Commonwealth of Kentucky (FEMA-4008-DR), dated 07/25/2011.

Incident: Severe storms, tornadoes, and flooding.

Incident Period: 06/19/2011 through 06/23/2011.

Effective Date: 07/25/2011.

Physical Loan Application Deadline Date: 09/23/2011.

Economic Injury (EIDL) Loan

Application Deadline Date: 04/25/2012.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street, SW., Suite 6050, Washington, DC 20416.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 07/25/2011, Private Non-Profit organizations that provide essential services of governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Bell, Breathitt, Knott, Knox, Lee, Magoffin, Perry.

The Interest Rates are:

	Percent
<i>For Physical Damage:</i>	
Non-Profit Organizations with Credit Available Elsewhere	3.250
Non-Profit Organizations without Credit Available Elsewhere	3.000
<i>For Economic Injury:</i>	
Non-Profit Organizations without Credit Available Elsewhere	3.000

The number assigned to this disaster for physical damage is 12711B and for economic injury is 12712B.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

James E. Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2011-19449 Filed 8-1-11; 8:45 am]

BILLING CODE 8025-01-P

SOCIAL SECURITY ADMINISTRATION

[Docket No. SSA-2011-0035]

Agency Self-Evaluation Under Section 504 of the Rehabilitation Act of 1973; Public Forums on Accessibility for Individuals With Disabilities

AGENCY: Social Security Administration

ACTION: Notice of Public Forums.

SUMMARY: On November 5, 2010, we announced that we were initiating a self-evaluation of our policies and practices supporting Section 504 of the Rehabilitation Act of 1973. Section 504 requires Federal agencies to provide meaningful access to their programs, activities, and facilities for qualified persons with disabilities.

DATES: The forum dates are (1) August 17, 2011, 09:30 a.m. to 04 p.m., and (2) September 20, 2011, 09:30 a.m. to 04 p.m., E.D.T. On August 17, 2011, we are accepting comments related to our policies and facilities. On September 20, 2011, we are accepting comments related to our information technology (IT) and communications.

In addition, we will record and stream each public forum live on the Internet. Accordingly, each person who attends the public forum is deeming his or her consent to being recorded and understands that the recording will be streamed live on the internet during the event and available thereafter for public

viewing. You may view the webcast of each forum on our Web site at <http://www.socialsecurity.gov/accessibility/section504>.

ADDRESSES: The location for the forums is Social Security Administration, One Skyline Tower, 5107 Leesburg Pike, Falls Church, VA 22041.

Comments: We have scheduled public forums on August 17, 2011 and September 20, 2011 as part of our Section 504 Self-Evaluation. The purpose of the public forums is to help us evaluate the current level of accessibility of our programs, activities, and facilities and to gather comments for ways that we might improve accessibility. We will focus on a number of topics at each public forum as part of this self-evaluation, and interested persons will have an opportunity to express their views. We are particularly interested in comments from persons with disabilities, their family members, and those who work with, or advocate for, persons with disabilities. Space is limited; therefore, we encourage all organizations and individuals who wish to attend the public forums or provide comments via telephone to register in advance using our online registration form at <http://www.socialsecurity.gov/accessibility/section504> or by calling the Section 504 Information Line at 1-877-794-7395 (Voice) or 1-800-325-0778 (TTY) at least ten business days before the public forum date.

While the public is invited, only those who register in advance and receive schedule confirmation will be permitted to provide input. Organizations should designate no more than one person to comment on their behalf. Organizations or individuals may comment in person, by telephone, or by telephone relay service. Prior to the forum, we will try to tell each interested individual the approximate time when he or she can comment during the public forum. Those who register to comment by telephone or telephone relay service should be available at the telephone or TTY number they provide during registration at least one-half hour before their scheduled time to comment.

We will limit comments to five minutes per person or organization. Commenters may supplement their comments with written statements that will become part of the official public forum record. If we determine that there is not enough time to hear from all those wishing to present comments, we will select among those wishing to testify to ensure representation of a range of viewpoints and interests.

Registration: We encourage all organizations and individuals who wish

to attend the public forums or provide comments via telephone to register in advance using our online registration form at <http://www.socialsecurity.gov/accessibility/section504> or by calling the Section 504 Information Line at 1-877-794-7395 (voice) or 1-800-325-0778 (TTY) at least ten business days before the public forum date.

FOR FURTHER INFORMATION CONTACT: Mariangela Rosa, Social Security Administration, 6401 Security Boulevard, Baltimore, MD 21235-6401, 1-877-794-7395. For information on eligibility or filing for benefits, call our national toll-free number, 1-800-772-1213 or TTY 1-800-325-0778, or visit our Internet site, Social Security Online at <http://www.socialsecurity.gov>.

SUPPLEMENTARY INFORMATION: The forum Web site will be accessible to individuals with disabilities, in accordance with Section 508 of the Rehabilitation Act. At the forums, we will provide sign language interpreters and real-time captioning. Individuals who require other accommodations or auxiliary aids should contact Mariangela Rosa at 1-877-794-7395 or by e-mail at SSA.504@ssa.gov no later than ten days before the date of the forum that they wish to attend.

Additional information, including information about accessible public transportation and parking, is available on the Social Security Administration Web site at <http://www.socialsecurity.gov/accessibility/section504>. The current Section 504 regulation is available electronically in accessible formats at <http://www.regulations.gov>. This public forum notice is available electronically in Section 508-accessible formats at <http://www.socialsecurity.gov/accessibility/section504>. Copies of this notice also are available in formats accessible to individuals who are blind or have low vision by calling the Section 504 Information Line at 1-877-794-7395 (Voice) or 1-800-325-0778 (TTY).

Written Comments: Those persons who are not available to participate in real-time in the public forums are encouraged to submit written comments by Internet, fax, or mail. Do not submit the same comments multiple times or by more than one method. In your submission, please state that your comments refer to Docket No. SSA-2011-0035 so that we may associate your comments with the correct document.

Deadline for Comments: We must receive written comments by October 31, 2011. *Will we respond to your comments?* We will carefully consider your comments; however we will not

respond directly to comments sent in response to this notice or the forum. In addition, we are not able to process or respond to any information or questions about your claim for benefits that you submit in the public forum or comments process.

Caution: You should be careful to include in your comments only information that you wish to make publicly available. We strongly urge you not to include any personal information, such as Social Security numbers or medical information, or anything you do not wish for us to make public. We will accept anonymous written comments. We will not respond to your comments, but we will consider them as we work through our Section 504 self-evaluation. Please do not send any information or questions about your claim for benefits.

(1) **Internet:** We strongly recommend that you submit your written comments by the Internet. Please visit the Federal eRulemaking portal at <http://www.regulations.gov>. Use the Search function to find Docket No. SSA-2011-0035. The system will issue a tracking number to confirm your submission. You will not be able to view your comment immediately because we must review and post each comment manually. It may take up to a week for your comment to appear online.

(2) **Fax:** Fax your comments to (410) 966-2830.

(3) **Mail:** Mail your comments to the Office of Regulations, Social Security Administration, 107 Altneyer Building, 6401 Security Boulevard, Baltimore, Maryland 21235-6401. Comments that we receive will be available for public viewing on the Federal eRulemaking portal at <http://www.regulations.gov>.

Dated: July 27, 2011.

Michael J. Astrue,
Commissioner of Social Security.

[FR Doc. 2011-19510 Filed 8-1-11; 8:45 am]

BILLING CODE 4919-02-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

International Civil Aviation Organization's (ICAO) Dangerous Goods Panel; Notice of Public Meeting

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of public meeting.

SUMMARY: In preparation for the twenty-third meeting of the International Civil Aviation Organization's (ICAO) Dangerous Goods Panel (DGP) to be held October 11-21, 2011, in Montreal, Quebec, Canada, the FAA's Office of

Hazardous Materials Safety and the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Office of Hazardous Materials Safety announce a public meeting on September 23, 2011.

DATES: The public meeting will be held on September 23, 2011 from 9 a.m. until 12:30 p.m.

ADDRESSES: The public meeting will be held at FAA Headquarters (FOB 10A), Bessie Coleman Conference Center, 2nd Floor, 800 Independence Avenue, SW., Washington, DC 20591.

Prior to September 9th, participants are requested to register at the following Web site: <http://tinyurl.com/DOTPublicMeeting>.

Conference call capabilities will be available. Connection information will be provided to those who register and indicate that they will participate via conference call.

FOR FURTHER INFORMATION CONTACT:

Questions regarding the meeting should be directed to Ms. Janet McLaughlin, Division Manager, Office of Hazardous Materials Safety, International and Outreach Division, ADG-200, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 385-4916. E-mail: 9-AWA-ASH-ADG-HazMat@faa.gov.

We are committed to providing equal access to this meeting for all participants. If you need alternative formats or other reasonable accommodations, please call (202) 385-4916 or e-mail: 9-AWA-ASH-ADG-HazMat@faa.gov with your request by close of business on September 9th.

Purpose of the Public Meeting

Information and viewpoints provided by stakeholders are requested as the United States prepares for the 23rd International Civil Aviation Organization's Dangerous Goods Panel (ICAO DGP) Meeting. Proposals that are approved by the DGP will be incorporated into the 2013-2014 Edition of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* and related documents. The Department of Transportation seeks to harmonize domestic regulations with international standards when such harmonization is not unsafe, unnecessary, or contrary to the public interest. See 49 U.S.C. 5120.

The agenda for the ICAO DGP is as follows:

- Agenda Item 1: Development of proposals, if necessary, for amendments to Annex 18—*The Safe Transport of Dangerous Goods by Air*.
- Agenda Item 2: Development of recommendations for amendments to

the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2013-2014 Edition.

- Agenda Item 3: Development of recommendations for amendments to the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU) for incorporation in the 2013-2014 Edition.

- Agenda Item 4: Development of recommendations for amendments to the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) for incorporation in the 2013-2014 Edition.

- Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel:

5.1: Review of provisions for the transport of lithium batteries.

5.2: Development of provisions for the carriage of dangerous goods on helicopters.

5.3: Review of provisions for information to the pilot-in-command.

5.4: Development of performance standards for State employees.

- Agenda Item 6: Other business.

Papers relevant to these agenda items can be viewed at the following webpage: <http://www.icao.int/anb/jls/dangerousgoods/DGP/>.

Public Meeting Procedures

A panel of representatives from the FAA and PHMSA will be present. The meetings are intended to be informal, non-adversarial, and to facilitate the public comment process. No individual will be subject to questioning by any other participant. Government representatives on the panel may ask questions to clarify statements. Unless otherwise stated, any statement made during the meetings by FAA or PHMSA representatives shall be neither construed as an official position of the government nor the final position of the decision of the US delegation.

There will be no admission fees or other charges to participate in the public meeting. The meeting will be open to all persons, subject to the capacity in the meeting room and lines available for those participating via conference call. Every effort will be made to accommodate all persons wishing to attend. The FAA and PHMSA will try to accommodate all speakers, subject to time constraints.

Issued in Washington, DC, on July 25, 2011.

Christopher Glasow,

Director, Office of Hazardous Materials Safety.

[FR Doc. 2011-19500 Filed 8-1-11; 8:45 am]

BILLING CODE :P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Approval of Noise Compatibility Program for San Diego International, San Diego, CA

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice .

SUMMARY: The Federal Aviation Administration (FAA) announces its findings on the noise compatibility program submitted by San Diego Regional Airport Authority under the provisions of 49 U.S.C. 47501 *et seq.* (formerly the Aviation Safety and Noise Abatement Act, hereinafter referred to as "the Act") and 14 Code of Federal Regulations (CFR) part 150 (hereinafter referred to as "Part 150"). On November 10, 2009, the FAA determined that the noise exposure maps submitted by San Diego Regional Airport Authority under Part 150 were in compliance with applicable requirements. On June 30, 2011, the FAA approved the San Diego International Airport noise compatibility program. Fourteen (14) of the nineteen (19) total number of recommendations of the program were approved. No program elements relating to new or revised flight procedures for noise abatement were proposed by the airport operator.

DATES: Effective Date: The effective date of the FAA's approval of the Noise Compatibility Program for San Diego International Airport is June 30, 2011.

FOR FURTHER INFORMATION CONTACT: Victor Globa, Environmental Protection Specialist, Federal Aviation Administration, Los Angeles Airports District Office, Mailing Address: P.O. Box 92007, Los Angeles, California 90009-2007. Street Address: 15000 Aviation Boulevard, Lawndale, California 90261. Telephone: 310/725-3637. Documents reflecting this FAA action may be reviewed at this same location.

SUPPLEMENTARY INFORMATION: This notice announces that the FAA has given its overall approval to the Noise Compatibility Program for San Diego International Airport, effective June 30, 2011.

Under section 47504 of the Act, an airport operator who has previously submitted a Noise Exposure Map may submit to the FAA a Noise Compatibility Program which sets forth the measures taken or proposed by the airport operator for the reduction of existing non-compatible land uses and prevention of additional non-compatible land uses within the area covered by the Noise Exposure Maps. The Act requires such programs to be developed in consultation with interested and affected parties including local communities, government agencies, airport users, and FAA personnel.

Each airport noise compatibility program developed in accordance with part 150 is a local program, not a Federal program. The FAA does not substitute its judgment for that of the airport proprietor with respect to which measures should be recommended for action. The FAA's approval or disapproval of Part 150 program recommendations is measured according to the standards expressed in part 150 and the Act and is limited to the following determinations:

- a. The Noise Compatibility Program was developed in accordance with the provisions and procedures of Part 150;
- b. Program measures are reasonably consistent with achieving the goals of reducing existing non-compatible land uses around the airport and preventing the introduction of additional non-compatible land uses;
- c. Program measures would not create an undue burden on interstate or foreign commerce, unjustly discriminate against types or classes of aeronautical uses, violate the terms of airport grant agreements, or intrude into areas preempted by the Federal Government; and
- d. Program measures relating to the use of flight procedures can be implemented within the period covered by the program without derogating safety, adversely affecting the efficient use and management of the navigable airspace and air traffic control systems, or adversely affecting other powers and responsibilities of the Administrator prescribed by law.

Specific limitations with respect to FAA's approval of an airport noise compatibility program are delineated in part 150, section 150.5. Approval is not a determination concerning the acceptability of land uses under Federal, state, or local law. Approval does not by itself constitute an FAA implementing action. A request for Federal action or approval to implement specific noise compatibility measures may be required. Prior to an FAA decision on a request to implement the action, an

environmental review of the proposed action may be required. Approval does not constitute a commitment by the FAA to financially assist in the implementation of the program nor a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA. Where federal funding is sought, requests for project grants must be submitted to the FAA Los Angeles Airports District Office in the Western-Pacific Region.

The San Diego International Airport study contains a proposed noise compatibility program comprised of actions designed for phased implementation by airport management and adjacent jurisdictions from June 21, 2010 to the year 2014. It was requested that the FAA evaluate and approve this material as a Noise Compatibility Program as described in section 47504 of the Act. The FAA began its review of the program on January 5, 2011, and was required by a provision of the Act to approve or disapprove the program within 180 days (other than the use of new or modified flight procedures for noise control). Failure to approve or disapprove such program within the 180-day period shall be deemed to be an approval of such program.

The submitted program contained 19 proposed actions for noise abatement, noise mitigation, land use planning and program management on and off the airport. The FAA completed its review and determined that the procedural and substantive requirements of the Act and part 150 have been satisfied. The overall program was approved by the FAA, effective June 30, 2011.

FAA approval was granted for fourteen (14) specific program measures. The approved measures included such items as: Sound Attenuate Additional Eligible Non-Residential Noise Sensitive Receptor Buildings for noncompatible development that were constructed or existed before October 1, 1998; Sound Attenuate Eligible Residential Units has been approved for homes or noncompatible development that were constructed or existed before October 1, 1998; Urge the City of San Diego to Prohibit New Incompatible Land Use Development was approved since the Federal government has no control over local land use planning and this measure is within the authority of the San Diego Regional Airport Authority and local planning jurisdictions; Continue to Encourage City Participation in the Compatibility Planning Process was approved since the Federal government has no control over local land use planning and this measure is within the authority of the San Diego Regional Airport Authority

and local planning jurisdictions; Continue to Serve as the San Diego County Airport Land Use Commission was approved since the Federal government has no control over local land use planning and this measure is within the authority of the San Diego Regional Airport Authority and local planning jurisdictions. (Approval of this measure does not extend to or necessarily endorse decisions of the Airport Land Use Commission.); Maintain Existing Noise Information Department was approved; Continue to Maintain and Improve the Aircraft Noise and Operations Monitoring System (ANOMS) was approved for purposes of part 150. (Approval of this measure does not obligate the FAA to participate in funding the acquisition or installation of the permanent noise monitors and associated equipment. For the purpose of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds.); Design and Implement a Fly Quiet Program was approved since this measure is within the jurisdiction of the airport management. (This approval does not imply approval of any enforcement actions to ensure compliance with flight procedures by the Airport Sponsor. Any recommended change to existing flight procedures not approved in this NCP and any flight procedures or flight tracks not already in place at SAN are disapproved for inclusion in the handbook. Such changes would need to be separately reviewed, for reasons of aviation safety and efficiency, by the FAA. Noise mitigation measures must be accompanied by an analysis demonstrating their noise benefits. Changes in flight procedures normally also need appropriate environmental analysis. Any new procedures proposed for noise abatement at SAN may not be implemented prior to a study to determine whether they can be implemented safely and efficiently, and whether they are noise beneficial. Wording for publications and signage, and location of any on-airport signage, must be coordinated with the FAA before final issuance. Approval of this measure does not obligate the FAA to participate in funding the acquisition or installation of the permanent noise monitors and associated equipment.); Maintain Airport Noise Advisory Committee was approved; The Noise Information Officer will Meet on a Regular Basis with Representatives from Commercial Airlines and General Aviation was approved but does not require the representatives to meet;

Deliver Airport Use Regulations to Each Airline was approved but does not require the air carriers to meet; Continue to Provide Noise and Aircraft Operations Information in the Quarterly Noise Reports was approved, (For the purpose of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds.); Revise the Noise Exposure Map was approved; and, Revise the Noise Compatibility Program was approved and this approval does not extend to potential regulatory action affecting general aviation and commuter aircraft operations or to enforcement structures not otherwise specifically approved by the FAA.

FAA disapproved five (5) specific program measures. The disapproved measures included: Develop and Implement Left Turn "Over-the-Bay" Departure Route was disapproved since the analysis shows no effect or benefit on the Community Noise Equivalent Level (CNEL) 65 dB contour and the measure may adversely impact operational safety and efficiency; Encourage the FAA and Airlines Operating at SAN to Use Continuous Descent Approaches for Arrivals to Runway 27 was disapproved since the analysis does not demonstrate the measure's noise benefits on the 65 dB CNEL contour; Maintain Westerly Runway Heading (275-degrees) or 290-degree Heading for Runway 27 Departures Until One and One Half Miles West of the Shoreline, Weather, Airspace, and Safety Permitting was disapproved since the analysis does not demonstrate the measure's noise benefits on the 65 dB CNEL contour; Sound Attenuate Additional Eligible Residential Units Based on Hill Effects Behind the Start of Takeoff was disapproved for purposes of part 150 since additional information and analysis is necessary to justify the measure's noise benefits; and, Cooperate with Public Agencies Concerning Air Service was disapproved for purposes of part 150 since the Federal government has no control over local land use planning and this measure is within the authority of the San Diego Regional Airport Authority and local planning jurisdictions.

These determinations are set forth in detail in a Record of Approval signed by the Manager, Airports Division (AWP-600) on June 30, 2011. The Record of Approval, as well as other evaluation materials and the documents comprising the submittal, are available for review at the FAA office listed above and at the administrative offices of the

San Diego County Regional Airport Authority.

The Record of Approval also will be available on-line at: http://www.faa.gov/airports/environmental/airport_noise/part_150/states/.

Issued in Hawthorne on July 15, 2011.

Mark A. McClardy,

Manager, Airports Division, Western-Pacific Region.

[FR Doc. 2011-19499 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Buy America Waiver Notification

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice.

SUMMARY: This notice provides information regarding the FHWA's finding that a Buy America waiver is appropriate for the use of non-domestic RuggCom RS900G, RS900L, and RS930L network controllers for replacement of outdated network controllers on Recovery Act project: X-STP-S000(497) in Oregon State.

DATES: The effective date of the waiver is August 3, 2011.

FOR FURTHER INFORMATION CONTACT: For questions about this notice, please contact Mr. Gerald Yakowenko, FHWA Office of Program Administration, (202) 366-1562, or via e-mail at gerald.yakowenko@dot.gov. For legal questions, please contact Mr. Michael Harkins, FHWA Office of the Chief Counsel, (202) 366-4928, or via e-mail at michael.harkins@dot.gov. Office hours for the FHWA are from 8 a.m. to 4:30 p.m., E.T., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access

An electronic copy of this document may be downloaded from the Federal Register's home page at: <http://www.archives.gov> and the Government Printing Office's database at: <http://www.access.gpo.gov/nara>.

Background

The FHWA's Buy America policy in 23 CFR 635.410 requires a domestic manufacturing process for any steel or iron products (including protective coatings) that are permanently incorporated in a Federal-aid construction project. The regulation also provides for a waiver of the Buy America requirements when the application would be inconsistent with

the public interest or when satisfactory quality domestic steel and iron products are not sufficiently available. This notice provides information regarding the FHWA's finding that a Buy America waiver is appropriate to use non-domestic RuggCom RS900G, RS900L, and RS930L network controllers for replacement of outdated network controllers on Recovery Act project: X-STP-S000(497) in Oregon State.

In accordance with Division A, section 123 of the "Consolidated Appropriations Act, 2010" (Pub. L. 111-117), the FHWA published a notice of intent to issue a waiver on its Web site for RuggCom RS900G, RS900L, and RS930L network controllers for replacement of outdated network controllers (<http://www.fhwa.dot.gov/construction/contracts/waivers.cfm?id=54>) on April 6th. The FHWA received three comments in response to the publication. The first comment suggested a potential domestic manufacturer; Optelecom-NKF based in Maryland. Optelecom-NKF was contacted by ODOT, and the company stated that their products are manufactured outside the country but assembled domestically. The second commenter simply opposed the waiver request but did not suggest a domestic manufacturer. The third commenter supported the waiver request based on his experience with the RuggCom RS900G, RS900L, and RS930L network controllers. During the 15-day comment period, the FHWA conducted additional nationwide review to locate potential domestic manufacturers for RuggCom RS900G, RS900L, and RS930L network controllers. Based on all the information available to the agency, the FHWA concludes that there are no domestic manufacturers of RuggCom RS900G, RS900L, and RS930L network controllers.

In accordance with the provisions of section 117 of the SAFETEA-LU Technical Corrections Act of 2008 (Pub. L. 110-244, 122 Stat. 1572), the FHWA is providing this notice as its finding that a waiver of Buy America requirements is appropriate. The FHWA invites public comment on this finding for an additional 15 days following the effective date of the finding. Comments may be submitted to the FHWA's Web site via the link provided to the Oregon waiver page noted above.

Authority: 23 U.S.C. 313; Pub. L. 110-161, 23 CFR 635.410.

Issued on: July 26, 2011.

Victor M. Mendez,

Federal Highway Administrator.

[FR Doc. 2011-19509 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Final Federal Agency Actions on Proposed Highway in California

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by the California Department of Transportation (Caltrans), pursuant to 23 USC 327, and Other Federal Agencies.

SUMMARY: The FHWA, on behalf of Caltrans, is issuing this notice to announce actions taken by Caltrans, and other Federal agencies, that are final within the meaning of 23 U.S.C. 139(l)(1). The actions relate to proposed roadway improvements in mid-Solano County between Interstate 80 (I-80) in Vacaville in the north and State Route 12 (SR12) in Suisun City in the south, in the County of Solano, State of California. Those actions grant licenses, permits, and approvals for the project.

DATES: By this notice, the FHWA, on behalf of Caltrans, is advising the public of final agency actions subject to 23 U.S.C. 139(l)(1). A claim seeking judicial review of the Federal agency actions on the roadway project will be barred unless the claim is filed on or before January 29, 2012. If the Federal law that authorizes judicial review of a claim provides a time period of less than 180 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: For Caltrans: Melanie Brent, Office Chief, Office of Environmental Analysis, Caltrans District 4, 111 Grand Avenue, MS 8B, Oakland, CA 94612, (510) 286-5231, Melanie_Brent@dot.ca.gov.

SUPPLEMENTARY INFORMATION: Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, environmental responsibilities for this project pursuant to 23 U.S.C. 327. Notice is hereby given that the Caltrans has taken final agency actions subject to 23 U.S.C. 139(l)(1) by issuing licenses, permits, and approvals for the following roadway project in the State of California: Roadway Improvements within the 12-mile corridor referred to as the Jepson Corridor in Solano County, California. The purposes of the project is to provide a safe, convenient route for local traffic in this portion of Solano County, while providing opportunities for multimodal use and unifying landscape and design features to enhance aesthetics and character of the adjoining communities. It would

upgrade and link a series of existing local two- and four-lane roadways to provide a four- to six-lane north-south travel route for residents who face increasing congestion when traveling between jurisdictions in central Solano County. The actions by the Federal agencies, and the laws under which such actions were taken, are described in the Final Environmental Impact Statement (FEIS) for the project, approved on May 12, 2011, in the FHWA Record of Decision (ROD) issued on June 21, 2011, and in other documents in the FHWA project records. The FEIS, ROD, and other project records are available by contacting Caltrans at the addresses provided above. The Caltrans FEIS and ROD can be viewed and downloaded from the project Web site at <http://www.dot.ca.gov/dist4/envdocs.htm>.

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. National Environmental Policy Act (NEPA) [42 U.S.C. 4321-4351]; Federal-Aid Highway Act [23 U.S.C. 109] and its regulations 23 CFR 772
2. Farmland Protection Policy Act (FPPA) [7 U.S.C. 4201-4209] and its regulations, 7 CFR Ch. VI part 658
3. Antiquities Act of 1906 [16 U.S.C. 431-433]; Federal-Aid Highway Act of 1935 [20 U.S.C. 78]
4. Clean Air Act [42 U.S.C. 7401-7671(q)]
5. U.S. Fish and Wildlife Service (USFWS) mitigation policy for California's riparian habitats in Resource Category 2 (46 FR 7644)
6. Clean Water Act [33 U.S.C. 1344]
7. Federal Endangered Species Act (FESA) [16 U.S.C. 1531] and its regulations, 50 CFR part 402
8. Migratory Bird Treaty Act [16 U.S.C. 703-712]
9. Section 106 of the National Historic Preservation Act of 1966, as amended [16 U.S.C. 470(aa)-11]
10. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) [42 USC 9601-9675]; Resource Conservation and Recovery Act of 1976 (RCRA)
11. E.O. 11988 Floodplain Management; E.O. 11990 Protection of Wetlands. (Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 139(l)(1).

Issued on: July 26, 2011.

Gary Sweeten,

North Team Leader, Local Programs, Federal Highway Administration, Sacramento, California.

[FR Doc. 2011-19540 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-RY-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Statute of Limitations on Claims; Notice of Final Federal Agency Actions on Proposed Highway in California

AGENCY: Federal Highway Administration (FHWA), DOT

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by the California Department of Transportation (Caltrans), pursuant to 23 U.S.C. 327.

SUMMARY: The FHWA, on behalf of Caltrans, is issuing this notice to announce actions taken by Caltrans, that are final within the meaning of 23 U.S.C. 139(l)(1). The actions relate to a proposed project to replace the Mt. Vernon Avenue Bridge (State Bridge No. 54C-0066) over the Burlington Northern Santa Fe (BNSF) railroad facilities in the City of San Bernardino, County of San Bernardino, in the State of California. Those actions grant licenses, permits, and approvals for the project.

DATES: By this notice, the FHWA, on behalf of Caltrans, is advising the public of final agency actions subject to 23 U.S.C. 139(l)(1). A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or before January 29, 2012. If the Federal law that authorizes judicial review of a claim provides a time period of less than 180 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: For Caltrans: Aaron Burton, Senior Environmental Planner, Environmental Studies "B" Branch Chief, California Department of Transportation, District 8, Division of Environmental Planning, 464 West 4th Street, 6th Floor MS-821, San Bernardino, California 92401, available 8 a.m.-5 p.m. Monday through Friday, phone number (909) 383-2841 or e-mail: aaron_burton@dot.ca.gov.

SUPPLEMENTARY INFORMATION: Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed environmental responsibilities for, this project pursuant to 23 U.S.C. 327. Notice is hereby given that the Caltrans

has taken final agency actions subject to 23 U.S.C. 139(I)(1) by issuing licenses, permits, and approvals for the following local assistance project in the State of California: The project will involve the removal of the existing bridge structure, construction of a new replacement of a new bridge structure, and improvements to bridge approaches and roadways in the project vicinity. The new replacement bridge will be 317.1 m (1,040 feet) long and 24.4 m (80 feet) wide with four 3.7-m (12-foot) lanes (two in each direction), a 1.2-m (4-foot)-wide median, and 2.4-m (8-foot)-wide shoulders. Sidewalks on each side of the new bridge would be 1.5 m (5 feet) wide and would meet ADA requirements for sidewalk width and slopes, including preservation of existing access directly from the bridge to the Santa Fe Depot and Metrolink Station. Concrete barrier railings (1.1 m [3.5 feet] high) topped with fencing (1.9 m [6.1 feet] high) would be provided on each side of the new bridge. The actions by the Federal agencies, and the laws under which such actions were taken, are described in the Final Environmental Assessment (EA) for the project, approved via issuance of a Finding of No Significant Impact (FONSI) issued on June 27, 2011, and in other documents in the FHWA project records. The EA, FONSI, and other project records are available by contacting Caltrans at the addresses provided above.

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. *General*: National Environmental Policy Act (NEPA) of 1969 [42 U.S.C. 4321–4351]; Growth Related Effects on Environmental Resources: (40 CFR 1508.8); Federal Aid-Highway Act of 1970 [23 U.S.C. 109].

2. *Relocations*: Title VI of the Civil Rights Act of 1964 [42 U.S.C. 2000d, et seq.]; Federal Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 and Title 49 Code of Federal Regulations (CFR part 24).

3. *Historic and Cultural Resources*: Section 106 of the National Historic Preservation Act of 1966, as amended [16 U.S.C. 470], Historic Preservation (36 CFR part 800), Caltrans' responsibilities in regard to the Programmatic Agreement (23 CFR part 327).

4. *Water*: Clean Water Act: (Sections 303, 304, 401, 402, and 404); Safe Drinking Water Act.

5. *Traffic and Transportation*: Accessibility Policy and safe accommodation of pedestrians and

bicyclists (23 CFR part 652) and (49 CFR part 27);-Rehabilitation Act [29 U.S.C. 794].

6. *Paleontology*: Antiquities Act of 1906 [16 U.S.C. 431–433]; Federal-Aid Highway Act of 1956 [23 U.S.C. 305].

7. *Hazardous Waste*: Resource Conservation and Recovery Act of 1976 (RCRA); Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); Community Environmental Response Facilitation Act (CERFA) of 1992; Toxic Substances Control Act (TSCA); Occupational Safety & Health Act (OSHA)(Title 29 CFR part 1926); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

8. *Clean Air Act*, as amended in 1990 [42 U.S.C. 7401–7671]; (40 CFR 93.126 and 40 CFR 93.127).

9. *Noise*: (23 CFR part 772).

10. *Wetlands and Other Waters*: Clean Water Act (33 CFR part 1344)

11. *Animal and Plant Species*: Federal Endangered Species Act [16 U.S.C. 1531–1544]; Interagency Cooperation—Endangered Species (50 CFR part 402); Fish and Wildlife Coordination Act [16 U.S.C. 661–667(d)]; Migratory Bird Treaty Act [16 U.S.C. 703–712].

12. Executive Orders (EO) 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations; EO 13166 Improving Access to Services for Persons with Limited English Proficiency; EO 12088 Federal Compliance with Pollution Control; EO 11990 Protection of Wetlands; EO 13112 Prevention and Control of Invasive Species.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 139(I)(1).

Issued on: July 26, 2011.

Shawn E. Oliver,

South Team Leader, State Programs, Federal Highway Administration.

[FR Doc. 2011–19463 Filed 8–1–11; 8:45 am]

BILLING CODE 4910-RY-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Final Federal Agency Actions on Proposed Highway in Idaho

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by FHWA.

SUMMARY: This notice announces actions taken by the FHWA that are final within the meaning of 23 U.S.C. 139(I)(1). The actions relate to a proposed highway project, Idaho 16, I–84 to Idaho 44 in Ada and Canyon Counties in the State of Idaho [FHWA-ID-EIS-09-01-F, Federal Aid project number A-009(963), and Idaho Transportation Department (ITD), Key Number 009963].

DATES: By this notice, the FHWA is advising the public of final agency actions subject to 23 U.S.C. 139(I)(1). A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or prior to January 29, 2012. If the Federal law that authorizes judicial review of a claim provides a time period of less than 180 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: For FHWA: Mr. Peter J. Hartman, Division Administrator, Federal Highway Administration, 3050 Lake Harbor Lane, Suite 126, Boise, ID 83703; telephone: (208) 334-9180; e-mail: Idaho.FHWA@dot.gov. The FHWA Idaho Division Office's normal business hours are 7 a.m. to 4:30 p.m. (Mountain Standard Time). For ITD: Ms. Sue Sullivan, Environmental Section Manager, Idaho Transportation Department, 3311 W. State St., P.O. Box 7129, Boise, ID 83707-1129; telephone: (208) 334-8203; e-mail: sue.sullivan@itd.idaho.gov. Normal business hours are 8 a.m. to 5 p.m. (Mountain Standard Time).

SUPPLEMENTARY INFORMATION: Notice is hereby given that the FHWA has taken final agency actions subject to 23 U.S.C. 139(I)(1) by issuing approvals for the following highway project in the State of Idaho: Idaho 16, I–84 to Idaho 44 in Ada and Canyon Counties. The project includes the acquisition of right-of-way (ROW), and the construction of a proposed extension of Idaho 16 across the Boise River to Interstate 84 (I–84).

The project includes:

- Construction of a four-lane access controlled divided highway (Idaho 16) from a new interchange at I–84, creating a new Boise River crossing, and connecting to existing Idaho 16 near Idaho 44 (State Street). The corridor width of approximately 300 feet will accommodate four travel lanes (two 12-foot-wide travel lanes in each direction), surface drainage features, and potential for future multimodal options.

• Acquisition of ROW from private property owners will be required to construct the new highway.

• Interchanges on Idaho 16 at the following locations: Franklin Road; Ustick Road; US 20/26 (Chinden Boulevard); and Idaho 44 (State Street).

• Grade-separated crossings (overpasses) at the Union Pacific Railroad (UPRR), Cherry Lane, McMillan Road, and Joplin Road.

• A Boise River crossing (single bridge).

• Rerouted and new local streets to maintain access from private properties to public ROWs.

• The project will be constructed in phases, designated as Phase 1 and Phase 2. Phase 1 begins with an at-grade intersection at US 20/26 (Chinden Boulevard) and continues north to an at-grade intersection with Idaho 44 (State Street) and joins with existing Idaho 16. Phase 2 includes constructing Idaho 16 between I-84 and US 20/26 (Chinden Boulevard) and includes replacement of the at-grade intersections at US 20/26 (Chinden Boulevard) and Idaho 44 (State Street) with interchanges. Highway segments for Phase 2 would be programmed and built as funds become available.

The actions by the FHWA, and the laws under which such actions were taken, are described in the Final Environmental Impact Statement (FEIS) for the project approved on February 8, 2011, in the FHWA Record of Decision (ROD) issued on April, 14, 2011, and in other documents in the FHWA project records. The Draft Environmental Impact Statement (DEIS), FEIS, ROD, and other project records are available by contacting the FHWA or the ITD at the addresses provided above.

The DEIS, FEIS, ROD, and published information regarding this project are posted and updated on the ITD Web site at <http://itd.idaho.gov/projects/garvee/D3>. Select "Idaho 16, I-84 to Idaho 44 Environmental Study."

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws, as amended, under which such actions were taken, including but not limited to:

1. *General*: National Environmental Policy Act (NEPA) [42 U.S.C. 4321–4347]; Federal-Aid Highway Act [23 U.S.C. 109, 23 U.S.C. 128 and 23 U.S.C. 502]; Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) [23 U.S.C. 139].

2. *Air and Noise*: Clean Air Act [42 U.S.C. 7401–7671(g)]; Noise Standards: [23 U.S.C. 109(i)] (Pub. L. 91–605) (Pub. L. 93–87).

3. *Wildlife*: Endangered Species Act [16 U.S.C. 1531–1544]; Fish and Wildlife Coordination Act [16 U.S.C. 661–667(e)]; Migratory Bird Treaty Act [16 U.S.C. 703–712]; Bald and Golden Eagle Protection Act of 1940 [16 U.S.C. 668–668d].

4. *Historic and Cultural Resources*: Section 106 of the National Historic Preservation Act of 1966, as amended [16 U.S.C. 470f]; Archeological Resources Protection Act of 1979 [16 U.S.C. 470(aa)-470(mm)]; Archeological and Historic Preservation Act of 1974 [16 U.S.C. 469–469(e)].

5. *Land*: Section 4(f) of The Department of Transportation Act: [23 U.S.C. 138 and 49 U.S.C. 303]; The Farmland Protection Policy Act (FPPA) [7 U.S.C. 4201–4209].

6. *Social and Economic*: Civil Rights Act of 1964 [42 U.S.C. 2000(d)-2000(d)(1)];

7. *Executive Orders*: E.O. 11988 Floodplain Management; E.O. 11990 Protection of Wetlands; E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations; E.O. 13175 Consultation and Coordination with Indian Tribal Governments; E.O. 11514 Protection and Enhancement of Environmental Quality; E.O. 13112 Invasive Species.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 139(I)(1).

Peter J. Hartman,
Division Administrator, FHWA—Idaho
Division, Boise, Idaho.

[FR Doc. 2011-19480 Filed 8-1-11; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

Notice of Limitation on Claims Against Proposed Public Transportation Projects

AGENCY: Federal Transit Administration (FTA), DOT.

ACTION: Notice of Limitation on Claims.

SUMMARY: This notice announces final environmental actions taken by the Federal Transit Administration (FTA) for the following projects: (1) Ardmore Transit Center, Southeastern Pennsylvania Transportation Authority (SEPTA), Ardmore, Lower Merion Township, Montgomery County, PA; (2)

Charlotte Streetcar Project, City of Charlotte, Charlotte, NC; (3) Cincinnati Streetcar Project, City of Cincinnati, Cincinnati, Hamilton County, OH; (4) Greenville Intermodal Transportation Center, City of Greenville, Greenville, NC; (5) New Kirk Bus Division, Maryland Transit Administration, Baltimore City, MD; (6) Mid-City/Exposition Corridor Light Rail Transit Project, Los Angeles County Metropolitan Transportation Authority (LACMTA), Los Angeles, CA; (7) Moline Multimodal Station, Rock Island County Metropolitan Mass Transit District (MetroLINK), Moline, IL; (8) North White Plains Parking Garage Project, Metropolitan Transportation Authority Metro-North Railroad, White Plains, NY. The purpose of this notice is to announce publicly the environmental decisions by FTA on the subject projects and to activate the limitation on any claims that may challenge these final environmental actions.

DATES: By this notice, FTA is advising the public of final agency actions subject to Section 139(I) of Title 23, United States Code (U.S.C.). A claim seeking judicial review of FTA actions announced herein for the listed public transportation project will be barred unless the claim is filed on or before January 30, 2012.

FOR FURTHER INFORMATION CONTACT: Adam Stephenson, Environmental Protection Specialist, Office of Planning and Environment, 202–366–5183, or Christopher Van Wyk, Attorney-Advisor, Office of Chief Counsel, 202–366–1733. FTA is located at 1200 New Jersey Avenue, SE., Washington, DC 20590. Office hours are from 9 a.m. to 5:30 p.m., EST, Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION: Notice is hereby given that FTA has taken final agency actions by issuing certain approvals for the public transportation projects listed below. The actions on these projects, as well as the laws under which such actions were taken, are described in the documentation issued in connection with the project to comply with the National Environmental Policy Act (NEPA) and in other documents in the FTA administrative record for the projects. Interested parties may contact either the project sponsor or the relevant FTA Regional Office for more information on the project. Contact information for FTA's Regional Offices may be found at <http://www.fta.dot.gov>.

This notice applies to all FTA decisions on the listed projects as of the issuance date of this notice and all laws under which such actions were taken.

including, but not limited to, NEPA [42 U.S.C. 4321–4375], Section 4(f) of the Department of Transportation Act of 1966 [49 U.S.C. 303], Section 106 of the National Historic Preservation Act [16 U.S.C. 470f], and the Clean Air Act [42 U.S.C. 7401–7671q]. This notice does not, however, alter or extend the limitation period of 180 days for challenges of project decisions subject to previous notices published in the **Federal Register**. The projects and actions that are the subject of this notice are:

1. *Project name and location:* Ardmore Transit Center, Ardmore, Lower Merion Township, Montgomery County, PA. *Project sponsor:* Southeastern Pennsylvania Transportation Authority (SEPTA). *Project description:* The project is the Ardmore Transit Center, which will be located between, approximately, Station Avenue and the Amtrak Line and Anderson Avenue and the Lower Merion Township Building. The transit center will consist of three main elements: The reconstructed Ardmore Station, located on the site of the existing train station; the parking garage, located on the site of the existing municipal (Athensville) parking lot; and a mixed-use building with below grade parking for tenants, located at the site of the existing SEPTA/Amtrak and municipal parking lots. *Final agency actions:* Section 106 finding of no historic properties affected; no use of Section 4(f) properties; regional and project-level air quality conformity determination; and a Finding of No Significant Impact (FONSI) dated June 2011. *Supporting documentation:* Environmental Assessment dated February 2011.
2. *Project name and location:* Charlotte Streetcar Project, Charlotte, NC. *Project sponsor:* City of Charlotte. *Project description:* The project is a conventional in-street-running electric streetcar operating in mixed traffic along a 10-mile corridor, beginning at Rosa Parks Place Community Transit Center, and proceeding through downtown Charlotte to the proposed Charlotte Gateway Station, the Charlotte Transportation Center, and finally to the Eastland Community Transit Center. A streetcar vehicle maintenance facility will be constructed in a future phase of the project. *Final agency actions:* Section 106 finding of no adverse effect; Section 4(f) *de minimis* impact determination; regional and project-level air quality conformity; and a Finding of No Significant Impact (FONSI) dated June 22, 2011. *Supporting documentation:* Draft

Environmental Assessment dated March 28, 2011.

3. *Project name and location:* Cincinnati Streetcar Project, Cincinnati, OH. *Project sponsor:* City of Cincinnati. *Project description:* The project is a streetcar system that will include one set of at-grade tracks placed along 3.1 miles of city streets, along with 16 new stops with shelters. The project also includes four traction power stations and a maintenance and storage facility. *Final agency actions:* a Section 106 Memorandum of Agreement; no use of Section 4(f) properties; project-level air quality conformity; and a Finding of No Significant Impact (FONSI) dated June 2011. *Supporting documentation:* Environmental Assessment dated March 2011 and Supplemental Environmental Assessment dated May 2011.

4. *Project name and location:* Greenville Intermodal Transportation Center, Greenville, NC. *Project sponsor:* City of Greenville. *Project description:* The project will construct an intermodal transportation center (ITC) in downtown Greenville. The project would include a two-story transfer center with space for public areas, ticketing services, support facilities, small retail areas, covered bus bays, limited automobile parking, taxi waiting space, and space for regional bus services. *Final agency actions:* a Section 106 Memorandum of Agreement; Section 4(f) determination; and a Finding of No Significant Impact (FONSI) dated June 2011. *Supporting documentation:* Environmental Assessment dated April 2011.

5. *Project name and location:* New Kirk Bus Division, Baltimore City, MD. *Project sponsor:* Maryland Transit Administration. *Project description:* The project is to expand and modernize the existing Kirk Division bus garage and maintenance facility. *Final agency actions:* Section 106 finding of no historic properties affected; no use of Section 4(f) properties; and a Finding of No Significant Impact (FONSI) dated April 2011. *Supporting documentation:* Environmental Assessment dated March 2011.

6. *Project name and location:* Mid-City/Exposition Corridor Light Rail Transit Project, Los Angeles, CA. *Project sponsor:* Los Angeles County Metropolitan Transportation Authority. *Project description:* The Mid-City/Exposition Corridor Light Rail Transit Project consists of a light rail system that would run 8.6 miles from 7th Street/Metro Center Station in Downtown Los Angeles to the intersection of Washington and National Boulevards in Culver City. The light rail transit fixed guideway would operate in a dual track configuration mainly at-

grade in selected streets or in an exclusive LACMTA-owned Right-of-Way. FTA reviewed information provided by LACMTA on project enhancements proposed since the FTA issued a First Addendum to the Record of Decision (ROD) in March 2009. Since the First Addendum, the project changed to include the addition of the Farmdale Station, which requires construction of a new Dorsey High School staff parking lot. The Farmdale Station and associated parking lot construction were fully evaluated in a Supplemental Environmental Assessment/Finding of No Significant Impact (EA/FONSI). The revised project also includes modification of the Storage and Inspection Facility at Long Beach Avenue. The concept for the Storage and Inspection Facility is similar to the Midday Layover Facility that was originally proposed in the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), and would not result in any environmental changes or new potentially significant environmental impacts beyond those evaluated in the Final EIS/EIR. *Final agency actions:* FONSI, dated November 2010 and the Second Addendum to the ROD signed June 2011. *Supporting documentation:* Final EIS/EIR dated October 2005; Supplemental EA, dated October 2010.

7. *Project name and location:* Moline Multimodal Station, Moline, IL. *Project sponsor:* Rock Island County Metropolitan Mass Transit District (MetroLINK). *Project description:* The project is to construct a Multimodal Station in Moline, IL, which includes the adaptive re-use of a six-story warehouse located at 1201 4th Avenue. *Final agency actions:* Section 106 finding of no adverse effect; *de minimis* impact to Section 4(f) properties; and Documented Categorical Exclusion and FTA Findings dated June 2011. *Supporting documentation:* Documented Categorical Exclusion and FTA Findings dated June 2011.
8. *Project name and location:* North White Plains Parking Garage Project, White Plains, NY. *Project sponsor:* Metropolitan Transportation Authority Metro-North Railroad. *Project description:* The project is to construct an approximately 500-space, five-story parking garage to accommodate the future long-term ridership growth and demand for parking at the North White Plains railroad station. The parking garage would be located on a 0.854-acre property owned by Metro-North located at 50 Harlem Avenue. *Final agency actions:* Section 106 finding of no effect; no use of Section 4(f) properties and a Finding of No Significant Impact

(FONSI) dated June 2011. *Supporting documentation:* Environmental Assessment dated January 2010.

Issued on: July 27, 2011.

Elizabeth S. Riklin,

Deputy Associate Administrator for Planning and Environment, Washington, DC.

[FR Doc. 2011-19434 Filed 8-1-11; 8:45 am]

BILLING CODE

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

Announcing the Nineteenth Public Meeting of the Crash Injury Research and Engineering Network (CIREN)

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.
ACTION: Meeting announcement.

SUMMARY: This notice announces the Nineteenth Public Meeting of members of the Crash Injury Research and Engineering Network. CIREN is a collaborative effort to conduct research on crashes and injuries at six Level I Trauma Centers across the United States linked by a computer network. The current CIREN model utilizes two types of centers, medical and engineering. Medical centers are based at Level I Trauma Centers that admit large numbers of people injured in motor vehicle crashes. These teams are led by trauma surgeons and emergency physicians and also include a crash investigator and project coordinator. Engineering centers are based at academic engineering laboratories that have experience in motor vehicle crash and human injury research. Engineering teams partner with trauma centers to enroll crash victims into the CIREN program. Engineering teams are led by mechanical engineers, typically trained

in the area of impact biomechanics. Engineering teams also include trauma/emergency physicians, a crash investigator, and a project coordinator. Either type of team typically includes additional physicians and/or engineers, epidemiologists, nurses, and other researchers. The CIREN process combines prospective data collection with professional multidisciplinary analysis of medical and engineering evidence to determine injury causation in every crash investigation conducted. Researchers can review data and share expertise, which may lead to a better understanding of crash injury mechanisms and the design of safer vehicles.

The six centers will give presentations on current research based on CIREN data. Topics include side air bag analysis utilizing CIREN weighted data; the role of frailty in crash related injuries; fatalities and serious injuries in multiple event rollover crashes; validation of prehospital trauma triage; mechanism of injury; small overlap frontal crashes and injury causation; and brain injury analysis. The final agenda will be posted to the CIREN Web site that can be accessed by going to the NHTSA homepage <http://www.nhtsa.dot.gov/>, click on Vehicle Safety Research on the right side of the top toolbar, then click on Crash Injury Research and Engineering Network (CIREN) in the box on the left. The agenda will be posted one week prior to the meeting.

DATES AND TIME: The meeting is scheduled from 9 a.m. to 4 p.m. on Wednesday, September 7, 2011.

ADDRESSES: The meeting will be held at: Department of Transportation Headquarters, Oklahoma Room, 1200 New Jersey Avenue, SE., Washington, DC 20590.

To Register for this Event: It is essential that you pre-register to

expedite the security process for entry to the meeting facility. Please send your name, affiliation, phone number, and e-mail address to Rodney.Rudd@dot.gov by Thursday, September 1, 2011, in order to have your name added to the pre-registration list. Everyone must have a government-issued photo identification to be admitted to the facility.

For General Information: Rodney Rudd (202) 366-5932. Mark Scarboro (202) 366-5078 or Cathy McCullough (202) 366-4734.

SUPPLEMENTARY INFORMATION: NHTSA has held CIREN public meetings on a regular basis since 2000, including quarterly meetings and annual conferences. This is the nineteenth such meeting. Presentations from these meetings are available through the NHTSA Web site. NHTSA plans to continue holding CIREN meetings on a regular basis to disseminate CIREN information to interested parties. Individual CIREN cases collected since 1998 may be viewed from the NHTSA/CIREN Web site at the address provided above. Should it be necessary to cancel the meeting due to inclement weather or to any other emergencies, a decision to cancel will be made as soon as possible and posted immediately on CIREN's Web site as indicated above. If you do not have access to the Web site, you may call or e-mail the contacts listed in this announcement and leave your telephone number or e-mail address. You will be contacted only if the meeting is postponed or canceled.

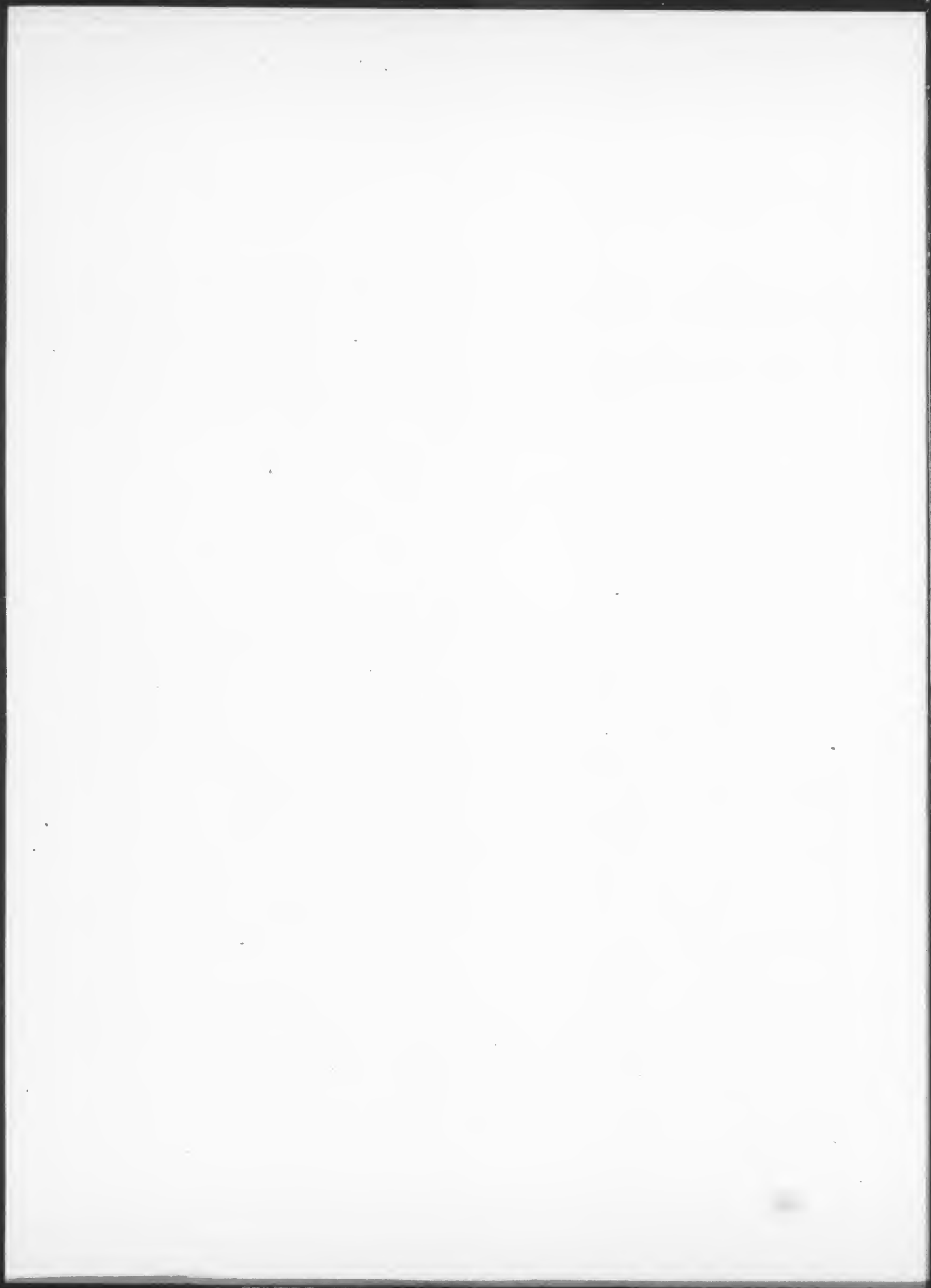
Issued on: July 27, 2011.

John Maddox,

Associate Administrator for Vehicle Safety Research.

[FR Doc. 2011-19456 Filed 8-1-11; 8:45 am]

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Part II

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Listing 23 Species on Oahu as Endangered and Designating Critical Habitat for 124 Species; Proposed Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R1-ES-2010-0043; MO 92210-0-0009]

RIN 1018-AV49

Endangered and Threatened Wildlife and Plants; Listing 23 Species on Oahu as Endangered and Designating Critical Habitat for 124 Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list 23 species on the island of Oahu in the Hawaiian Islands as endangered under the Endangered Species Act of 1973, as amended (Act). We also propose to designate critical habitat for these 23 species, to designate critical habitat for 2 plant species that are already listed as endangered, and revise critical habitat for 99 plant species that are already listed as endangered or threatened. The proposed critical habitat designation totals 43,491 acres (ac) (17,603 hectares (ha)), and includes occupied and unoccupied habitat. Approximately 93 percent of the area being proposed as critical habitat is already designated as critical habitat for the 99 plant species or other species. In this proposed rule we are also proposing a taxonomic revision of the scientific names of nine plant species.

DATES: We will consider comments received on or postmarked on or before October 3, 2011. Please note that if you are using the Federal eRulemaking Portal (see **ADDRESSES** section below), the deadline for submitting an electronic comment is Eastern Time on this date. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by September 16, 2011.

ADDRESSES: You may submit comments by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. In the box that reads "Enter Keyword or ID," enter the docket number for this proposed rule, which is FWS-R1-ES-2010-0043. Check the box that reads "Open for Comments/Submission," and click the Search Button. You should then see an icon that reads "Submit a Comment." Please ensure that you have found the correct rulemaking before submitting your comment.

- U.S. mail or hand-delivery: Public Comments Processing, Attn: FWS-R1-ES-2010-0043; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042; Arlington, VA 22203.

We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).

FOR FURTHER INFORMATION CONTACT: Loyal Mehrhoff, Field Supervisor, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard, Box 50088, Honolulu, HI 96850; by telephone at 808-792-9400; or by facsimile at 808-792-9581. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Public Comments

We intend that any final action resulting from this proposal will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we solicit comments or suggestions on this proposed rule from other concerned governmental agencies, the scientific community, industry, or other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to the 23 species proposed for listing, and regulations that may be addressing those threats.

(2) Additional information concerning the range, distribution, and population size of each of the 23 species proposed for listing, including the locations of any additional populations of these species.

(3) Any information on the biological or ecological requirements of the 23 species proposed for listing.

(4) Current or planned activities in the areas occupied by both the 23 species proposed for listing and the additional 101 plant species proposed for critical habitat designation or revision, and possible impacts of these activities on this species.

(5) The reasons why we should or should not designate habitat for all species in this proposal as "critical habitat" under section 4 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including whether there are threats to these species from human activity, the degree of which can be expected to increase due to the designation, and

whether the benefit of designation would outweigh threats to these species caused by the designation, such that the designation of critical habitat is prudent.

(6) Whether a revision of critical habitat is warranted for the 99 plant species already listed as endangered or threatened under the Act.

(7) Specific information on:

- The amount and distribution of critical habitat for the species included in this proposed rule;
- What areas currently occupied, and that contain the necessary physical or biological features essential for the conservation of the species, we should include in the designation and why;
- Whether special management considerations or protections may be required for the physical or biological features essential to the conservation of the species in this proposed rule; and
- What areas not currently occupied are essential to the conservation of the species and why.

(8) Land use designations and current or planned activities in the areas occupied by the species, and the possible impacts of proposed or revised critical habitat on these designations or activities.

(9) Any foreseeable economic, national security, or other relevant impacts of designating any area as critical habitat. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas that exhibit these impacts.

(10) Whether the benefits of excluding any particular area from critical habitat outweigh the benefits of including that area as critical habitat under section 4(b)(2) of the Act, after considering the potential impacts and benefits of the proposed critical habitat designation. Under section 4(b)(2), we may exclude an area from critical habitat if we determine that the benefits of such exclusion outweigh the benefits of including that particular area as critical habitat, unless failure to designate that specific area as critical habitat will result in the extinction of the species. We request specific information on:

- The benefits of including specific areas in the final designation and supporting rationale;
- The benefits of excluding specific areas from the final designation and supporting rationale; and
- Whether any specific exclusions may result in the extinction of the species and why.

(11) Whether our exemptions under section 4(a)(3)(B)(i) of the Act of the lands on Department of Defense (DOD) land at Dillingham Military Reservation,

Kahuku Training Area, Kawaiiloa Training Area, Makua Military Reservation, Schofield Barracks East Range, and Schofield Barracks Military Reservation, are or are not appropriate and why.

(12) Information on the projected and reasonably likely impact of climate change on the species included in this proposed rule, and any special management needs or protections that may be needed in the critical habitat areas we are proposing.

(13) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

(14) Specific information on ways to improve the clarity of this rule as it pertains to completion of consultations under section 7 of the Act.

(15) Comments on our proposal to revise the taxonomic classification for the nine plant species identified in this proposed rule.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments only by the methods described in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. If you provide personal identifying information in addition to the required items specified in the previous paragraph, such as your street address, phone number, or e-mail address, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection at <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

You may obtain copies of the proposed rule by mail from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**) or by visiting the Federal eRulemaking Portal at <http://www.regulations.gov>.

Background

It is our intent to discuss below only those topics directly relevant to the listing of and designation of critical

habitat for the species in this proposed rule.

Previous Federal Action

Nineteen of the 23 species proposed for listing are candidate species (75 FR 69222; November 10, 2010). Candidate species are those taxa for which the Service has sufficient information on their biological status and threats to propose them for listing under the Act, but for which the development of a listing regulation has been precluded to date by other higher priority listing activities. The current candidate species addressed in this proposed listing rule include the plants *Bidens amplexans*, *Cyanea calycina*, *C. lanceolata*, *Cyrtandra kaulantha*, *C. sessilis*, *Doryopteris takeuchii*, *Korthalsella degeneri*, *Melicope christophersenii*, *M. hiikae*, *M. inakaha*, *Platydesma cornuta* var. *cornuta*, *C. sessilis*, *decurrens*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, and *Zanthoxylum oahuense*; and the blackline Hawaiian damselfly (*Megalagrion nigrohamatum nigrolineatum*), the crimson Hawaiian damselfly (*M. leptodemas*), and the oceanic Hawaiian damselfly (*M. oceanicum*). The candidate status of all of these species was most recently assessed and reaffirmed in the November 10, 2010, Notice of Review of Native Species that are Candidates for Listing as Threatened or Endangered (CNOR) (75 FR 69222).

On May 4, 2004, the Center for Biological Diversity petitioned the Secretary of the Interior to list 225 species of plants and animals, including the 19 candidate species listed above, as endangered or threatened under the provisions of the Act. Since then, we have published our annual findings on the May 4, 2004, petition (including our findings on the 19 candidate species listed above) in the CNORs dated May 11, 2005 (70 FR 24870), September 12, 2006 (71 FR 53756), December 6, 2007 (72 FR 69034), December 10, 2008 (73 FR 75176), November 9, 2009 (74 FR 57803), and November 10, 2010 (75 FR 69222).

In addition to the 19 candidate species, we are proposing to list four species of plants endemic to Oahu, which include *Cyanea purpurellifolia*, *Cyrtandra gracilis*, *C. waiolani*, and *Tetraplasandra lydgatei*. These four Oahu plant species, as well as approximately 180 others on the Hawaiian Islands, have been identified as the "rarest of the rare" Hawaiian plant species in need of immediate conservation, under the multi-agency (Federal, State, and private) Plant Extinction Prevention (PEP) Program.

The goal of this program is to prevent the extinction of plant species that currently have fewer than 50 individuals remaining in the wild on the islands of Kauai, Oahu, Maui, Molokai, Lanai, and Hawaii (Hawaii Division of Forestry and Wildlife (DOFAW) 2007; Service 2007). We believe these four endemic Oahu plant species warrant listing under the Act for the reasons discussed in the Summary of Factors Affecting the 23 Species Proposed for Listing section (below). Because these 4 plant species occur within 3 of the 7 ecosystems identified in this proposed rule, and share common threats with the other 19 species proposed for listing under the Act, we have included them in this proposed rule to provide them with protection under the Act in an expeditious manner.

On June 17, 2003, we published a final rule designating approximately 55,040 ac (22,274 ha) as critical habitat for 99 plant species on Oahu (68 FR 35950; June 17, 2003). If made final, this rule would supersede that designation. In addition, we are proposing critical habitat for two endangered plant species for which critical habitat has not been previously proposed or designated. When we listed the plant *Chamaesyce skottsbergii* var. *skottsbergii* in 1982 (47 FR 36846), we found that the designation of critical habitat was not determinable, since we were unable to identify the biological needs of this species (see *Proposed Taxonomic Name Changes* below for additional information). When we listed the plant *Achyranthes splendens* var. *rotundata* as endangered in 1986 (58 FR 10518), we found that designation of critical habitat was not prudent because this plant was threatened by taking for lei-making, and the publication of plant locations could make this plant more vulnerable to collection by individuals. We have reviewed the best available information on both species, and have determined the designation of critical habitat is now prudent (see *Prudence Determination* below for additional information).

An Ecosystem-Based Approach to Listing 23 Species on Oahu

On the island of Oahu, as on most of the Hawaiian Islands, native species that occur in the same habitat types (ecosystems) depend on many of the same biological features and on the successful functioning of that ecosystem to survive. We have therefore organized the species addressed in this proposed rule by common ecosystems. Although the listing determination for each species is analyzed separately, we have

organized the specific analysis for each species within the context of the broader ecosystem in which it occurs, to avoid redundancy. In addition, native species that share ecosystems often face a suite of common factors that may threaten them, and ameliorating or eliminating these threats requires similar management actions. Effective management of these threats often requires implementation of conservation actions at the ecosystem scale, to enhance or restore critical ecological processes and provide for long-term viability of those species in their native environment. Thus, by taking this approach, we hope not only to organize

this proposed rule efficiently, but also to more effectively focus conservation management efforts on the common threats that occur across these ecosystems, restore ecosystem functionality for the recovery of each species, and provide conservation benefits for associated native species, thereby potentially precluding the need to list other species under the Act that occur in these shared ecosystems.

We propose to list *Bidens amplexans*, *Cyanea calycina*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra waiolani*, *Doryopteris takeuchii*, *Korthalsella*

degeneri, *Melicope christophersenii*, *Melicope hiiakae*, *Melicope makahae*, *Platydesma cornuta* var. *cornuta*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Tetraplasandra lydgatei*, and *Zanthoxylum oahuense*; and the blackline, crimson, and oceanic Hawaiian damselflies, endemic to the island of Oahu, as endangered species. These 23 species (20 plants and 3 damselflies) are found in 7 ecosystem types: coastal, lowland dry, lowland mesic, lowland wet, montane wet, dry cliff, and wet cliff (Table 1).

TABLE 1—THE 23 SPECIES AND THE ECOSYSTEMS UPON WHICH THEY DEPEND

Ecosystem	Species
Coastal	Plants: <i>Bidens amplexans</i> .
Lowland Dry	Plants: <i>Bidens amplexans</i> , <i>Doryopteris takeuchii</i> , <i>Pleomele forbesii</i> .
Lowland Mesic	Plants: <i>Cyanea calycina</i> , <i>Cyanea lanceolata</i> , <i>Cyrtandra waiolani</i> , <i>Melicope makahae</i> , <i>Platydesma cornuta</i> var. <i>decurrens</i> , <i>Pleomele forbesii</i> , <i>Pteralyxia macrocarpa</i> , <i>Tetraplasandra lydgatei</i> . Animals: oceanic Hawaiian damselfly.
Lowland Wet	Plants: <i>Cyanea calycina</i> , <i>Cyanea lanceolata</i> , <i>Cyanea purpurellifolia</i> , <i>Cyrtandra gracilis</i> , <i>Cyrtandra kaulantha</i> , <i>Cyrtandra sessilis</i> , <i>Cyrtandra waiolani</i> , <i>Melicope hiiakae</i> , <i>Melicope makahae</i> , <i>Platydesma cornuta</i> var. <i>cornuta</i> , <i>Pleomele forbesii</i> , <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> , <i>Pteralyxia macrocarpa</i> , <i>Zanthoxylum oahuense</i> . Animals: crimson Hawaiian damselfly, blackline Hawaiian damselfly, oceanic Hawaiian damselfly.
Montane Wet	Plants: <i>Cyanea calycina</i> , <i>Melicope christophersenii</i> .
Dry Cliff	Plants: <i>Korthalsella degeneri</i> , <i>Melicope makahae</i> , <i>Platydesma cornuta</i> var. <i>decurrens</i> , <i>Pleomele forbesii</i> , <i>Pteralyxia macrocarpa</i> .
Wet Cliff	Plants: <i>Cyanea calycina</i> , <i>Cyanea purpurellifolia</i> , <i>Cyrtandra kaulantha</i> , <i>Cyrtandra sessilis</i> , <i>Melicope christophersenii</i> , <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> , <i>Pteralyxia macrocarpa</i> . Animals: crimson Hawaiian damselfly, oceanic Hawaiian damselfly.

Most of these species are found in multiple ecosystems. For each species, we identified and evaluated those factors that threaten the species and that may be common to all of the species at the ecosystem level. For example, the degradation of habitat by nonnative plants is considered a threat to each species within each ecosystem. As a result, this threat factor is considered to be a multiple ecosystem threat, as each individual species within each ecosystem faces a threat that is essentially identical in terms of the nature of the impact, its severity, its imminence, and its scope. We further identified and evaluated any threat factors that may be unique to certain species, that is, threat factors that do not apply to all species under consideration within the same ecosystem. For example, the threat of predation by nonnative fish is unique to the three damselflies in this proposed rule; it is not applicable to any of the other species proposed for listing. We have identified such threat factors, which apply only to certain species within the ecosystems addressed here, as species-specific threats.

An Ecosystem-Based Approach to Determining Physical or Biological Features of Critical Habitat

Under the Act, we are required to designate critical habitat to the maximum extent prudent and determinable concurrently with the publication of a final determination that a species is endangered or threatened. In this proposed rule, we are proposing to designate critical habitat for the 23 Oahu species for which we are also proposing endangered status. We are also proposing to designate critical habitat for two Oahu plants that are already listed as endangered species but for which critical habitat has not been designated. In addition, we are proposing to revise critical habitat for 99 Oahu plants already listed as endangered or threatened species. When critical habitat was designated for these 99 Oahu plant species in 2003 (68 FR 35950; June 17, 2003), it was based primarily on the specific localities where the species were known to occur. We are proposing to revise critical habitat for these species because since then, we have learned that many native Hawaiian plants and animals currently

occupy only areas of marginal habitat because the threats are reduced in these areas, and can thrive when reintroduced into historical habitats when threats are effectively managed. For this reason, we believe it is important to designate unoccupied habitat where it is essential for the recovery of the species. Based on new information on plant occurrences and a better understanding of the species' biological requirements, the physical or biological features have been more precisely identified, and now include elevation, precipitation, substrate, canopy, subcanopy, and understory characteristics. We believe the added precision will be helpful in identifying the special management considerations or protections needed in specific occupied areas to recover the species. In addition, because the 2003 designation focused on discrete areas occupied by the species at the time of listing, the result was an overlapping and confusing patchwork of critical habitat areas for the 99 plant species that was difficult for the public to interpret. Although this proposed revision of critical habitat is solely based on occupied areas with physical or biological features essential to the

species' conservation, and unoccupied areas that are essential to the species' conservation, we believe the end result will provide for greater public understanding of the conservation and recovery needs of each of the species in the specific areas addressed in this proposed rule.

In this proposed rule, we propose critical habitat for 124 species in 66 multiple-species critical habitat units. Although critical habitat is identified for each species individually, we have found that the conservation of each depends, at least in part, on the successful functioning of the physical or biological features of the commonly shared ecosystem. Each critical habitat unit identified in this proposed rule contains the physical or biological features essential to the conservation of those individual species that occupy that particular unit, or contains areas essential to the conservation of those species that do not presently occupy that particular unit but depend on that ecosystem type for recovery purposes. Where the unit is not occupied by a particular species, we believe it is still essential for the conservation of that species. The designation of unoccupied habitat allows for the expansion of its range and reintroduction of individuals into areas where it occurred historically, and provides area for recovery in the case of a stochastic event at one or more locations where the species occurs.

Each of the areas proposed for designation represents critical habitat for multiple species, based upon their shared habitat requirements, and takes into account any species-specific conservation needs as appropriate. For example, the presence of a perennial stream is essential for the conservation of the blackline Hawaiian damselfly, but is not a requirement shared by all species within the same ecosystem; however, a functioning ecosystem is also essential to the damselfly because the ecosystem provides other physical or biological features that support the damselfly's specific life-history requirements.

The Island of Oahu

The island of Oahu is the third oldest and third largest of the eight main Hawaiian Islands, located southeast of Kauai and northwest of Molokai and Lanai (Foote *et al.* 1972, p. 19; Department of Geography, University of Hawaii at Hilo (UHH) 1998, p. 7). It was formed from two shield volcanoes that ceased erupting about 1 to 2 million years ago, and is about 600 square (sq) miles (mi) (1,557 sq kilometers (km)) in area (Macdonald and Abbot 1970, p. 265; Foote *et al.* 1972, p. 19; Department

of Geography, UHH 1998, p. 7). Two mountain ranges resulted from these eruptions, the western Waianae range and eastern Koolau range. Oahu is characterized by the fact that the two mountain ranges are aligned perpendicular to the prevailing trade winds, so that distinctive leeward and windward climates result, with the Waianae range in the rain shadow of the Koolau range (Department of Geography, UHH 1998, p. 7; Wagner *et al.* 1999, p. 39). The maximum elevation on Oahu is 4,025 feet (ft) (1,225 meters (m)) at the summit of Mount Kaala in the Waianae Mountains, and this higher elevation area is not affected by the rain shadow (Blumenstock and Price 1972, p. 156; Wagner *et al.* 1999, pp. 39–41). The maximum elevation is relatively low compared to the higher Hawaiian Islands. Consequently, Oahu does not have dry alpine areas, as the mountains do not reach the height of the temperature inversion layer (Wagner *et al.* 1999, pp. 38, 40). Rainfall ranges from less than 20 inches (in) (500 millimeters (mm)) to more than 250 in (6,350 mm) per year (Department of Geography, UHH 1998, p. 7). Temperatures in the Hawaiian Islands differ by an average of 41 degrees Fahrenheit (°F) (22 degrees Celsius (°C)) throughout the year. Since temperature decreases with increasing elevation, microclimates range from tropical to sub-arctic across the island chain (Wagner *et al.* 1999, pp. 37–38), although the sub-arctic zone does not occur on Oahu.

The current soil classification system for the Hawaiian Islands distinguishes soil types based on their measurable physical and chemical properties and environmental factors that influenced their formation. Widely ranging geological ages of rocks, different rates of weathering, and microclimates create these highly variable soils (Sherman 1972, pp. 205–207). Most soils are volcanic in origin; a few formed from organic material and sand (Foote *et al.* 1972, p. 1). On Oahu, sizable areas of highly weathered, red-colored oxisols (nutrient poor soils, red or yellowish) occur on the Schofield Plateau; in contrast, the Koolau and Waianae mountain ranges have large areas of rocky, unweathered entisols (soils with few or no horizontal layers) due to erosion (Gavenda *et al.* 1998, p. 92).

Because of its age and relative isolation, species diversity and endemism are high in the Hawaiian archipelago (Gagne and Cuddihy 1999, p. 45). However, the flora and fauna of Oahu have undergone extreme alterations because of past and present land use and other activities. Land with

rich soils was altered by the early Hawaiians and, more recently, converted to agricultural use (Gagne and Cuddihy 1999, p. 45) or pasture. Intentional and inadvertent introduction of alien plant and animal species has contributed to the reduction in range of native species on the island (throughout this proposal, the terms "alien," "feral," "nonnative," and "introduced" all refer to species that are not naturally native to the Hawaiian Islands.) Most of the taxa included in this proposed rule persist on steep slopes, precipitous cliffs, valley headwalls, and other regions where unsuitable topography has prevented urbanization and agricultural development, or where inaccessibility has limited encroachment by nonnative plant and animal species.

Oahu Ecosystems

The seven Oahu ecosystems that support the species addressed in this proposed rule are described in the following sections.

Coastal

The coastal ecosystem is found on all of the main Hawaiian Islands, with the highest species diversity found in the least populated coastal areas of Hawaii, Maui, Molokai, Kahoolawe, Oahu, and Kauai, and their associated islets. On Oahu, the coastal ecosystem includes mixed herblands, shrublands, and grasslands, from sea level to approximately 980 ft (300 m) in elevation, generally within a narrow zone above the influence of waves to within 330 ft (100 m) inland, sometimes extending farther inland if strong prevailing onshore winds drive sea spray and sand dunes into the lowland zone (The Nature Conservancy (TNC) 2006a). The coastal vegetation zone is typically dry, with annual rainfall of less than 20 in (50 cm); however, windward rainfall may be high enough (up to 40 in (100 cm)) to support mesic-associated and sometimes wet-associated vegetation (Gagne and Cuddihy 1999, pp. 54–66). Biological diversity is low to moderate in this ecosystem, but may include some specialized plants and animals such as nesting seabirds and the rare native plant *Sesbania tomentosa* (ohai) (TNC 2006a). The plant *Bidens amplexans*, which is proposed for listing as endangered in this proposed rule, is reported from this ecosystem on Oahu (Hawaii Biodiversity and Mapping Program (HBMP) 2008; TNC 2007).

Lowland Dry

The lowland dry ecosystem includes shrublands and forests generally below

3,300 ft (1,000 m) elevation that receive less than 50 in (130 centimeters (cm)) annual rainfall, or are in otherwise prevailing dry substrate conditions. Areas consisting of predominantly native species in the lowland dry ecosystem are now rare; however, this ecosystem is found on the islands of Hawaii, Molokai, Lanai, Kahoolawe, Oahu, and Kauai, and is best represented on the leeward sides of the islands (Gagne and Cuddihy 1999, p. 67). On Oahu, this ecosystem is typically found on the leeward side of the Waianae Mountains, and the leeward southern coast, including Diamond Head Crater (Gagne and Cuddihy 1999, p. 67; TNC 2006b). Biological diversity is low to moderate in this ecosystem, and includes specialized animals and plants such as the Hawaiian owl or pueo (*Asio flammeus sandwichensis*) and *Santalum ellipticum* (iliahialoe) (Wagner *et al.* 1999, pp. 1,220–1,221; TNC 2006b). The plants *Bidens amplexans*, *Doryopteris takeuchii*, and *Pleomele forbesii*, which are proposed for listing as endangered in this proposed rule, are reported in this ecosystem on Oahu (HBMP 2008; TNC 2007).

Lowland Mesic

The lowland mesic ecosystem includes a variety of grasslands, shrublands, and forests, generally below 3,300 ft (1,000 m) elevation, that receive between 50 and 75 in (130 and 190 cm) annual rainfall, or are in otherwise mesic substrate conditions (TNC 2006c). In the Hawaiian Islands, this ecosystem is found on Hawaii, Maui, Molokai, Lanai, and Kauai, on both windward and leeward sides of the islands. On Oahu, this ecosystem is typically found on the leeward slopes of both the Waianae and Koolau Mountains (Gagne and Cuddihy 1999, p. 75; TNC 2006c). Biological diversity is high in this system (TNC 2006c). The plants *Cyanea calycina*, *C. lanceolata*, *Cyrtandra waiolani*, *Melicope makahae*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, and *Tetraplasandra lydgatei*, and the oceanic Hawaiian damselfly, which are proposed for listing as endangered in this proposed rule, are reported in this ecosystem (HBMP 2008; TNC 2007).

Lowland Wet

The lowland wet ecosystem is generally found below 3,300 ft (1,000 m) elevation on the windward sides of the main Hawaiian Islands, except Kahoolawe and Niihau (Gagne and Cuddihy 1999, p. 85; TNC 2006d). These areas include a variety of wet

grasslands, shrublands, and forests that receive greater than 75 in (190 cm) annual precipitation, or are in otherwise wet substrate conditions (TNC 2006d). On Oahu, this system is best developed in wet valleys and slopes along the summit of the Koolau Mountains, with a small area located on the windward side of the summit of the Waianae Mountains (TNC 2006d). Biological diversity is high in this system (TNC 2006d). The plants *Cyanea calycina*, *C. lanceolata*, *C. purpurellifolia*, *Cyrtandra gracilis*, *C. kaulantha*, *C. sessilis*, *C. waiolani*, *Melicope hiiakae*, *M. makahae*, *Platydesma cornuta* var. *cornuta*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, and *Zanthoxylum oahuense*; and the blackline, crimson, and oceanic Hawaiian damselflies, which are proposed for listing as endangered in this proposed rule, are reported in this ecosystem (HBMP 2008; TNC 2007).

Montane Wet

The montane wet ecosystem is composed of natural communities (grasslands, shrublands, forests, and bogs) found at elevations generally between 3,300 and 6,600 ft (1,000 and 2,000 m), in areas where annual precipitation is greater than 75 in (190 cm) (TNC 2006e). This system is found on all of the main Hawaiian Islands except Niihau and Kahoolawe (only the islands of Molokai, Maui, and Hawaii have areas above 4,020 ft (1,223 m)) (TNC 2006e). On Oahu, this ecosystem is found only at the summit of the Waianae Mountains (TNC 2007). Biological diversity is moderate to high (TNC 2006e). Due to the restricted distribution of this ecosystem on Oahu, only the plants *Cyanea calycina* and *Melicope christophersenii*, which are proposed for listing as endangered in this proposed rule, are reported in this ecosystem (HBMP 2008; TNC 2007).

Dry Cliff

The dry cliff ecosystem is composed of vegetation communities occupying steep slopes (greater than 65 degrees) in areas that receive less than 75 in (190 cm) of rainfall annually, or are in otherwise dry substrate conditions (TNC 2006f). This ecosystem is found on all of the main Hawaiian Islands except Niihau, and on the island of Oahu is best represented along the leeward slopes of the Waianae Mountains (TNC 2006f). A variety of shrublands occur within this ecosystem (TNC 2006f). Biological diversity is low to moderate (TNC 2006f). The plants *Korthalsella degeneri*, *Melicope makahae*, *Platydesma cornuta* var. *decurrens*,

Pleomele forbesii, and *Pteralyxia macrocarpa*, which are proposed for listing as endangered in this proposed rule, are reported in this ecosystem (HBMP 2008; TNC 2007).

Wet Cliff

The wet cliff ecosystem is generally composed of shrublands on near-vertical slopes (greater than 65 degrees) in areas that receive more than 75 in (190 cm) of annual precipitation, or in otherwise wet substrate conditions (TNC 2006g). This system is found on the islands of Hawaii, Maui, Molokai, Lanai, Oahu, and Kauai. On Oahu, this ecosystem is typically found along the entire length of the summit of the Koolau Mountains and at the summit of Mt. Kaala in the Waianae Mountains (TNC 2006g). Biological diversity is low to moderate (TNC 2006g). The plants *Cyanea calycina*, *C. purpurellifolia*, *Cyrtandra kaulantha*, *C. sessilis*, *Melicope christophersenii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*; and the crimson and oceanic Hawaiian damselflies, which are proposed for listing as endangered in this proposed rule, are reported in this ecosystem (HBMP 2008; TNC 2007).

Species Description of the 23 Species Proposed for Listing

Below is a brief description of each of the 23 species proposed for listing, presented in alphabetical order by genus. Plants are presented first, followed by animals.

Plants

Bidens amplexans (kookoolau), a perennial or sometimes annual herb in the sunflower family (Asteraceae), is restricted to windward cliffs and crests along the northern portion of the Waianae Mountains on the island of Oahu, in the coastal and lowland dry ecosystems, at elevations between 300 and 1,400 ft (90 and 430 m) (Ganders and Nagata 1999, p. 271; TNC 2007; HBMP 2008). This species intergrades with *B. torta* and forms hybrid swarms from near Kaena Point along the Waianae summit ridges to the head of Makua Valley (a hybrid swarm occurs where there is no reproductive barrier between distinct populations, or where a barrier has broken down). Pure *B. amplexans* is restricted to the windward cliffs and crests of the Waianae range (Ganders and Nagata 1999, p. 271). *Bidens amplexans* was historically known from five locations spanning 7 mi (11 km) in the northern Waianae Mountains including Makaleha Valley, Uluhulu Gulch, Puu Pueo to Alau Gulch, Manini Gulch to Alau Gulch, and Nihoa Gulch (HBMP 2008).

At last observation, it totaled fewer than 1,000 individuals in four locations separated by less than 4 mi (6 km): Kealia Trail on the east side of Haili Gulch; Kapuna-Kamimi Ridge on the road to the Pahole Natural Area Reserve (NAR); Kealia east of Kawaii Gulch; and from Kuaokala to Keawaula Ridge (J. Lau, in litt. 2001; HBMP 2008).

Cyanea calycina (haha), an unbranched shrub in the bellflower family (Campanulaceae), is found in both the Waianae and Koolau Mountains of Oahu in the lowland mesic, lowland wet, montane wet, and wet cliff ecosystems (Lammers 1999, p. 483; Wagner and Herbst 2003, p. 17; TNC 2007; HBMP 2008). In the Waianae Mountains, *C. calycina* occurs in *Acacia-Metrosideros-Dicranopteris* (koa-ohia-uluhe) forests at elevations between 1,800 and 3,920 ft (550 and 1,195 m), and in the Koolau Mountains this species occurs in wet *Metrosideros-Dicranopteris* forest and shrubland at elevations generally between 1,830 and 3,000 ft (558 and 900 m) (HBMP 2008). Historically, in the Waianae Mountains, plants were found from Palikea Gulch to Pualii Gulch (HBMP 2008). Currently, *C. calycina* is found from Pahole in the northern portion of the Waianae Mountains south along the summit to Palawai in 18 occurrences totaling at least 170 individuals (U.S. Army 2006; HBMP 2008). In the Koolau Mountains, *C. calycina* was known historically along the entire length of the range (HBMP 2008). Currently, 22 occurrences totaling between 155 and 169 individuals are known, from the most northern point at Kamananui Gulch along the summit ridges south to Konahuanui (U.S. Army 2006; HBMP 2008). The combined 40 occurrences total 325 to 339 individuals.

Cyanea lanceolata (haha) is an unbranched shrub in the bellflower family (Campanulaceae) that occurs in the southeastern Koolau Mountains in the lowland mesic and lowland wet ecosystems, at elevations generally between 1,000 and 2,500 ft (300 and 760 m) (Wagner *et al.* 1999, p. 483; Wagner and Herbst 2003, p. 17; TNC 2007; HBMP 2008). Historically, this species was wide-ranging along the Koolau Mountains, from the northern Schofield-Waikane area to Wailupe at the southern end of the range, in at least 17 occurrences (HBMP 2008). Currently, there are 7 known occurrences, totaling fewer than 123 individuals, sparsely scattered over a much smaller area of the southern and northern Koolau range. The southern occurrences include Kului-Hawaii Loa, Wailupe, Mauumae, and Waialae Nui, with an unconfirmed report of individuals in Pia Valley

(HBMP 2008; J. Lau, in litt. 2008). The northern occurrences include individuals north of Kawaii Stream, at Poamoho, and at Peahinaia (U.S. Army 2006).

Cyanea purpurellifolia (haha) is an unbranched shrub in the bellflower family (Campanulaceae) that occurs in the Koolau Mountains in the lowland wet and wet cliff ecosystems, at elevations generally between 1,860 and 2,160 ft (570 and 660 m) (TNC 2007; HBMP 2008). Historically, this species was known from a few individuals in the vicinity of Kaluanui Valley and north to Maakua-Papali Ridge (Lammers 1999, p. 484; Wagner and Herbst 2003, p. 17; HBMP 2008). Currently, *C. purpurellifolia* occurs in the northern Koolau Mountains from Maakua-Kaipapau to Punaluu-Kaluanui Ridge, in 5 occurrences totaling approximately 18 individuals (Plant Extinction Prevention (PEP) Program 2008, pp. 20–21; HBMP 2008).

Cyrtandra gracilis (haiwale) (Gesneriaceae, African violet family) is a perennial shrub that is found in *Metrosideros-Dicranopteris* forest in the lowland wet ecosystem at approximately 1,600 ft (490 m) in elevation, on the leeward side of the southern Koolau Mountains (Wagner *et al.* 1999, p. 755; National Tropical Botanical Garden (NTBG) Provenance Report 2004; TNC 2007; HBMP 2008; PEP Program 2008, p. 16). Presumed extinct since the 1800s, 10 individuals of *C. gracilis* were discovered by botanists in Pia Valley in 2001 (NTBG Provenance Report 2002). Between 2001 and 2008, only six to eight plants were observed at this location (NTBG Provenance Report 2002; PEP Program 2008, p. 16; A. Bakutis, in litt. 2008). It is apparently extirpated from historical locations in Palolo Valley, Konahuanui Gulch, and Manoa Valley (Wagner *et al.* 1999, p. 755; HBMP 2008).

Cyrtandra kaulantha (haiwale) is a perennial shrub in the African violet family (Gesneriaceae) found in dense shade in moist wooded gulches at elevations generally between 840 and 1,050 ft (255 and 320 m), in the lowland wet and wet cliff ecosystems in the Koolau Mountains (Wagner *et al.* 1999, p. 763; TNC 2007; HBMP 2008). *Cyrtandra kaulantha* was historically known from the Waiahole Ditch trail and Kahanaiki Stream. It was considered "locally common," and a collection was taken from a "large colony" in 1985 (W. Takeuchi, in litt. 1985; Wagner *et al.* 1999, p. 763; J. Lau, in litt. 2006). Prior to October 2005, there were 34 wild individuals in 3 occurrences (15, 8, and 11 individuals, respectively) in the subgulches of

Waianu Valley (A. Bakutis, in litt. 2005). In 2005, the third occurrence was discovered crushed by a tree, leaving six living individuals (A. Bakutis, in litt. 2005). In March 2006, it was reported that only one individual remained at the second occurrence, and that some individuals in the other two occurrences had fruit (A. Bakutis, in litt. 2006a). In addition, 4 more individuals were discovered at the site of the first occurrence, bringing the total number of wild individuals to 26 (Bakutis 2006a). In May 2006, another tree fell crushed 4 individuals in the third occurrence, leaving 2 remaining; however, a fourth occurrence of 4 individuals was discovered in another subgulch, and 1 new individual was found in the first occurrence, bringing the total number of wild individuals to 27 (A. Bakutis, in litt. 2006a; Bakutis 2006b). All occurrences were visited again in April 2007, with a total of 28 wild individuals observed (PEP Program 2007, p. 17). Outplanting has been conducted in the four subgulches of Waianu Valley, but in areas some distance from the known occurrences. A total of 28 individuals were outplanted between 2005 and 2007. However, due to predation by nonnative slugs, only 12 outplanted individuals remained in 2007 (PEP Program 2007, p. 17). *Cyrtandra kaulantha* is therefore currently found in 5 occurrences totaling 28 wild and 12 outplanted individuals.

Cyrtandra sessilis (haiwale) (Gesneriaceae, African violet family) is a small shrub that was historically known only from a few collections in wet gulch bottoms and slopes of mesic valleys in the windward Koolau Mountains (Wagner *et al.* 1999, p. 778). Typical habitat is *Metrosideros* forests at elevations generally between 1,600 and 2,200 ft (490 and 670 m) in the lowland wet and wet cliff ecosystems (TNC 2007; HBMP 2008; A. Bakutis, in litt. 2008). In 1993, there were about 200 individuals in the only known occurrence near the summit of the Schofield-Waikane Trail (HBMP 2008). In 2003, there were an estimated 50 individuals in 2 occurrences (S. Perlman, in litt. 2003). *Cyrtandra sessilis* is currently known from 2 occurrences, one consisting of 75 individuals along the Waikane-Schofield Trail in Kahana Valley and the second consisting of 5 individuals at Hawaii Loa Ridge near Pia Valley (S. Perlman, in litt. 2003; A. Bakutis, in litt. 2006c; HBMP 2008; A. Bakutis, in litt. 2008).

Cyrtandra waiolani (haiwale), a small shrub in the African violet family (Gesneriaceae), is found in rich, partly sunny gulches; shady, moist banks above creeks; and wet gulch bottoms in

mesic valleys in the lowland mesic and lowland wet ecosystems (Wagner *et al.* 1999, p. 781; HBMP 2008). *Cyrtandra waiolani* was historically known from at least seven locations: five in the southern Koolau Mountains and two in the northern Koolau Mountains, at elevations generally between 800 and 3,000 ft (240 and 900 m) (HBMP 2008). Plants have not been since observed in these areas (HBMP 2008). Individuals likely representing *C. waiolani*, based on vegetative characteristics, were seen in 1994 along the ridge between Kaipapau and Maakua, and in 2005 in Kahana, but these plants are no longer alive (J. Lau, in litt. 2009). In 2005, individuals thought to be *C. waiolani* were found on the Kualono Ridge near Kaaawa; however, these plants were not flowering or fruiting at that time. Cuttings were taken for propagation and positive identification when flowering and fruiting occur (Hawaii Department of Land and Natural Resources (HDLNR) 2005; U.S. Army 2006; A. Bakutis, in litt. 2008; S. Ching, PEP, in litt. 2009; J. Lau, in litt. 2009). Many areas within the lowland mesic ecosystem in Kaaawa in the Koolau Mountains have not been surveyed for this species, including three of the historically known locations from Anahulu to Lanihuli. The Koolau mountain range is over 35 mi (58 km) in length. Historic surveys that we have records of from the 1800s did not cover the entire mountain range, but collections were made at seven widely distributed locations along the 35-mi (58-km) range. In the 1800s, forests in the Koolau Mountains were more intact at the summits; therefore, we believe that if seven collections were made, there were many more individuals in the wild. The plants were only known from a ridge between Kaipapau and Maakua in 1994, and from Kahana in 2005, but those plants are no longer present, which represents a population decline from seven (and more than seven historically) to zero. Botanists suggest that the species is likely still extant in these areas and may be found with more intensive surveying (Bakutis 2008a; J. Lau, in litt. 2009).

Doryopteris takeuchii (no common name (NCN)) is a fern in the Pteridaceae family (Palmer 2003, p. 133). It occurs in dry shrubland on the slopes of Diamond Head Crater, a volcanic tuff cone on the southern coast of Oahu, at elevations generally between 140 and 300 ft (43 and 91 m) (NTBG 2007, p.1). This area consists of pockets of native and nonnative species in the lowland dry ecosystem (TNC 2007). Little is known of the historical distribution of *D. takeuchii*. Currently, there are 101 to

124 clumps on the Kuilei cliffs and the southwest-facing gulches above Munro Trail on the outer slopes of the crater (NTBG 2007, p. 1).

Korthalsella degeneri (hulumoa), a subshrub (a perennial with stems that are woody at the base) in the mistletoe family (Viscaceae), is parasitic on the native trees *Sapindus oahuensis* (kaulu) and *Nestegis sandwicensis* (olopua) (Wagner *et al.* 1999, p. 1,339). This species occurs in diverse forest in the dry cliff ecosystem at elevations generally between 1,100 and 1,500 ft (335 and 457 m) in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008). In 1938, *K. degeneri* was recorded from Makua Valley but little else is known of its historical range (HBMP 2008). Currently, this species is known only from one widespread occurrence in Makua Valley, estimated to be between 900 and 1,000 individuals (J. Lau, in litt. 2000), and one occurrence of an unknown number of individuals in Makaha on the north-facing slopes of the southern side of the valley (U.S. Army 2006).

Melicope christophersenii (alani), a shrub or tree in the rue family (Rutaceae), occurs in wet forest and shrubland in the montane wet and wet cliff ecosystems at elevations generally between 2,400 and 4,010 ft (732 and 1,222 m) in the Waianae Mountains (Stone *et al.* 1999, pp. 1,184–1,185; U.S. Army 2006; TNC 2007; HBMP 2008). Historically, *M. christophersenii* was known from the Mt. Kaala area of the Waianae Mountains, and as far south as Puu Kaua (HBMP 2008). Currently, there are 3 occurrences totaling approximately 250 individuals in the Waianae summit area, with the southernmost occurrence at Puu Hapapa (U.S. Army 2006; HBMP 2008).

Melicope hiiakae (alani) is a small tree in the rue family (Rutaceae) that occurs in wet forest in the lowland wet ecosystem in the Koolau Mountains, generally between elevations of 1,300 and 2,260 ft (396 and 689 m) (U.S. Army 2006; NTBG 2007, p. 3; TNC 2007; HBMP 2008). Historically, *M. hiiakae* was found along the entire length of the Koolau range (HBMP 2008). Currently there are 8 scattered occurrences totaling fewer than 40 individuals from Kawailoa to Waimalu (NTBG 2007, p. 3; HBMP 2008).

Melicope makahae (alani), a shrubby tree in the rue family (Rutaceae), occurs in mesic and wet forest and shrubland in the lowland mesic, lowland wet, and dry cliff ecosystems in the Waianae Mountains, at elevations generally between 2,200 and 2,900 ft (670 and 884 m) (Stone *et al.* 1999, p. 1,194; U.S. Army 2006; TNC 2007; HBMP 2008).

Historically, *M. makahae* was found in the central summit area of the Waianae Mountains on the west side of Mt. Kaala in Makaha Valley (Stone 1963, p. 410; TNC 2007). Currently, there are 4 occurrences totaling fewer than 200 individuals north and west of the summit area of the Waianae Mountains (HBMP 2008).

Platydesma cornuta var. *cornuta* (NCN) is a palmoid (leaves dividing or radiating from one point) shrub in the rue family (Rutaceae) (Stone *et al.* 1999, pp. 1,209–1,210). It occurs in wet forest, shrubland, and gulches in the lowland wet ecosystem of the Koolau Mountains, at elevations generally between 1,900 and 2,500 ft (579 and 762 m) (U.S. Army 2006; TNC 2007; HBMP 2008). Historically, this species was found along the entire length of the Koolau range, and at elevations below 800 ft, from Pupukea to Wailupe Valley (HBMP 2008). Currently, 9 occurrences (totaling 32 individuals) are restricted to the summit area of the northern Koolau Mountains, with only 1 occurrence (16 individuals) near the summit of the southern Koolau Mountains (HBMP 2008).

Platydesma cornuta var. *decurrens* (NCN), a palmoid shrub in the rue family (Rutaceae), occurs in the lowland mesic and dry cliff ecosystems of the Waianae Mountains, at elevations generally between 1,990 and 3,000 ft (607 and 914 m) (Stone *et al.* 1999, pp. 1,209–1,210; U.S. Army 2006; TNC 2007; HBMP 2008). Historically this species was wide-ranging in the Waianae Mountains, from the Mokuleia Forest Reserve south to Kaluaa (TNC 2007; HBMP 2008). Currently, *P. cornuta* var. *decurrens* is found in 15 occurrences scattered from Pahole to Palawai Gulch, totaling 259 to 309 individuals (U.S. Army 2006; HBMP 2008).

Pleomele forbesii (hala pepe) is a tree in the asparagus (Asparagaceae) family (Smithsonian Department of Botany 2008). It occurs in mesic and dry forest and shrubland in the lowland dry, lowland mesic, lowland wet, and dry cliff ecosystems in the Waianae and Koolau Mountains, at elevations generally between 800 and 2,920 ft (244 and 890 m) (Wagner *et al.* 1999, p. 1,352; TNC 2007; HBMP 2008). Historically, *P. forbesii* was found in at least 11 areas, totaling an unknown number of individuals, in the Waianae Mountains (HBMP 2008). Currently, there are approximately 19 occurrences totaling 290 to 307 individuals, from the Mokuleia Forest Reserve, west to Keaa and south to Nanakuli, in the Waianae Mountains, and one occurrence of a few

individuals in the Koolau Mountains (J. Lau, in litt. 2008; HBMP 2008).

Psychotria hexandra ssp. *oahuensis* (kopiko), a tree in the coffee family (Rubiaceae), occurs in wet forest and shrubland in the lowland wet and wet cliff ecosystems of the Koolau Mountains, at elevations generally between 1,080 and 2,000 ft (329 and 610 m) (Wagner *et al.* 1999, p. 1,166; TNC 2007; HBMP 2008). Historically known only from the northern Koolau Mountains, this species is currently known from three occurrences in that area: one occurrence of 8 to 9 individuals in Maakua Gulch; 1 individual at Opaewa Gulch; and an estimated fewer than 10 individuals scattered between Kaipapua and Kaluanui, just south of Maakua Gulch (A. Bakutis, in litt. 2005; U.S. Army 2006; PEP Program 2007, p. 25; HBMP 2008). A single individual was outplanted within a fenced area in Makaua Valley (February 2007) and has been observed to be healthy in subsequent monitoring visits (PEP Program 2007, p. 25).

Pteralyxia macrocarpa (kaulu) is a tree in the dogbane family (Apocynaceae). It occurs in the Waianae and Koolau Mountains, in the lowland mesic, lowland wet, dry cliff, and wet cliff ecosystems, at elevations generally between 1,100 and 2,800 ft (335 and 850 m) (Wagner *et al.* 1999, p. 220; U.S. Army 2006; TNC 2007; HBMP 2008). Historically, this species was found along the entire length of the Koolau range and on the summit ridges of the Waianae Mountains (HBMP 2008). Currently, *P. macrocarpa* is found from Kapuhi Gulch to North Palawai Gulch in the Waianae Mountains, in approximately 31 occurrences totaling between 233 and 289 individuals. In the Koolau Mountains, 7 occurrences totaling 47 individuals occur in the most northern portion of this mountain range, while only 11 individuals in 2 occurrences are found in the southernmost portion of the range (U.S. Army 2006; HBMP 2008).

Tetraplasandra lydgatei (NCN), a tree in the ginseng family (Araliaceae), is found in mesic forest in the lowland mesic ecosystem at elevations generally between 800 and 1,600 ft (240 and 490 m) in the Koolau Mountains (Motley 2005, p. 107; TNC 2007). In 2005, Motley formally recognized *T. lydgatei* as distinct from *T. oahuensis* (Motley 2005; p. 105), and all known occurrences were surveyed at that time (PEP Program 2007, pp. 27–28). Formerly found from Niu Valley to the Halawa Ridge Trail, its distribution is now limited to two wild occurrences: one on the eastern slope of Hawaii Loa

Ridge and another on the slopes of Kuliouou Valley. These occurrences total eight individuals (PEP Program 2007, pp. 27–28). In addition, 34 individuals have been outplanted in a fenced enclosure at Kulepeamo Ridge (PEP Program 2007, p. 28).

Zanthoxylum oahuense (ae), a small tree in the rue family (Rutaceae), occurs in wet forest in the lowland wet ecosystem at elevations generally between 2,060 and 2,720 ft (628 and 829 m) (Wagner *et al.* 1999, p. 1,216; TNC 2007; HBMP 2008). This species was historically known from 17 areas along the entire length of the Koolau Mountains (HBMP 2008). Currently, *Z. oahuense* is restricted to the northern Koolau Mountains from Puu Kainapua along the summit to Waimano Stream, in 8 occurrences totaling approximately 29 individuals (U.S. Army 2006; HBMP 2008).

Animals

The crimson Hawaiian damselfly is a medium-sized, slender and delicate species, with adults measuring from 1.4 to 1.6 in (36 to 41 mm) in length and having a wingspan of 1.5 to 1.6 in (39 to 42 mm). The species exhibits minimal striping and patterns. Males are primarily red and black in color, with females appearing somewhat paler and with green coloration present on the abdomen laterally (Polhemus and Asquith 1996, p. 65).

The crimson Hawaiian damselfly breeds in the slow reaches of streams and seep-fed pools (Williams 1936, p. 306; Zimmerman 1948a, p. 369; Polhemus 1994a, p. 7; Polhemus 1994b, p. 37). Crimson Hawaiian damselfly naiads, the aquatic life-history stage, frequent open water, resting horizontally, submerged below the surface, or on submerged vegetation (Williams 1936, p. 309). Adults perch on streamside vegetation and patrol along the stream corridor, staying close to breeding pools (Polhemus and Asquith 1996, p. 65).

Between 1991 and 2003, over 150 sites were surveyed on the island of Oahu for native damselflies, and results indicate that one lowland species, the Pacific Hawaiian damselfly, has been extirpated from Oahu, and the orangeblack Hawaiian damselfly has been reduced to a single remnant population (Polhemus 2007, pp. 233–235). The crimson Hawaiian damselfly was known historically from approximately eight areas where it is now extirpated, including the windward side of the Waianae Mountains and scattered locations in the Koolau Mountains (Polhemus 1994a, p. 7; Polhemus 1994b, pp. 37–38; Englund

1999, pp. 228–229, 231; Polhemus 2007, pp. 234, 238). In 2003, this species was not found during surveys of Kahana Stream and may be extirpated from this stream system (D. Polhemus, in litt. 2008). Currently, only five occurrences of the crimson Hawaiian damselfly are known, all from the Koolau Mountains in the lowland wet and wet cliff ecosystems at Waiawa, north Halawa, Punaluu, Moanalua, and Hauula (TNC 2007; D. Polhemus, in litt. 2008; HBMP 2008). All colonies of this damselfly are constrained to portions of streams not occupied by nonnative predatory fish—that is, stream portions above geologic or manmade barriers (e.g., waterfalls, steep gradients, dry stream midreaches, or constructed diversions). No estimates of population size for the crimson Hawaiian damselfly are available.

The blackline Hawaiian damselfly is a moderately-sized and delicate subspecies (Polhemus and Asquith 1996, p. 73). It occurs in and along the slow sections or pools of mid-reach and headwater sections of perennial upland streams and in seep-fed pools along overflow channels bordering such streams. The adults measure from 1.4 to 1.8 in (35 to 45 mm) in length and have a wingspan of 1.7 to 1.9 in (45 to 50 mm). Naiads remain concealed and are found in the water under stones or in mats of algae (Williams 1936, p. 318; Zimmerman 1948, pp. 371–372).

The blackline Hawaiian damselfly was known historically from the Koolau and Waianae Mountains, from sea level to over 2,400 ft (732 m) (Williams 1936, p. 318; Polhemus 1994a, pp. 6–12). Currently, this species is found in the lowland wet ecosystem on the windward and leeward sides of the Koolau Mountains, in the headwaters and upper reaches of 17 streams: Koloa, Kaluanui, Helemano, Poamoho, Kahana, Waikane, Waihole, Waianu, Waiawa, Kaalaea, Waihee, Kahaluu, north Halawa, Heeia, Kalihi, Moole, and Maunawili (TNC 2007; D. Polhemus, in litt. 2008; R. Wolff, USGS, in litt. 2008; HBMP 2008). Like the crimson Hawaiian damselfly, all colonies of the blackline Hawaiian damselfly are constrained to portions of streams not occupied by nonnative predatory fish—that is, stream portions above geologic or manmade barriers (e.g., waterfalls, steep gradients, dry stream midreaches, or constructed diversions). Currently, the 17 stream colonies are estimated to total 800 to 1,000 individuals, with approximately 50 individuals per stream (D. Polhemus, in litt. 2008).

The oceanic Hawaiian damselfly is a comparatively large and robust species. The adults measure from 1.8 to 1.9 in (47 to 50 mm) in length and have a

wingspan of 2.0 to 2.2 in (51 to 55 mm). Both sexes exhibit prominent patterns including black stripes, but males are bright red in color while females are pale green. Immature individuals of this species are also large with long grasping legs and dagger-like gills (Polhemus and Asquith 1996, p. 77). The oceanic Hawaiian damselfly can be distinguished from other Oahu damselfly species by its large size, black stripes, and fast flight along flowing sections of streams.

Individuals of the immature stage of the oceanic Hawaiian damselfly are found in swiftly flowing sections of streams, usually amid rocks and gravel in stream riffles (stream sections with sufficient gradient to create small standing waves) and small cascades on waterfalls (Williams 1936, pp. 321–322; Polhemus and Asquith 1996, p. 106). While capable of swimming, the naiads usually crawl among gravel or submerged vegetation. Older naiads frequently forage out of the actual stream channel and have been observed among wet moss on rocks, and wet rock walls and seeps (Williams 1936, pp. 321–323). Adults are very bold and strong flyers, and when disturbed frequently fly upward into the forest canopy overhanging the stream or waterfall (Williams 1936, p. 323; Polhemus 1994b, p. 48).

Historically, the oceanic Hawaiian damselfly occurred on both the leeward and windward sides of the Koolau and Waianae Mountains, and was known, but is currently extirpated, from approximately 16 general localities, including the Waianae Mountains and all leeward streams of the Koolau Mountains (Englund and Polhemus 1994, p. 8). The species now currently occupies between 7 and 10 sites above 300 ft (100 m) in elevation on the windward side of the Koolau Mountains at Kaaawa, Kahaluu, Koloa, and Sacred Falls, in the lowland mesic, lowland wet, and wet cliff ecosystems (TNC 2007; Polhemus 2007, pp. 237–239; HBMP 2008). Like the crimson and blackline Hawaiian damselflies, the oceanic Hawaiian damselfly is constrained to portions of streams not occupied by nonnative predatory fish—that is, stream portions above geologic or manmade barriers (e.g., waterfalls, steep gradients, dry stream midreaches, or constructed diversions). No estimates of population size for the oceanic Hawaiian damselfly are available.

Summary of Factors Affecting the 23 Species Proposed for Listing

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures

for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence. Listing actions may be warranted based on any of the above threat factors, singly or in combination. Each of these factors is discussed below.

In considering what factors might constitute threats to a species, we must look beyond the exposure of the species to a particular factor to evaluate whether the species may respond to that factor in a way that causes actual impacts to the species. If there is exposure to a factor and the species responds negatively, the factor may be a threat and, during the status review, we attempt to determine how significant a threat it is. The threat is significant if it drives, or contributes to, the risk of extinction of the species such that the species warrants listing as endangered or threatened as those terms are defined in the Act. However, the identification of factors that could impact a species negatively may not be sufficient to warrant listing the species under the Act. The information must include evidence sufficient to show that these factors are operative threats that act on the species to the point that the species meets the definition of endangered or threatened under the Act. That evidence is discussed below for each of the species proposed for listing in this proposed rule.

If we determine that the level of threat posed to a species by one or more of the five listing factors is such that the species meets the definition of either endangered or threatened under section 3 of the Act, we would then propose that species for listing when resources become available to do so. The Act defines an endangered species as “in danger of extinction throughout all or a significant portion of its range,” and a threatened species as “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The threats to each of the individual 23 species are summarized in Table 2, and discussed in detail below. Factor B (overutilization) is not included in the table, as no threats to the species fall under this category. If these species are

listed under the Act, the final rule will refer readers to the proposed rule for the detailed discussion of threats, rather than republishing that information in the Federal Register.

Ecosystem Approach

Each of the species proposed for listing in this proposed rule is adversely affected by the threats to the ecosystems on which it depends. There is information available on many of the threats that act on Hawaiian ecosystems, and for some ecosystems, there is a growing body of literature regarding these threats (e.g., non-native ungulates and invasive plant species). The best available information on ecosystem threats affecting the species therein is discussed below. Table 2 identifies the threats to the ecosystems and the individual species within those ecosystems that are affected by those threats. Information on threats specific to certain species is also discussed where necessary and available; however, we acknowledge that we do not completely understand all the threats to each species. Scientific research directed toward each of these species is limited because of their rarity and the generally challenging logistics associated with conducting field work in Hawaii (e.g., areas are typically remote, difficult to survey in a comprehensive manner, and the target species are exceptionally uncommon).

Ecosystem-Scale Threats That Affect the Proposed Species

The following constitutes a list of ecosystem-scale threats that affect the proposed species in all of the seven ecosystems on Oahu:

(1) Foraging and trampling of native plants by goats (*Capra hircus*), pigs (*Sus scrofa*) and other ungulates, which results in severe erosion of watersheds because these mammals inhabit terrain that is often steep and remote (Cuddihy and Stone 1990, p. 63). These events destabilize soils that support native plant communities, bury or damage native plants, and have adverse water quality effects due to runoff over exposed soils.

(2) Disturbance of soils by feral pigs, which creates fertile seedbeds for alien plants (Cuddihy and Stone 1990, p. 65).

(3) Increased nutrient availability as a result of pigs rooting in nitrogen-poor soils, which facilitates the establishment of alien weeds. Alien weeds are more adapted to nutrient rich soils than native plants (Cuddihy and Stone 1990, p. 63), and rooting activity creates open areas in forests allowing alien species to completely replace native stands.

(4) Ungulate destruction of seeds and seedlings of native plant species (Cuddihy and Stone 1990, p. 63), which facilitates the conversion of disturbed areas from native to nonnative vegetative communities.

(5) Rodent damage to plant propagules, seedlings, or native trees, which changes forest composition and structure (Cuddihy and Stone 1990, p. 67).

(6) Feeding or defoliation of native plants from alien insects, which reduces geographic ranges of some species because of damage (Cuddihy and Stone 1990, p. 71);

(7) Alien insect predation on native insects, which affects pollination of native plant species (Cuddihy and Stone 1990, p. 71).

(8) Significant changes in nutrient cycling processes because of large numbers of alien invertebrates such as earthworms, ants, slugs, isopods, millipedes, and snails, resulting in the changes to the composition and structure of plant communities (Cuddihy and Stone 1990, p. 73).

Each of the above threats is discussed in more detail below, and summarized in Table 2 below. The most-often cited effects of nonnative plants on native plant species are competition and

displacement; competition may be for water or nutrients, or it may involve allelopathy (chemical inhibition of other plants). Alien plants may displace native species of plants by preventing their reproduction, usually by shading and taking up available sites for seedling establishment. Alien plant invasions may also alter entire ecosystems by forming monotypic stands, changing fire characteristics of native communities, altering soil-water regimes, changing nutrient cycling, or encouraging other nonnative organisms (Smith 1995; Vitousek *et al.* 1987 in Cuddihy and Stone 1990, p. 74).

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TABLE 2. - SUMMARY OF PRIMARY THREATS IDENTIFIED FOR EACH OF THE 23 OAHU SPECIES

Species	Ecosystem	Factor A								Factor C			Factor D	Factor E
		Non-native plants	Pigs	Goats	Fire	Agriculture and urban development	Stream alteration	Stochastic events	Climate change	Predation by ungulates	Predation by other nonnative vertebrates	Predation by nonnative invertebrates		
<i>Bidens amplexans</i>	C, LD	X	X	X	X			H	X	X			X	Other species-specific threats
<i>Cyanea calycina</i>	LM, LW, MW, WC	X	X	X	X				X	X		R	X	I
<i>Cyanea lanceolata</i>	LM, LW	X	X					L, RF	X	X		R	X	
<i>Cyanea purpurellifolia</i>	LW, WC	X	X						X	X			X	LN
<i>Cyrtandra gracilis</i>	LW	X	X						X	X		R	X	LN
<i>Cyrtandra kaulantha</i>	LW, WC	X	X					L, RF, H	X	X			X	LN
<i>Cyrtandra sessilis</i>	LW, WC	X	X					L, RF, FL, H	X	X			X	I
<i>Cyrtandra</i>	LM, LW	X	X						X	X			X	LN

TABLE 2. - SUMMARY OF PRIMARY THREATS IDENTIFIED FOR EACH OF THE 23 OAHU SPECIES

Species	Ecosystem	Factor A								Factor C			Factor D	Factor E	
		Non-native plants	Pigs	Goats	Fire	Agriculture and urban development	Stream alteration	Stochastic events	Climate change	Predation by ungulates	Predation by other nonnative vertebrates	Predation by nonnative invertebrates			Inadequate existing regulatory mechanisms	Other species-specific threats
<i>waiolani</i>															
<i>Doryopteris takanuchii</i>	LD	X			X				X				X		I
<i>Koerhalsella aegeri</i>	DC	X	X	X	X				X				X		LHP
<i>Melicope christophersenii</i>	MW, WC	X	X						X				X		
<i>Melicope hiikaka</i>	LW	X	X						X				X		LN, I
<i>Melicope makahae</i>	LM, LW, DC	X	X	X					X				X		NR
<i>Platydesma cornuta</i> var. <i>cornuta</i>	LW	X	X						X				X		LN

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Species	Ecosystem	Factor A								Factor C			Factor D	Factor E
		Non-native plants	Pigs	Goats	Fire	Agriculture and urban development	Stream alteration	Stochastic events	Climate change	Predation by ungulates	Predation by other nonnative vertebrates	Predation by nonnative invertebrates		
<i>Platydesma cornuta</i> var. <i>decurrans</i>	LM, DC	X	X	X				L, RF	X	X			X	
<i>Pleomele forbesii</i>	LD, LM, LW, DC	X	X	X	X				X	X			X	NR
<i>Psychotria hexandra</i> ssp. <i>oahuensis</i>	LW, WC	X	X					L, RF, FL, H	X	X			X	LN
<i>Pteralyxia macrocarpa</i>	LM, LW, DC, WC	X	X	X	X				X	X			X	
<i>Tetraplasandra lydgatei</i>	LM	X	X						X	X			X	LN
<i>Zanthoxylum oahuense</i>	LW	X	X						X	X			X	LN
<i>Megalagrion</i>	LW, WC					X		D, L, RF,	X				X	LND

TABLE 2. - SUMMARY OF PRIMARY THREATS IDENTIFIED FOR EACH OF THE 23 OAHU SPECIES

Species	Ecosystem	Factor A							Factor C			Factor D	Factor E	
		Non-native plants	Pigs	Goats	Fire	Agriculture and urban development	Stream alteration	Stochastic events	Climate change	Predation by ungulates	Predation by other nonnative vertebrates			Predation by nonnative invertebrates
<i>leptodermus</i>														Other species-specific threats
<i>Megalagrion nigrolammatum nigrolineatum</i>	LW					X	X	D, FL, H	X		FI, BF	A	X	LND
<i>Megalagrion oceanicum</i>	LM, LW, WC					X	X	FL, H	X		FL, BF	A	X	LND

Factor A = Habitat Modification
 Factor C = Disease or Predation
 Factor D = Inadequacy of Regulatory Mechanisms
 Factor E = Other Species-Specific Threats

C = Coastal
 LD = Lowland Dry
 LM = Lowland Mesic
 LW = Lowland Wet
 MW = Montane Wet
 DC = Dry Cliff
 WC = Wet Cliff

L = Landslides
 RF = Rockfalls
 FL = Flooding
 H = Hurricanes
 S = Slugs
 BTB = Black Twig Borer
 TSL = Two-spotted Leafhopper
 A = Ants
 D = Drought
 FI = Fish

R = Rats
 BF = Bullfrogs
 LN = Limited Numbers Plants (≤ 50 individuals)
 LND = Limited Numbers Damselflies (≤ 20 populations)
 NR = No Regeneration
 T = Trampling
 LHP = Loss of Host Plants

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A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

The Hawaiian Islands are located over 2,000 mi (3,200 km) from the nearest continent. This isolation has allowed the few plants and animals that arrived in the Hawaiian Islands to evolve into many highly varied and endemic species (species that occur nowhere else in the world). The only native terrestrial mammals on the Hawaiian Islands are two bat taxa, the Hawaiian hoary bat (*Lasiurus cinereus semotus*), and an extinct, unnamed insectivorous bat (Ziegler 2002, p. 245). The native plants of the Hawaiian Islands therefore evolved in the absence of mammalian predators, browsers, or grazers; many of the native species lost unneeded defenses against threats such as mammalian predation and competition with aggressive, weedy plant species that are typical of mainland environments (Loope 1992, p. 11; Gagne and Cuddihy 1999, p. 45; Wagner *et al.* 1999, pp. 3–6). For example, Carlquist (in Carlquist and Cole 1974, p. 29) notes that “Hawaiian plants are notably nonpoisonous, free from armament, and free from many characteristics thought to be deterrents to herbivores (oils, resins, stinging hairs, coarse texture).” In addition, species restricted to highly specialized locations or food sources (e.g., some Hawaiian damselflies) are particularly vulnerable to changes (from nonnative species, hurricanes, fire, and climate change) in their habitat (Carlquist and Cole 1974, pp. 28–29; Loope 1992, pp. 3–6; Stone 1992, pp. 88–102).

Habitat Destruction and Modification by Introduced Ungulates

Introduced mammals have greatly impacted the native vegetation, as well as the native fauna, of the Hawaiian Islands. Impacts to the native species and ecosystems of Hawaii accelerated following the arrival of Captain James Cook in 1778. The Cook expedition and subsequent explorers intentionally introduced a European race of pigs or boars and other livestock such as goats to serve as food sources for seagoing explorers (U.S. Geological Survey 1998, p. 752). The mild climate of the islands, combined with the lack of competitors or predators, led to the successful establishment of large populations of these introduced mammals, to the detriment of native Hawaiian species and ecosystems (Cox 1992, pp. 116–117). The presence of introduced alien mammals is considered one of the primary factors underlying the

alteration and degradation of native vegetation and habitats on the island of Oahu (Cox 1992, pp. 118–119). Six of the seven ecosystems (lowland dry, lowland mesic, lowland wet, montane wet, dry cliff, and wet cliff) and their associated species are currently threatened by the destruction or degradation of habitat due to nonnative ungulates (hoofed mammals), including pigs (*Sus scrofa*) and goats (*Capra hircus*) (HBMP 2008). Only the coastal ecosystem on Oahu is not currently threatened by nonnative ungulates (S. Perlman, in litt. 2007).

Pigs have been described as the most pervasive and disruptive nonnative influence on the unique native forests of the Hawaiian Islands, and are widely recognized as one of the greatest current threats to forest ecosystems in Hawaii (Aplet *et al.* 1991, p. 56; Anderson and Stone 1993, p. 195). European pigs, introduced to Hawaii by Captain James Cook in 1778, hybridized with domesticated Polynesian pigs, became feral, and invaded forested areas, especially wet and mesic forests and dry areas at high elevations. They are currently present on Kauai, Niihau, Oahu, Molokai, Maui, and Hawaii. The Hawaii Territorial Board of Agriculture and Forestry started a feral pig eradication project in the early 1900s that continued through 1958, removing 170,000 pigs from forests Statewide (Diong 1982 in Loope 1998, pp. 752–753).

These introduced pigs are extremely destructive and have both direct and indirect impacts on native plant communities. While rooting in the earth in search of invertebrates and plant material, pigs directly impact native plants by disturbing and destroying vegetative cover, and trampling plants and seedlings. They may also reduce or eliminate plant regeneration by damaging or eating seeds and seedlings. Further discussion of predation by nonnative ungulates is under Factor C, below. Pigs are a major vector for the establishment and spread of competing invasive nonnative plant species, by dispersing plant seeds on their hooves and coats as well as through the spread of their feces (Diong 1982, pp. 169–170), and by fertilizing the disturbed soil with their feces (Matson 1990, p. 245; Siemann *et al.* 2009, p. 547). Pigs feed preferentially on the fruits of many nonnative plants, such as *Passiflora tarminiana* (banana poka) and *Psidium cattleianum* (strawberry guava), spreading the seeds of these invasive species through their feces as they travel in search of food. In addition, rooting pigs contribute to erosion by clearing vegetation and creating large areas of

disturbed soil, especially on slopes (Smith 1985, pp. 190, 192, 196, 200, 204, 230–231; Stone 1985, pp. 254–255, 262–264; Medeiros *et al.* 1986, pp. 27–28; Scott *et al.* 1986, pp. 360–361; Tomich 1986, pp. 120–126; Cuddihy and Stone 1990, pp. 64–65; Aplet *et al.* 1991, p. 56; Loope *et al.* 1991, pp. 1–21; Gagne and Cuddihy 1999, p. 52).

Goats native to the Middle East and India were also successfully introduced to the Hawaiian Islands in the late 1700s. Actions to control goat populations began in the 1920s (Tomich 1986, pp. 152–153). Feral goats now occupy a wide variety of habitats on Oahu, where they consume native vegetation, trample roots and seedlings, accelerate erosion, and promote the invasion of alien plants that have greater competitive abilities (van Riper and van Riper 1982, pp. 34–35; Stone 1985, p. 261). Goats are able to access, and forage in, extremely rugged terrain, and they have a high reproductive capacity (Clarke and Cuddihy 1980, pp. C–19, C–20; Culliney 1988, p. 336; Cuddihy and Stone 1990, p. 64). Because of these factors, goats are believed to have completely eliminated some plant species from islands (Atkinson and Atkinson 2000, p. 21). Goats can be highly destructive to natural vegetation and contribute to erosion by: (1) Eating young trees and young shoots of plants before they can become established; (2) creating trails that can damage native vegetative cover, destabilize substrate and create gullies that convey water; and (3) dislodging stones from ledges that can cause rockfalls and landslides that damage vegetation below (Cuddihy and Stone 1990, pp. 63–64).

The species proposed for listing dependent on the lowland dry, lowland mesic, lowland wet, montane wet, dry cliff, and wet cliff ecosystems are exposed to direct and indirect negative impacts of feral ungulates (pigs and goats), which result in the destruction and degradation of habitat for these native Oahu species. The effects of these nonnative animals include: (1) The destruction of vegetative cover; (2) trampling of plants and seedlings; (3) direct consumption of native vegetation; (4) soil disturbance; (5) dispersal of alien plant seeds on hooves, coats, and through the spread of seeds in feces; and (6) the creation of open, disturbed areas conducive to further invasion by nonnative pest plant species. All of these impacts lead to the subsequent conversion of a plant community dominated by native species to one dominated by nonnative species (See “*Habitat Destruction and Modification by Nonnative Plants*,” below). In addition, because these mammals

inhabit terrain that is often steep and remote (Cuddihy and Stone 1990, p. 59), foraging and trampling contributes to severe erosion of watersheds and degradation of streams. As early as 1900, there was increasing concern expressed about the integrity of island watersheds, due to effects of ungulates and other factors, leading to establishment of a professional forestry program emphasizing soil and water conservation (Nelson 1989, p. 3).

Habitat Destruction and Modification by Nonnative Plants

Native vegetation on all of the main Hawaiian Islands has undergone extreme alteration because of past and present land management practices, including ranching, the deliberate introduction of nonnative plants and animals, and agricultural development (Cuddihy and Stone 1990, pp. 27, 58). The original native flora of Hawaii (species that were present before humans arrived) consisted of about 1,000 taxa, 89 percent of which were endemic. Over 800 plant taxa have been introduced from outside Hawaii, and nearly 100 of these have become pests (e.g., injurious plants) (Smith 1985, p. 180; Cuddihy and Stone 1990, p. 73; Gagne and Cuddihy 1999, p. 45). Of these 100 nonnative plant species, over 50 species have altered the habitat of 20 of the 23 species proposed for listing on Oahu. Some of these plants were brought to Hawaii by various groups of people, for food or cultural reasons, to reforest native forests destroyed by grazing feral and domestic animals, for pasture for domestic animals, and for other agricultural purposes. Other plants were brought to Hawaii for their potential horticultural value (Scott *et al.* 1986, pp. 361–363; Cuddihy and Stone 1990, p. 73).

Nonnative plants adversely impact native habitat in Hawaii, including the seven Oahu ecosystems and the 20 plant species identified in this proposed rule, by: (1) Modifying the availability of light; (2) altering soil-water regimes; (3) modifying nutrient cycling; (4) altering fire characteristics of native plant communities (e.g., successive fires that burn farther and farther into native habitat, destroying native plants and removing habitat for native species by altering microclimatic conditions to favor alien species); and (5) ultimately, converting native-dominated plant communities to nonnative plant communities (Smith 1985, pp. 180–181; Cuddihy and Stone, 1990, p. 74; D'Antonio and Vitousek 1992, p. 73; Vitousek *et al.* 1997, p. 6). Nonnative plants (and animals) have contributed to the extinction of native species in the

lowlands of Hawaii and have been a primary cause of extinction in upland habitats (Vitousek *et al.* 1987, in Cuddihy and Stone 1990, p. 74). The most-often cited effects of nonnative plants on native plant species are displacement through competition. Competition may be for water or nutrients, or it may involve allelopathy (chemical inhibition of other plants) (Smith 1985, in Cuddihy and Stone 1990, p. 74). Nonnative plants may also displace native species by preventing their reproduction, usually by shading and taking up available sites for seedling establishment (Vitousek *et al.* 1987, in Cuddihy and Stone 1990, p. 74).

Alteration of fire regimes clearly represents an ecosystem-level change caused by the invasion of nonnative grasses (D'Antonio and Vitousek 1992, p. 73). The grass life form supports standing dead material that burns readily, and grass tissues have large surface/volume ratios and can dry out quickly (D'Antonio and Vitousek 1992, p. 73). The flammability of biological materials is determined primarily by their surface/volume ratio and moisture content, and secondarily by mineral content and tissue chemistry (D'Antonio and Vitousek 1992, p. 73). The finest size classes of material (mainly grasses) ignite and spread fires under a broader range of conditions than do woody fuels or even surface litter (D'Antonio and Vitousek 1992, p. 73). The grass life form allows rapid recovery following fire; there is little above-ground structural tissue, so almost all new tissue fixes carbon and contributes to growth (D'Antonio and Vitousek 1992, p. 73). Grass canopies also support a microclimate in which surface temperatures are hotter, vapor pressure deficits are larger, and the drying of tissues more rapid than in forests or woodlands (D'Antonio and Vitousek 1992, p. 73). Thus, conditions that favor fire are much more frequent in grasslands (D'Antonio and Vitousek 1992, p. 73). In summary, nonnative plants directly and indirectly affect the plant species proposed for listing by modifying or destroying their terrestrial habitat. Below, we have organized a list of nonnative plants by their ecosystems, followed by a discussion of the specific negative effects of those nonnative plants on the proposed species.

Nonnative Plants in the Coastal Ecosystem

Nonnative plant threats to *Bidens amplexens*, the only species proposed for listing in this proposed rule that inhabits the coastal ecosystem on Oahu, include the understory and subcanopy

species *Asystasia gangetica* (Chinese violet), *Atriplex semibaccata* (Australian saltbush), *Leucaena leucocephala* (koa haole), *Pluchea indica* (Indian fleabane), *P. carolinensis* (sourbush), and *Verbesina encelioides* (golden crown-beard) (DOFAW 2007, pp. 20–22, 54–58; HBMP 2008). Nonnative canopy species includes *Prosopis pallida* (kiawe) (DOFAW 2007, pp. 20–22, 54–58; HBMP 2008). In addition, *Bidens amplexens* is threatened by several nonnative grasses such as *Cenchrus ciliaris* (buffelgrass), *Chloris barbata* (swollen fingergrass), *Digitaria insularis* (sourgrass), and *Panicum maximum* (guinea grass) in this ecosystem (DOFAW 2007, pp. 20–22, 54–58; HBMP 2008). These nonnative plant species pose a serious threat (see “*Specific Nonnative Plant Species Impacts*,” below) to *Bidens amplexens* in this ecosystem.

Nonnative Plants in the Lowland Dry Ecosystem

Nonnative plant threats to *Bidens amplexens*, *Doryopteris takeuchii*, and *Pleomele forbesii*, the three species proposed for listing in this proposed rule that inhabit the lowland dry ecosystem include the understory and subcanopy species *Leonotis nepetifolia* (lion's ear), *Passiflora foetida* (love-in-a-mist), *P. suberosa* (huehue haole), and *Stapelia gigantea* (giant toad plant) (HBMP 2006; Perlman 2007a, p. 3; HBMP 2008). Canopy species include *Aleurites moluccana* (kukui), *Grevillea robusta* (silk oak), *Leucaena leucocephala*, *Psidium cattleianum*, *P. guajava* (common guava), *Schinus terebinthifolius* (Christmas berry), and *Syzygium cunini* (Java plum) (Perlman 2007a, p. 7; HBMP 2006; HBMP 2008). In addition, *Bidens amplexens*, *Doryopteris takeuchii*, and *Pleomele forbesii* are threatened by several nonnative grasses such as *Andropogon virginicus* (broomsedge), *Cenchrus ciliaris*, *Melinis minutiflora* (molasses grass), *Panicum maximum*, and *Pennisetum setaceum* (fountain grass) in this ecosystem (HBMP 2006; Perlman 2007a, p. 3; HBMP 2008). These nonnative plant species pose a serious threat (see “*Specific Nonnative Plant Species Impacts*,” below) to the three species proposed for listing that depend on this ecosystem.

Nonnative Plants in the Lowland Mesic Ecosystem

Nonnative plant threats to the eight plant species (*Cyanea calycina*; *Cyanea lanceolata*, *Cyrtandra waiolani*, *Melicope inakaha*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, and

Tetraplasandra lydgatei) proposed for listing in this proposed rule that inhabit the lowland mesic ecosystem include the understory and subcanopy species *Ageratina riparia* (Hamakua pamakani), *Ardisia elliptica* (shoebuttan ardisia), *Blechnum appendiculatum* (no common name (NCN)), *Buddleia asiatica* (dog tail), *Clidemia hirta* (Koster's curse), *Erigeron karvinskianus* (daisy fleabane), *Kalanchoe pinnata* (air plant), *Lantana camara* (lantana), *Passiflora suberosa*, *Rubus argutus* (prickly Florida blackberry), and *R. rosifolius* (thimbleberry) (TNC 1997, pp. 10, 15; HBMP 2008). Canopy species include *Aleurites moluccana*, *Ficus microcarpa* (Chinese banyan), *Grevillea robusta*, *Heliocarpus popayanensis* (moho), *Morella faya* (firetree), *Psidium cattleianum*, *P. guajava*, *Schefflera actinophylla* (octopus tree), *Schinus terebinthifolius*, *Syzygium cumini*, *S. jambos* (rose apple), *Tecoma stans* (yellow elder), and *Toona ciliata* (Australian red cedar). An additional threat is the nonnative grass *Melinis minutiflora* (TNC 1997, p. 15; Motley 2005, p. 109; HBMP 2008). These nonnative plant species pose a serious threat (see "Specific Nonnative Plant Species Impacts," below) to all eight of the species proposed for listing that are dependent on this ecosystem.

Nonnative Plants in the Lowland Wet Ecosystem

Nonnative plant threats to the 14 plant species (*Cyanea calycina*, *C. lanceolata*, *C. purpurellifolia*, *Cyrtandra gracilis*, *C. kaulantha*, *C. sessilis*, *C. waiolani*, *Melicope hiakae*, *M. makahae*, *Platydesma cornuta* var. *cornuta*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, and *Zanthoxylum oahuense*) proposed for listing in this proposed rule that inhabit the lowland wet ecosystem include the understory and subcanopy species *Ageratina riparia*, *Blechnum appendiculatum*, *Buddleia asiatica*, *Clidemia hirta*, *Erechtites valerianifolia* (fireweed), *Kalanchoe pinnata*, *Passiflora suberosa*, *Pterolepis glomerata* (NCN), *Rubus argutus*, *R. rosifolius*, and *Sphaeropteris cooperi* (Australian tree fern), and the canopy species *Aleurites moluccana*, *Ardisia elliptica*, *Chrysophyllum oliviforme* (satintleaf), *Heliocarpus popayanensis*, *Leptospermum scoparium* (tea tree), *Morella faya*, *Pimenta dioica* (allspice), *Psidium cattleianum*, *P. guajava*, and *Schinus terebinthifolius* (TNC 1997, p. 10; U.S. Army 2006; HBMP 2008). Nonnative grasses that are threats to the 14 plant species proposed for listing in this ecosystem are *Andropogon virginicus*,

Axonopus fissifolius (narrow-leaved carpetgrass), *Melinis minutiflora*, *Oplismenus hirtellus* (basketgrass), *Sacciolepis indica* (glenwood grass), and *Urochloa mutica* (California grass) (TNC 1997, p. 10; Erickson and Puttock 2006, p. 270; U.S. Army 2006). These nonnative plant species pose a serious threat (see "Specific Nonnative Plant Species Impacts," below) to the 14 plants proposed for listing that inhabit this ecosystem.

Nonnative Plants in the Montane Wet Ecosystem

Nonnative plant threats to *Cyanea calycina* and *Melicope christophersenii*, proposed for listing in this proposed rule that inhabit the montane wet ecosystem include the understory and subcanopy species *Clidemia hirta* and *Rubus argutus*, and the canopy species *Psidium cattleianum* (HBMP 2008). These nonnative plant species pose a serious threat (See "Specific Nonnative Plant Species Impacts," below) to the two proposed species dependent on this ecosystem.

Nonnative Plants in the Dry Cliff Ecosystem

Nonnative plant threats to the five plant species (*Korthasella degeneri*, *Melicope makahae*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, and *Pteralyxia macrocarpa*) which are proposed for listing in this proposed rule and that inhabit the dry cliff ecosystem include the understory and subcanopy species *Ageratina riparia*, *Blechnum appendiculatum*, *Clidemia hirta*, *Erigeron karvinskianus*, *Kalanchoe pinnata*, *Lantana camara*, *Passiflora suberosa*, and *Sphaeropteris cooperi*, and the canopy species *Acacia confusa* (Formosa koa), *Aleurites moluccana*, *Grevillea robusta*, *Leucaena leucocephala*, *Melii azederach* (Chinaberry), *Psidium cattleianum*, *P. guajava*, *Schinus terebinthifolius*, *Syzygium cumini*, *Tecoma stans*, and *Toona ciliata* (HBMP 2008). Nonnative grasses that are a threat to this ecosystem include *Digitaria insularis* (sourgrass), *Ehrharta stipoides* (meadow ricegrass), *Melinis minutiflora*, *Panicum maximum*, and *Paspalum conjugatum* (Hilo grass) (HBMP 2008). These nonnative plant species pose a serious threat (see "Specific Nonnative Plant Species Impacts," below) to the five species proposed for listing that are dependent on this ecosystem.

Nonnative Plants in the Wet Cliff Ecosystem

Nonnative plant threats to the seven plant species (*Cyanea calycina*, *C. purpurellifolia*, *Cyrtandra kaulantha*, *C.*

sessilis, *Melicope christophersenii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*) proposed for listing in this proposed rule that inhabit the wet cliff ecosystem include the understory and subcanopy species *Blechnum appendiculatum*, *Clidemia hirta*, *Erechtites valerianifolia*, *Erigeron karvinskianus*, *Passiflora suberosa*, *Pterolepis glomerata*, *Rubus argutus*, *R. rosifolius*, and the canopy species *Ardisia elliptica*, *Buddleia asiatica*, *Heliocarpus popayanensis*, *Psidium cattleianum*, *P. guajava*, *Schinus terebinthifolius*, and *Toona ciliata* (HBMP 2008). Nonnative grasses that are a threat to this ecosystem include *Axonopus fissifolius*, *Melinis minutiflora*, *Oplismenus hirtellus*, and *Paspalum conjugatum* (HBMP 2008). These nonnative plant species pose a serious threat (see "Specific Nonnative Plant Species Impacts," below) to all seven of the proposed plant species dependent on this ecosystem.

Specific Nonnative Plant Species Impacts

To reiterate, nonnative plants represent a serious and ongoing threat to each of the 20 plant species proposed for listing in this proposed rule throughout their ranges by destroying and modifying habitat. Nonnative plants can adversely impact microhabitat by modifying the availability of light and nutrient cycling processes, and by altering soil-water regimes. They can also alter fire characteristics of native plant habitat, leading to incursions of fire-tolerant, nonnative plant species in native habitat. Nonnative plants outcompete native plants by growing faster, and some may release chemicals that inhibit the growth of other plants. By outcompeting native plants, nonnative plants convert native-dominated plant communities to nonnative plant communities (Cuddihy and Stone 1990, p. 74; Vitousek 1992, pp. 33–35). The following list provides a brief description of specific nonnative plants that present a threat to the species proposed for listing in this proposed rule because they threaten the ecosystems in which the plant species occur.

- *Acacia confusa* is a tree introduced to Hawaii from Taiwan and the Philippine Islands about 1915 by the Board of Agriculture and Forestry and the Hawaiian Sugar Planter's Association for use as a windbreak (Geesink *et al.* 1999, p. 641). This species forms monotypic stands at lower elevations that prevent establishment of native plants. Seeds present in the ground germinate profusely after fire, outcompeting native plants (Pacific

Island Ecosystems at Risk (PIER) 2008a). This species occurs in dry to mesic disturbed habitats (Wagner *et al.* 1999, p. 640).

- *Ageratina riparia* is a shrub that spreads from a creeping rootstock (Wagner *et al.* 1999, p. 255). This species forms dense mats, preventing regeneration of native plants (Davis *et al.* 1992, p. 427), and occurs in dry, disturbed habitats and mesic and wet forests (Wagner *et al.* 1999, p. 255).

- *Aleurites moluccana* is a spreading, tall tree native to Malesia, and considered a Polynesian introduction to Hawaii. It is now a significant component of the mesic valley vegetation from sea level to 2,300 ft (700 m) on all the main islands (Wagner *et al.* 1999, p. 598). According to the Hawaii Weed Risk Assessment for *A. moluccana*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2008b). The species tolerates a wide range of soil conditions and forms dense thickets, which increases its competitive abilities over native plants. This species occurs in mesic valley habitats (Wagner *et al.* 1999, p. 599).

- *Andropogon virginicus* is a fire-adapted bunch grass with seeds that are easily distributed by wind, clothing, vehicles, and feral animals (Smith 1989, p. 63). It can outcompete and displace native plants. Some research suggests that this species may also release allelopathic substances (chemicals that inhibit growth of other plants) that dramatically decrease the reestablishment of native plants (Rice 1972, p. 752). This species has become dominant in areas subjected to natural or human-induced fires (Wagner *et al.* 1999, p. 77). This species is on the Hawaii State noxious weed list (HAR Title 4, Subtitle 6, Chapter 68), and occurs in disturbed, dry to mesic forests and shrubland habitats, especially on ridges (Wagner *et al.* 1999, p. 1497).

- *Ardisia elliptica* is a branched shrub native to Sri Lanka that is now naturalized (i.e., introduced by man from another area, and established and reproducing itself in the wild) in Hawaii (Wagner *et al.* 1999, pp. 932–933). This species is shade-tolerant and can rapidly form dense, monotypic stands, preventing establishment of other species (Global Invasive Species Database (GISD) 2005). Its fruit are attractive to birds, which can then spread the seeds over the landscape. According to the Hawaii Weed Risk Assessment for *A. elliptica*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2008c). This species occurs in mesic

forest habitats and the lower portions of wet forests (Wagner *et al.* 1999, p. 933).

- *Asystasia gangetica*, a perennial herb native to India, Malay Peninsula, and Africa, is naturalized in disturbed habitats in Hawaii. This species can grow over shrubs and smother all vegetation in the herbaceous layer, covering native plants and preventing their establishment (Smith 1985, p. 185). According to the Hawaii Weed Risk Assessment for *A. gangetica*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2009). This species occurs in low-elevation, disturbed habitats (Wagner *et al.* 1999, p. 168).

- *Atriplex semibaccata* is a drought- and saline-tolerant, low-growing shrub, that forms dense spreading mats that displace native plants. It was introduced to Hawaii around 1895, as an experimental forage grass plant for cattle, and is now naturalized in dry to seasonally wet areas (Wagner *et al.* 1999, p. 535). The seeds are attractive to fruit eaters, which may help disperse this plant (California Invasive Plant Council 2006). This species occurs in dry to seasonally wet habitat areas (Wagner *et al.* 1999, p. 535).

- *Axonopus fissifolius* is a pasture grass that forms dense mats with tall foliage. This species does well in soils with low nitrogen levels, and can outcompete other grasses in wet forests and bogs. The species is not subject to any major diseases or insect pests, and recovers quickly from fire. The seeds are readily spread by water, vehicles, and grazing animals (O'Connor 1999, pp. 1,500–1,502; Cook *et al.* 2005, p. 4). This species occurs in wet pastures, disturbed wet forests, and bogs (Wagner *et al.* 1999, p. 1,502).

- *Blechnum appendiculatum* is a fern with fronds to 23 in (60 cm) long that forms large colonies in closed canopy mesic forests, especially on rocky substrate. It occurs in all but the most extreme habitats (Palmer 2003, p. 81).

- *Buddleia asiatica* is a shrub or small tree that can tolerate a wide range of habitats, forms dense thickets, and is rapidly spreading into wet forest and even lava and cinder substrate areas in Hawaii, displacing native vegetation (Wagner *et al.* 1999, p. 415; PIER 2008d). This species occurs in lava, cinder fields, and wet forest habitats (Wagner *et al.* 1999, p. 416).

- *Cenchrus ciliaris* is native to Africa and tropical Asia and is naturalized in Hawaii. It is a fire-adapted grass that provides fuel for fires and recovers quickly, increasing its cover with each succeeding fire (PIER 2007a), because it can reproduce through vegetative fragmentation and be dispersed by

animals or other vectors, increasing its competitive abilities over native plants. This species occurs in dry areas and sandy soil, in a variety of habitat types (Wagner *et al.* 1999, p. 1,512).

- *Chloris barbata*, native to Central America, West Indies, and South America, is widely naturalized in Hawaii (O'Connor 1999, p. 1,514). This species first evolved resistance to Group C1/5 herbicides in Hawaii in 1987. The species infests roadsides and sugarcane plantations, and encroaches on native habitat (WeedScience.com 2009; HBMP 2008). According to the Hawaii Weed Risk Assessment for *C. barbata*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2008e) because of its ability to outcompete native species. This species occurs in dry disturbed areas, roadsides, vacant lots, and pastures (Wagner *et al.* 1999, p. 1,514).

- *Chrysophyllum oliviforme* is a small tree native to the United States (Florida), West Indies, and Central America, and is naturalized in Hawaii (Pennington 1999, p. 1,231; PIER 2006a). Birds easily disperse the fleshy fruit, and the species becomes a dominant component over native forest (Pennington 1999, p. 1,231; Maui Land and Pineapple Company 2002, pp. A 1–4). According to the Hawaii Weed Risk Assessment for *C. oliviforme*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2006a). This species has been documented in low-elevation moist forests.

- *Clidemia hirta* is a noxious shrub in the Melastomataceae family that forms a dense understory, shades out native plants and prevents their regeneration, and is considered a significant nonnative plant threat (Wagner *et al.* 1985, p. 41; Smith 1989, p. 64). All plants in the Melastomataceae family are legally designated "noxious" in the State of Hawaii (HAR Title 4, Subtitle 6, Chapter 68). This species has been documented in forests and pastures (<http://www.ctahr.hawaii.edu/invweed/weedsHI.html>).

- *Digitaria insularis* is a densely tufted, perennial grass that is 3.2 to 5 ft (100 to 150 cm) tall. It is native to the neotropics, and is widely naturalized on Hawaiian and other Pacific islands, and in Malesia (O'Connor 1999, p. 1,531). It forms dense mats, crowding out native species (Motooka *et al.* 2003a), and occurs in lawns and pastures (Wagner *et al.* 1999, p. 1,531).

- *Ehrharta stipoides* is a grass that creates a thick mat in which other species cannot regenerate; its seeds are easily dispersed by awns (slender, terminal bristle-like process found at the

spikelette in many grasses) that attach to fur or clothing (U.S. Army Garrison 2006, p. 2–1–20). This species has been documented in dry to mesic areas between elevations of 330 to 1700 ft (100 to 500 m) *Erechtites valerianifolia* is a tall (up to 8 ft (2.5 m)), widely-distributed annual herb that produces thousands of wind-dispersed seeds, and outcompetes native plants (Wagner *et al.* 1999, p. 314). This species occurs in relatively wet disturbed habitats (Wagner *et al.* 1999, p. 314).

- *Erigeron karvinskianus* reproduces and spreads rapidly by stem layering and regrowth of broken roots to form dense mats. This species crowds out and displaces ground-level plants (Weeds of Blue Mountains Bushland 2006), and occurs in moderately wet habitats (Wagner *et al.* 1999, p. 315).

- *Ficus microcarpa* is a very large, spreading tree with numerous aerial roots that form columnar stems. It is epiphytic and can germinate on other trees, eventually strangling its host, and can shade out native plants with its broad canopy. Seeds are spread by birds (Motooka *et al.* 2003b). This species occurs in highly disturbed low-elevation habitats (Wagner *et al.* 1999, p. 926).

- *Grevillea robusta* is a large evergreen tree native to Australia. Over two million trees were planted in Hawaii between 1919 and 1959 in an effort to reduce erosion and to provide timber. The leaves produce an allelopathic substance that inhibits the establishment of all species (Smith 1985, p. 191). This species has been documented in dry and moist forests, and open areas.

- *Heliocarpus popayanensis* is a tree native to Mexico and Argentina, planted extensively in Hawaii by foresters beginning in 1941, and has since escaped into wet forests at low to mid elevations (Wagner *et al.* 1999, p. 1,292). The seeds are dispersed by wind, and *H. popayanensis* is becoming a dominant tree in some forest areas on Oahu (Smith 1998). The species grows rapidly and spreads readily in disturbed wetter mesic forest habitats, where it can outcompete native vegetation (Mootka 2003c). This species occurs in disturbed forest habitats (Wagner *et al.* 1999, p. 1292).

- *Kalanchoe pinnata* is a succulent perennial plant with hollow stems that can form dense stands that prevent reproduction of native species. It can also reproduce by vegetative means at indents along the leaf margin (Motooka *et al.* 2003c). This species occurs in low-elevation, dry to mesic, disturbed habitats (Wagner *et al.* 1999, p. 568).

- *Lantana camara* was brought to Hawaii as an ornamental plant, and is

an aggressive, thorny, thicket-forming shrub that is now found on all of the main islands (Davis *et al.* 1992, p. 412; Wagner *et al.* 1999, p. 1,320). It forms dense impenetrable stands that negatively affect native plants through competition (Mootka 2003d), and occurs in mesic forest, dry shrubland, and dry/disturbed low elevation habitats (Wagner *et al.* 1999, p. 1320).

- *Leonotis nepetifolia* is a coarse annual herb that is widely naturalized and forms dense thickets that displace native plants. According to the Hawaii Weed Risk Assessment for *L. nepetifolia*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2006b). This species occurs in low-elevation, dry to occasionally wet, disturbed habitats (Wagner *et al.* 1999, p. 803).

- *Leptospermum scoparium* is a shrub or small tree native to New Zealand and Australia, which is now widely naturalized in Hawaii. It forms thickets that crowd out other plants, and is allelopathic (produces chemicals that inhibit growth of other plants) (Smith 1985, p. 193). This species occurs in disturbed, mesic to wet, forest habitats (Wagner *et al.* 1999, p. 963).

- *Leucaena leucocephala*, a shrub native to the neotropics, is now found on all of the main Hawaiian Islands and Midway atoll. It is an aggressive competitor that often forms the dominant element of the vegetation in low-elevation, dry, disturbed areas (Geesink *et al.* 1999, pp. 679–680).

- *Melia azedarach* is a small, deciduous tree native to southwestern Asia that is invading forests, fence lines, and disturbed areas in Hawaii. Its fast growth and rapidly spreading thickets make it a significant pest plant by shading out and displacing native vegetation (University of Florida 2008). Feral pigs and fruit-eating birds further distribute the seeds (Stone 1985, pp. 194–195). According to the Hawaii Weed Risk Assessment for *M. azedarach*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2008f). This species occurs in dry, disturbed habitats (Wagner *et al.* 1999, p. 918).

- *Melinis minutiflora* is a spreading, perennial grass that forms dense mats that can fuel more intense fires that destroy native plants (Cuddihy and Stone 1990, p. 89; O'Connor 1999, p. 1,562). This species occurs in dry to mesic habitats, in disturbed and usually open areas (Wagner *et al.* 1999, p. 1563).

- *Morella faya* is an evergreen shrub or small tree that forms monotypic stands, has the ability to fix nitrogen, and alters the successional ecosystems in areas it invades, displacing native

vegetation through competition. It is also a prolific fruit producer (average of 400,000 fruits per individual shrub or tree per year), and the fruit are spread by frugivorous birds and feral pigs (Vitousek 1990, pp. 8–9; Wagner *et al.* 1999, p. 931; PIER 2008g). This species is on the Hawaii State noxious weed list (HAR Title 4, Subtitle 6, Chapter 68). The species has been documented in forested habitats (<http://www.hawaiiinvasivespecies.org/pests/firetree.html>).

- *Oplismenus hirtellus* is a perennial grass that forms a dense groundcover, is sometimes climbing, and roots at the nodes, enabling its rapid spread. It also has sticky seeds that attach to visiting animals and birds that then carry them to new areas where they are deposited, resulting in the spread of this species (O'Connor 1999, p. 1,565; Johnson 2005). The species displaces native plants on forest floors and trailsides (Motooka 2003e), and occurs in shaded mesic valleys, mesic forest, and disturbed wet forest habitats (Wagner *et al.* 1999, p. 1,565).

- *Panicum maximum* is cultivated as an important forage grass throughout the tropics and is naturalized in Hawaii (O'Connor 1999, p. 1,569). This tall grass produces profuse seeds that are spread by wind, birds, and flowing water. This plant is strongly allelopathic (PIER 2007b), and can form dense stands that exclude native species. It regenerates rapidly from underground rhizomes after a fire (PIER 2007b). This species has been documented in open disturbed areas of forests, wastelands, and roadsides (<http://www.ctahr.hawaii.edu/invweed/weedsHi.html>).

- *Paspalum conjugatum* is a perennial grass that is found in wet habitats, and forms a dense ground cover. Its small hairy seeds are easily transported on humans and animals or are carried by the wind through native forests, where it establishes and displaces native vegetation (Tomich 1986, p. 125; Cuddihy and Stone 1990, p. 83; PIER 2007c; Motooka *et al.* 2003d). This species occurs in moist to wet disturbed habitats (Wagner *et al.* 1999, p. 1,576).

- *Passiflora foetida* is a vine with glandular hairs that give the plant a fetid odor. This species is naturalized in Hawaii, and grows over and covers low vegetation that prevents or delays establishment of native species. Its fruit are eaten and spread by birds (Escobar 1999, p. 1,011; GISD 2006). This species occurs in disturbed sites and rock outcrop habitats (Wagner *et al.* 1999, p. 1,011).

- *Passiflora suberosa* has many-seeded purple fruits that are dispersed widely by birds. It is an aggressive vine that grows over and smothers shrubs, small trees, and ground layer vegetation, and sometimes upper canopy layer vegetation (Smith 1985, pp. 191–192). This species occurs in grassland, shrubland, open dry forest, mesic forest, and exposed ridge habitats (Wagner *et al.* 1999, p. 1,014).

- *Pennisetum setaceum* is a grass that is an aggressive colonizer, and outcompetes most native species. This species is also fire-adapted and burns swiftly and hot, causing extensive damage to the surrounding habitat (O'Connor 1999, p. 1,581). This species occurs in dry open places, barren lava flows, and cinder fields (Wagner *et al.* 1999, p. 1,578).

- *Pimenta dioica* is a tree with sticky grape-like seeds that are spread by birds. Widely cultivated, this species was introduced to Hawaii in 1885, and is believed to be naturalized on Kauai and perhaps on Oahu (Staples and Herbst 2005, p. 427). According to the Hawaii Weed Risk Assessment for *P. dioica*, this species has a high risk of invasiveness or a high risk of becoming a serious pest (PIER 2008h). The species forms dense thickets, tolerates a wide range of soil conditions, and has propagules that survive passage through bird digestive systems. These capabilities increase its competitive ability over native plants. This species has been documented in dry and moist forests up to elevation 3,000 ft.

- *Pluchea indica* is native to southern Asia, and *P. carolinensis* is native to Mexico, the West Indies, and South America (Wagner *et al.* 1999, p. 351). These 3- to 6 ft- (1- to 2-m) tall, fast-growing shrubs form thickets in dry habitats and can tolerate saline conditions. They are widespread in Hawaii from coastal areas up to almost 3,000 ft (900 m). The seeds are wind-dispersed (Francis 2006). The species is adapted to a wide variety of soils and sites, tolerates excessively well to poorly drained soil conditions, the full range of soil textures, acid and alkaline reactions, salt and salt spray, and compaction. It quickly invades burned areas, but being early successional, it is soon replaced by other species. These adaptive capabilities increase the species' competitive abilities over native plants. This species occurs in low-elevation, dry, coastal habitats (Wagner *et al.* 1999, p. 351).

- *Pluchea carolinensis* is native to Mexico, the West Indies, and northern South America. The species has naturalized in Hawaii, usually in relatively dry, coastal areas, but ranging

up to 3,000 ft (900 m) in mesic to wet forest. The species was first collected on Oahu in 1931 (Wagner *et al.*, 1999, p. 351). This fast-growing shrub forms thickets in dry habitats. The seeds are wind-dispersed. Its resistance to fire depends on the intensity of the fire. It generally regenerates from basal shoots. Some biological control agents have been introduced but they have not been effective (http://www.botany.hawaii.edu/faculty/cw_smith/plu_sym.htm).

- *Prosopis pallida* was introduced to Hawaii in 1828, and its seeds were used as fodder for ranch animals. This species became a dominant component of the vegetation in low-elevation, dry, disturbed sites, as it is well adapted to dry habitats. It overshadows other vegetation and the deep tap roots use all available water. This plant fixes nitrogen and can outcompete native species (Geesink *et al.* 1999, pp. 692–693; PIER 2006c). This species occurs in low-elevation, dry, disturbed habitats; behind beaches; on raised limestone reefs; on dry slopes and bulches; and in degraded dry forest habitats (Wagner *et al.* 1999, p. 693).

- *Psidium cattleianum* is a tall shrub or tree that forms dense stands in which few other plants can grow, displacing native vegetation through competition. The fruit is eaten by pigs and birds that disperse the seeds throughout the forest (Smith 1985, p. 200; Wagner *et al.* 1985, p. 24). This species occurs in disturbed, mesic forest and wet forest habitats (Wagner *et al.* 1999, p. 970).

- *Psidium guajava* is a shrub or tree that forms dense stands in disturbed forest. The seeds are spread by feral pigs and alien birds, and it can also regenerate from underground parts by suckering (Wagner *et al.* 1999, p. 972). Seeds are dispersed throughout the forest, which facilitates competition with native plants. This species occurs in disturbed, dry, mesic and wet, forest habitats (Wagner *et al.* 1999, p. 972).

- *Pterolepis glomerata* is a member of the Melastomataceae family. The basis for its classification as invasive are the plant's germination rates, rapid growth, early maturity, ability of fragments to root, possible asexual reproduction, and seed dispersal by birds (University of Florida Herbarium 2006). Because of these attributes, it displaces native vegetation through competition. This species is on the Hawaii State noxious weed list (HAR Title 4, Subtitle 6, Chapter 68). This species occurs in disturbed, mesic to wet habitats and trail margins (Wagner *et al.* 1999, p. 913).

- *Rubus argutus* is a prickly bramble with long, arching stems that

reproduces both vegetatively and by seed. It readily sprouts from underground runners, and is quickly spread by frugivorous birds (Tunison 1991, p. 2; Wagner *et al.* 1999, p. 1,107; U.S. Army 2006, pp. 2–1–21, 2–1–22). This species, which displaces native vegetation through competition, is on the Hawaii State noxious weed list (HAR Title 4, Subtitle 6, Chapter 68). This species occurs in mesic to wet forest and subalpine grassland habitats (Wagner *et al.* 1999, p. 1,107).

- *Rubus rosifolius* is an erect to trailing shrub that forms dense thickets and outcompetes native plant species. It easily reproduces from roots left in the ground, and seeds are spread by birds and feral animals (GISD 2008a; PIER 2008i). This species occurs in disturbed, mesic to wet, forest habitat (Wagner *et al.* 1999, p. 1,110).

- *Sacciolepis indica* is an annual grass that invades disturbed and open areas in wet habitats, and outcompetes native plants. The seeds are dispersed by sticking to animal fur (University of Hawaii 1998). This species occurs in open, wet areas such as grasslands, ridge crests, openings in wet forest, and along trails (Wagner *et al.* 1999, p. 1589).

- *Schefflera actinophylla* is a tree native to Australia and New Guinea, and now naturalized in Hawaii (Lowry 1999, p. 232). This species is shade tolerant and can spread into undisturbed forests, forming dense thickets. *Schefflera actinophylla* grows epiphytically, strangling host trees, and its numerous seeds are readily dispersed by birds (PIER 2008j). This species occurs in low-elevation, disturbed, mesic habitats (Wagner *et al.* 1999, p. 232).

- *Schinus terebinthifolius* forms dense thickets in all habitats, and its red berries are attractive to birds (Smith 1989, p. 63). *Schinus* seedlings grow very slowly and can survive in dense shade, exhibiting vigorous growth when the canopy is opened after a disturbance (Brazilian Pepper Task Force 1997). Because of these attributes, *S. terebinthifolius* is able to displace native vegetation through competition. This species occurs in disturbed, mesic habitats (Wagner *et al.* 1999, p. 195).

- *Sphaeropteris cooperi* is a tree fern native to Australia that was brought to Hawaii for use in landscaping (Medeiros *et al.* 1992, p. 27). It can achieve high densities in native Hawaiian forests, grows up to 1 ft (0.3 m) in height per year (Jones and Clemesha 1976, p. 56), and can displace native species. Understory disturbance by pigs facilitates the establishment of this species (Medeiros *et al.* 1992, p. 30), and

it has been known to spread over 7 mi (12 km) through windblown dispersal of spores from plant nurseries (Medeiros *et al.* 1992, p. 29). This species has been documented in rain forest, moist forest, and openings in wet and moist areas.

- *Stapelia gigantea* is a succulent, cactus-like plant native to tropical Africa and Mozambique (Wagner *et al.* 1999, p. 241). It can compete with native species for space and water in exposed areas. This species has been documented in dry forests and open areas.

- *Syzygium cumini* is a tree that forms dense cover, excluding all other species, and prevents the reestablishment of native lowland forest plants. The large, black fruit is dispersed by frugivorous birds and feral pigs (PIER 2008k). This species occurs in mesic valleys and disturbed mesic forest habitats (Wagner *et al.* 1999, p. 168).

- *Syzygium jambos* has fruit that are dispersed by birds as well as by humans, and possibly by pigs. This tree is detrimental to native ecosystems because it does not need disturbance to become established, and can germinate and thrive in shade, eventually overtopping and replacing native canopy trees (U.S. Army 2006, p. 2–1–23). This species occurs in low-elevation, mesic to wet sites, primarily valleys and occasionally in disturbed, mesic forest habitats (Wagner *et al.* 1999, p. 975).

- *Tecoma stans* is a shrub or small tree that can form dense stands that inhibit regeneration of native species. Its seeds are wind-dispersed (PIER 2008l). This species occurs in dry to mesic habitats (Wagner *et al.* 1999, p. 389).

- *Toona ciliata* is a fast-growing tree with wind-dispersed seeds and an open, spreading crown that overtops and displaces native forest (Wagner *et al.* 1999, p. 920; Koala Native Plants 2005). This species occurs in disturbed mesic to wet habitats (Wagner *et al.* 1999, p. 168).

- *Urochloa mutica* is a fast growing, perennial grass native to Africa. It is considered an aggressive invasive weed of marshes and wetlands, forming dense monotypic stands that eliminate any open water by layering of its trailing stems (Smith 1985, p. 186; Erickson and Puttock 2006, p. 270). The species also forms monotypic stands in forest openings, displacing native plants. This species has been documented in riparian habitats, freshwater wetlands, swamps, and disturbed sites (<http://www.fs.fed.us/database/feis/plants/graminoid/uromut/all.html>).

- *Verbesina encelioides*, a tap-rooted, annual herb native to Mexico and the

southwestern United States, is naturalized in Hawaii (Wagner *et al.* 1999, p. 372). This plant has a number of aggressive characteristics that allow it to outcompete native plants, including tolerance of a wide range of growing conditions, rapid growth, allelopathic effects on other plants, high seed production, and dispersal with high germination rates. In addition, it is poisonous to livestock (Shluker 2002, pp. 3–4, 7–8). *Verbesina* has become a widespread and aggressive weed on both Midway Atoll and Kure Atoll, where it interferes with seabird nesting and inhibits native plant growth (Shluker 2002, pp. 3–4, 8). This species has been documented at several localities on Oahu, and occurs in dry and disturbed habitats (Wagner *et al.* 1999, p. 168).

Habitat Destruction and Modification by Fire

Fire is a relatively new, human-exacerbated threat to native species and natural vegetation in Hawaii. The historical fire regime in Hawaii was characterized by infrequent, low-severity fires, as few natural ignition sources existed (Cuddihy and Stone 1990, p. 91; Smith and Tunison 1992, pp. 395–397). Natural fuel beds were often discontinuous, and rainfall in many areas on most islands was, and is moderate to high. Fires inadvertently or intentionally ignited by the original Polynesians in Hawaii probably contributed to the initial decline of native vegetation in the drier plains and foothills. These early settlers practiced slash-and-burn agriculture that created open lowland areas suitable for the later colonization of nonnative, fire-adapted grasses (Kirch 1982, pp. 5–6, 8; Cuddihy and Stone 1990, pp. 30–31). Beginning in the late 18th century, Europeans and Americans introduced plants and animals that further degraded native Hawaiian ecosystems. Pasturage and ranching, in particular, created highly fire-prone areas of nonnative grasses and shrubs (D'Antonio and Vitousek 1992, p. 67). Although fires are infrequent in mountainous regions today, extensive fires have occurred in lowland mesic areas, leading to grass/fire cycles that convert woodland to grassland (D'Antonio and Vitousek 1992, p. 77).

Although Vogl (1969) (in Cuddihy and Stone 1990, p. 91) proposed that naturally occurring fires, primarily from lightning strikes, have been important in the development of the original Hawaiian flora, and that many Hawaiian plants might be fire adapted, Mueller-Dombois (1981), in Cuddihy and Stone (1990, p. 91), points out that most

natural vegetation types of Hawaii would not carry fire before the introduction of alien grasses. Smith and Tunison (in Cuddihy and Stone 1990, p. 91) state that native plant fuels typically have low flammability. Because of the greater frequency, intensity, and duration of fires that have resulted from the introduction of nonnative plants (especially grasses), fires are now destructive to native Hawaiian ecosystems (Brown and Smith 2000, p. 172), and a single grass-fueled fire can kill most native trees and shrubs in the burned area (D'Antonio and Vitousek 1992, p. 74).

Fire represents a threat to six of the plant species proposed for listing in this proposed rule, *Bidens amplexans*, *Cyanea calycina*, *Doryopteris takeuchii*, *Korthalsella degeneri*, *Pleomele forbesii*, and *Pteralyxia macrocarpa* (see Table 2). These six plant species are found in the coastal, lowland dry, lowland mesic, or dry cliff ecosystems. Fire can destroy dormant seeds of the six species as well as the plants themselves, even in steep or inaccessible areas. Successive fires that burn farther and farther into native habitat destroy native plants and remove habitat for native species by altering microclimate conditions favorable to alien plants. Alien plant species most likely to be spread as a consequence of fire are those that produce a high fuel load, are adapted to survive and regenerate after fire, and establish rapidly in newly burned areas. Grasses (particularly those that produce mats of dry material or retain a mass of standing dead leaves) that invade native forests and shrublands provide fuels that allow fire to burn areas that would not otherwise easily burn (Fujioka and Fujii 1980, in Cuddihy and Stone 1990, p. 93; D'Antonio and Vitousek 1992, pp. 70, 73–74; Tunison *et al.* 2002, p. 122). Native woody plants may recover from fire to some degree, but fire tips the competitive balance toward alien species (National Park Service 1989, in Cuddihy and Stone 1990, p. 93).

On a post-burn survey at Puuwaawaa on the island of Hawaii, within an area of native *Diospyros* forest with undergrowth of the nonnative grass *Pennisetum setaceum*, Takeuchi noted that "no regeneration of native canopy is occurring within the Puuwaawaa burn area" (Takeuchi 1991, p. 2). Takeuchi also stated that "burn events served to accelerate a decline process already in place, compressing into days a sequence which would ordinarily have taken decades" (Takeuchi 1991, p. 4), and concluded that in addition to increasing the number of fires, the nonnative *Pennisetum* acted to suppress establishment of native plants after a

fire (Takeuchi 1991, p. 6). There have been several recent fires on Oahu that have impacted rare or endangered species, including areas being proposed as critical habitat in this proposed rule. Between 2004 and 2005, wildfires burned more than 360 ac (146 ha) in Honouliuli Preserve, home to more than 90 rare and endangered plants and animals, which is located along the windward side of the Waianae Mountains (The Nature Conservancy, in litt. 2005). In 2006, a fire at Kaena Point State Park burned 60 ac (24 ha), including portions of two proposed critical habitat units, and encroached on endangered plants in Makua Military Training Area. In 2007, there was a significant fire at Kaukonahua that crossed 12 gulches, eventually encompassing 5,655 ac (2,289 ha), and negatively impacted seven endangered plant species. Occurrences of three of the species were extirpated as a result of the fire. The Kaukonahua fire also provided pathways for nonnative ungulates (cattle, goats, and pigs) into previously undisturbed areas, and opened up previously densely vegetated areas for growth of the invasive grass *Panicum maximum* (guinea grass), which is also used as a food source by cattle and goats. An area infested by guinea grass burned, and the grass was observed to generate blades over 2 feet in length only 2 weeks after the fire (U.S. Army Garrison 2007, Appendices pp. 1–5). In 2009, there were two smaller fires that burned 200 ac (81 ha) at Manini Pali (Kaena Point State Park) and 3.8 ac (1.5 ha) at Makua Cave (at the mouth of Makua Valley). Both of these fires burned in currently designated critical habitat, although no individual plants were directly affected (U.S. Army Natural Resource Program 2009, Appendix 2, 17 pp.). These examples of recent fires illustrate that nonnative grass invasion leads to grass/fire cycles that convert native vegetation to grassland (D'Antonia and Vitousek 1992, p. 77).

Habitat Destruction and Modification by Hurricanes

Hurricanes adversely impact native Hawaiian terrestrial habitat, including each of the seven Oahu ecosystems and their associated species identified in this proposed rule. They do this by destroying native vegetation, opening the canopy and thus modifying the availability of light, and creating disturbed areas conducive to invasion by nonnative pest species (see "Specific Nonnative Plant Species Impacts," above) (Asner and Goldstein 1997, p. 148; Harrington *et al.* 1997, pp. 539–540). Canopy gaps allow for the

establishment of nonnative plant species, which may be present as plants, or as seeds incapable of growing under shaded conditions. In addition, hurricanes adversely impact native Hawaiian stream habitat by defoliating and toppling vegetation, thus loosening the soil around the toppled vegetation. Loosened soil, loose vegetation, and other debris can be washed into streambeds (by hurricane-induced rain or subsequent rain storms), resulting in the scouring of the stream bottoms and channels, and catastrophic flooding (Polhemus 1993, 88 pp.). Because many Hawaiian plant and animal species, including the 23 species proposed for listing as endangered in this proposed rule, persist in low numbers and in restricted ranges, natural disasters, such as hurricanes, can be particularly devastating (Mitchell *et al.* 2005, p. 4–3).

Hurricanes affecting Hawaii were only rarely reported from ships in the area from the 1800s until 1949. Between 1950 and 1997, 22 hurricanes passed near or over the Hawaiian Islands, 5 of which caused serious damage (Businger 1998, pp. 1–2). In November 1982, Hurricane Iwa struck the Hawaiian Islands, with wind gusts exceeding 100 miles per hour (mph) (161 kilometers per hour (kph)), causing extensive damage, especially on the islands of Niihau, Kauai, and Oahu (Businger 1998, pp. 2, 6). Many forest trees were destroyed (Perlman 1992, pp. 1–9), which opened the canopy and facilitated the invasion of nonnative plants (Kitayama and Mueller-Dombois 1995, p. 671). Competition with nonnative plants is a threat to each of the 7 ecosystems and the 20 plant species addressed in this proposed rule, as described in the "Specific Nonnative Plant Species Impacts" section above. In September 1992, Hurricane Iniki, a category 4 hurricane with maximum sustained wind speeds recorded at 140 mph (225 kph), passed directly over the island of Kauai and close to the island of Oahu, causing significant damage to areas along Oahu's southwestern coast (Barber's Point or Kalaeloa, through Kaena Point) (Blake *et al.* 2007, p. 20), where *Bidens amplexans* occurs. Biologists have documented hurricane damage (e.g., denuded foliage, toppled and uprooted trees and shrubs, landslides) to the habitat of six other plant species (*Cyrtandra kaulantha*, *C. sessilis*, *Melicope christophersenii*, *M. hiikae*, *Platydesma cornuta* var. *cornuta*, and *Psychotria hexandra* ssp. *oahuensis*). Polhemus (1993, pp. 86–87) documented the extirpation of the scarlet Kauai damselfly (*Megalagrion*

vagabundum), a species related to the blackline, crimson, and oceanic Hawaiian damselflies included in this listing proposal, from the entire Hanakapiai Stream system on the island of Kauai as a result of the impacts of Hurricane Iniki in 1992. Damage by future hurricanes could further decrease the remaining native-plant dominated habitat areas that support rare plants and animals in Oahu ecosystems (Bellingham *et al.* 2005, p. 681).

Habitat Destruction and Modification Due to Landslides, Rockfalls, Flooding, and Drought

Landslides, rockfalls, and flooding destabilize substrates, damage and destroy individual plants, and alter hydrological patterns, which result in changes to native plant and animal communities. In the open sea near Hawaii, rainfall averages 25 to 30 in (630 to 760 mm) per year, yet the islands may receive up to 15 times this amount in some places, caused by orographic features (Wagner *et al.* 1999; adapted from Price (1983) and Carlquist (1980), pp. 38–39). During storms, rain may fall at 3 in (76 mm) per hour or more, and sometimes may reach nearly 40 in (1,016 mm) in 24 hours, causing destructive flash-flooding in streams and narrow gulches (Wagner *et al.* 1999; adapted from Price (1983) and Carlquist (1980), pp. 38–39). Due to the steep topography of much of the area on Oahu where the species remain, erosion and disturbance caused by introduced ungulates exacerbate the potential for landslides, rockfalls, or flooding, which in turn threaten native plants and some of the damselfly species (see Table 2). For those species that occur in small numbers in highly restricted geographic areas, such events have the potential to eradicate all individuals of a population, or even all populations of a species, resulting in extinction.

Landslides and rockfalls likely adversely impact nine of the species addressed in this proposed rule, including *Cyanea lanceolata*, *Cyrtandra kaulantha*, *C. sessilis*, *Doryopteris takeuchii*, *Melicope makahae*, *Platydesma cornuta* var. *decurrens*, *Psychotria hexandra* ssp. *oahuensis*, and the crimson and oceanic Hawaiian damselflies, as documented in observations by field botanists and surveyors (HBMP 2008). Monitoring data from the PEP program and the Hawaii Biodiversity and Mapping Program (HBMP) suggest that these nine species are threatened by landslides or falling rocks, as they are found in landscape settings susceptible to these events (e.g., steep slopes and cliffs). Since *C. kaulantha* is known from only

a few individuals in steep-walled stream valleys, one landslide could lead to near extirpation of the species by direct destruction of the individual plants, mechanical damage to individual plants that could lead to their death, destabilization of the cliff habitat leading to additional landslides, and alteration of hydrological patterns (e.g., affecting the availability of soil moisture). Landslides can modify and destroy riparian and stream habitat by direct physical damage (e.g., rocks and debris falling in a stream, mechanical damage to riparian vegetation), and create disturbed areas leading to invasion by nonnative plants that outcompete the native plants, as well as damage or destroy plants used by the crimson and oceanic damselflies for perching. Field survey data presented by Bakutis (in litt. 2006c) and the PEP Program (2006, p. 51) suggest that flooding is a likely threat to two plant species included in this proposed listing, one population of *Psychotria hexandra* ssp. *oahuensis*, located in a narrow gulch, and one population of *Cyrtandra sessilis*, growing near a stream in a narrow valley. Intermittent flooding events likely occurred in the stream habitats of the blackline, crimson, and oceanic Hawaiian damselflies in the past, due to stochastic events such as storms and hurricanes. However, the current low numbers of individuals and populations, combined with their breeding, life history requirements in stream habitats, and reduced ranges of these three Hawaiian damselflies increase their vulnerability to the threat of flooding. The impact of flooding events may be increased by channelization of stream reaches, or degradation of riparian vegetation by feral ungulates. Naiads may be washed out of streams into the surrounding terrestrial habitat or washed downstream into portions of streams that are occupied by nonnative predatory fish. Adults perching on surrounding vegetation may be washed into flooded streams and drown.

The blackline, crimson, and oceanic Hawaiian damselflies may also be affected by temporary habitat loss associated with droughts, which are not uncommon in the Hawaiian Islands. Between 1860 and 2002, the island of Oahu was affected by 49 periods of drought (Giambelluca *et al.* 1991, pp. 3–4; Hawaii Commission on Water Resource Management 2009a and 2009b). These drought events often desiccate streams, irrigation ditches, and reservoirs; deplete groundwater supplies; and lead to forest and brush fires (Hawaii Commission on Water

Resource Management 2009a and 2009b). Desiccation of streams, ditches, and reservoirs directly removes damselfly hunting and breeding habitat. Drought leads to an increase in the number of forest and brush fires (Giambelluca *et al.* 1991, p. v), causing a reduction of native plant cover and habitat (D'Antonio and Vitousek 1992, pp. 77–79), and of plants used by the three Hawaiian damselflies for perching and hunting for prey.

Habitat Destruction and Modification by Agriculture and Urban Development

Although we are unaware of any comprehensive, site-by-site assessment of wetland loss in Hawaii (Erikson and Puttock 2006, p. 40), Dahl (1990, p. 7) estimated that at least 12 percent of lowland to upper-elevation wetlands in Hawaii had been converted to non-wetland habitat by the 1980s. If only coastal plain (below 1,000 ft (305 m)) marshlands and wetlands are considered, it is estimated that 30 percent have been converted to agricultural and urban development (E. Kosaka, U.S. Fish and Wildlife Service, in litt. 1990). Historical records show these marshlands and wetlands provided habitat for many damselfly species, including the blackline, oceanic, and crimson Hawaiian damselflies (Polhemus 2007, pp. 233, 237–239; HBMP 2008).

Although filling of wetlands is regulated by permitting today, the loss of riparian or wetland habitats utilized by the blackline and crimson Hawaiian damselflies may still occur due to Oahu's population growth and development, with concurrent demands on limited developable land and water resources (Lester 2007). The State's Commission on Water Resource Management recognized the need for a water resource protection plan, which is currently under development (Commission on Water Resource Management 2010). In addition, marshes have been slowly filled and converted to meadow habitat as a result of sedimentation from increased storm water runoff from upslope development, the accumulation of uncontrolled growth of invasive vegetation, and blockage of downslope drainage (Wilson Okamoto & Associates, Inc. 1993, pp. 3–4, 3–5).

The threats posed by conversion of wetland and other aquatic habitat for agriculture and urban development are ongoing and are expected to continue into the future. Hawaii's population has increased almost 7 percent in the past 10 years, along with the associated increased demands on limited land and water resources (Hawaii Department of

Business, Economic Development and Tourism 2010). These modified areas lack the aquatic habitat features that the blackline and crimson Hawaiian damselflies require for essential life-history needs, such as marshes, sidepools along streams, and slow sections of perennial streams, and no longer support populations of these two species. Agriculture and urban development have thus contributed to the present curtailment of the habitat of these two Hawaiian damselflies, and we have no indication that this threat is likely to be significantly ameliorated in the near future.

Habitat Destruction and Modification by Stream Diversion

Stream modifications began with the early Hawaiians who diverted water to irrigate taro (kalo, *Colocasia esculenta*). A taro planter's share of water was determined by the amount of labor contributed to the construction and maintenance of the ditch, and was not proportional to their acreage of flooded terraces. Water rights of others taking water from the main stream below the dam had to be respected, and no ditch was permitted to divert more than half the flow from a stream. Water was withdrawn according to a time schedule, from a few hours at a time day or night up to two or three days, and in times of drought, the "water boss" had the right to adjust the sharing of available water to meet exigencies (Handy and Handy 1972, pp. 58–59).

The advent of plantation sugarcane cultivation led to far more extensive stream diversions, with the first diversion built in 1856 on Kauai (Wilcox 1996, p. 54). The first diversion on Oahu, Oahu Ditch, was built in 1902 (Wilcox 1996, p. 65). These systems were designed to tap water at upper elevations (above 984 ft (300 m)) by means of a concrete weir in the stream (Wilcox 1996, p. 54). All, or most, of the low or average flow of the stream was, and often still is, diverted into fields or reservoirs, leaving many stream channels completely dry (Takasaki *et al.* 1969, pp. 27–28; Harris *et al.* 1993, p. 12; Wilcox 1996, p. 56).

By the 1930s, water diversions had been developed on all of the main Hawaiian Islands, and by 1978, the stream flow in more than half the 366 perennial streams in Hawaii had been altered in some manner (Brasher 2003, p. 1,055). Some stream diversion systems are extensive, such as the Waiahole Ditch on Oahu, built in the early 1900s, which diverts water from 37 streams within the ranges of the blackline, crimson, and oceanic damselflies, on the windward side of

Oahu to the dry plains on the leeward side of the island via a tunnel cut through the Koolau mountain range (Stearns and Vaksvik 1935, pp. 399–403; Tvedt and Oestigaard 2006, pp. 43–44). Historically, damselflies in the genus *Megalagrion* were a common component of Hawaiian streams and wetlands at elevations ranging from sea level to the summit of the Koolau Mountains on Oahu. This loss of stream habitat may have contributed to the extirpation of populations of the three damselflies from lower elevations in the Koolau range (Polhemus 2007, pp. 233–234, 238–239).

Habitat Destruction and Modification by Dewatering of Aquifers

In addition to the diversion of stream water and the resultant downstream dewatering, many streams on Oahu have experienced reduced or zero surface flow as a result of the dewatering of their source aquifers. Often these aquifers, which previously fed the streams, were tapped by tunneling or through the injudicious placement of wells (Gingerich and Oki 2000, p. 6; Stearns 1985, pp. 291–305). These groundwater sources were diverted for both domestic and agricultural use, and in some areas have completely depleted nearby stream and spring flows. For example, both the bore tunnels and the contour tunnel of the Waiahole Ditch system intersect perched aquifers (aquifers above the primary ground water table), which subsequently are drained to the elevation of the tunnels (Stearns and Vaksvik 1935, pp. 399–406). This has reduced stream habitat available to the blackline, crimson, and oceanic damselflies. Likewise, the boring of the Haiku tunnel on Oahu in 1940 caused a 25 percent reduction in the base flow of Kahaluu Stream, over 2.5 mi (4 km) away (Takasaki *et al.* 1969, pp. 31–32), and has impacted available habitat for the blackline and oceanic Hawaiian damselflies (HBMP 2008). Many of these aquifers were also the sources of springs that contributed flow to Oahu's windward streams; draining of these aquifers caused many of the springs to dry up, including some over 0.3 mi (0.5 km) away from the bore tunnels (Stearns and Vaksvik 1935, pp. 379–380).

Habitat Destruction and Modification by Vertical Wells

Surface flow of streams has also been affected by vertical wells drilled in pre-modern times, because the basal aquifer (lowest groundwater layer) and alluvial caprock (sediment-deposited harder rock layer) through which the lower sections of streams flow can be

penetrated and hydraulically connected by wells (Gingerich and Oki 2000, p. 6; Stearns 1940, p. 88). This allows water in aquifers normally feeding the stream to be diverted elsewhere underground. Dewatering of the streams by tunneling and well placement near or in streams was a significant cause of habitat loss, and these effects continue today. Historically, for example, there was sufficient surface flow in Makaha and Nanakuli Streams on Oahu to support taro loi (artificial ponds for taro cultivation) in their lower reaches, but this flow disappeared subsequent to construction of vertical wells upstream (B. Devick, State of Hawaii, pers. comm. 1995). The inadvertent dewatering of streams through the penetration of their aquifers (which are normally separated from adjacent waterbearing layers by an impermeable layer) by tunneling or through placement of vertical wells, caused the loss of blackline, crimson, and oceanic Hawaiian damselflies habitat, as these species were historically known from these areas.

Habitat Destruction and Modification by Stream Channelization

Stream degradation has been particularly severe on the island of Oahu where, by 1978, 58 percent of the perennial streams and banks had been channelized (e.g., concrete lined, partially lined, or altered) to control flooding (Polhemus and Asquith 1996, p. 24; Brasher 2003, p. 1,055). These alterations have resulted in an overall 89 percent loss of the total stream length island-wide (Polhemus and Asquith 1996, p. 24; Parrish *et al.* 1984, p. 83). The channelization of streams creates artificial, wide-bottomed stream beds and often results in removal of riparian vegetation, which reduces shading, increases substrate homogeneity, increases temporal water velocity (increased water flow speed during times of higher precipitation including minor and major flooding), and causes higher water temperatures (Parrish *et al.* 1984, p. 83; Brasher 2003, p. 1,052). Tests conducted on native aquatic species showed that the higher water temperatures in channelized streams caused stress, and sometimes death (Parrish *et al.* 1984, p. 83). Natural streams meander and are lined with rocks, trees, and natural debris, and during times of flooding, jump their banks. Channelized streams are straightened and often lack natural obstructions, and during times of higher precipitation or flooding, facilitate a higher water flow velocity. Hawaiian damselflies are largely absent from channelized portions of streams (Polhemus and Asquith 1996, p. 24),

which has likely contributed to a reduction in the historic range of Hawaiian damselfly species. In contrast, undisturbed Hawaiian stream systems exhibit a greater amount of riffle and pool habitat canopy closure, higher consistent flow velocity, and lower water temperatures that are characteristic of streams to which the Hawaiian damselflies, in general, are adapted (Brasher 2003, pp. 1,054–1,057).

Channelization of streams has not been restricted to lower stream reaches. For example, there is extensive channelization of Oahu's Kalihi Stream above 1,000 ft (300 m) elevation. Extensive stream channelization on Oahu has also contributed to the loss of habitat for the blackline, crimson, and oceanic Hawaiian damselflies (Englund 1999, p. 236; D. Polhemus, in litt. 2008).

Stream diversion, channelization, dewatering, and vertical wells represent serious and ongoing threats to the blackline, crimson, and oceanic Hawaiian damselflies for the following reasons: (1) They reduce the amount and distribution of stream habitat available to these species; (2) they reduce stream flow, leaving lower elevation stream segments completely dry except during storms, or leaving many streams completely dry year round, thus reducing or eliminating stream habitat; and (3) they indirectly lead to an increase in water temperature that results in physiological stress and to the loss of blackline, crimson, and oceanic Hawaiian damselfly naiads. The blackline, crimson, and oceanic Hawaiian damselflies are particularly vulnerable to extinction due to such changes (i.e., stream diversion, channelization, and dewatering), which is exacerbated by their range and habitat constrictions and declines in their population numbers.

Habitat Destruction and Modification by Climate Change

Climate change will be a particular challenge for biodiversity because the introduction and interaction of additional stressors may push species beyond their ability to survive (Lovejoy *et al.* 2005, pp. 325–326). The synergistic implications of climate change and habitat fragmentation are the most threatening facet of climate change for biodiversity (Lovejoy *et al.* 2005, p. 4). The magnitude and intensity of the impacts of global climate change and increasing temperatures on native Hawaiian ecosystems are unknown. We are not aware of climate change studies specifically related to the seven Oahu ecosystems described in this proposed rule, or the 23 species proposed for

listing that are associated with those ecosystems. Based on the best available information, climate change impacts could lead to the loss of native species that comprise the communities in which the 23 species occur (Pounds *et al.* 1999, p. 611–612; Still *et al.* 1999, p. 610; Benning *et al.* 2002, pp. 14,246 and 14,248). In addition, weather regime changes (e.g., droughts, floods) will likely result from increased annual average temperatures related to more frequent El Niño episodes in Hawaii. These changes may decrease water availability and increase the consumptive demand on Oahu's natural streams and reservoirs by Oahu's residents (Giambelluca *et al.* 1991, p. v). The effects of increasing temperatures on the aquatic habitat of the three damselfly species are not specifically known, but likely include the loss of aquatic habitat from reduced stream flow, evaporation of standing water, and increased water temperature (Pounds *et al.* 1999, pp. 611–612; Still *et al.* 1999, p. 610; Benning *et al.* 2002, pp. 14,246 and 14,248).

Oki (2004, p. 4) has noted long-term evidence of decreased precipitation and stream flow on the Hawaiian Islands, based upon evidence collected by stream gauging stations. This long-term drying trend, coupled with existing ditch diversions and periodic El Niño-caused drying events, has created a pattern of severe and persistent stream dewatering events (D. Polhemus, in litt 2008, p. 26). Future changes in precipitation and the forecast of those changes are highly uncertain because they depend, in part, on how the El Niño-La Niña weather cycle (a disruption of the ocean atmospheric system in the tropical Pacific having important global consequences for weather and climate) might change (Hawaii Climate Change Action Plan 1998, pp. 2–10).

The 23 species proposed for listing may be especially vulnerable to extinction due to anticipated environmental changes that may result from global climate change. Environmental changes that may affect these species are expected to include habitat loss or alteration and changes in disturbance regimes (e.g., storms and hurricanes), in addition to direct physiological stress caused by increased streamwater temperatures to which the native Hawaiian damselfly fauna are not adapted. The probability of a species going extinct as a result of these factors increases when its range is restricted, habitat decreases, and population numbers decline (Intergovernmental Panel on Climate Change 2007, p. 8). The 23 species have limited

environmental tolerances, limited ranges, restricted habitat requirements, small population sizes, and low numbers of individuals. Therefore, we would expect these species to be particularly vulnerable to projected environmental impacts that may result from changes in climate, and subsequent impacts to their habitats (e.g., Pounds *et al.* 1999, pp. 611–612; Still *et al.* 1999, p. 610; Benning *et al.* 2002, pp. 14,246 and 14,248). We believe changes in environmental conditions that may result from climate change may impact these 23 species, and we do not anticipate a reduction in this potential threat in the near future.

Summary of Habitat Destruction and Modification

The threats to the habitats of each of the 23 Oahu species addressed in this proposed rule are occurring throughout the entire range of each of the species. These threats include introduced ungulates, nonnative plants, fire, natural disasters, and climate change. In addition, the blackline, crimson, and oceanic Hawaiian damselflies are also threatened by agricultural and urban development, stream diversion, stream channelization, and stream dewatering.

The effects from ungulates are ongoing because ungulates currently occur in six of the seven ecosystems on which these species depend. The threat posed by introduced ungulates to the species proposed for listing that occur in these six ecosystems (see Table 2) is serious because they cause: (1) Trampling and grazing that directly impact the plant communities, which include the plant species proposed for listing, and impact plants in riparian areas used by the blackline, crimson, and oceanic damselflies for perching, reproduction, and hunting for prey; (2) increased soil disturbance, leading to mechanical damage to individuals of the plant species proposed for listing, and plants in riparian areas used by the damselflies for perching, reproduction, and hunting for prey; (3) creation of open, disturbed areas conducive to weedy plant invasion and establishment of alien plants from dispersed fruits and seeds, which results over time in the conversion of a community dominated by native vegetation to one dominated by nonnative vegetation (leading to all of the negative impacts associated with nonnative plants, listed below); and (4) increased watershed erosion and sedimentation, which affects aquatic habitats used by the three Hawaiian damselflies. Although plants used for perching by damselflies are not necessarily native plants, ungulate activity damages or removes all plants

near the stream. Damselflies depend on plants near the stream for their daily activities, territory establishment, reproduction, and hunting prey. These threats are expected to continue or increase without ungulate control or eradication.

Nonnative plants represent a serious and ongoing threat to all 20 plant species being addressed in this proposed rule through habitat destruction and modification because they: (1) Adversely impact microhabitat by modifying the availability of light; (2) alter soil-water regimes; (3) modify nutrient cycling processes; (4) alter fire characteristics of native plant habitat, leading to incursions of fire-tolerant nonnative plant species into native habitat; and (5) outcompete and possibly directly inhibit the growth of, native plant species. Each of these threats can convert native-dominated plant communities to nonnative plant communities (Cuddihy and Stone 1990, p. 74; Vitousek 1992, pp. 33–35). This conversion has negative impacts on, and threatens, the 20 plant species addressed here.

The threat from fire to six species in this proposed rule (*Bidens amplexans*, *Cyanea calycina*, *Doryopteris takeuchii*, *Korthalsella degeneri*, *Pleomele forbesii*, and *Pteralyxia macrocarpa*; see Table 2) is a serious and ongoing threat because fire damages and destroys native vegetation, including dormant seeds, seedlings, and juvenile and adult plants. Many nonnative invasive plants, particularly fire-tolerant grasses, can outcompete native plants and inhibit their regeneration (D'Antonio and Vitousek 1992, pp. 70, 73–74; Tunison *et al.* 2002, p. 122). Successive fires that burn farther and farther into native habitat destroy native plants and remove habitat for native species by altering microclimatic conditions and creating conditions favorable to alien plants. The threat from fire is unpredictable but omnipresent in ecosystems that have been invaded by nonnative, fire-prone grasses.

Natural disasters such as hurricanes represent a serious threat to 7 of the 20 plant species addressed in this proposed rule (*Bidens amplexans*, *Cyrtandra kaulantha*, *C. sessilis*, *Melicope christophersenii*, *M. hiiakeae*, *Platydesma cornuta* var. *cornuta*, and *Psychotria hexandra* ssp. *oahuensis*), because they open the forest canopy, modify available light, and create disturbed areas that are conducive to invasion by nonnative pest plants (Asner and Goldstein 1997, p. 148; Harrington *et al.* 1997, pp. 346–347). The discussion under "Habitat Destruction and Modification by

Nonnative Plants” above provides additional information related to canopy gaps, light availability, and the establishment of nonnative plant species. In addition, hurricanes threaten the three Hawaiian damselfly species in this proposed rule because they alter and cause direct damage to streams (Polhemus 1993, pp. 86–87). These impacts can be particularly devastating to the seven plant species and three Hawaiian damselfly species addressed in this proposed rule because due to other threats, they now persist in low numbers or occur in restricted ranges, and are therefore less resilient to such disturbances. Furthermore, a particularly destructive hurricane holds the potential of driving a localized endemic species to extinction in a single event. Hurricanes pose an ongoing and ever-present threat, because they can occur at any time, although their occurrence is not predictable.

Landslides, rockfalls, and flooding adversely impact ten of the species being proposed for listing (*Cyanea lanceolata*, *Cyrtandra kaulantha*, *C. sessilis*, *Doryopteris takeuchii*, *Melicope makahae*, *Platydesma cornuta* var. *decurrens*, *Psychotria hexandra* ssp. *oahuensis*, and the blackline, crimson and oceanic Hawaiian damselflies) (see Table 2), by destabilizing substrates, damaging and destroying individual plants and damselflies, and altering hydrological patterns. These threats result in habitat destruction or modification, and changes to native plant and animal communities. Drought threatens all three damselfly species being proposed for listing by desiccation of streams, ditches, and reservoirs, which eliminates damselfly hunting and breeding habitat. These threats are significant and have the potential to occur at any time, although their incidence is not predictable.

The threats caused by conversion of wetland and other aquatic habitat to agriculture and urban development are ongoing, expected to continue into the future, and affect each of the damselflies proposed for listing in this proposed rule. Twelve percent of the freshwater habitat in Hawaii has already been lost, and 30 percent of all coastal plain wetlands in Hawaii have been lost to agriculture and urban development (E. Kosaka, in litt. 1990). These modified areas no longer support populations of these Hawaiian damselflies. These threats are expected to continue in the future.

Stream diversion, channelization, and dewatering represent serious and ongoing threats to the blackline, crimson, and oceanic Hawaiian damselflies because they: (1) Reduce the

amount and distribution of stream habitat; (2) reduce stream flow, which leaves lower elevation stream segments either completely dry year round or completely dry except during storms, which reduces or eliminates stream habitat; and (3) indirectly lead to an increase in water temperature by altering the normal hydrograph patterns, which leads to the loss of damselfly naiads due to direct physiological stress. The probability of species extinction increases when ranges are restricted, the quality and quantity of habitat decreases, and population numbers decline. Accordingly, the blackline, crimson, and oceanic Hawaiian damselflies are vulnerable to extinction due to such changes in their stream habitat.

The projected effects of global climate change and increasing temperatures on the 23 species addressed in this proposed rule are related to changes in microclimatic conditions in their habitats. These changes may lead to the loss of native species due to direct physiological stress, the loss or alteration of habitat, increased competition from nonnative species, and changes in disturbance regimes (e.g., fire, storms and hurricanes). Because the specific and cumulative effects of climate change on these 23 species are presently unknown, we are not able to determine the magnitude of this possible threat with confidence.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

We are not aware of any threats to the 23 species addressed in this proposed rule that would be attributable to overutilization for commercial, recreational, scientific, or educational purposes.

C. Disease or Predation

Disease

We are not aware of any threats to the 23 species addressed in this proposed rule that would be attributable to disease.

Predation

Hawaii's plants and animals evolved in nearly complete isolation from continental influences. Successful colonization of these remote volcanic islands was infrequent, and many organisms never established populations. For example, Hawaii lacks any native ants or conifers, has very few bird families, and has only a single native land mammal (Loope 1998, p. 748). Defenses against mammalian herbivory, such as thorns, prickles, and

production of toxins, were not needed, and the evolutionary pressure for plants to produce or maintain them was lacking. Therefore, Hawaiian plants either lost or never developed these defenses (Carlquist 1980, p. 173). The native flora and fauna of the islands are thus particularly vulnerable to the impacts of introduced nonnative species, as discussed below.

Introduced Ungulates

In addition to the habitat impacts discussed above, ungulates threaten the following 18 of the 20 plant species in this proposal by trampling and eating individual plants (this information is also presented in Table 2): *Bidens amplexans* (feral pigs and goats), *Cyanea calycina* (feral pigs and goats), *C. lanceolata* (feral pigs), *C. purpurellifolia* (feral pigs), *Cyrtandra gracilis* (feral pigs), *C. kaulantha* (feral pigs), *C. sessilis* (feral pigs), *C. waiolani* (feral pigs), *Melicope christophersenii* (feral pigs), *M. hiiakae* (feral pigs), *M. makahae* (feral pigs and goats), *Platydesma cornuta* var. *cornuta* (feral pigs), *P. cornuta* var. *decurrens* (feral pigs and goats), *Pleomele forbesii* (feral pigs and goats), *Psychotria hexandra* spp. *oahuensis* (feral pigs), *Pteralyxia macrocarpa* (feral pigs and goats), *Tetraplasandra lydgatei* (feral pigs), and *Zanthoxylum oahuense* (feral pigs). Predation by feral pigs and goats is also a threat to the host plants (*Nestegis sandwicensis* and *Sapindus oahuensis*) of *Korthalsella degeneri*.

We have direct evidence of ungulate damage to some of these species, but for many, ungulate damage is presumed based on several studies conducted in Hawaii and elsewhere. In a study conducted by Diong (1982, p. 160) on Maui, feral pigs were observed browsing on young shoots, leaves, and fronds of a wide variety of plants, of which over 75 percent were endemic species (Diong 1982, p. 160). A stomach content analysis in this study showed that 60 percent of the pigs' food source consisted of the endemic *Cibotium* (hapuu, tree fern). Pigs were observed to fell plants and remove the bark of the native plant species *Clermontia*, *Cibotium*, *Coprosma*, *Psychotria*, *Scaevola*, and *Hedyotis*, resulting in larger trees being killed over a few months of repeated feeding (Diong 1982, p. 144). A study in Texas conducted by Beach (1997, pp. 3–4) revealed that feral pigs spread disease and parasites, and that their rooting and wallowing behavior led to spoilage of watering holes and loss of soil through leaching and erosion. Rooting activities also decreased the survivability of some plant species through disruption at root

level of mature plants and seedlings (Beach 1997, pp. 3–4).

Feral goats thrive on a variety of food plants, and are instrumental in the decline of native vegetation in many areas (Cuddihy and Stone 1990, p. 64). Feral goats trample roots and seedlings, cause erosion, and promote the invasion of alien plants. They are able to forage in extremely rugged terrain and have a high reproductive capacity (Clarke and Cuddihy 1980, p. C–20; van Riper and van Riper 1982, pp. 34–35; Tomich 1986, pp. 153–156; Cuddihy and Stone 1990, p. 64). A study of goat predation on a native *Acacia koa* forest on the island of Hawaii has shown that grazing pressure by goats can cause the eventual extinction of *Acacia koa* because it is unable to reproduce (Spatz and Mueller-Dombois 1973, p. 876). If goats are maintained at constantly high numbers, mature trees will eventually die, including the root systems that support suckers and vegetative reproduction (Spatz and Mueller-Dombois 1973, p. 876). Another study at Puuwaawaa on the island of Hawaii demonstrated that prior to management actions in 1985, regeneration of endemic shrubs and trees in goat-grazed areas was almost totally lacking, contributing to the invasion of the forest understory by exotic grasses and weeds. After the removal of grazing animals in 1985, *A. koa* and *Metrosideros* spp. seedlings were observed germinating by the thousands (HDLNR 2002, p. 52). Based on a comparison of fenced and unfenced areas, it is clear that goats can devastate native ecosystems (Loope *et al.* 1988, p. 277). Because goats occur in 6 of the 7 described ecosystems on Oahu, the results of the studies described above suggest that goats can also alter these ecosystems and directly damage or destroy native plants.

Rats

There are three species of introduced rats on the Hawaiian Islands. The Polynesian rat (*Rattus exulans*) and the black rat (*Rattus rattus*) are primarily found in the wild, in dry to wet habitats, while the Norway rat (*Rattus norvegicus*) is typically found in manmade habitats such as urban areas or agricultural fields (Tomich 1986, p. 41). Studies of Polynesian rat DNA suggest that they first appeared in the Hawaiian Islands along with emigrants from the Marquesas about 400 A.D., with a second cultural interaction around 1100 A.D. (Ziegler 2002, p. 315). The black rat and the Norway rat most likely arrived in the Hawaiian Islands more recently, as stowaways on ships, sometime in the 19th century (Atkinson and Atkinson 2000, p. 25).

Rats occur in all 7 of the Oahu ecosystems, and rat predation threatens 5 of the 20 plant species addressed in this proposed rule (*Cyanea calycina*, *C. lanceolata*, *Cyrtandra gracilis*, *Melicope hiiakae*, and *Psychotria hexandra* ssp. *oahuensis*; see Table 2). Rats impact native plants by eating fleshy fruits, seeds, flowers, stems, leaves, roots, and other plant parts (Atkinson and Atkinson 2000, p. 23), and can seriously affect regeneration. They are known to have caused declines or even the total elimination of island plant species (Campbell and Atkinson 1999, as cited in Atkinson and Atkinson 2000, p. 24). On the Hawaiian Islands, rats may consume as much as 90 percent of the seeds produced by some trees, or, in some cases, prevent the regeneration of forest species completely (Cuddihy and Stone 1990, pp. 68–69). Plants with fleshy fruits are particularly susceptible to rat predation, including several of the plant genera proposed for listing here, for example, the fruits of plants in the bellflower (e.g., *Cyanea* spp.) and African violet (e.g., *Cyrtandra* spp.) families (Cuddihy and Stone 1990, pp. 67–69). Research on rats in forests in New Zealand has demonstrated that, over time, rats may alter the species composition of forested areas (Cuddihy and Stone 1990, pp. 68–69).

Nonnative Fish

Predation by nonnative fish is a serious and ongoing threat to the blackline, crimson, and oceanic Hawaiian damselflies. Crimson and blackline Hawaiian damselfly naiads occur in standing or seep-fed pools and slow-flowing sections of streams, and oceanic Hawaiian damselfly naiads occur under stones or mats of moss and algae in streams, where they are each vulnerable to predation by nonnative fish. Information suggests that Hawaiian damselflies experience limited natural predation pressure from the five species of freshwater fish native to Hawaii—gobies (Gobiidae) and sleepers (Eleotridae) (Ego 1956, p. 24; Kido *et al.* 1993, pp. 43–44; Englund 1999, pp. 236–237). Hawaii's native fishes are benthic (bottom) feeders, and stream-dwelling Hawaiian damselfly species, including the blackline, crimson, and oceanic Hawaiian damselflies, avoid these areas in preference for shallow side channels, sidepools, and higher velocity riffles and seeps (Englund 1999, pp. 236–237). While fish predation has been an important factor in the evolution of behavior in damselfly naiads in continental systems (Johnson 1991, p. 8), it can only be speculated that Hawaii's stream-dwelling damselflies adapted behaviors to avoid

the benthic feeding habits of native fish species. Additionally, some species of damselflies, including some native Hawaiian species, are found only in bodies of water without fish, and may have evolved in the absence of some fish species (Henrickson 1988, p. 179; McPeck 1990, p. 83).

Over 70 species of nonnative fish have been introduced into Hawaiian freshwater habitats (Devick 1991, p. 190; Englund 1999, p. 226; Englund and Eldredge 2001, p. 32; Brasher 2003, p. 1,054; Englund 2004, p. 27; Englund *et al.* 2007, p. 232), with at least 51 species now established (Freshwater Fishes of Hawaii 2008). The initial introduction of nonnative fish to Hawaii began with the release of food stock species by Asian immigrants at the turn of the 20th century; however, the impact of these first introductions on Hawaiian damselflies cannot be assessed because they predated the initial collection of damselflies in Hawaii (Perkins 1899, pp. 64–76). Between 1905 and 1922, fish were introduced for biological control of mosquitoes, including the mosquito fish (*Gambusia affinis*), sailfin molly (*Poecilia latipinna*), green swordtail (*Xiphophorus helleri*), moonfish (*Xiphophorus maculatus*), and guppy (*Poecilia reticulata*) (Van Dine 1907, p. 9; Englund 1999, p. 225; Brasher 2003, p. 1,054). By 1935, some Oahu damselflies were becoming less common, and these introduced fish were the suspected cause of their decline (Williams 1936, p. 313; Zimmerman 1948a, p. 341). From 1946 through 1961, several additional nonnative fish were introduced for the purpose of controlling nonnative aquatic plants and for recreational fishing (Brasher 2003, p. 1,054). During the 1980s, additional nonnative fish species were established in Oahu waters, including aggressive predators and habitat-altering species such as the channel catfish (*Ictalurus punctatus*), cichlids (e.g., *Tilapia* spp.), sailfin catfish (*Liposarcus multiradiatus*), top minnows (*Limia vittata*), and piranha (*Serrasalmus* sp.) (Devick 1991, pp. 189, 191–192; Brasher 2003, p. 1,054; Freshwater Fishes of Hawaii 2008). Englund (1999, p. 233) found several of these species to be abundant in nearly all lowland Oahu streams and water systems, although not all were as capable of colonizing higher elevation stream reaches as the introduced poeciliid species.

Geologic or manmade barriers (e.g., waterfalls, steep gradients, dry stream midreaches, or constructed diversions) appear to prevent access by nonnative fish species to stream areas above these barriers; however, there is still a chance

of facilitated fish movement. For example, in 2000, a maintenance worker introduced *Tilapia* spp. into ponds located on the grounds of Tripler Medical Army Hospital that were upslope from the remaining Oahu population of the orangeblack Hawaiian damselfly (*Megalagrion xanthomelas*) (R. Englund, Bishop Museum, in litt. 2000). The ponds were drained and the *Tilapia* spp. removed. The importance of their removal was underscored by the fact that a large storm caused the ponds to fill and overflow downslope into the stream supporting the damselflies soon after the *Tilapia* spp. were removed (Preston *et al.* 2007, p. 263).

Current literature indicates that the extirpation of Hawaiian damselflies from nearly all of their historical lowland habitat sites on Oahu is the result of predation by introduced nonnative fish (Moore and Gagne 1982, p. 4; Liebherr and Polhemus 1997, p. 502; Englund 1999, pp. 235–237; Brasher 2003, p. 1,055; Englund *et al.* 2007, p. 215; Polhemus 2007, pp. 238–239). The threats posed by continued introduction and establishment of nonnative fish in Hawaiian waters, and the possible movement of those nonnative species to new streams and other aquatic habitat, are ongoing and expected to continue into the future. This represents a serious threat to the survival of the blackline, crimson, and oceanic Hawaiian damselflies.

Bullfrogs and Toads

Currently there are three species of introduced aquatic amphibians on the Hawaiian Islands: the North American bullfrog (*Rana catesbeiana*), the cane toad (*Bufo marinus*), and the Japanese wrinkled frog (*Rana rugosa*). Native to the eastern United States and the Great Plains region (Moyle 1973, pp. 18–19; Bury and Whelan 1984, p. 1; Lever 2003, p. 203), the bullfrog was first introduced to Hawaii in 1899 (Bryan 1931, pp. 62–63) to help control insects, specifically the nonnative Japanese beetle (*Popillia japonica*), a significant pest of ornamental plants (Bryan 1931, p. 62). First released on the island of Hawaii, bullfrogs have demonstrated great success in establishing new populations on all the main islands (Bryan 1931, p. 63; Moyle 1973, p. 19; USGS 2008, p. 8). This species is flexible in both habitat and food requirements (McKeown 1996, pp. 24–27; Bury and Whelan 1984, pp. 3–7; Lever 2003, pp. 203–204), and can utilize any water source within its temperature range, 60 °F to 75 °F (16 °C to 24 °C) (DesertUSA 2008). In other areas outside its native range, the bullfrog's primary impact is the

elimination of native frog species (Moyle 1973, p. 21). Englund *et al.* (2007, pp. 215, 219) found a strong correlation between the presence of bullfrogs and the absence of Hawaiian damselflies in their study of streams on all the main Hawaiian Islands. Bullfrogs are a threat to the blackline, crimson, and oceanic Hawaiian damselflies because they are omnivorous feeders that occur in the same habitat as the damselflies on Oahu (McKeown 1996, pp. 24–27; Bury and Whelan 1984, pp. 3–7; Lever 2003, pp. 203–204).

The effects of possible predation by the cane toad and the Japanese wrinkled frog on the blackline, crimson, and oceanic Hawaiian damselflies are unknown at this time, and we are not able to determine the magnitude or the significance of this potential threat.

Invertebrates

Predation by nonnative invertebrate pests adversely impacts 13 of the plant species (see Table 2) through mechanical damage, destruction of plant parts, parasitism, and mortality. Those introduced invertebrate pests with the greatest effect on these native plant species include at least 14 different species of slugs (Joe 2006, p. 10), the black twig borer (*Xylosandrus compactus*) (Davis 1970, pp. 38–39), and the two-spotted leafhopper (*Sophonia rufofascia*) (Fukada 1996, pp. 1–12; Hawaii Department of Agriculture 2006). The blackline, crimson, and oceanic Hawaiian damselflies are threatened by predation by ants (Borror *et al.* 1989, pp. 737–741).

Slugs

Predation by nonnative slugs is most likely a threat to individuals of the three species of *Cyanea* (*Cyanea calycina*, *C. lanceolata*, and *C. purpurellifolia*) and the four species of *Cyrtandra* (*Cyrtandra gracilis*, *C. kaulanthe*, *C. sessilis*, and *C. waiolani*) (Joe 2006, p. 10) in this proposed rule. On Oahu, slugs have been reported to destroy *Cyanea calycina* and *Cyrtandra kaulanthe* in the wild, and have been observed eating leaves and fruit of cultivated individuals of *Cyanea* (L. Mehrhoff, U.S. Fish and Wildlife Service, in litt. 1995; U.S. Army Garrison 2005a, pp. 3–34, 3–51). In addition, slugs have damaged individuals of *Cyrtandra* and individuals of other species of *Cyanea* in the wild (Wood *et al.* 2001, p. 3; Sailer and Kier 2002, p. 3; PEP 2007, p. 38; PEP 2008, pp. 23, 49, 52, 53, 57). Little is known about predation of certain rare plants by slugs; however, information in the U.S. Army's 2005 "Status Report for the Makua Implementation Plan" indicates that

slugs can be a threat to all species of *Cyanea* (U.S. Army Garrison 2005, p. 3–51). Research investigating slug herbivory and control methods shows that slug impacts on *Cyanea* sp. seedlings results in up to 80 percent seedling mortality (U.S. Army Garrison 2005a, p. 3–51). Although we do not have direct evidence of slug predation on the three species of *Cyanea* and four species of *Cyrtandra* addressed in this proposed rule, slugs are found in the ecosystems on Oahu in which these plants occur. It is therefore reasonable to assume these plant species would be exposed to similar impacts from slug predation.

Black Twig Borer

The black twig borer is known to infest a wide variety of common plant taxa, including native species of *Melicope* (Davis 1970, p. 39; Extension Entomology and UH-CTAHR Integrated Pest Management Program 2006, p. 1). This insect pest burrows into branches, introduces a pathogenic fungus as food for its larvae, and lays its eggs (Davis 1970, p. 39). Twigs, branches, and entire plants can be damaged or killed from an infestation (Extension Entomology and UH-CTAHR Integrated Pest Management Program 2006, p. 2). On the Hawaiian Islands, the black twig borer has many hosts, disperses easily, and is probably present at most elevations up to 2,500 ft (762 m) (Howarth 1985, pp. 152–153). The black twig borer is a likely threat to *Melicope christophersenii*, *M. hiikaka*, and *M. makahae*.

Two-Spotted Leafhopper

The effects of predation by the two-spotted leafhopper have been observed on three plant species included in this proposed rule, *Pleomele forbesii*, *Pteralyxia macrocarpa*, and *Zanthoxylum oahuense* (HBMP 2008). This nonnative insect damages the leaves it feeds on, typically causing chlorosis (yellowing due to disrupted chlorophyll production) to browning and death of foliage (Hawaii Department of Agriculture 2006). The damage to plants can result in the death of affected leaves or the whole plant, owing to the combined action of its feeding and oviposition behavior (Alyokhin *et al.* 2004, p. 1). In addition to the mechanical damage caused by the feeding process, the insect may introduce plant pathogens that lead to eventual plant death (Extension Entomology and UH-CTAHR Integrated Pest Management Program 2006, p. 2). The two-spotted leafhopper is a highly polyphagous insect (it feeds on many different types of food). Sixty-eight

percent of its recorded host plant species in Hawaii are fruit, vegetable and ornamental crops, and 22 percent are endemic plants, over half of which are rare and endangered (Alyokhin *et al.* 2004, p. 6). Its range is limited to below 4,000 ft (1,219 m) in elevation, unless there is a favorable microclimate. While there has been a dramatic reduction in the number of two-spotted leafhopper populations in the past few years, (possibly due to egg parasitism), this nonnative insect has not been eradicated and predation by this nonnative insect remains a threat (M. Fukada, Hawaii Department of Agriculture, pers. comm. 2007).

Ants

Ants are not a natural component of Hawaii's arthropod fauna, and native species evolved in the absence of predation pressure from ants. Ants can be particularly destructive predators because of their high densities, recruitment behavior, aggressiveness, and broad range of diet (Reimer 1993, pp. 14, 17–18). The threat of ant predation on the blackline, crimson, and oceanic Hawaiian damselflies is amplified by the fact that most ant species have winged reproductive adults (Borror *et al.* 1989, p. 738) and can quickly establish new colonies in additional suitable habitats (Staples and Cowie 2001, pp. 53–55). These attributes allow some ants to destroy otherwise geographically isolated populations of native arthropods (Nafus 1993, pp. 19, 22–23).

At least 47 species of ants are known to be established on the Hawaiian Islands (Hawaii Ants 2008, pp. 1–11), and at least four particularly aggressive species, the big-headed ant (*Pheidole megacephala*), the long-legged ant (also known as the yellow crazy ant, *Anoplolepis gracilipes*), *Solenopsis papuana* (NCN), and *Solenopsis geininata* (NCN) have severely impacted the native insect fauna, likely including native damselflies (Zimmerman 1948b, p. 173; Reimer 1993, pp. 11–13; Hawaii Ecosystems at Risk (HEAR) database 2007). Numerous other species of ants are recognized as threats to Hawaii's native invertebrates, and an unknown number of new species are established every few years (Staples and Cowie 2001, p. 53). Due to their preference for drier habitat sites, ants are less likely to occur in high densities in the aquatic habitat currently occupied by the blackline, crimson, and oceanic Hawaiian damselflies. However, some species of ants (e.g., the long-legged ant and *Solenopsis pauana*) have increased their range into this aquatic habitat. Furthermore, the presence of ants in

nearly all of the lower elevation, historical habitat sites may preclude the future recolonization of these areas by damselflies, including the blackline, crimson, and oceanic Hawaiian damselflies. Damselfly naiads may be particularly susceptible to ant predation while perching on vegetation or rocks when they crawl out of the water or seek a terrestrial location for their metamorphosis into the adult stage (D. Polhemus, in litt. 2008). Newly emerged adult damselflies are also susceptible to predation until their wings have sufficiently hardened to permit flight (Polhemus and Asquith 1996, p. 4).

The long-legged ant appeared in Hawaii in 1952, and now occurs on Kauai, Oahu, Maui, and Hawaii (Reimer *et al.* 1990, p. 42). It inhabits low- to mid-elevation (less than 2,000 ft (600 m)) rocky areas of moderate rainfall (less than 100 in (250 cm) annually) (Reimer *et al.* 1990, p. 42). Direct observations indicate that Hawaiian arthropods are susceptible to predation by this species (Hardy 1979, p. 34; Gillespie and Reimer 1993, p. 21). *Solenopsis papuana* is the only abundant, aggressive ant that has invaded intact mesic and wet forest from sea level to 3,600 ft (1,100 m) on all the main Hawaiian Islands. Colonies reach dense populations, and ranges of this species are expanding on all islands (Reimer 1993, p. 14). The blackline, crimson, and oceanic Hawaiian damselflies' historical ranges were from sea level to over 2,400 ft (732 m) (Williams 1936, p. 318; Englund 1999, pp. 229–230), and they are currently found between 80 and 2,500 ft (24 and 762 m) in elevation (D. Polhemus, in litt. 2008; Polhemus and Asquith 1996, p. 77; HBMP 2008). It is likely, based on our knowledge of the expanding range of *Solenopsis papuana*, that it threatens all populations of these three Hawaiian damselflies. The rarity or disappearance of the native blackline, crimson, and oceanic damselfly species from historical observation sites is due to a variety of factors. While there is no documentation that conclusively ties the decrease in the blackline, crimson, and oceanic Hawaiian damselfly observations to the establishment of nonnative ants in the lowland mesic and lowland wet habitats, the presence of ants in these habitats, the knowledge that they prey on native invertebrates, and the decline of damselfly observations in some areas in these habitats suggest that nonnative ants play a role in the decline of some populations of these damselflies.

Summary of Disease or Predation

We are unaware of any information that indicates that disease is a threat to

the 23 species. We consider predation and parasitism by nonnative animal species (pigs, goats, rats, fish, bullfrogs, and invertebrates) to pose an ongoing threat to 22 of the 23 species in this proposed rule throughout their ranges, and will continue to be so in the foreseeable future, for the following reasons:

(1) Observations and reports have documented that pigs and goats browse on and trample 18 of the 20 plant species, and browse on and trample the host plants of the other species (see Table 2); other studies demonstrate the negative impacts of ungulate browsing and trampling on native plant species of the Hawaiian islands (Spatz and Mueller-Dombois 1973, p. 874; Diong 1982, p. 160; Cuddihy and Stone 1990, p. 67).

(2) Nonnative invertebrates and rats cause mechanical damage to plants and destruction of plant parts (branches, fruits, seeds), affecting 14 of the 20 plant species in this proposed rule (see Table 2).

(3) The absence of Hawaiian damselflies (including the blackline, crimson, and oceanic Hawaiian damselflies), in streams and other aquatic habitat on the main Hawaiian Islands is strongly correlated with the presence of predatory nonnative fish as documented in numerous observations and reports (Englund 1999, p. 237; Englund 2004, p. 27; Englund *et al.* 2007, p. 215), which suggests nonnative predatory fishes eliminate native Hawaiian damselflies from these aquatic habitats. There are 70 introduced species of nonnative fishes, with over 51 species established in freshwater habitats on the Hawaiian Islands from sea level to over 3,800 ft (1,152 m) in elevation (Devick 1991, p. 190; Englund and Eldredge 2001, p. 32; Brasher 2003, p. 1,054; Englund 1999, p. 226; Englund 2004, p. 27; Englund *et al.* 2007, p. 232). Accordingly, predation by nonnative fishes is a serious and ongoing threat to the blackline, crimson, and oceanic Hawaiian damselflies (See Table 2).

(4) Damselfly naiads are vulnerable to predation by ants, and the ranges of the blackline, crimson, and oceanic Hawaiian damselflies overlap that of particularly aggressive, nonnative, predatory ant species that currently occur from sea level to 2,000 ft (610 m) in elevation on all of the main Hawaiian Islands. We therefore consider the three Hawaiian damselflies in this proposed rule to be threatened by predation by these nonnative ants.

(5) Englund *et al.* (2007, pp. 215, 219) found a strong correlation between the presence of nonnative bullfrogs and the absence of Hawaiian damselflies.

Bullfrogs are reported from riparian habitat on all the main Hawaiian Islands, except Kahoolawe and Niihau. Bullfrogs prey on almost anything that moves, including a wide variety of insects, invertebrates, and vertebrates (McKeown 1996, p. 24). The blackline, crimson, and oceanic Hawaiian damselflies also use riparian habitat, and are likely threatened by predation by bullfrogs.

D. The Inadequacy of Existing Regulatory Mechanisms

Inadequate Habitat Protection in Terrestrial Habitat

Currently, there are no existing Federal, State, or local laws, treaties, or regulations that specifically conserve or protect the 23 species proposed for listing, or adequately address the threats described in this proposed rule. Although Hawaii's Plant Extinction Prevention Program supports conservation of the plant species by securing seeds or cuttings from the rarest and most critically endangered native species for propagation, the program is non-regulatory. Nonnative ungulates pose a major ongoing threat to 19 of the 20 plant species and the 3 damselflies through destruction and degradation of terrestrial habitat, and through direct predation of 19 of the 20 plant species. The State of Hawaii provides game mammal (feral pigs and goats) hunting opportunities on 12 State-designated public hunting areas on the island of Oahu (H.A.R. sec. 13-123; DLNR 2009, pp. 25-30). The State's management objectives for game animals range from maximizing public hunting opportunities (e.g., sustained yield) in some areas to removal by State staff, or their designees, in other areas (H.A.R. sec. 13-123). Fifteen of the 20 plant species and all three damselfly species have populations in areas where terrestrial habitat may be managed for game enhancement, and where game populations are maintained at certain levels through public hunting (HBMP 2008; H.A.R. sec. 13-123). Public hunting areas are not fenced, and game mammals have unrestricted access to most areas across the landscape, regardless of underlying land use designation. While fences are sometimes built to provide protection from game mammals, the current number and locations of fences are not adequate to prevent habitat destruction and degradation of the terrestrial habitat of 22 of the 23 species, and direct predation of 19 of the 20 plant species on Oahu.

Inadequate Habitat Protection in Aquatic Habitat

Existing regulations are inadequate to maintain stream flow year round for the different life stages of the three damselflies. In Hawaii, instream flow is regulated by establishing standards on a stream-by-stream basis. The standards currently in effect represent flow conditions in 1988, the year the administrative rules were adopted (State Water Code, Haw. Rev. Stat. 174C-71, and Administrative Rules of the State Water Code, Title 13, Chapter 169-44-49). The State of Hawaii considers all natural flowing surface water (streams, springs, and seeps) as State property (Haw. Rev. Stat. 174C), and the HDLNR has management responsibility for the aquatic organisms in these waters (Haw. Rev. Stat. Annotated, 1988, Title 12; 1992 Cumulative Supplement). Accordingly, damselfly populations in all natural flowing surface waters are under jurisdiction of the State of Hawaii, regardless of property ownership. This includes the blackline, crimson, and oceanic Hawaiian damselfly populations.

The State of Hawaii manages the use of surface and ground water resources through the Commission on Water Resource Management (Water Commission), as mandated by the 1987 State Water Code (State Water Code, Haw. Rev. Stat. 174, and Administrative Rules of the State Water Code, Title 13, Chapters 168 and 169). Because of the complexity of establishing Instream Flow Standards (IFS) for approximately 376 perennial streams, the Water Commission established interim IFS at status quo levels in 1987 (Commission on Water Resource Management 2009). In the Waiahole Ditch Combined Contested Hearing on Oahu (1997-2006), the Hawaii Supreme Court determined that status quo interim IFS were not adequate, and required the Water Commission to reassess the IFS for Waiahole Ditch and other streams Statewide (Case No. CCH-OA95-1). The Water Commission has been gathering information to fulfill this requirement since 2006, but no IFS recommendations have been made to date (Commission on Water Resource Management 2009).

In the Hawaii Stream Assessment Report (1990), prepared in coordination with the National Park Service, the State Water Commission identified high-quality rivers or streams, or portions of rivers or streams, that may be placed within a Wild and Scenic River system. This report recommended that streams meeting certain criteria be protected from further development. However,

there is no mechanism within the State's Water Code to designate and set aside these streams, or to identify and protect stream habitat for Hawaiian damselflies.

The U.S. Army Corps of Engineers (COE) has regulatory jurisdiction under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) for activities that would result in a discharge of dredged or fill material into waters of the United States. However, in issuing these permits, the COE does not typically establish instream flow standards as a matter of policy (U.S. Army 1985, RGL 85-6).

Because there are currently no Federal, State, or local laws, treaties, or regulations that specifically or effectively conserve or protect the 23 species, or adequately address the threats from nonnative ungulates to the terrestrial habitat of 22 of the 23 species and from inadequate maintenance of instream flow for blackline, crimson, and oceanic Hawaiian damselfly habitat, these threats are ongoing and are expected to continue into the future.

Inadequate Protection From Introduction of Nonnative Species

The Hawaii Department of Agriculture (HDOA) is the lead State agency in protecting Hawaii's agricultural and horticultural industries, animal and public health, natural resources and environment from the introduction of nonnative, invasive species (HDLNR 2003, p. 3-10). While there are several State agencies (HDOA, HDLNR, Hawaii Department of Health) authorized to prevent the entry of pest species into the State, the existing regulations are inadequate for the reasons discussed in the sections below.

In 1995, a partnership, Coordinating Group on Alien Pest Species (CGAPS), comprised primarily of managers from every major Federal, State, county, and private agency and organization involved in invasive species work in Hawaii, was formed in an effort to influence policy and funding decisions, improve communication, increase collaboration, and promote public awareness (CGAPS 2009). This group facilitated the formation of the Hawaii Invasive Species Council (HISC), which was created by gubernatorial executive order in 2002, to coordinate local initiatives for the prevention and control of invasive species by providing policy level direction and planning for the State departments responsible for invasive species issues. In 2003, the governor signed into law Act 85, which conveys statutory authority to the HISC to continue to coordinate approaches among the various State and Federal

agencies, and international and local initiatives, for the prevention and control of invasive species (HDLNR 2003, p. 3–15; HISC 2009a; Haw. Rev. Stat. sec. 194–2(a)). Some of the recent priorities for the HISC include interagency efforts to control nonnative species such as the plants *Miconia calvescens* (miconia) and *Cortaderia* sp. (pampas grass), coqui frogs (*Eleutherodactylus coqui*), and ants (HISC 2009). In early 2009, HISC projected that, due to a tighter economy in Hawaii and anticipated budget cuts in State funding support of up to 50 percent, there will be a serious setback in conservation achievements, and the loss of experienced, highly trained staff (HISC 2009b).

Nonnative Aquatic Species

Existing State and Federal regulatory mechanisms are not adequately preventing the introduction of nonnative species to Hawaii via inter-State and international mechanisms, or intra-State movement of nonnative species between islands and watersheds in Hawaii. The importation of non-domestic animals, including aquatic species, is regulated by a permit system (H.A.R. sec. 4–71) managed through the Hawaii Department of Agriculture (HDOA). The HDOA's Board of Agriculture maintains lists of non-domestic animals that are prohibited from entry, animals with entry restrictions, or those that require a permit for import and possession. The HDOA requires a permit to import animals, and conditionally approves entry for individual possession, businesses (e.g., pet/resale trade, retail sales, food consumption), or institutions.

The Division of Aquatic Resources (DAR), within the State's HDLNR, manages the aquatic resources of the State (Hawaii DAR 2009), and is responsible for conserving, protecting, and enhancing the State's renewable resources of aquatic life and habitat (HDLNR 2003, p. 3–13). The release of live nonnative fish or other live nonnative aquatic life into any waters of the State is prohibited (Haw. Rev. Stat. sec. 187A–6.5). The DAR has the authority to seize, confiscate, or destroy as a public nuisance, any fish or other aquatic life found in any waters of the State and whose importation is prohibited or restricted pursuant to rules of the HDOA (Section 187A–2 (4 Haw. Rev. Stat. sec. 187A–6.5)). State and Federal regulations are in place to prevent the unauthorized entry of nonnative aquatic animals such as fish and amphibians into the State of Hawaii; however, their intentional or

inadvertent introduction and movement between islands and between watersheds continues, although prohibited (HDOA 2003, pp. 2–12–2–14). However, there is insufficient regulatory capacity to adequately enforce such regulations or to provide for sufficient inspection services and monitoring, although this priority need is recognized (D. Cravalho, Hawaii Department of Agriculture, in litt. 2009).

Nonnative Invertebrate Species

Predation by nonnative invertebrate pests (e.g., slugs, black twig borer, two-spotted leafhopper) adversely impacts 13 of the plant species (see Table 2). In addition, naiads of the blackline, crimson, and oceanic Hawaiian damselflies are vulnerable to predation by ants. The decline of damselfly observations and the establishment of ants in lowland mesic and lowland wet habitats on Oahu suggest that the presence of nonnative ants in these habitats may preclude their occupancy by native damselflies (see Factor C. Disease or Predation). The prevention and control of introduction of pest species in Hawaii is the responsibility of Hawaii State government and Federal agencies, along with a few private organizations. Even though these agencies have regulations and some controls in place, the introduction and movement of nonnative invertebrate pest species between islands and from one watershed to the next continues. For example, an average of 20 new alien invertebrate species were introduced to Hawaii per year since 1970, an increase of 25 percent over the previous totals between 1930 to 1970 (The Nature Conservancy of Hawaii 1992, p. 8).

Nonnative Plant Species

Nonnative plants destroy and modify habitat throughout the ranges of each of the 20 plant species being addressed in this proposed rule. As such, they represent a serious and ongoing threat to each of these plant species. In addition, nonnative plants have been shown to outcompete native plants and convert native-dominated plant communities to nonnative plant communities (see "*Habitat Destruction and Modification by Nonnative Plants*," under Factor A, above). The HDOA regulates the import of plants into the State from domestic origins under Hawaii State law Haw. Rev. Stat. Ch. 150A. While all plants require inspection upon entry into the State and must be "apparently free" of insects and diseases, not all plants require import permits. Parcels brought into the State by mail or cargo must be clearly labeled as "plant materials" or "agricultural commodities," but it is

unlikely that all of these parcels are inspected or monitored prior to delivery in Hawaii. Shipments of plant material into Hawaii must be accompanied by an invoice or packing manifest listing the contents and quantities of the items imported, but, again, it is unclear if all of these shipments are inspected or monitored prior to delivery (HDOA 2009).

There are only 12 plant crops that are regulated (H.A.R. 4–70) to some degree, including sugarcane and grasses, pineapple and other bromeliads, coffee, cruciferous vegetables, orchids, banana, passion fruit, pine, coconut, hosts of European corn borer, palms, and hosts of Caribbean fruit fly (HDLNR 2003, p. 3–11). The HDOA also maintains the State list of noxious weeds, and these plants are restricted from entry into the State except by permit from the HDOA's Plant Quarantine Branch. Although the State has general guidelines for the importation of plants, and regulations are in place regarding the plant crops mentioned above, the intentional or inadvertent introduction of nonnative plants outside the regulatory process and movement of species between islands and from one watershed to the next continues, which represents a threat to native flora for the reasons described above. In addition, government funding is inadequate to provide for sufficient inspection services and monitoring. One study concluded that the plant importation laws virtually ensure new invasive plants will be introduced via the nursery and ornamental trade, and that outreach efforts cannot keep up with the multitude of new invasive plants being distributed. The author states the only thing that wide-scale public outreach can do in this regard is to let the public know new invasive plants are still being sold, and they should ask for noninvasive or native plants instead (C. Martin, in litt. 2007, p. 9).

On the basis of the above information, existing regulatory mechanisms do not adequately protect the 23 species being addressed in this proposed rule from the threat of new introductions of nonnative species, and the continued expansion of nonnative species populations on and between islands and watersheds. Nonnative species may prey upon, modify or destroy habitat of, or directly compete with one or more of the 23 species for food, space, and other necessary resources. Because current Federal, State, and local laws, treaties, and regulations are inadequate to prevent the introduction of nonnative species from outside the State of Hawaii, as well as the spread of nonnative species between islands and

watersheds, the impacts from these introduced threats are ongoing and are expected to continue in the foreseeable future.

Summary of Inadequacy of Existing Regulatory Mechanisms

We consider the threat from inadequate regulatory mechanisms to be ongoing, and we expect them to continue into the future, for the following reasons:

(1) The State's current management of nonnative game mammals is inadequate to prevent the degradation and destruction of habitat of 22 of the 23 species (Factor A), and predation of 19 of the 20 plant species (Factor C).

(2) The State Water Code does not provide for permanent or minimum IFS for the protection of aquatic ecosystems upon which the damselfly species proposed for listing depend, and does not contain a regulatory mechanism for identifying and protecting damselfly habitat (Factor A).

(3) Regulatory requirements under section 404 of the Clean Water Act are triggered only for activities that involve a discharge of dredged or fill material into waters of the United States. Section 404 of the Clean Water Act does not protect damselfly habitat or require implementation of instream flow requirements (Factor A).

(4) Existing State and Federal regulatory mechanisms are not preventing the introduction into Hawaii or the spread of nonnative species between islands and watersheds. Habitat-altering nonnative plant species (Factor A) and predation by nonnative animal species (Factor C) pose a major ongoing threat to the 23 species being addressed in this proposed rule.

Because existing regulatory mechanisms are inadequate to maintain habitat for the 23 species, and to prevent the spread of nonnative species, the inadequacy of existing regulatory mechanisms is considered to be a serious threat, both now and in the foreseeable future. Each of the 20 proposed plant species are threatened by habitat degradation and loss by nonnative plants (Factor A), and 19 of the 20 plants are threatened by nonnative animals (Factor A and Factor C). The three damselflies are threatened by habitat degradation and loss by stream channeling, conversion, and similar activities (Factor A), and by predation by nonnative fish and ants (Factor C). Therefore, all 23 species are threatened by the inadequacy of the regulatory mechanisms to address habitat degradation and loss, and nonnative species.

E. Other Natural or Manmade Factors Affecting Their Continued Existence

Other factors threatening some or all of the 23 species include small number of populations and small population sizes, human trampling as a result of hiking and other activities, loss of host plants, and lack of regeneration. Each threat is discussed in detail below, along with identification of which species are affected by these threats.

Small Number of Populations and Individuals

Species that are endemic to single islands are inherently more vulnerable to extinction than are widespread species, because of the increased risk of genetic bottlenecks; random demographic fluctuations; climate change effects; and localized catastrophes such as hurricanes, landslides, rockfalls, drought, and disease outbreaks (Pimm *et al.* 1988, p. 757; Mangel and Tier 1994, p. 607). These problems are further magnified when populations are few and restricted to a very small geographic area, and when the number of individuals of each population is very small. Populations with these characteristics face an increased likelihood of stochastic extinction, due to changes in demography, the environment, genetics, or other factors (Gilpin and Soulé 1986, pp. 24–34). Small, isolated populations often exhibit reduced levels of genetic variability, which diminishes the species' capacity to adapt and respond to environmental changes, thereby lessening the probability of long-term persistence (e.g., Barrett and Kohn 1991, p. 4; Newman and Pilson 1997, p. 361). The problems associated with small population size and vulnerability to random demographic fluctuations or natural catastrophes are further magnified by synergistic interactions with other threats, such as those discussed above (see discussions under Factors A and C).

Very small plant populations may experience reduced reproductive vigor due to ineffective pollination or inbreeding depression. This is particularly true for the functionally unisexual plants in this proposal like *Psychotria hexandra* ssp. *oahuensis*, in which staminate (male) and pistillate (female) flowers occur on separate individuals. Isolated individuals have difficulty achieving natural pollen exchange, which decreases the production of viable seed. Populations are also impacted by demographic stochasticity, through which populations are skewed toward either male or female individuals by chance.

The following nine plant species in this proposal are threatened by limited numbers (e.g., they total fewer than 50 individuals): *Cyanea purpurellifolia*, *Cyrtandra gracilis*, *C. kaulantha*, *C. waiolani*, *Melicope hiiakae*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Tetraplasandra lydgatei*, and *Zanthoxylum oahuense*. We consider these species threatened by small population size for the following reasons:

- *Cyanea purpurellifolia* is susceptible to reduced reproductive vigor due to the low number (18) of individuals remaining (DLNR 2005, p. 2). Although highly threatened by feral pigs, none of the individuals of this species are protected from ungulate predation (PEP 2007, p. 13).

- *Cyrtandra gracilis* is known only from a single occurrence, with six to eight individuals (NTBG Provenance Reports 2002, p. 1 and 2004, p. 1; PEP 2007a, p. 16).

- The only known wild populations of *Cyrtandra kaulantha* and *Psychotria hexandra* ssp. *oahuensis* are imminently threatened by flooding, landslides, and rock falls because of their locations in steep gulches (PEP 2006, p. 46, 51; PEP 2007a, p. 25).

- The last confirmed observation of *Cyrtandra waiolani* in the wild was approximately 40 years ago. The tentative identification of an individual in the wild as *C. waiolani* in 2005 cannot be confirmed without flowers or fruit. In addition, there are no tissues, propagules, or seeds in storage or propagation that have positively been identified (PEP 2007a, p. 19; A. Bakutis, in litt. 2008).

- *Melicope hiiakae* is susceptible to reduced reproductive vigor due to the lack of pollination and seed predation (NTBG Report 2007, p. 4; S. Perlman, in litt. 2007b).

- *Platydesma cornuta* var. *cornuta* individuals are widely scattered in the Koolau Mountains, and are susceptible to reduced reproductive vigor (HBMP 2008).

- The range of known occurrences of *Tetraplasandra lydgatei* has been reduced from 10 mi (16 km) to 2 mi (3 km) since 2005, and consists of 2 occurrences totaling 8 individuals (HBMP 2008). These individuals are showing a decline in health (A. Bakutis, in litt. 2008).

- Botanists have observed a steady decline in the numbers of individuals of *Zanthoxylum oahuense* over the last 9 years. This species is also susceptible to infestation by the two-spotted leafhopper (B. Garnett and J. Obata, in litt. 1999).

The blackline, crimson, and oceanic Hawaiian damselflies are threatened by limited numbers. Jordan *et al.* (2007, p. 247) conducted a genetic and comparative phylogeography analysis (study of historical processes responsible for genetic divergence within a species) of four Hawaiian *Megalagrion* species, including Pacific Hawaiian damselfly, an endangered species (June 24, 2010; 75 FR 35990), and the orangeblack Hawaiian damselfly, a candidate species (November 9, 2009; 74 FR 57804). This analysis demonstrated *Megalagrion* populations with low genetic diversity are at greater risk of decline and extinction than those with high genetic diversity. The authors found that low genetic diversity was observed in populations known to be bottlenecked or relictual (groups of animals or plants that exist as a remnant of a formerly widely distributed group), including Oahu and Maui populations of orangeblack Hawaiian damselfly and Pacific Hawaiian damselfly. Although this study did not include an analysis of the blackline, crimson, or oceanic Hawaiian damselflies, given that these five species have similar habitat, breeding, and life-history requirements, are related phylogenetically (same genus), and have low numbers of populations and individuals, it is reasonable to assume that populations of the blackline, crimson, and oceanic Hawaiian damselflies (each known from fewer than 20 populations) are also at great risk of decline and extinction.

Human Trampling and Hiking

Visitors on foot, horseback, and motorbikes may threaten *Cyanea calycina* directly due to trampling and other direct damage, and indirectly due to being a source of fire ignition in areas in the southern Waianae Mountains (TNC 1997, p. 10). Human impacts, such as trampling by hikers, has been documented as a threat to *C. calycina* in the northern Waianae Mountains, between Kaala and Puu Kalena summits (Wood, in litt. 2001). The largest known population of *Cyrtandra sessilis* is located along a popular hiking trail in the Koolau Mountains, and individuals climbing and hiking off the established trail to visit this occurrence could trample individual plants and contribute to soil compaction and erosion, preventing growth and establishment of seedlings (Bakutis 2008a). This type of activity has been observed with other native species (Wood, in litt. 2001; Hawaii Rare Plant Restoration Group 2007, p. 2). *Doryopteris takeuchii* occurs on the slopes of Diamond Head crater, a popular location for visitation by tour

groups and hikers (HBMP 2008). Individuals leaving established trails will inadvertently trample plants and contribute to erosion of the steep hillsides where the plants are found. Field biologists have also observed trampling of vegetation near populations of *Melicope hiiakae* in the Koolau Mountains, suggesting that hikers could also be a threat to this species (Hawaii Rare Plant Restoration Group 2007, p. 2).

Loss of Host Plants and Loss of Regeneration

One species in this proposal, *Korthalsella degeneri*, is an obligate parasite on two native host plants, *Sapindus oahuensis* and *Nestegis sandwicensis*, which occur in the dry cliff ecosystem of the Waianae Mountains of Oahu. Introduced ungulates are a threat to the host plants, because of trampling and topsoil disruption, leading to erosion and the establishment and spread of nonnative plants (Factor A). Nonnative plants are a threat to *K. degeneri*, because they: (1) Degrade habitat and outcompete native plants; (2) can increase the intensity, extent, and frequency of fire, converting native shrubland and forest to land dominated by alien grasses; and (3) may cause the loss of the native host plants upon which *K. degeneri* depends (Factor A). In addition, the host plants are at risk of predation by feral ungulates, although ungulates are unlikely to be a direct threat to *K. degeneri* (Factor C), because of its parasitic characteristics.

Lack of regeneration or low levels of regeneration (i.e., reproduction) in the wild has been documented, and represents a threat to, *Melicope makahae* and *Pleomele forbesii* (HBMP 2008; J. Lau, in litt. 2001). There are four scattered populations of *Melicope makahae* in the Waianae Mountains. Two of these populations are at risk of extirpation because only one adult plant has been observed at one location and one adult plant and a single juvenile plant have been observed at the second location. There are 19 populations of *P. forbesii* in the Waianae Mountains, and only one population in the Koolau Mountains. The Koolau population is at risk of extirpation because of very few (if any) seedlings or juvenile plants have been observed, which indicates a lack of reproduction.

Summary of Other Natural or Manmade Factors Affecting Their Continued Existence

We consider the limited numbers of populations and few (less than 50) individuals to be serious and ongoing threat to at least nine plant species in

this proposed rule because: (1) These species may experience reduced reproductive vigor due to ineffective pollination or inbreeding depression; (2) they may experience reduced levels of genetic variability leading to diminished capacity to adapt and respond to environmental changes, thereby lessening the probability of long-term persistence; and (3) a single catastrophic event may result in extirpation of remaining populations and extinction of the species. This threat applies to the entire range of each species.

The threat to the blackline, crimson, and oceanic Hawaiian damselflies from limited numbers of populations and individuals is ongoing and is expected to continue into the future because: (1) These species may experience reduced reproductive vigor due to inbreeding depression; (2) they may experience reduced levels of genetic variability leading to diminished capacity to adapt and respond to environmental changes, thereby lessening the probability of long-term persistence; (3) a single catastrophic event (e.g., hurricane, landslide) may result in extirpation of remaining populations and extinction of these species; and (4) species with few known locations, such as the blackline, crimson, and oceanic Hawaiian damselflies, are less resilient to threats that might otherwise have a relatively minor impact on widely distributed species. For example, the reduced availability of breeding habitat or an increase in predation of naiads that might be absorbed in widely distributed species could result in a significant decrease in survivorship or reproduction of a species with limited distribution. The limited distribution of these three species thus magnifies the severity of the impact of the other threats discussed in this proposed rule.

In addition, the threat to *Cyanea calycina*, *Cyrtandra sessilis*, *Doryopteris takeuchii*, and *Melicope hiiakae* from human activities (e.g., trampling and hiking) is ongoing and expected to continue into the future because populations of all of these species are located near hiking trails or in areas used for recreational activities and the effect of these activities could lead to injury and death of individual plants.

The threat to *Korthalsella degeneri* from loss of its host plants is ongoing and expected to continue into the future because threats to its host plants from nonnative plants and feral ungulates are uncontrolled. Finally, we consider the threat to *Melicope makahae* and *Pleomele forbesii* from lack of regeneration to be ongoing and expected to continue into the future because, with their small numbers in the wild, any

competition from nonnative plants or habitat modification or predation by ungulates could lead to the extirpation of these species.

Proposed Listing Determination for 23 Species

We have carefully assessed the best scientific and commercial information available regarding threats to each of the 23 Oahu species. We find that all of these species face threats, which are ongoing and expected to continue into the future throughout their ranges, from the present destruction and modification of their habitats, primarily from feral ungulates and nonnative plants. Six of these species (*Bidens amplexans*, *Cyanea calycina*, *Doryopteris takeuchii*, *Korthalsella degeneri*, *Pleomele forbesii*, and *Pteralyxia macrocarpa*) are threatened by habitat destruction and modification from fire, and 14 species (*Bidens amplexans*, *Cyanea lanceolata*, *Cyrtandra kaulanthea*, *C. sessilis*, *Doryopteris takeuchii*, *Melicope christophersenii*, *M. hiikae*, *M. makahae*, *Platydesma cornuta* var. *cornuta*, *P. cornuta* var. *decurrens*, *Psychotria hexandra* ssp. *oahuensis*, and the blackline, crimson, and oceanic Hawaiian damselflies) are threatened by the destruction and modification of their habitats from hurricanes, landslides, rockfalls, and flooding. In addition, we are concerned about the effects of projected climate change, particularly rising temperatures, but recognize there is limited information on the exact nature of impacts from climate change (Factor A). There is a serious threat of widespread impacts of predation and herbivory on 19 of the 20 plant species (all plant species except *Doryopteris takeuchii*) by nonnative pigs, goats, rats, and invertebrates; and likely by predation on the three damselflies (blackline, crimson, and oceanic Hawaiian damselflies) by nonnative fish, bullfrogs and ants (Factor C). The inadequacy of existing regulatory mechanisms (e.g., inadequate protection of habitat and inadequate protection from the introduction of nonnative species) poses a current and ongoing threat to all 23 species (Factor D). There are current and ongoing threats to nine plant species (*Cyanea purpurellifolia*, *Cyrtandra gracilis*, *C. kaulanthea*, *C. waiolani*, *Melicope hiikae*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Tetraplasandra lydgatei*, and *Zanthoxylum oahuense*) and the three damselflies due to factors associated with small numbers of populations and individuals (Factor E); to *Melicope makahae* and *Pleomele forbesii* from the

lack of regeneration (Factor E); to *Cyanea calycina*, *Cyrtandra sessilis*, *Doryopteris takeuchii*, and *Melicope hiikae* from trampling (Factor E); and to *Korthalsella degeneri* from the loss of native host plants (Factor E) (see Table 2). In addition, the blackline, crimson, and oceanic Hawaiian damselflies are threatened by habitat degradation and loss due to agriculture and urban development, by stream diversion and channelization, and by dewatering of aquifers (Factor A). These threats are exacerbated by these species' inherent vulnerability to extinction from stochastic events at any time because of their endemism, small numbers of individuals and populations, and restricted habitats.

The Act defines an endangered species as any species that is "in danger of extinction throughout all or a significant portion of its range" and a threatened species as any species that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." We find that each of these endemic species is presently in danger of extinction throughout its entire range, based on the immediacy, severity, and scope of the threats described above. Therefore, on the basis of the best available scientific and commercial information, we propose listing the following 23 species as endangered in accordance with section 3(6) of the Act: the plants *Bidens amplexans*, *Cyanea calycina*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyrtandra gracilis*, *Cyrtandra kaulanthea*, *Cyrtandra sessilis*, *Cyrtandra waiolani*, *Doryopteris takeuchii*, *Korthalsella degeneri*, *Melicope christophersenii*, *Melicope hiikae*, *Melicope makahae*, *Platydesma cornuta* var. *cornuta*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Tetraplasandra lydgatei*, *Zanthoxylum oahuense*, and the damselflies *Megalagrion leptodemas*, *Megalagrion nigrohamatum nigrolineatum*, and *Megalagrion oceanicum*.

Under the Act and our implementing regulations, a species may warrant listing if it is endangered or threatened throughout all or a significant portion of its range. Each of the 23 endemic Oahu species proposed for listing in this proposed rule is highly restricted in its range, and the threats occur throughout its range. Therefore, we assessed the status of each species throughout its entire range. In each case, the threats to the survival of these species occur throughout the species' range and are not restricted to any particular portion of that range. Accordingly, our

assessment and proposed determination applies to each species throughout its entire range.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing results in public awareness and conservation by Federal, State, and local agencies; private organizations; and individuals. The Act encourages cooperation with the States and requires that recovery actions be carried out for all listed species. The protection measures required of Federal agencies and the prohibitions against certain activities involving listed animals and plants are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Subsection 4(f) of the Act requires the Service to develop and implement recovery plans for the conservation of endangered and threatened species unless it would not promote the conservation of the species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning includes the development of a recovery outline shortly after a species is listed, preparation of a draft and final recovery plan, and revisions to the plan as significant new information becomes available. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. The recovery plan identifies site-specific management actions that will achieve recovery of the species, measurable criteria that determine when a species may be downlisted or delisted, and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams are often established to develop recovery plans. When completed, the recovery outlines, draft recovery plans, and the final

recovery plans will be available from our Web site (<http://www.fws.gov/ endangered>), or from our Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, non-governmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (e.g., restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private and State lands.

If these species are listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost share grants for non-Federal landowners, the academic community, and non-governmental organizations. In addition, pursuant to section 6 of the Act, the State of Hawaii would be eligible for Federal funds to implement management actions that promote the protection and recovery of the 23 species proposed for listing. Information on our grant programs that are available to aid species recovery can be found at: <http://www.fws.gov/grants>.

Although the 23 species are only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for these species in the event they are listed. Additionally, we invite you to submit any new information on these species whenever it becomes available and any information you may have for recovery planning purposes (see **ADDRESSES**).

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(1) of the Act mandates that all Federal agencies shall utilize their authorities in furtherance of the purposes of the Act by carrying out programs for the conservation of endangered and threatened species listed pursuant to section 4 of the Act. Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not

likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of critical habitat. If a Federal action may affect the continued existence of a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

For the 23 plants and animals proposed for listing as endangered species in this proposed rule, Federal agency actions that may require consultation as described in the preceding paragraph include, but are not limited to, actions within the jurisdiction of the Natural Resources Conservation Service, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and branches of the Department of Defense (DOD). Examples of these types of actions include activities funded or authorized under the Farm Bill Program, Environmental Quality Incentives Program, Ground and Surface Water Conservation Program, Clean Water Act, Partners for Fish and Wildlife Program, and DOD construction activities related to training or other military missions.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered wildlife and plants. The prohibitions, codified at 50 CFR 17.21 for wildlife and 17.61 for plants, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import, export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. In addition, for plants listed as endangered, the prohibitions include import or export, malicious damage or destruction on areas under Federal jurisdiction, and the removal, cutting, digging up, or damaging or destroying of such plants in knowing violation of any State law or regulation, including State criminal trespass law. Certain exceptions to the prohibitions apply to agents of the Service and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving threatened or endangered wildlife and plant species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 and 17.62 for endangered wildlife and plants, respectively. With regard to endangered wildlife, a permit must be

issued for the following purposes: for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities. With regard to endangered plants, a permit must be issued for the following purposes: for scientific purposes or for the enhancement of propagation or survival. Requests for copies of the regulations regarding listed species and inquiries about prohibitions and permits may be addressed to U.S. Fish and Wildlife Service, Ecological Services, Eastside Federal Complex, 911 N.E. 11th Avenue, Portland, OR 97232-4181 (telephone 503-231-6158; facsimile 503-231-6243).

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of species proposed for listing. The following activities could potentially result in a violation of section 9 of the Act; this list is not comprehensive:

(1) Unauthorized collecting, handling, possessing, selling, delivering, carrying, or transporting of the species, including import or export across State lines and international boundaries, except for properly documented antique specimens of these taxa at least 100 years old, as defined by section 10(h)(1) of the Act.

(2) Introduction of nonnative species that compete with or prey upon the 23 species, such as the introduction of competing, nonnative plants or animals to the State of Hawaii.

(3) The unauthorized release of biological control agents that attack any life stage of these 23 species.

(4) Unauthorized modification of the channel or water flow of any stream or removal or destruction of emergent aquatic vegetation in any body of water in which the blackline, crimson, and oceanic Hawaiian damselflies are known to occur.

(5) Unauthorized discharge of chemicals or fill material into any waters in which the blackline, crimson, and oceanic Hawaiian damselflies are known to occur.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**). Requests for copies of the regulations concerning listed animals

and general inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Endangered Species Permits, Ecological Services, Eastside Federal Complex, 911 NE. 11th Avenue, Portland, OR 97232-4181 (telephone 503-231-6158; facsimile 503-231-6243).

If the 23 species are listed under the Act, the State of Hawaii's endangered species law (Haw. Rev. Stat. sec.195D 1-32) will be automatically invoked and provide supplemental protection, including prohibiting take of these species and encouraging conservation by State government agencies. Further, the State may enter into agreements with Federal agencies to administer and manage any area required for the conservation, management, enhancement, or protection of endangered species (Haw. Rev. Stat. sec. 195D-5). Funds for these activities could be made available under section 6 of the Act (Cooperation with the States). Thus, the Federal protection afforded to these species by listing them as endangered species will be reinforced and supplemented by protection under State law.

Proposed Taxonomic Name Changes for 10 Plant Species Since Listing

In 1982 we listed *Euphorbia skottsbergii* var. *kalaeloana* (47 FR 36846; August 24, 1982) as endangered following the taxonomy of Sherff (1936), although in 1959 Degener and Degener had moved this species to *Chamaesyce* (*Chamaesyce skottsbergii* var. *kalaeloana*). In both publications the range for this species included only the "Ewa Plains of Oahu, Hawaii, in the vicinity of Barbers Point" (also known as Kalaeloa). In 1990, Koutnik (p. 615) placed *Chamaesyce skottsbergii* var.

kalaeloana in synonymy with *C. skottsbergii* var. *skottsbergii*. According to Koutnik, the range for *C. skottsbergii* var. *skottsbergii* included southwestern Oahu (the Ewa Plains) and northwestern Molokai. However, in 2005, based on genetic analysis, Morden and Gregoritz (2005, p. 969) found that the Oahu and Molokai populations of *C. skottsbergii* var. *skottsbergii* are genetically distinct and they supported the recognition of these two populations as distinct varieties. The authors suggested that the variety on Molokai should be recognized by the previously used variety name, *C. skottsbergii* var. *audens*. The scientific community and the Service currently accept Morden and Gregoritz's taxonomic clarification of *C. skottsbergii* var. *skottsbergii*, the range of which includes only southwestern Oahu.

At the time we listed *Alsinidendron obovatum* (56 FR 55770; October 29, 1991), *A. trinerve* (56 FR 55770; October 29, 1991), *Hedyotis coriacea* (57 FR 20772; May 15, 1992), *H. degeneri* (56 FR 55770; October 29, 1991), *H. parvula* (56 FR 55770; October 29, 1991), and *Lipochaeta tenuifolia* (56 FR 55770; October 29, 1991) as endangered, we followed the taxonomic treatment of Wagner *et al.* (1990, pp. 343, 501, 1,141-1,142, 1,148-1,150). Subsequently, Wagner *et al.* (2005, pp. 57-63) recognized and published new combinations (new genus and species names) for *Alsinidendron obovatum* (now *Schiedea obovata*) and *A. trinerve* (now *Schiedea trinervis*) based on phylogenetic analyses. These new combinations are currently accepted by the scientific community and by the Service. Terrell *et al.* (2005, pp. 832, 833) published new combinations for *Hedyotis coriacea* (now *Kadua coriacea*), *H. degeneri* (now *Kadua*

degeneri, and includes *K. degeneri* var. *coprosimifolia* and *K. degeneri* var. *degeneri*), and placed *Hedyotis parvula* in synonymy with *Kadua parvula*, an earlier and validly published name. Wagner and Robinson (2001, p. 554) recognized and published new combinations for several Hawaiian species of *Lipochaeta*, including *Lipochaeta tenuifolia* (now *Melanthera tenuifolia*). At the time we listed *Phlegmariurus nutans* (59 FR 14482; March 28, 1994), we followed Ollgaard's *Index of the Lycopodiaceae* (1989, 135 pp.). Most recently, Palmer placed *Phlegmariurus nutans* in synonymy with *Huperzia nutans* (Palmer 2003, p. 257). We listed *Mariscus pennatiformis* (which included *M. pennatiformis* ssp. *bryanii* and *M. pennatiformis* ssp. *pennatiformis*) as endangered in 1994 (59 FR 56333) following the taxonomic treatment of Koyama (in Wagner *et al.* 1990, pp. 1,421-1,422). Since then, Strong and Wagner (1997, p. 39) and more recently, Wagner *et al.* (2003, pp. 52-53) moved all Hawaiian species of *Mariscus* to *Cyperus*. The accepted epithet for this species is *Cyperus pennatiformis* and includes *C. pennatiformis* var. *bryanii* and *C. pennatiformis* var. *pennatiformis*. The range of the species at the time of listing and now has not changed.

All of the aforementioned name changes are currently accepted by the scientific community, and we are proposing to accept them for purposes of the List of Endangered and Threatened Plants at 50 CFR 17.12 (see Table 3). These changes would also require us to make editorial revisions to a limited number of units and species descriptions in 50 CFR 17.99(a)(1) and (b) (Kauai), and 50 CFR 17.99(e)(1) and (f) (Maui), to adopt the taxonomic revisions.

TABLE 3—PROPOSED NAME CHANGES FOR 9 LISTED ENDANGERED HAWAIIAN PLANTS

Listing	Currently listed name	Proposed name or family change
56 FR 55770	<i>Alsinidendron obovatum</i>	<i>Schiedea obovata</i> .
56 FR 55770	<i>Alsinidendron trinerve</i>	<i>Schiedea trinervis</i> .
47 FR 36846	<i>Chamaesyce skottsbergii</i> var. <i>kalaeloana</i>	<i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i> .
57 FR 20772	<i>Hedyotis coriacea</i>	<i>Kadua coriacea</i> .
56 FR 55770	<i>Hedyotis degeneri</i>	<i>Kadua degeneri</i> .
56 FR 55770	<i>Hedyotis parvula</i>	<i>Kadua parvula</i> .
56 FR 55770	<i>Lipochaeta tenuifolia</i>	<i>Melanthera tenuifolia</i> .
59 FR 14482	<i>Phlegmariurus nutans</i>	<i>Huperzia nutans</i> .
59 FR 56333	<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(I) Essential to the conservation of the species and

(II) Which may require special management considerations or protection; and

(ii) Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot otherwise be relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7(a)(2) of the Act requires consultation on Federal actions that may affect critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public access to private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by the landowner. Where a landowner seeks or requests Federal agency funding or authorization that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the Federal action agency's and the applicant's obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time of listing must contain the physical or biological features essential to the conservation of the species, and be included only if those features may require special management considerations or protection. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species

(areas on which are found the physical or biological features (PBFs) essential for the conservation of the species). Under the Act and regulations at 50 CFR 424.12(e), we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed only when we determine that those areas are essential for the conservation of the species and that designation limited to those areas occupied at the time of listing would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas we should designate as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine to be necessary for the recovery of the species, as additional scientific information may become available in the future. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be required for recovery of the species.

The information currently available on the effects of global climate change and increasing temperatures does not

make sufficiently precise estimates of the location and magnitude of the effects. Nor are we currently aware of any climate change information specific to the habitat of any of the species being addressed in this proposed rule that would indicate what areas may become important to the species in the future. Therefore, we are unable to determine what additional areas, if any, may be appropriate to include in the proposed critical habitat designation for these species; however, we are specifically requesting information from the public on the currently predicted effects of climate change on the species addressed in this proposed rule and their habitat. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas we may eventually determine, based on scientific data not now available to the Service, that are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be required for recovery of the species.

Areas that are important to the conservation of the species, but are outside the critical habitat designation, will continue to be subject to conservation actions we implement under section 7(a)(1) of the Act. These areas are also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available scientific information at the time of the agency action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), section 7 consultations, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Prudency Determination for 24 Oahu Species

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. Our regulations at 50 CFR 424.12(a)(1) state that designation of critical habitat is not prudent when one or both of the following situations exist:

(1) The species is threatened by taking or other activity, and the identification of critical habitat can be expected to increase the degree of threat to the species; or (2) the designation of critical habitat would not be beneficial to the species.

As we have discussed under the Factor B analysis, there is currently no documentation that the 23 species proposed for listing are threatened by taking or other human activity. At the time we listed the plant *Achyranthes splendens* var. *rotundata* as endangered, we found that designation of critical habitat was not prudent because this plant was threatened by taking for lei-making, and the publication of critical habitat descriptions would make this plant more vulnerable (51 FR 10518; March 26, 1986). However, we have examined the best available information and found no information to indicate that this plant is currently threatened by overcollection for lei-making, or is otherwise used for commercial, recreational, scientific, or educational purposes. Moreover, we have no information to indicate that identification of critical habitat is expected to initiate such a threat to any of the species addressed in this proposed rule. Accordingly, this designation will provide information to individuals, local and State governments, and other entities engaged in activities or long-range planning in areas essential to the conservation of these species. Conservation of these species and their essential habitat will require habitat management, protection, and restoration, which will be facilitated by knowledge of habitat locations and the physical or biological features of the habitat. Other potential benefits include: (1) Triggering consultation under section 7 of the Act in new areas for actions with a Federal nexus where it would not otherwise occur; (2) focusing conservation activities on the most essential features and areas; and (3) preventing individuals from causing inadvertent harm to the species. Based on this information, we believe critical habitat would be beneficial, and have determined the designation of critical habitat is prudent for each of the species addressed in this proposed rule.

The primary regulatory effect of critical habitat is the section 7(a)(2) requirement that Federal agencies refrain from taking any action that destroys or adversely modifies critical habitat. We find that the designation of critical habitat for each of the 23 species proposed for listing in this proposed rule and the endangered plants *Achyranthes splendens* var. *rotundata*

and *Chamaesyce skottsbergii* var. *skottsbergii* will benefit them by serving to focus conservation efforts on the restoration and maintenance of ecosystem functions that are essential for attaining their recovery and long-term viability. In addition, the designation of critical habitat serves to inform management and conservation decisions by identifying any additional physical or biological features of the ecosystem that may be essential for the conservation of certain species, such as the availability of sufficient instream flow for the blackline, crimson, and oceanic Hawaiian damselflies or specific host plants such as *Nestegis sandwicensis* and *Sapindus oahuensis* for *Korthalsella degeneri*. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the species and may provide some measure of benefit, we find that designation of critical habitat is prudent for the following 25 species, as critical habitat would be beneficial and there is no evidence that the designation of critical habitat would result in an increased threat from taking or other human activity for these species:

(1) Plants—*Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Chamaesyce skottsbergii* var. *skottsbergii* (listed as *Euphorbia skottsbergii* var. *kaleloana*), *Cyanea calycina*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra waiolani*, *Doryopteris takeuchii*, *Korthalsella degeneri*, *Melicope christophersenii*, *Melicope hiikae*, *Melicope makahae*, *Platydesma cornuta* var. *cornuta*, *Platydesma cornuta* var. *decurrans*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Tetraplasandra lydgatei*, and *Zanthoxylum oahuense*;

(2) Animals—*Megalagrion leptodemas*, *Megalagrion nigrohamatum nigrolineatum*, and *Megalagrion oceanicum*.

Critical Habitat Determinability

As stated above, section 4(a)(3) of the Act requires the designation of critical habitat concurrently with the species' listing "to the maximum extent prudent and determinable." Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

- (i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or
- (ii) The biological needs of the species are not sufficiently well known to

permit identification of an area as critical habitat.

When critical habitat is not determinable, the Act provides for an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

At the time we listed the plant *Chamaesyce skottsbergii* var. *skottsbergii* (see "Proposed Taxonomic Name Changes for 11 Plant Species Since Listing," above) as endangered, we were unable to identify the biological needs of this species, and therefore were unable to identify areas essential for its conservation (critical habitat) (47 FR 36846, August 24, 1982). We reviewed the information available (since it was listed in 1982) pertaining to the biological needs of *Chamaesyce skottsbergii* var. *skottsbergii* and available information pertaining to the biological needs of the 23 species proposed for listing in this proposed rule and habitat characteristics where these species are located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is both prudent and determinable for these 25 species.

Proposed Critical Habitat Designation for 25 Oahu Species and Proposed Revision of Critical Habitat for 99 Oahu Plants

In this section, we discuss the proposed designation of critical habitat for 25 species. This includes 23 species identified in the above listing proposal and the 2 additional plant species (*Achyranthes splendens* var. *rotundata* and *Chamaesyce skottsbergii* var. *skottsbergii*) that were previously listed without designating critical habitat. This section also discusses the proposed revision of currently designated critical habitat for 99 Oahu plant species, based on new information. This information represents the best scientific and commercial information available.

Revision of Critical Habitat for 99 Oahu Plants

Under section 4(a)(3)(B)(ii) of the Act we may, as appropriate, revise a critical habitat designation. In 2003, we designated critical habitat for 99 Oahu plants on 55,040 ac (22,274 ha) in 303 units based on their known locations (68 FR 35950). Based on new information and scientific data available since 2003, we are proposing to revise critical habitat for these 99 plant species. Approximately 93 percent of the area being proposed as revised critical habitat in this proposed rule overlaps with the area designated in the 2003 final critical habitat rule. In some

areas, the footprint of the proposed revision is larger than the 2003 designation, to accommodate the expansion of species' ranges within the particular ecosystem in which they occur (e.g., expansion into unoccupied habitat). In other areas, we are proposing to reduce critical habitat, based on updated information on the historic ranges of certain species. The proposed revision correlates each species' physical or biological requirements with the characteristics of the ecosystems within which they occur (e.g., elevation, rainfall, species associations, etc.), and also includes areas unoccupied by the species but essential for their conservation. The proposed revision will enable managers to focus conservation management efforts on common threats that occur across shared ecosystems and facilitate the restoration of the ecosystem function and species-specific habitat needs for the recovery of each of the 99 species. An added benefit includes the publication of more comprehensive critical habitat unit maps that should be more useful to the public and conservation managers.

Background for 99 Listed Oahu Plants

It is our intent to discuss only those topics directly relevant to the proposed designation of critical habitat. For additional information on these 99 Oahu plants, refer to the final critical habitat rule for Oahu plants published in the **Federal Register** on June 17, 2003 (68 FR 35950).

Current Status of Plant Species in this Proposed Rule

Abutilon sandwicense (no common name (NCN)), a member of the mallow family (Malvaceae), is a perennial shrub endemic to the Waianae Mountains of Oahu (Bates 1999, pp. 873–875). At the time we designated critical habitat in 2003, the 30 known occurrences contained an estimated 253 to 263 individuals (68 FR 35951). This species currently occurs in the Waianae Mountains in the dry cliff and lowland mesic ecosystems in 17 to 19 occurrences totaling between 296 and 515 individuals (U.S. Army 2006; TNC 2007; HBMP 2008).

Achyranthes splendens var. *rotundata* (round-leaved chaff flower), a shrub in the amaranth family (Amaranthaceae), occurred historically on Oahu, Lanai, and Molokai. In 1986, at the time of listing, four occurrences containing approximately 400 individuals were known from southwestern and western Oahu in the coastal ecosystem at Barbers Point and Kaena Point, respectively (51 FR 10518, March 26,

1986; HBMP 2008). Subsequently, three additional occurrences were documented in Keawaula, Makaha, and Waianae Kai (HBMP 2008). Currently, this species is found in 8 occurrences in the coastal, lowland dry, and dry cliff ecosystems totaling approximately 700 individuals (Kane 2004, in litt.; Phillipson 2007, in litt.; HBMP 2008; Silbernagle 2010, in litt.).

Adenophorus periens (pendent kahi fern), a fern in the grammitis family (Grammitidaceae), occurs on the islands of Hawaii, Molokai, and Kauai, and was known historically from the Koolau Mountains of Oahu (Palmer 2003, p. 39). This species is an epiphyte found in the lowland wet and wet cliff ecosystems (TNC 2007; HBMP 2008). The last recorded observances of this fern on Oahu were in the early 1900s (HBMP 2008).

Alectryon macrococcus (mahoe), a member of the soapberry family (Sapindaceae), is a tree found on the islands of Kauai, Oahu, Molokai, and Maui (Wagner *et al.* 1999, p. 1,225). This species is known from two varieties, *A. macrococcus* var. *auwahiensis* (Maui) and *A. macrococcus* var. *macrococcus* (Kauai, Oahu, Molokai, and Maui). At the time we designated critical habitat in 2003, *A. macrococcus* var. *macrococcus* was known from 82 occurrences on Oahu containing approximately 300 individuals. Currently, *A. macrococcus* var. *macrococcus* is found in the Waianae Mountains in the dry cliff, lowland mesic, and montane wet ecosystems, in 15 occurrences totaling between 366 and 371 individuals (U.S. Army 2006; TNC 2007; HBMP 2008). This variety was historically known from the lowland mesic ecosystem in the Koolau Mountains.

Bonamia menziesii (NCN), a perennial vine in the morning glory family (Convolvulaceae), is found on Kauai, Oahu, Lanai, Maui, and Hawaii (Austin 1999, p. 550). At the time we designated critical habitat in 2003, this species was known from 18 occurrences on Oahu totaling fewer than 100 individuals. Currently, this species is declining on Oahu, with approximately 12 to 13 occurrences totaling fewer than 60 individuals, located in both the Waianae and Koolau Mountains, in the lowland dry, lowland mesic, and dry cliff ecosystems (U.S. Army 2006; TNC 2007; HBMP 2008).

Cenchrus agrimonioides (kamanomano), a perennial in the grass family (Poaceae), occurred historically on Oahu, Lanai, and Maui (O'Connor 1999, pp. 1,511–1,512). This species is known from two varieties, *C. agrimonioides* var. *agrimonioides*

(Oahu, Lanai, and Maui) and *C. agrimonioides* var. *laysanensis* (Kure Atoll, Midway Atoll, and Laysan). *Cenchrus agrimonioides* var. *laysanensis* may be extinct. At the time we designated critical habitat in 2003, *C. agrimonioides* var. *agrimonioides* was known from 7 occurrences in the Waianae Mountains on Oahu, containing between 113 and 118 individuals. This variety is currently found on Oahu and Maui, and has been outplanted on Kahoolawe (USFWS 2007a; 2007b). On Oahu, 3 to 6 occurrences totaling approximately 300 wild individuals are found in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; USFWS 2007a; 2007b).

Centaureum sebaeoides (awiji), an annual herb in the gentian family (Gentianaceae), is known from Kauai, Oahu, Molokai, Lanai, and west Maui (Wagner *et al.* 1999, p. 725). At the time we designated critical habitat in 2003, this species was known from 2 occurrences in the Waianae and Koolau Mountains, totaling between 60 and 80 individuals. Currently, *C. sebaeoides* occurs on Oahu in the coastal ecosystem at Kaena Point and Halona (Waianae and Koolau Mountains), in 2 occurrences totaling between 40 and 50 individuals (TNC 2007; HBMP 2008).

Chamaesyce celastroides var. *kaenana* (akoko), a shrub in the spurge family (Euphorbiaceae), is endemic to Oahu (Koutnik 1999, pp. 605–606). At the time we designated critical habitat in 2003, this species was known from 15 occurrences containing 569 individuals. Historically known from both the Waianae and Koolau Mountains, *C. celastroides* var. *kaenana* is currently found in the coastal, lowland dry, and lowland mesic ecosystems only in the Waianae Mountains, in 8 occurrences totaling more than 900 individuals (Makua Implementation Team 2003, pp. 16–32–16–38; U.S. Army 2006; TNC 2007; HBMP 2008).

Chamaesyce deppeana (akoko), a perennial subshrub in the spurge family (Euphorbiaceae), is endemic to the Koolau Mountains of Oahu (Koutnik 1999, p. 607). At the time we designated critical habitat in 2003, this species was known from one occurrence of approximately 50 individuals. Currently, the same occurrence in the wet cliff ecosystem in the Koolau Mountains is estimated to contain as many as 100 individuals (J. Lau, HBMP, pers. comm. 2006; S. Perlman, NTBG, pers. comm. 2006; TNC 2007).

Chamaesyce herbstii (akoko), a small tree in the spurge family (Euphorbiaceae), is endemic to the Waianae Mountains of Oahu (Koutnik

1999, p. 609). At the time we designated critical habitat in 2003, this species was known from 4 occurrences totaling between 162 and 164 individuals. *Chamaesyce herbstii* is declining in numbers, and is currently found in the lowland mesic and dry cliff ecosystems in the Waianae Mountains, in 2 occurrences totaling fewer than 60 individuals (Makua Implementation Team 2003, pp. 16–39–16–44; U.S. Army 2006; TNC 2007; HBMP 2008).

Chamaesyce kuwaleana (akoko), a shrub in the spurge family (Euphorbiaceae), is endemic to Oahu. At the time we designated critical habitat in 2003, this species was known from 5 occurrences containing approximately 2,000 individuals in the Waianae Mountains, with one individual known from Mokumanu, an islet off the windward coast of the Koolau Mountains (Koutnik 1999, p. 611). *Chamaesyce kuwaleana* was found historically in the coastal and dry cliff ecosystems, but is currently found only in the dry cliff ecosystem in the Waianae Mountains in 2 occurrences of approximately 1,200 individuals (TNC 2007; HBMP 2008).

Chamaesyce rockii (akoko), a shrub or small tree in the spurge family (Euphorbiaceae), is endemic to the Koolau Mountains of Oahu (Koutnik 1999, p. 614). At the time we designated critical habitat in 2003, this species was known from 20 occurrences containing between 641 and 733 individuals. Currently, this species is found in 6 occurrences in the lowland wet and wet cliff ecosystems in the Koolau Mountains, totaling between 576 and 710 individuals (U.S. Army 2006; TNC 2007; HBMP 2008).

Chamaesyce skottsbergii var. *skottsbergii* (formerly *Chamaesyce skottsbergii* var. *kalaeloana*) (Ewa Plains akoko), a small shrub in the spurge family (Euphorbiaceae), is endemic to Oahu. Historically, this species was only known from the Ewa Plains on southwestern Oahu in the vicinity of Barbers Point (also known as Kalaeloa). The precise natural range of this taxon was unknown, but probably did not go beyond the coralline plains of southwestern Oahu (47 FR 36846, August 24, 1982). In 1982, at the time of listing, this species was known from 4 occurrences containing approximately 1,000 to 1,500 individuals (Char and Balakrishnan 1979, p. 67; HBMP 2008). Currently, this species is found in 2 occurrences in coral outcrops in the lowland dry ecosystem on the Ewa Plain in southwestern Oahu, totaling approximately 1,524 individuals (Guinther and Withrow 2008, pp. 6, 9–10, Whistler 2008, pp. 7–9).

Colubrina oppositifolia (kauila), a tree in the buckthorn family (Rhamnaceae), is known from Oahu, Maui, and the island of Hawaii (Wagner *et al.* 1999, p. 1,094). At the time we designated critical habitat in 2003, this species was found in 5 occurrences in the Waianae Mountains containing 61 individuals. Currently, on Oahu, *Colubrina oppositifolia* is found in the lowland mesic ecosystem in the Waianae Mountains, in 4 occurrences totaling approximately 50 individuals (U.S. Army 2006; TNC 2007; HBMP 2008).

Ctenitis squamigera (pauoa), a medium to large-sized fern in the spleenwort family (Aspleniaceae), is found on all the major islands except Hawaii. It is possibly now extinct on Kauai (Palmer 2003, pp. 100–102). At the time we designated critical habitat in 2003, there were 8 known occurrences with more than 80 individuals in the Waianae and Koolau Mountains of Oahu. Currently there are 4 occurrences totaling approximately 100 individuals, in the lowland mesic ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea acuminata (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 444). At the time we designated critical habitat in 2003, there were fewer than 200 individuals in 20 occurrences. Currently, there are 15 occurrences totaling between 149 and 175 individuals in the lowland mesic, lowland wet, montane wet, and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea crispa (NCN), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 481–482; Wagner and Herbst 1999, p. 1,870). At the time we designated critical habitat in 2003, there were 11 occurrences containing a total of 56 individuals. Currently, this species is found in 7 occurrences, totaling 56 individuals, in the lowland mesic, lowland wet, and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea grimesiana ssp. *grimesiana* (haha), a shrub in the bellflower family (Campanulaceae), is found on Molokai, Lanai, Maui, and Oahu (Lammers 1999, pp. 451–452). At the time we designated critical habitat in 2003, there were seven occurrences totaling nine individuals in the Waianae and Koolau Mountains. Currently, there are five to six individuals in four occurrences in the lowland mesic and lowland wet

ecosystems in the Waianae and Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea grimesiana ssp. *obatae* (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Waianae Mountains of Oahu (Lammers 1999, pp. 451–452). At the time we designated critical habitat in 2003, there were 8 occurrences containing 16 individuals. Currently, there are 8 occurrences totaling 41 individuals in the dry cliff, lowland mesic, and lowland wet ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea humboldtiana (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 483; Wagner and Herbst 1999, p. 1,870). At the time we designated critical habitat in 2003, there were 9 occurrences totaling between 133 and 239 individuals. Currently, this species occurs in 9 occurrences totaling between 160 to 260 individuals in the lowland wet and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea koolauensis (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 481; Wagner and Herbst 1999, p. 1,870). At the time we designated critical habitat in 2003, there were 42 occurrences with fewer than 80 individuals. Currently, this species is found in 15 occurrences with approximately 100 individuals in the lowland wet ecosystem in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea longiflora (haha), a shrub in the bellflower family (Campanulaceae), occurs in the Waianae Mountains, and was historically known from the Koolau Mountains of Oahu (Lammers 1999, p. 484; Wagner and Herbst 1999, p. 1,870). At the time we designated critical habitat in 2003, there were 4 occurrences of fewer than 220 individuals in the Waianae Mountains. Currently, there are 4 occurrences totaling fewer than 170 individuals in the lowland mesic ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea pinnatifida (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Waianae Mountains of Oahu (Lammers 1999, p. 459). The last known wild individual died in 2001, although the species remains in cultivation, and 70 individuals have been outplanted within historical range in the lowland mesic ecosystem in the Waianae Mountains (TNC 2006h, p. 6).

Cyanea st.-johnii (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 484; Wagner and Herbst 1999, p. 1,871). At the time we designated critical habitat in 2003, there were 7 occurrences containing 57 individuals. Currently, 6 occurrences are found in the lowland wet and wet cliff ecosystems, with approximately 70 individuals, in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyanea superba (NCN), a palm-like tree in the bellflower family (Campanulaceae), is endemic to the lowland mesic ecosystem of the Waianae Mountains of Oahu (Lammers 1999, p. 465). This species is known from two subspecies, *Cyanea superba* ssp. *regina* (southern Koolau Mountains) and *Cyanea superba* ssp. *superba* (northern Waianae Mountains). The last known wild individual of *Cyanea superba* ssp. *superba* died in 2002; however, propagules are in cultivation and more than 400 individuals have been outplanted over the past 10 years in the Waianae Mountains. Currently a total of at least 200 mature outplanted individuals of *Cyanea superba* ssp. *superba* survive (TNC 2007; HBMP 2008). *Cyanea superba* ssp. *regina* has not been observed since the 1930's (Lammers 1999, p. 465).

Cyanea truncata (haha), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu, in the lowland mesic, lowland wet, and wet cliff ecosystems (Lammers 1999, p. 466). At the time we designated critical habitat in 2003, there were only two known individuals in the lowland mesic ecosystem in the Koolau Mountains. Currently, these individuals survive along with outplanted occurrences totaling 14 individuals (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyperus pennatifolius (formerly *Mariscus pennatifolius*) (NCN), a perennial in the sedge family (Cyperaceae), was found on Kauai, Oahu, east Maui, the island of Hawaii, and Laysan Island in the Northwestern Hawaiian Islands. This species is known from two varieties, *C. pennatifolius* var. *bryanii* (Laysan Island) and *C. pennatifolius* var. *pennatifolius* (Kauai, Oahu, east Maui, and Hawaii Island) (Koyama 1999, pp. 1,421–1,422; Wagner and Herbst 1999, p. 1,900). The last known individual of *C. pennatifolius* var. *pennatifolius* on Oahu was observed in the 1930s, in the lowland mesic ecosystem in the Waianae Mountains (TNC 2007; HBMP 2008).

Cyperus trachyanthos (puukaa), a perennial in the sedge family (Cyperaceae), was known from Niihau, Kauai, Oahu, Molokai, and Lanai; and is currently extant on Niihau, Kauai, and Oahu (Koyama 1999, p. 1,399). At the time we designated critical habitat in 2003, there were 6 occurrences totaling 40 individuals on Oahu. Currently, there are 3 occurrences totaling approximately 400 individuals in seasonal wetlands in the coastal and lowland dry ecosystems in both the Waianae and Koolau Mountains (TNC 2007; HBMP 2008).

Cyrtandra dentata (haiwale), a shrub in the African violet family (Gesneriaceae), is endemic to Oahu, and is known from both the Waianae and Koolau Mountains (Wagner *et al.* 1999, p. 753). At the time we designated critical habitat in 2003, there were 11 known occurrences totaling 136 individuals. Currently, due to an increase in survey efforts over the last 6 years in potentially suitable habitat for this species, there are 6 occurrences totaling approximately 1,640 individuals in the lowland mesic and lowland wet ecosystems of both mountain ranges, and in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyrtandra polyantha (haiwale), a shrub in the African violet family (Gesneriaceae), is endemic to the Koolau Mountains of Oahu (Wagner *et al.* 1999, pp. 774–775). At the time we designated critical habitat in 2003, there was one known occurrence of three individuals. Currently, there are two occurrences of seven to nine individuals in the lowland mesic and lowland wet ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyrtandra subumbellata (haiwale), a shrub in the African violet family (Gesneriaceae), is endemic to the Koolau Mountains of Oahu (Wagner *et al.* 1999, p. 779). At the time we designated critical habitat in 2003, there were 5 occurrences totaling 12 individuals. Currently, there are 3 occurrences totaling a little more than 100 individuals in the lowland wet and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Cyrtandra viridiflora (haiwale), a small shrub in the African violet family (Gesneriaceae), is endemic to the Koolau Mountains of Oahu (Wagner *et al.* 1999, p. 780). At the time we designated critical habitat in 2003, there were 23 occurrences totaling 52 individuals. Currently, there are 5 occurrences totaling 75 individuals in the lowland wet and wet cliff ecosystems in the

Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Delissea subcordata (oha), a shrub in the bellflower family (Campanulaceae), is found in the Waianae and Koolau Mountains of Oahu (Lammers 1999, p. 471). At the time we designated critical habitat in 2003, this species was known from 21 occurrences containing fewer than 70 individuals, in the Waianae Mountains. Currently, there are 9 occurrences totaling between 28 and 40 individuals in the lowland mesic ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Diellia erecta (asplenium-leaved diellia), a fern in the spleenwort family (Aspleniaceae), occurs on Oahu, Molokai, Maui, and Hawaii (Palmer 2003, p. 117). At the time we designated critical habitat in 2003, this species was known from Kauai, Molokai, Maui, and Hawaii, but there was only 1 known occurrence of 20 individuals on Oahu. This occurrence on Oahu persists, with approximately 20 to 30 individuals, in the lowland mesic ecosystem of the Koolau Mountains (TNC 2007; HBMP 2008).

Diellia falcata (NCN), a fern in the spleenwort family (Aspleniaceae), is endemic to the Waianae and Koolau Mountains of Oahu (Palmer 2003, p. 119). At the time we designated critical habitat in 2003, this species was found in 30 occurrences totaling fewer than 6,000 individuals in the Waianae Mountains. Currently, *D. falcata* is found in 13 occurrences (totaling between 4,000 and 7,000 individuals) in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Diellia unisora (NCN), a fern in the spleenwort family (Aspleniaceae), is endemic to the Waianae Mountains of Oahu (Palmer 2003, p. 122). At the time we designated critical habitat in 2003, this species was known from 4 occurrences containing fewer than 800 individuals. Currently, *D. unisora* is known from 4 occurrences totaling approximately 700 individuals in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Diplazium molokaiense (NCN), a fern in the spleenwort family (Aspleniaceae), was known from all the major islands except Hawaii (Wagner and Wagner 1992, p. 33; Palmer 2003, p. 125). At the time we designated critical habitat in 2003, this species had not been documented on Oahu since 1945, and was present only at one site on east Maui. On Oahu, this species was known from the lowland mesic and lowland

wet ecosystems in the Waianae Mountains (Wood 2006, p. 32; TNC 2007; HBMP 2008).

Dubautia herbstobatae (naenae), a shrub in the sunflower family (Asteraceae), is endemic to the Waianae Mountains of Oahu (Carr 1999, pp. 297–298). At the time we designated critical habitat in 2003, this species was known from 12 occurrences totaling fewer than 100 individuals. Currently, *D. herbstobatae* is found in 2 occurrences totaling over 2,000 individuals in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008). The increase in the number of individuals is possibly due to the recent removal of feral goats from surrounding areas through fencing and eradication efforts (Makua Implementation Team 2003, pp. 2–98–2–104).

Eragrostis fosbergii (Fosberg's lovegrass), a perennial in the grass family (Poaceae), is endemic to the Waianae Mountains of Oahu (O'Connor 1999, pp. 1,541–1,542). At the time we designated critical habitat in 2003, there were only four occurrences known, each of a single individual. Currently, these individuals remain, with no reports of regeneration, in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (TNC 2007; HBMP 2008).

Eugenia koolauensis (nioi), a small tree or shrub in the myrtle family (Myrtaceae), is known from Oahu and Molokai (Wagner *et al.* 1999, p. 960). At the time we designated critical habitat in 2003, there were 12 occurrences totaling fewer than 70 individuals in the Waianae and Koolau Mountains of Oahu. Currently, this species is found in the lowland mesic ecosystem in the Waianae Mountains (2 occurrences) and in the Koolau Mountains (11 occurrences), totaling approximately 500 mature individuals (U.S. Army 2006; TNC 2007; HBMP 2008). These individuals are currently threatened by *Puccinia psidii*, a rust fungus that infests plants in the Myrtaceae family (Loope and LaRosa 2007, p. 1).

Euphorbia haeleleana (akoko), a small tree in the spurge family (Euphorbiaceae), is known from Kauai and Oahu (Koutnik and Huft 1999, p. 619). At the time we designated critical habitat in 2003, this species was known from 8 occurrences of approximately 134 individuals, in the Waianae Mountains of Oahu. Currently, there are 6 occurrences totaling 65 individuals in the lowland dry and lowland mesic ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Flueggea neowawraea (mehamehame), a tree in the spurge

family, (Euphorbiaceae) is known from Oahu, Kauai, Maui, and the island of Hawaii, and was possibly historically found on Molokai (Wagner *et al.* 1999, pp. 620–621). At the time we designated critical habitat in 2003, this species was found in the Waianae Mountains of Oahu, in 23 occurrences with a total of 31 individuals. Currently, there are 18 occurrences totaling 36 individuals in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Gardenia mannii (nanu), a tree in the coffee family (Rubiaceae), is endemic to Oahu (Wagner *et al.* 1999, p. 1,133). At the time we designated critical habitat in 2003, there were 49 occurrences in both the Waianae and Koolau Mountains, totaling between 69 and 80 individuals. Currently, 18 occurrences are known (totaling 108 to 110 individuals) in the lowland mesic and lowland wet ecosystems in both mountain ranges (TNC 2007; HBMP 2008).

Gouania meyenii (NCN), a shrub in the buckthorn family (Rhamnaceae), is known from Oahu and Kauai (Wagner *et al.* 1999, pp. 1,095–1,096; NTBG Provenance Report, in litt. 1994, 2 pp.). On Oahu, this species was historically found in the lowland dry and lowland mesic ecosystems of the Waianae Mountains, and the lowland dry ecosystem at Diamond Head (HBMP 2008). At the time we designated critical habitat in 2003, the 4 known occurrences in the Waianae Mountains contained 63 individuals. Currently, this species is found in 3 occurrences totaling fewer than 70 individuals in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Gouania vitifolia (NCN), a climbing shrub in the buckthorn family (Rhamnaceae), is known from Oahu, west Maui, and the island of Hawaii (Wagner *et al.* 1999, p. 1,097). This species is endemic to the Waianae Mountains (Wagner *et al.* 1999, p. 1,097), and was thought to be extirpated from Oahu in the 1990s. However, at the time we designated critical habitat in 2003, *G. vitifolia* was found in 2 occurrences totaling 44 individuals in the Waianae Mountains. Currently, there are 2 occurrences totaling 58 to 64 individuals, within the lowland dry, lowland wet, and dry cliff ecosystems in the Waianae Mountains (HBMP 2008). This species was also historically known from the lowland mesic ecosystem in the Waianae Mountains (HBMP 2008).

Hesperomannia arborescens (NCN), a small tree in the sunflower family

(Asteraceae), is found on Maui, Molokai, and the Koolau Mountains of Oahu, and was historically found on Lanai (Wagner *et al.* 1999, p. 325). At the time we designated critical habitat in 2003, there were 36 occurrences containing between 86 and 93 individuals on Oahu.

Currently, there are 19 occurrences totaling approximately 130 individuals in the lowland mesic and lowland wet ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Hesperomannia arbuscula (NCN), a small tree or shrub in the sunflower family (Asteraceae), is found on Oahu and Maui (Wagner *et al.* 1999, p. 325). At the time we designated critical habitat in 2003, there were 6 occurrences containing between 90 and 92 individuals in the Waianae Mountains of Oahu. Currently, there are 5 occurrences totaling 14 individuals in the lowland mesic and lowland wet ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Hibiscus brackenridgei (mao hau hele), a shrub in the mallow family (Malvaceae), includes 3 subspecies and is known from Kauai, Oahu, Molokai, Lanai, Maui, and the island of Hawaii (Bates 1999, p. 883–884). At the time we designated critical habitat in 2003, *H. brackenridgei* ssp. *brackenridgei* was known from Molokai, Lanai, Maui, and Hawaii. *Hibiscus brackenridgei* ssp. *mokuleianus* was known from Oahu and Kauai. On Oahu, there were fewer than 206 individuals in 5 occurrences in the Waianae Mountains. Also at that time, *H. brackenridgei* ssp. *molokaiana* was known from one occurrence of five individuals in the Waianae Mountains. Currently, *H. brackenridgei* ssp. *mokuleianus* is known from 7 occurrences totaling between 47 and 50 individuals in the lowland dry and lowland mesic ecosystems in the Waianae Mountains (HBMP 2008; TNC 2007; U.S. Army 2006). *Hibiscus brackenridgei* ssp. *molokaiana* is known from 1 occurrence of 32 individuals in the lowland dry and lowland mesic ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Huperzia nutans (formerly *Phlegmariurus nutans*) (wawaeiole), a fern ally in the hanging fir-moss family (Lycopodiaceae), is known from Kauai and Oahu (Palmer 2003, p. 257). At the time we designated critical habitat in 2003, there were 3 occurrences containing 7 individuals in the Koolau Mountains of Oahu. Currently, there are 2 occurrences totaling between 10 to 15 individuals in the lowland wet and wet cliff ecosystems in the Koolau

Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Isodendron laurifolium (aupaka), a shrub in the violet family (Violaceae), is known from Kauai and Oahu (Wagner *et al.* 1999, p. 1,329). This species was historically known from both the Koolau and Waianae Mountains in the lowland mesic ecosystem (HBMP 2008). At the time we designated critical habitat in 2003, there were 5 occurrences totaling between 22 and 23 individuals in the Waianae Mountains of Oahu. Currently, there are 5 known occurrences totaling between 24 and 64 individuals in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Isodendron longifolium (aupaka), a shrub in the violet family (Violaceae), is known from Kauai and Oahu (Wagner *et al.* 1999, pp. 1,329–1,331). At the time we designated critical habitat in 2003, this species was known from 7 occurrences totaling 30 individuals in the Waianae and Koolau Mountains of Oahu. Currently, there are 4 occurrences of *I. longifolium* totaling between 32 and 36 individuals in the lowland mesic and lowland wet ecosystems in the Waianae and Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Isodendron pyriformis (wahine noho kula), a shrub in the violet family (Violaceae), is known from Oahu, Maui, Hawaii, Niihau, Molokai, and Lanai (Wagner *et al.* 1999, p. 1,331). At the time we designated critical habitat in 2003, this species was no longer extant on Oahu. Currently, there are no known occurrences on Oahu; however, *I. pyriformis* was documented in the lowland dry and dry cliff ecosystems in the Waianae Mountains (TNC 2007; HBMP 2008).

Kadua coriacea (formerly *Hedyotis coriacea*) (kioele), a shrub in the coffee family (Rubiaceae), is known from Oahu, Maui, and the island of Hawaii (Wagner *et al.* 1999, p. 1,141). At the time we designated critical habitat in 2003, this species was known only from historical occurrences on Oahu. Currently, there are no known occurrences on Oahu; however, *K. coriacea* is historic to the lowland mesic ecosystem in the Waianae and Koolau Mountains (TNC 2007; HBMP 2008).

Kadua degeneri (formerly *Hedyotis degeneri*) (NCN), a shrub in the coffee family (Rubiaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, pp. 1,141–1,142). Two varieties have been recognized. *Kadua degeneri* var. *coprosimifolia* occurred in the lowland mesic ecosystem until the late 1980s; however, this occurrence may no longer be extant (T. Motley, pers. comm. 2006; HBMP 2008). *Kadua degeneri* var.

degeneri was known from 4 occurrences, totaling 60 individuals at the time we designated critical habitat in 2003, and currently there are 4 to 5 occurrences totaling between 280 and 370 individuals, in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Kadua parvula (formerly *Hedyotis parvula*) (NCN), a small shrub in the coffee family (Rubiaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, pp. 1,149–1,150). At the time we designated critical habitat in 2003, this species was known from 7 occurrences totaling between 116 and 131 individuals. Currently, *K. parvula* is found in 2 occurrences totaling approximately 240 individuals, in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2003, pp. 16–91–16–95; U.S. Army 2006; TNC 2007; HBMP 2008; U.S. Army 2008, p. 2–45).

Labordia cyrtandrae (kamakahala), a shrub in the logania family (Loganiaceae), is endemic to the Waianae and Koolau Mountains of Oahu (Wagner *et al.* 1999, pp. 854–855). At the time we designated critical habitat in 2003, *L. cyrtandrae* was known from the Waianae Mountains, in 10 occurrences containing 20 individuals. Currently, due to an increase in survey efforts over the last 6 years in potentially suitable habitat for this species, there are 3 occurrences totaling 44 individuals in the lowland mesic, lowland wet, montane wet, and wet cliff ecosystems in the Waianae Mountains; and one individual in the lowland wet ecosystem in the Koolau Mountains, with historical occurrences in the lowland mesic and wet cliff ecosystems of the Koolau Mountains (U.S. Army 2006a; U.S. Army 2006b, pp. 3–2–13–3–2–17; TNC 2007; HBMP 2008).

Lepidium arbuscula (anauanau), a shrub in the mustard family (Brassicaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 406). At the time we designated critical habitat in 2003, there were 10 occurrences totaling approximately 1,000 individuals. Currently, there are 9 occurrences totaling fewer than 900 individuals in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Lipochaeta lobata var. *leptophylla* (nehe), a perennial herb in the sunflower family (Asteraceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, pp. 337–338). At the time we designated critical habitat in 2003, this species was known from 4 occurrences totaling 147

individuals. Currently, there are 4 occurrences of approximately 150 individuals in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Lobelia gaudichaudii ssp. *koolauensis* (NCN), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 476). At the time we designated critical habitat in 2003, there were 5 occurrences totaling fewer than 270 individuals. Currently, this species is known from 2 occurrences totaling approximately 280 individuals in bogs in the lowland wet ecosystem in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Lobelia monostachya (NCN), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 478). At the time we designated critical habitat in 2003, *L. monostachya* was known from one occurrence of three individuals. Currently, there are two occurrences (eight individuals) in the lowland mesic ecosystem in the Koolau Mountains (U.S. Army 2006; Oahu PEP Program 2007, p. 33; TNC 2007; HBMP 2008).

Lobelia niihauensis (NCN), a shrub in the bellflower family (Campanulaceae), is known from Oahu, Kauai, and Niihau (Lammers 1999, pp. 478–479). At the time we designated critical habitat in 2003, there were 40 occurrences containing between 362 and 397 individuals in the Waianae Mountains of Oahu. Currently, there are 14 occurrences totaling approximately 400 individuals in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Lobelia oahuensis (NCN), a shrub in the bellflower family (Campanulaceae), is endemic to the Waianae and Koolau Mountains of Oahu (Lammers 1999, p. 479). At the time we designated critical habitat in 2003, this species was known from 12 occurrences totaling 42 individuals. Currently, *L. oahuensis* is found in 7 occurrences totaling 41 individuals in the lowland wet, montane wet, and wet cliff ecosystems in the Waianae Mountains; and in the lowland wet and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Lysimachia filifolia (NCN), a small shrub in the primrose family (Primulaceae; Wagner and Herbst 2003, p. 67), is found on Kauai and Oahu (Wagner *et al.* 1999, p. 1,080). At the time we designated critical habitat in 2003, this species was known from 1 occurrence containing 50 individuals in the Koolau Mountains of Oahu.

Currently, *L. filifolia* is found in 2 to 3 occurrences totaling between 50 and 160 individuals in the wet cliff ecosystem in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Marsilea villosa (ihi ihi), a fern in the water clover fern family (Marsiliaceae), is known from Niihau, Molokai, and Oahu (Palmer 2003, pp. 180–182). At the time we designated critical habitat in 2003, this species was known from five occurrences of an unknown number of individuals on Oahu. Currently, *M. villosa* is found in five to six occurrences of an unknown number of individuals in seasonal wetlands of the coastal and lowland dry ecosystems in the Waianae and Koolau Mountains (TNC 2007; HBMP 2008; M. Chau, University of Hawaii, pers. comm. 2009).

Melanthera tenuifolia (formerly *Lipochaeta tenuifolia*) (nehe), a perennial herb in the sunflower family (Asteraceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 343). At the time we designated critical habitat in 2003, this species was known from 41 occurrences containing between 759 and 1,174 individuals. Currently, *M. tenuifolia* is found in 11 occurrences totaling as many as 4,000 individuals in the lowland dry, lowland mesic, and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Melicope lydgatei (alani), a small shrub in the rue family (Rutaceae), is endemic to the Koolau Mountains of Oahu (Stone *et al.* 1999, p. 1,193). At the time we designated critical habitat in 2003, this species was known from 18 occurrences containing an unknown number of individuals. Currently, *M. lydgatei* is found in 5 occurrences totaling 26 individuals in the lowland mesic and lowland wet ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Melicope pallida (alani), a tree in the rue family (Rutaceae), is known from Kauai and Oahu (Stone *et al.* 1999, pp. 1,198–1,199). At the time we designated critical habitat in 2003, this species was known from one individual in the Waianae Mountains of Oahu. Currently, one individual is found in the lowland mesic ecosystem in the Waianae Mountains (TNC 2007; HBMP 2008).

Melicope saint-johnii (alani), a tree in the rue family (Rutaceae), is endemic to the Waianae and Koolau Mountains of Oahu (Stone *et al.* 1999, pp. 1,203–1,204). At the time we designated critical habitat in 2003, there were no individuals in the Koolau Mountains, and 6 occurrences totaling fewer than 170 individuals in the Waianae

Mountains. Currently, *M. saint-johnii* is found in the lowland mesic and dry cliff ecosystems of the Waianae Mountains, in 2 occurrences totaling as many as 162 individuals (TNC 2007; HBMP 2008). Historically, this species also occurred in the lowland mesic ecosystem in the Koolau Mountains.

Myrsine juddii (kolea), a shrub in the myrsine family (Myrsinaceae), is endemic to the Koolau Mountains of Oahu (Wagner *et al.* 1999, pp. 940–941). At the time we designated critical habitat in 2003, this species was known from 3 occurrences with an estimated 5,000 individuals. Currently, there is a single wide-ranging occurrence, estimated to contain 3,000 individuals, in the lowland wet ecosystem in the Koolau Mountains (U.S. Army 2005, p. 16–123; HBMP 2008).

Neraudia angulata (NCN), a shrub in the nettle family (Urticaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, pp. 1,302–1,303). At the time we designated critical habitat in 2003, the two recognized varieties, *N. angulata* var. *angulata* and *N. angulata* var. *dentata*, were found in 27 occurrences totaling 51 individuals. Currently, there are 4 occurrences (106 individuals) considered to be *N. angulata* var. *angulata*, and 2 occurrences (3 individuals) considered to be *N. angulata* var. *dentata*. Intermediate forms of the two varieties are found in 2 occurrences totaling over 100 individuals. The six occurrences are found in the lowland dry, lowland mesic, and dry cliff ecosystems in the Waianae Mountains. The numbers of individuals in each occurrence vary widely from year to year (U.S. Army 2003, pp. 16–116–16–119; U.S. Army 2006, pp. 3–1–129–3–1–139; TNC 2007; HBMP 2008).

Nototrichium humile (kului), a shrub in the amaranth family (Amaranthaceae), is known from Oahu and east Maui (Wagner *et al.* 1999, pp. 193–194). At the time we designated critical habitat in 2003, there were 25 occurrences containing between 775 and 995 individuals in the Waianae Mountains of Oahu. Currently, there are 12 occurrences totaling over 1,000 individuals in the lowland dry, lowland mesic, and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006a; U.S. Army 2006b, pp. 3–1–140–3–1–146; TNC 2007; HBMP 2008).

Peucedanum sandwicense (makou), a perennial herb in the parsley family (Apiaceae), is known from Kauai, Molokai, Maui, and Oahu (Constance and Affolter 1999, p. 208; HBMP 2008). At the time we designated critical habitat in 2003, this species was found

in 4 occurrences containing 51 individuals in the Waianae Mountains of Oahu. Currently, there are 2 occurrences totaling 61 individuals in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Phyllostegia hirsuta (NCN), a subshrub or vine in the mint family (Lamiaceae), is endemic to the Waianae and Koolau Mountains of Oahu (Wagner *et al.* 1999, p. 817). At the time we designated critical habitat in 2003, this species was known from 26 occurrences totaling between 214 and 227 individuals in the Waianae and Koolau Mountains. Currently, there are 9 occurrences totaling approximately 160 individuals in the lowland mesic, lowland wet, and wet cliff ecosystems in both the Waianae and Koolau Mountains; and in the montane wet ecosystem in the Waianae Mountains (U.S. Army 2006a; U.S. Army 2006b, pp. 3–2–24–3–2–28; TNC 2007; HBMP 2008).

Phyllostegia kaalaensis (NCN), an herb in the mint family (Lamiaceae), is endemic to the Waianae Mountains of Oahu (Wagner 1999, p. 270). At the time we designated critical habitat in 2003, this species was known from 7 occurrences containing fewer than 45 individuals. All of those occurrences (in the lowland mesic and dry cliff ecosystems in the Waianae Mountains) have since then been extirpated. However, there are 14 individuals outplanted in 4 locations in the Waianae Mountains (U.S. Army 2006, pp. 3–1–147–3–1–152).

Phyllostegia mollis (NCN), a perennial herb in the mint family (Lamiaceae), is known from Molokai, Maui, and Oahu (Wagner *et al.* 1999, p. 821). This species was historically known from both the Koolau and Waianae Mountains. At the time we designated critical habitat in 2003, this species was found in 5 occurrences totaling between 85 and 105 individuals only in the Waianae Mountains of Oahu. Currently, *P. mollis* is known from 6 occurrences totaling between 42 and 92 individuals in the lowland mesic and lowland wet ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Phyllostegia parviflora (NCN), a perennial herb in the mint family (Lamiaceae), is known from Oahu, Maui, and the island of Hawaii (Wagner *et al.* 1999, pp. 821–822; Wagner 1999, p. 273). There are three recognized varieties: *Phyllostegia parviflora* var. *glabriuscula* is known only from the island of Hawaii; *P. parviflora* var. *parviflora* is found on Maui and the Koolau Mountains of Oahu; *P.*

parviflora var. *lydgatei* is known from Oahu's Waianae Mountains. At the time we designated critical habitat in 2003, *P. parviflora* var. *parviflora* was known from 30 individuals in 1 occurrence in the Koolau Mountains, and *P. parviflora* var. *lydgatei* was known from 4 individuals in the lowland mesic ecosystem in the Waianae Mountains. Currently, all four wild individuals of *P. parviflora* var. *lydgatei* in the Waianae Mountains are extirpated; however, 100 individuals have been outplanted (TNC 1997, p. A-10; D. Sailer, TNC, in litt. 2006). *Phyllostegia parviflora* var. *parviflora* is known from approximately 100 individuals in the lowland wet and wet cliff ecosystems in the Koolau Mountains, and from historic occurrences in the lowland mesic ecosystem in the Koolau Mountains (NTBG 2007; HBMP 2008).

Plantago princeps (laukahi kuahiwi), a small shrub or perennial herb in the plantain family (Plantaginaceae), is known from Kauai, Oahu, Maui, and Molokai, and occurred historically on the island of Hawaii. *Plantago princeps* is subdivided into four varieties: *P. princeps* var. *anomala* (Kauai), *P. princeps* var. *laxifolia* (Molokai, Maui, Hawaii), *P. princeps* var. *longibracteata* (Kauai and Oahu), and *P. princeps* var. *princeps* (Oahu). At the time we designated critical habitat in 2003, *P. princeps* var. *longibracteata*, known from the lowland wet ecosystem, was no longer extant on Oahu (TNC 2007; HBMP 2008). *Plantago princeps* var. *princeps* was known from 11 occurrences containing between 130 and 180 individuals. Currently, only *P. princeps* var. *princeps* is extant on Oahu, in 72 occurrences totaling between 159 and 232 individuals, in the lowland mesic, lowland wet, and dry cliff ecosystems in the Waianae Mountains, and in the lowland wet and wet cliff ecosystems in the Koolau Mountains. This taxon historically also occurred in the lowland mesic ecosystem in the Koolau Mountains (TNC 2007; HBMP 2008).

Platanthera holochila (NCN), an herb in the orchid family (Orchidaceae), is known from Kauai, Oahu, Molokai, and Maui (Wagner *et al.* 1999, p. 1,474). This species was last collected on Oahu in 1938, in bog hummocks in the lowland wet ecosystem in the Koolau Mountains (TNC 2007; HBMP 2008).

Pteris lidgatei (NCN), a terrestrial fern in the maidenhair fern family (Adiantaceae), is known from Maui, Molokai, and Oahu (Wagner 1949, p. 445; Palmer 2003, pp. 227-229). At the time we designated critical habitat in 2003, this species was found in 9 occurrences totaling 13 individuals in

the Koolau Mountains of Oahu. Currently, there are 5 occurrences totaling between 17 and 24 individuals in the lowland wet ecosystem in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Sanicula mariversa (NCN), a perennial herb in the parsley family (Apiaceae), is endemic to the Waianae Mountains of Oahu (Constance and Affolter, pp. 209-210). At the time we designated critical habitat in 2003, this species was known from 4 occurrences containing approximately 170 individuals. Currently, *S. mariversa* is found in 2 occurrences totaling as many as 188 individuals in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006a; U.S. Army 2006b, pp. 3-1-169-3-1-174; TNC 2007; HBMP 2008).

Sanicula purpurea (NCN), a stout perennial herb in the parsley family (Apiaceae), is known from Maui and Oahu (Constance and Affolter 1999, p. 210). At the time we designated critical habitat in 2003, there were 5 occurrences totaling 21 individuals in the Koolau Mountains. Currently, *S. purpurea* is found in 5 occurrences totaling 24 individuals in bogs in the lowland wet ecosystem and in the wet cliff ecosystem in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Schiedea hookeri (NCN), a perennial herb in the pink family (Caryophyllaceae), is known from Oahu and from a fragmentary collection from Maui that may represent a different species (Wagner *et al.* 1999, p. 514). At the time we designated critical habitat in 2003, this species was known from 17 occurrences containing between 328 and 378 individuals in the Waianae Mountains of Oahu. Currently, *S. hookeri* is found in 17 occurrences totaling approximately the same number of individuals, in the lowland dry, lowland mesic, lowland wet, dry cliff, and wet cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Schiedea kaalae (NCN), a nearly stemless plant in the pink family (Caryophyllaceae), is endemic to the Waianae and Koolau Mountains of Oahu (Wagner *et al.* 1999, p. 515). At the time we designated critical habitat in 2003, this species was known from 7 occurrences totaling 49 individuals in the Waianae and Koolau Mountains. Currently, *S. kaalae* is found in 9 occurrences totaling 40 individuals, in the lowland mesic, lowland wet, and wet cliff ecosystems in the Waianae Mountains, and in the lowland mesic and wet cliff ecosystems in the Koolau

Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Schiedea kealiae (maolioli), a subshrub in the pink family (Caryophyllaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 515). At the time we designated critical habitat in 2003, this species was known from 4 occurrences totaling between 265 and 315 individuals in the Waianae Mountains. Currently, *S. kealiae* is found in 1 occurrence totaling between 50 and 100 individuals, in the lowland dry ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008). Historic occurrences were known from the coastal ecosystem (HBMP 2008).

Schiedea nuttallii (NCN), a subshrub in the pink family (Caryophyllaceae), is known from Kauai, Oahu, Molokai, and Maui (Wagner *et al.* 1999, pp. 517-519). At the time we designated critical habitat in 2003, this species was found in 7 occurrences with 49 individuals in the Waianae Mountains. Currently, there are 2 occurrences totaling between 41 and 54 individuals in the lowland mesic ecosystem in the Waianae Mountains (U.S. Army 2006a; TNC 2007; HBMP 2008). Historical occurrences of this species were also known from the lowland mesic ecosystem in the Koolau Mountains (TNC 2007; HBMP 2008).

Schiedea obovata (formerly *Alsinidendron obovatum*) (NCN), a subshrub in the pink family (Caryophyllaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 501). At the time we designated critical habitat in 2003, *S. obovata* was known from 6 occurrences containing 8 to 10 individuals in the Waianae Mountains. Currently, this species is found in 2 to 3 occurrences, totaling between 14 and 44 individuals, in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006a; U.S. Army 2006b, pp. 3-1-190-3-1-197; TNC 2007; HBMP 2008).

Schiedea trinervis (formerly *Alsinidendron trinerve*) (NCN), a subshrub in the pink family (Caryophyllaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 501). At the time we designated critical habitat in 2003, this species was known from 13 occurrences totaling between 18 and 34 individuals. Currently, *S. trinervis* is found in 2 occurrences, totaling 192 individuals, in the montane wet, dry cliff, and wet cliff ecosystems in the Waianae Mountains (U.S. Army 2006a; U.S. Army 2005, pp. 16-151-16-153; TNC 2007; HBMP 2008).

Sesbania tomentosa (ohai), a shrub in the pea family (Fabaceae), is known from all of the main Hawaiian Islands, and from the Northwestern Hawaiian Islands of Necker and Nihoa (Geesink *et al.* 1999, pp. 704–705). At the time we designated critical habitat in 2003, this species was known from Kauai, Oahu, Molokai, Kahoolawe, Maui, Hawaii, Nihoa, and Necker. On Oahu, *S. tomentosa* was found in 3 occurrences totaling 55 individuals. Currently on Oahu, there are 2 outplanted occurrences totaling approximately 30 individuals in the coastal ecosystem at Kaena Point and Kaohikaipu islet (U.S. Army 2006; TNC 2007; HBMP 2008).

Silene lanceolata (NCN), a subshrub in the pink family (Caryophyllaceae), is known from Kauai, Oahu, Lanai, Molokai, and Hawaii (Wagner *et al.* 1999, p. 523). At the time we designated critical habitat in 2003, there were 4 occurrences with a total of 62 individuals in the Waianae Mountains of Oahu. Currently, *S. lanceolata* is found in 3 occurrences totaling between 100 and 130 individuals, in the dry cliff ecosystem in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Silene perlmannii (NCN), a subshrub in the pink family (Caryophyllaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, pp. 523–524). Historical occurrences of this species were known from the lowland mesic and dry cliff ecosystems (HBMP 2008). At the time we designated critical habitat in 2003, this species was presumed extirpated. Currently, *S. perlmannii* is in propagation, and 15 individuals were outplanted in the Honouliuli Preserve between 2003 and 2006. However, as of 2007, only three plants were extant (D. Sailer, TNC, pers. comm. 2007).

Solanum sandwicense (popolo aiakeakua), a shrub in the nightshade family (Solanaceae), is known from Kauai and the lowland mesic ecosystem in the Waianae and Koolau Mountains of Oahu (Symon 1999, p. 1,275). This species was last observed on Oahu in 2000, in the Waianae Mountains. Currently, there are at least six outplantings of this species totaling an unknown number of individuals in the Waianae Mountains (PEP Program 2007, p. 27; TNC 2007; HBMP 2008).

Spermolepis hawaiiensis (NCN), an annual herb in the parsley family (Apiaceae), is known from Oahu and Maui (Constance and Affolter 1999, p. 212). At the time we designated critical habitat in 2003, there were 6 occurrences totaling between 110 and 910 individuals in the Waianae and Koolau Mountains (Diamond Head), in

the lowland dry and dry cliff ecosystems (U.S. Army 2006; HBMP 2008). Currently, *S. hawaiiensis* is found in 4 occurrences totaling several hundred to thousands of individuals, depending on annual weather conditions (U.S. Army 2006; TNC 2007; HBMP 2008).

Stenogyne kanehoana (NCN), a vine in the mint family (Lamiaceae), is endemic to the Waianae Mountains of Oahu (Weller and Sakai 1999, pp. 838–839). At the time we designated critical habitat in 2003, this species was known from a recently extirpated occurrence of two individuals, and a newly discovered occurrence (in 2000) of one to six individuals in the lowland mesic ecosystem in the Waianae Mountains. Currently, the occurrence discovered in 2000 is no longer extant; however, another individual was discovered in 2004, and may persist at this time (U.S. Army 2005, pp. 16–155–16–157; U.S. Army 2006a; TNC 2007; HBMP 2008).

Tetramolopium filiforme (NCN), a dwarf shrub in the sunflower family (Asteraceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 366). At the time we designated critical habitat in 2003, there were 21 occurrences containing 253 individuals. Currently, this species is found in the dry cliff ecosystem in the Waianae Mountains, in 6 occurrences totaling almost 3,000 individuals (U.S. Army 2006b, pp. 3–1–198–3–1–204; TNC 2007; HBMP 2008). The large increase in the number of individuals is likely due to an increase in survey efforts over the past 6 years in potentially suitable habitat for this species (U.S. Army 2006b, p. 3–1–202).

Tetramolopium lepidotum ssp. *lepidotum* (NCN), a shrub in the sunflower family (Asteraceae), is known from Lanai, Maui, and Oahu (Wagner *et al.* 1999, p. 367). At the time we designated critical habitat in 2003, there were 5 occurrences of approximately 15 individuals in the Waianae Mountains of Oahu. Currently, this species is found in 3 occurrences totaling 65 individuals, in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Tetraplasandra gymnocarpa (oho ohe), a tree in the ginseng family (Araliaceae), is endemic to the Koolau Mountains of Oahu, and was historically known from one location in the Waianae Mountains (Lowry 1999, p. 234). At the time we designated critical habitat in 2003, there were 30 occurrences totaling fewer than 100 individuals in the Koolau Mountains. Currently, there are 13 occurrences totaling approximately 140 individuals

in the lowland mesic, lowland wet, and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Trematolobelia singularis (NCN), a shrub in the bellflower family (Campanulaceae), is endemic to the Koolau Mountains of Oahu (Lammers 1999, p. 488). At the time we designated critical habitat in 2003, there were 3 occurrences totaling 165 individuals. Currently, *T. singularis* is found in 4 occurrences totaling approximately 360 individuals in the lowland wet and wet cliff ecosystems in the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Ureva kaalae (opuhe), a small tree or shrub in the nettle family (Urticaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, pp. 1,313–1,314). At the time we designated critical habitat in 2003, there were 12 occurrences containing 41 individuals. Currently, *U. kaalae* is found in 4 occurrences totaling between 49 and 60 individuals, in the lowland mesic and lowland wet ecosystems in the Waianae Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Vigna o-wahuensis (NCN), a twining annual or perennial herb in the pea family (Fabaceae), is known from Nihoa, Oahu, Molokai, Lanai, Kahoolawe, Maui, and Hawaii (Geesink *et al.* 1999, p. 720). The last collection from Oahu was made on the Mokulua Islets and North Islet, off Oahu's northeastern coast, in 1938, in the coastal ecosystem (HBMP 2008). At the time we designated critical habitat in 2003, there were no known occurrences, and currently, there are still no known occurrences on Oahu's offshore islets (TNC 2007; HBMP 2008).

Viola chamissoniana ssp. *chamissoniana* (pamakani), a shrub in the violet family (Violaceae), is endemic to the Waianae Mountains of Oahu (Wagner *et al.* 1999, p. 1,333). At the time we designated critical habitat in 2003, there were 15 occurrences containing 59 individuals. Currently, this species is found in 8 occurrences totaling slightly more than 600 individuals in the lowland mesic and dry cliff ecosystems in the Waianae Mountains (U.S. Army 2006b, pp. 3–1–205–3–1–210; TNC 2007; HBMP 2008).

Viola oahuensis (NCN), a subshrub in the violet family (Violaceae), is endemic to the Koolau Mountains of Oahu (Wagner *et al.* 1999, p. 1,336). At the time we designated critical habitat in 2003, there were 18 occurrences totaling fewer than 200 individuals. Currently, there are 8 occurrences totaling approximately 170 individuals in the lowland wet and wet cliff ecosystems in

the Koolau Mountains (U.S. Army 2006; TNC 2007; HBMP 2008).

Methods

As required by section 4(b) of the Act, we used the best scientific data available in determining those areas that contain the physical or biological features essential to the conservation of the 124 species, and for which designation of critical habitat is considered prudent, by identifying the occurrence data for each species and determining the ecosystems upon which they depend. This information was developed by using:

- The known locations of the 124 species, including site-specific species information from the HBMP database (HBMP 2008), the Army Environmental Division database (U.S. Army 2006), and our own rare plant database;
- Species information from the plant database housed at NTBC;
- Oahu map of important habitat for the recovery of plants protected under the Act (Service 1999, p. F-7);
- The Nature Conservancy's Ecoregional Assessment of the Hawaiian High Islands (2006) and ecosystem maps (2007);
- Color mosaic 1:19,000 scale digital aerial photographs for the Hawaiian Islands (April to May 2005);
- Island-wide Geographic Information System (GIS) coverage (e.g., Gap Analysis Program (GAP) vegetation data of 2005);
- 1:24,000 scale digital raster graphics of U.S. Geological Survey (USGS) topographic quadrangles;
- Geospatial data sets associated with parcel data from Honolulu County (2008);
- Final critical habitat designation for listed plant species on the island of Oahu (June 17, 2003, 68 FR 35950);
- Recent biological surveys and reports; and
- Discussions with qualified individuals familiar with these species and ecosystems (HBMP 2008; TNC 2007; NTBC 2007; PEP 2007; D. Polhemus, pers. comm. 2008; A. Bakutis, in litt. 2006).

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and the regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied at the time of listing to propose as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. These physical or biological features provide the essential life-

history requirements of the species, and include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
 - (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
 - (3) Cover or shelter;
 - (4) Sites for breeding, reproduction, rearing (or development) of offspring, germination, or seed dispersal; and
 - (5) Habitats that are protected from disturbance or are representative of the historical geographical and ecological distributions of a species.
- (6) For plant species, ecosystems that provide appropriate seasonal wetland and dry land habitats, host species, pollinators, soil types, and associated plant communities are taken into consideration when determining the physical or biological features essential for a species.

Under section 4(a)(3)(A)(ii) of the Act we may, as appropriate, revise a critical habitat designation. For the reasons described above, we are proposing to revise critical habitat for 99 Oahu plants based on new information received since 2003 and the need to designate unoccupied habitat to conserve the species. In addition, the Recovery Plan for the Oahu Plants (Service 1998, p. vii) identifies several actions needed to recover these species, including: (1) Protection of habitat and controlling threats; (2) expanding existing wild populations; (3) conducting essential research; (4) developing and maintaining monitoring plans; (5) reestablishing wild populations within the historic range; and (6) validating and revising recovery criteria. We have derived the specific physical or biological features required for each of the 99 Oahu plants based on studies of their habitat, ecology, and life history; information in the 2003 critical habitat designations; and new scientific information that has become available since that time.

In 2003, the physical or biological features for each plant species were defined on the basis of the habitat features of the areas actually occupied by the plants, which included plant community, associated native plant species, locale information (e.g., steep rocky cliffs, talus slopes, gulches, stream banks), and elevation (68 FR 35950; June 17, 2003). No unoccupied habitat was designated as critical habitat in the 2003 final rule. In this proposed rule, we are proposing critical habitat in areas occupied by the species as well as areas currently unoccupied by the species but determined to be essential for their conservation (i.e., areas

necessary to bring the species to the point at which the measures provided under the Act are no longer necessary). The physical or biological features have also been more precisely identified, and now include elevation, precipitation, substrate, canopy, subcanopy, and understory characteristics. Since 2003, we have found that many areas where these species are currently or recently reported are marginal habitat; the species occurs in these areas due to remoteness or inaccessibility to feral ungulates.

Since the 2003 critical habitat designations were limited to occupied areas only, the designation did not include all of the geographic areas essential for the conservation of the species. For occupied areas, the essential physical or biological features are the focus for necessary special management considerations or protections, whereas for unoccupied habitat, the area itself is the focus for conservation actions. We have determined that the physical or biological features described in 2003 can be improved to better identify special management considerations that may be necessary, based on new information that has become available. The currently proposed physical or biological features for occupied areas, in conjunction with the unoccupied areas needed to expand and reestablish wild populations within the historic range, provide a more comprehensive view of the recovery needs and relevant geographic areas for each species. We believe this information will be helpful to federal agencies and our other partners, as we collectively work to recover these imperiled species.

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of the 124 species for which we are proposing critical habitat. We identify these features in areas occupied by the species at the time of listing, focusing on the features' primary constituent elements. We consider the primary constituent elements (PCEs) to be the elements of physical and biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species. The appropriate quantity and spatial arrangement defined for this proposed rule takes into consideration the ecosystems in which each species occurs and reflects a distribution that we believe achieves the species' recovery needs within those ecosystems. In this proposal, PCEs for each of the

124 species are defined based on those physical or biological features essential to support the successful functioning of the ecosystem upon which each species depends, and which may require special management considerations or protection. As the conservation of each species is dependent upon a functioning ecosystem to provide its fundamental life requirements, such as a certain soil type, minimum level of rainfall, or suitable water quantity (damselflies), we consider the physical or biological features present in the ecosystems described in this proposed rule to provide the necessary PCEs for each species in this proposal. The ecosystems' features collectively provide the suite of environmental conditions within each ecosystem essential to meeting the requirements of each species, including the appropriate microclimatic conditions for germination and growth of the plants (e.g., light availability, soil nutrients, hydrologic regime, temperature); adequate instream flows and upland habitat for cover and foraging for the damselfly species; maintenance of upland habitat so that it provides for the proper ecological functioning of streams

for the damselflies (e.g., water quality, water temperature); and in all cases, space within the appropriate habitats for population growth and expansion, as well as to maintain the historical, geographical, and ecological distribution of each species. In many cases, due to our limited knowledge of the specific life-history requirements for these species, which are little-studied and occur in remote and inaccessible areas, the more general description of the physical or biological features that provide for the successful function of the ecosystem that is essential to the conservation of the species represents the best scientific information available. Accordingly, for purposes of this proposed rule, the physical or biological features of a properly functioning ecosystem are the physical or biological features essential to the conservation of the 124 species at issue here that occur in those ecosystems.

Table 4 identifies the physical or biological features of a functioning ecosystem for each of the ecosystem types identified in this proposed rule, and each species identified in this proposed rule requires the physical or biological features for each ecosystem in

which that species occurs, as noted in Table 5. These physical or biological features provide the PCEs for the individual species in each ecosystem. The physical or biological features are defined here by elevation, annual levels of precipitation, substrate type and slope, and the characteristic native plant genera that are found in the canopy, subcanopy, and understory levels of the vegetative community where applicable. If further information is available indicating additional, specific life-history requirements for some species, PCEs relating to these requirements are described separately, and are termed "unique PCEs for species," and are identified in Table 5. The PCEs for each species are therefore composed of the physical or biological features found in its functioning ecosystem(s) in combination with additional unique requirements, if any, as shown in Table 5. Note that the PCEs identified in Table 5 for each species are directly related to the physical or biological features presented in detail in Table 4; thus, both Tables 4 and 5 must be read together to fully describe all of the PCEs for each species.

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TABLE 4.—PHYSICAL OR BIOLOGICAL FEATURES IN EACH ECOSYSTEM (READ IN ASSOCIATION WITH TABLE 5)

Physical or Biological Features						
Ecosystem	Elevation	Annual Precipitation	Substrate	Associated native plant genera		
				Canopy	Subcanopy	Understory
Coastal ¹	< 980 ft (< 300 m)	< 20 in (50 cm)	Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats	<u>Hibiscus</u> , <u>Myoporum</u> , <u>Santalum</u> , <u>Scaevola</u>	<u>Gossypium</u> , <u>Sida</u> , <u>Vitex</u>	<u>Eragrostis</u> , <u>Jacquemontia</u> , <u>Lycium</u> , <u>Nama</u> , <u>Sesuvium</u> , <u>Sporobolus</u> , <u>Vigna</u>
Lowland Dry ²	< 3,300 ft (< 1,000 m)	< 50 in (130 cm)	Weathered silty loams to stony clay, rocky ledges, little- weathered lava	<u>Diospyros</u> , <u>Myoporum</u> , <u>Pleomele</u> , <u>Santalum</u> , <u>Sapindus</u>	<u>Chamaesyce</u> , <u>Dodonaea</u> , <u>Leptecophylla</u> , <u>Osteomeles</u> , <u>Psudrax</u> , <u>Scaevola</u> , <u>Wikstroemia</u>	<u>Alyxia</u> , <u>Artemisia</u> , <u>Bidens</u> , <u>Chenopodium</u> , <u>Nephrolepis</u> , <u>Peperomia</u> , <u>Sicyos</u>

Lowland Mesic ³	< 3,300 ft (<1,000 m)	50-75 in (130-190 cm)	Shallow soils, little to no herbaceous layer	<u>Acacia</u> , <u>Diospyros</u> , <u>Metrosideros</u> , <u>Myrsine</u> , <u>Pouteria</u> , <u>Santalum</u>	<u>Dodonaea</u> , <u>Frevinetia</u> , <u>Leptecophylla</u> , <u>Melanthera</u> , <u>Osteomeles</u> , <u>Pleomele</u> , <u>Psychrax</u>	<u>Carex</u> , <u>Dicranopteris</u> , <u>Diplazium</u> , <u>Elaphoglossum</u> , <u>Peperomia</u>
Lowland Wet ⁴	< 3,300 ft (<1,000 m)	> 75 in (> 190 cm)	Clays; ashbeds; deep well-drained soils; lowland bogs	<u>Antidesma</u> , <u>Metrosideros</u> , <u>Myrsine</u> , <u>Pisonia</u> , <u>Psychotria</u>	<u>Cibotium</u> , <u>Claoxylon</u> , <u>Kadua</u> , <u>Melicope</u>	<u>Alyxia</u> , <u>Cyrtandra</u> , <u>Dicranopteris</u> , <u>Diplazium</u> , <u>Machaerina</u> , <u>Microlepia</u>
Montane Wet ⁵	3, 300 to 6,500 ft (1,000 to 2,000 m)	> 75 in (> 190 cm)	Well-developed soils, montane bogs	<u>Acacia</u> , <u>Charpentiera</u> , <u>Cheirodendron</u> , <u>Metrosideros</u>	<u>Broussaisia</u> , <u>Cibotium</u> , <u>Eurya</u> , <u>Ilex</u> , <u>Myrsine</u>	Ferns, <u>Carex</u> , <u>Coprosma</u> , <u>Leptecophylla</u> , <u>Oreobolus</u> , <u>Rhynchospora</u> , <u>Vaccinium</u>
Dry Cliff ⁶	unrestricted	< 75 in (< 190 cm)	> 65 degree slope, rocky talus	none	<u>Antidesma</u> , <u>Chamaesyce</u> , <u>Diospyros</u> , <u>Doonaea</u>	<u>Bidens</u> , <u>Eragrostis</u> , <u>Melanthera</u> , <u>Schiedea</u>
Wet Cliff ⁷	unrestricted	> 75 in (> 190 cm)	> 65 degree slope, shallow soils, weathered lava	none	<u>Broussaisia</u> , <u>Cheirodendron</u> , <u>Leptecophylla</u> , <u>Metrosideros</u>	Ferns, Bryophytes, <u>Coprosma</u> , <u>Dubautia</u> , <u>Kadua</u> , <u>Peperomia</u>

¹ The physical or biological features for species in the Coastal ecosystem apply to the following ecosystem units: Oahu-Coastal—Units 1–15.

² The physical or biological features for species in the Lowland Dry ecosystem apply to the following plant ecosystem units: Oahu-Lowland Dry—Units 1–11.

³ The physical or biological features for species in the Lowland Mesic ecosystem apply to the following plant ecosystem units: Oahu-Lowland Mesic—Units 1–7, and to the following damselfly ecosystem units: *Megalagrion oceanicum* Unit 1—Lowland Mesic.

⁴ The physical or biological features for species in the Lowland Wet ecosystem apply to the following plant ecosystem units: Oahu-Lowland Wet—Units 1–16, and to the following damselfly ecosystem units: *Megalagrion leptodemas* Units 1–11—Lowland Wet, *M. nigrohamatum nigrolineatum* Units 1–11—Lowland Wet, and *M. oceanicum* Units 2–12—Lowland Wet.

⁵ The physical or biological features for species in the Montane Wet ecosystem apply to the following plant ecosystem units: Oahu-Montane Wet—Unit 1.

⁶ The physical or biological features for species in the Dry Cliff ecosystem apply to the following plant ecosystem units: Oahu-Dry Cliff—Units 1–8.

⁷ The physical or biological features for species in the Wet Cliff ecosystem apply to the following plant ecosystem units: Oahu-Wet Cliff—Units 1–8, and to the following damselfly ecosystem units: *Megalagrion leptodemas* Units 12–14—Wet Cliff, *M. oceanicum* Units 13–15—Wet Cliff.

TABLE 5.—PRIMARY CONSTITUENT ELEMENTS FOR THE OAHU SPECIES ARE A COMBINATION OF THE PHYSICAL OR BIOLOGICAL FEATURES (SEE TABLE 4) IN THE APPLICABLE ECOSYSTEM(S) AS WELL AS UNIQUE PCEs FOR SPECIES, IF ANY ARE IDENTIFIED

	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
Plants								
<i>Abutilon sandwicense</i>			X			X		
<i>Achyranthes splendens</i> var. <i>rotundata</i>	X	X				X		
<i>Adenophorus periens</i>				X			X	
<i>Alectryon macrococcus</i>			X		X	X		
<i>Bidens amplexiens</i>	X	X						
<i>Bonamia menziesii</i>		X	X			X		

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	Coastal	Lowland		Lowland Mesic	Lowland Wet	Montane		Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry	Wet			Wet	Wet			
<i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i>		X								coral outcrop substrate
<i>Colubrina oppositifolia</i>				X						4
<i>Ctenitis squamigera</i>				X						
<i>Cyanea acuminata</i>				X	X		X		X	
<i>Cyanea calycina</i>				X	X		X		X	
<i>Cyanea crispa</i>				X	X				X	
<i>Cyanea grimesiana</i> ssp.				X	X					

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	Coastal	Lowland		Lowland Mesic	Lowland		Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry			Wet					
<u>Cyanea purpurellifolia</u>					X				X	
<u>Cyanea st.-johnii</u>					X				X	
<u>Cyanea superba</u>				X						
<u>Cyanea truncata</u>				X					X	
<u>Cyperus pennatifolius</u>				X						
<u>Cyperus trachysanthos</u>	X		X							seasonal wetlands
<u>Cyrtandra dentata</u>				X					X	

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	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
<i>Cyrtandra gracilis</i>				X				
<i>Cyrtandra kautanaha</i>				X			X	
<i>Cyrtandra pohianaha</i>			X	X				
<i>Cyrtandra sessilis</i>				X			X	
<i>Cyrtandra subumbellata</i>				X			X	
<i>Cyrtandra viridiflora</i>				X			X	

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	Coastal	Lowland		Lowland		Lowland		Montane		Dry		Wet		Unique PCEs for Species
		Dry	Mesic	Wet	Wet	Wet	Cliff	Cliff	Wet	Cliff				
<i>Cyrtandra waiolani</i>			X	X										
<i>Delissea subcordata</i>			X											
<i>Diellia erecta</i>			X											
<i>Diellia falcata</i>			X								X			
<i>Diellia unisora</i>			X								X			
<i>Diplazium molokaitense</i>			X										X	
<i>Doryopteris takenuchii</i>							X							

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	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
<i>Dubautia herbstobatae</i>			X			X		
<i>Eragrostis fosbergii</i>			X			X		
<i>Eugenia koolauensis</i>			X					
<i>Euphorbia haelealeana</i>		X	X					
<i>Flueggea neowawraea</i>			X			X		
<i>Gardenia marnii</i>			X					X

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	Coastal	Lowland		Lowland Mesic	Lowland		Montane		Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry	Mesic		Wet	Wet					
<i>Gouania meyenii</i>		X	X	X					X		
<i>Gouania vitifolia</i>		X	X	X	X				X		
<i>Hesperomannia arborescens</i>			X	X	X						
<i>Hesperomannia arbuscula</i>			X	X	X						
<i>Hibiscus brackenridgei</i>		X	X	X							
<i>Huperzia nutans</i>					X					X	
<i>Isodendron laurifolium</i>			X	X						X	

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	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
<i>Isodendron longifolium</i>			X	X				
<i>Isodendron pyriform</i>		X				X		
<i>Kadua coriacea</i>			X					
<i>Kadua degeneri</i>			X			X		
<i>Kadua parvula</i>			X			X		
<i>Korihalsella degeneri</i>						X		host plants <i>Sapindus oahuensis</i> and <i>Nestegis sandwicensis</i>

TABLE 5.—PRIMARY CONSTITUENT ELEMENTS FOR THE OAHU SPECIES ARE A COMBINATION OF THE PHYSICAL OR BIOLOGICAL FEATURES (SEE TABLE 4) IN THE APPLICABLE ECOSYSTEM(S) AS WELL AS UNIQUE PCEs FOR SPECIES, IF ANY ARE IDENTIFIED

	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet - Cliff	Unique PCEs for Species
<i>Labordia cyrtandrae</i>			X	X	X		X	
<i>Lepidium arbuscula</i>						X		
<i>Lipochaeta lobata</i> var. <i>leptophylla</i>						X		
<i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i>				X				bogs
<i>Lobelia monostachya</i>			X					
<i>Lobelia niihauensis</i>			X			X		
<i>Lobelia oahuensis</i>				X	X		X	

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	Coastal	Lowland		Lowland		Lowland		Montane		Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry	Mesic	Wet	Wet	Wet	Wet					
<i>Lysimachia filifolia</i>											X	
<i>Marsilea villosa</i>	X	X										seasonal wetlands
<i>Melanthera tenuifolia</i>		X	X							X		
<i>Melicope christophersenii</i>								X			X	
<i>Melicope hiikakae</i>							X					
<i>Melicope hudgetei</i>					X							
<i>Melicope makahae</i>					X		X			X		

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	Coastal	Lowland		Lowland Mesic	Lowland Wet		Montane		Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry				Wet	Wet				
<i>Melicope pallida</i>			X								
<i>Melicope saint-johnii</i>			X						X		
<i>Myrsine judii</i>					X						
<i>Nerandia angulata</i>		X	X						X		
<i>Nototrichum humile</i>		X	X						X		
<i>Peucedanum sandwicense</i>									X		
<i>Phyllostegia hirsuta</i>			X		X			X		X	

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	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
<i>Phyllostegia kaalaensis</i>			X			X		
<i>Phyllostegia mollis</i>			X	X				
<i>Phyllostegia parviflora</i> var. <i>hydgatei</i>			X					
<i>Phyllostegia parviflora</i> var. <i>parviflora</i>			X	X			X	
<i>Plantago princeps</i> var. <i>longibracteata</i>				X				

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	Coastal	Lowland		Lowland		Montane		Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry	Mesic	Wet	Wet	Wet	Wet			
<u>Plantago princeps</u> var. <u>princeps</u>			X	X				X		
<u>Platanthera holochila</u>				X						bog hummocks
<u>Platydesma cornuta</u> var. <u>cornuta</u>				X						
<u>Platydesma cornuta</u> var. <u>decurrens</u>			X					X		
<u>Pleomele forbesii</u>		X	X	X				X		
<u>Psychotria hexandra</u> ssp. <u>oahuensis</u>				X					X	
<u>Pteralyxia macrocarpa</u>			X	X				X	X	

TABLE 5.—PRIMARY CONSTITUENT ELEMENTS FOR THE OAHU SPECIES ARE A COMBINATION OF THE PHYSICAL OR BIOLOGICAL FEATURES (SEE TABLE 4) IN THE APPLICABLE ECOSYSTEM(S) AS WELL AS UNIQUE PCEs FOR SPECIES, IF ANY ARE IDENTIFIED

	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
<i>Schiedea nuttallii</i>			X					
<i>Schiedea obovata</i>			X			X		
<i>Schiedea trinervis</i>					X	X	X	
<i>Sesbania tomentosa</i>	X							
<i>Silene lanceolata</i>						X		
<i>Silene perlmantii</i>			X			X		
<i>Solanum sandwicense</i>			X					

TABLE 5.— PRIMARY CONSTITUENT ELEMENTS FOR THE OAHU SPECIES ARE A COMBINATION OF THE PHYSICAL OR BIOLOGICAL FEATURES (SEE TABLE 4) IN THE APPLICABLE ECOSYSTEM(S) AS WELL AS UNIQUE PCEs FOR SPECIES, IF ANY ARE IDENTIFIED

	Coastal	Lowland		Lowland Mesic	Lowland		Montane		Dry Cliff	Wet Cliff	Unique PCEs for Species
		Dry			Wet	Wet					
<i>Spermolepis hawaiiensis</i>		X							X		
<i>Stenogyne kanehoana</i>				X							
<i>Tetramolopium filiforme</i>									X		
<i>Tetramolopium lepidotum</i> ssp. <i>Lepidotum</i>				X					X		
<i>Tetraplasandra gymnocarpa</i>				X						X	
<i>Tetraplasandra lydgatei</i>				X							

TABLE 5.— PRIMARY CONSTITUENT ELEMENTS FOR THE OAHU SPECIES ARE A COMBINATION OF THE PHYSICAL OR BIOLOGICAL FEATURES (SEE TABLE 4) IN THE APPLICABLE ECOSYSTEM(S) AS WELL AS UNIQUE PCEs FOR SPECIES, IF ANY ARE IDENTIFIED

	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
<i>Trematolobelia singularis</i>				X			X	
<i>Urera kaalae</i>			X	X				
<i>Vigna o-wahuensis</i>	X							
<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>			X			X		
<i>Viola oahuensis</i>				X			X	
<i>Zanthoxylum oahuense</i>				X				

TABLE 5.— PRIMARY CONSTITUENT ELEMENTS FOR THE OAHU SPECIES ARE A COMBINATION OF THE PHYSICAL OR BIOLOGICAL FEATURES (SEE TABLE 4) IN THE APPLICABLE ECOSYSTEM(S) AS WELL AS UNIQUE PCEs FOR SPECIES, IF ANY ARE IDENTIFIED

	Coastal	Lowland Dry	Lowland Mesic	Lowland Wet	Montane Wet	Dry Cliff	Wet Cliff	Unique PCEs for Species
Animals								
blackline Hawaiian damselfly				X				perennial stream, slow reaches of streams or pools
crimson Hawaiian damselfly				X			X	perennial stream, slow reaches of streams or pools
oceanic Hawaiian damselfly			X	X			X	perennial stream, swift-flowing sections and riffles of streams

Note: Total number of species in table is greater than 124 because we identify the applicable ecosystems and unique PCEs for the Oahu varieties of *Phyllostegia parviflora* and *Plantago princeps*

Some of the species addressed in this proposed rule occur in more than one ecosystem. The PCEs for these species are described separately for each ecosystem in which they occur. The reasoning behind this approach is that each species requires a different suite of environmental conditions depending upon the ecosystem in which it occurs. For example, *Cyanea calycina* will occur in association with different native plant species, and other attributes, depending on whether it is found within the lowland mesic, lowland wet, montane wet, or wet cliff ecosystems. Each of the physical or biological features described in each ecosystem in which the species occurs are essential to the conservation of the species, to retain its geographical and ecological distribution across the different ecosystem types in which it may occur. Each physical or biological feature is also essential to retaining the genetic representation that allows this species to successfully adapt to different environmental conditions in various native ecosystems. Although some of these species occur in multiple native ecosystems, their declining abundance in the face of ongoing threats, such as increasing numbers of nonnative plant competitors, indicates that they are not such broad habitat generalists as to be able to persist in highly altered habitats. Based on an analysis of the best available scientific information, functioning native ecosystems provide the fundamental biological requirements for the narrow-range endemics addressed in this proposed rule.

Some examples may help to clarify our approach to describing the PCEs for each individual species. If we want to determine the PCEs for the plant *Zanthoxylum oahuense*, we look at Table 5 to see that the PCEs for *Z. oahuense* are provided by the physical or biological features in the lowland wet ecosystem. Table 4 indicates that the physical or biological features in the lowland wet ecosystem include elevations of less than 3,281 ft (1,000 m); annual precipitation of more than 75 in (190 cm); clays, ashbeds, deep well-drained soils, and lowland bogs; and one or more genera of the subcanopy and understory plants *Alyxia*, *Cibotium*, *Claoxylon*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Kadua*, *Machaerina*, *Melicope*, *Microlepia*; and one or more of the genera of the canopy species *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, and *Psychotria*. As we do not specifically know the unique PCEs for *Z. oahuense*, and this plant is found only in the lowland wet ecosystem, we believe that the physical or biological

features for the lowland wet ecosystem best approximate the PCEs for *Z. oahuense*. Thus, the physical or biological features provided in the ecosystem in which *Z. oahuense* is found are the PCEs for *Z. oahuense*.

As another example, Table 5 indicates the physical or biological features for the crimson Hawaiian damselfly include the physical or biological features for the lowland wet or wet cliff ecosystems, depending on the location, and also that this species has a species-specific PCE, which is a perennial stream with slow reaches. The PCEs for the crimson Hawaiian damselfly are thus composed of the physical or biological features for each of the two ecosystems it occupies, as described in Table 4 for the lowland wet and wet cliff ecosystems, as well as perennial streams with slow reaches (i.e., stream areas with no riffles or rapids). Table 5 is read in a similar fashion in conjunction with Table 4 to describe the PCEs for each of the 124 species for which we are proposing to designate critical habitat in this proposed rule.

Criteria Used To Identify Critical Habitat Boundaries

We considered several factors in the selection and proposal of specific boundaries for critical habitat for these 124 species. We propose to designate critical habitat on lands that contain the physical or biological features essential to conserving multiple species, based on their shared dependence on the functioning ecosystems they have in common. Because each of the seven ecosystems addressed in this proposed rule does not form a single contiguous area, the ecosystems are divided into geographic units. The 7 ecosystem areas are divided into 66 critical habitat units.

The proposed critical habitat is a combination of areas currently occupied by the species in that ecosystem, as well as areas that may be currently unoccupied. Due to the extremely remote and inaccessible nature of some of the areas, surveys are relatively infrequent and may be limited in scope; therefore, it is difficult to say with certainty whether individual representatives of a rare species may or may not be present. However, the best available scientific information suggests that these species are or have occupied these habitats. A properly functioning ecosystem provides the life-history requirements of the species that make up that ecosystem, and the physical and biological features found in such an ecosystem are the PCEs essential for the conservation of the species that occur there. In other words, the occupied areas provide the physical or biological

features essential to the conservation of the species occurring in the ecosystems we analyzed, by providing for the successful functioning of the ecosystem on which the species depend. However, due to the small population sizes, few numbers of individuals, and reduced geographic range of each of the 124 species for which critical habitat is here proposed, we have determined that a designation limited to known present range of each species would be inadequate to achieve the conservation of those species. The areas believed to be unoccupied have been determined to be essential for the conservation and recovery of the species and will promote conservation actions to restore their historical, geographical, and ecological representation on Oahu. For seven of the plant species reported from Oahu and other Hawaiian Islands, *Adenophorus periens* (extant on Kauai, Molokai, Hawaii), *Cyperus pennatifolius* var. *pennatifolius* (*Mariscus pennatifolius*, extant on Maui and Kauai), *Diplazium molokaiense* (extant on Maui), *Isodendron pyrifolium* (extant on Hawaii), *Kadua coriacea* (*Hedyotis coriacea*, extant on Maui, Kauai), *Platanthera holochila* (extant on Kauai, Molokai, and Maui), and *Vigna owahuensis* (extant on Hawaii, Kahoolawe, Lanai, Molokai, Maui), we are proposing to designate unoccupied areas only, as these species are not believed to be extant on Oahu. For *Cyrtandra waiolani*, a plant known only from Oahu, we are proposing to designate potentially unoccupied areas only, because the identity of a plant observed in 2005, and believed to possibly be this species, cannot be confirmed until flowers or fruit are available. Critical habitat boundaries for all species were delineated to clearly depict and promote the recovery and conservation of these species by incorporating the functioning ecosystems on which they depend.

With the exception of the seven above plant species believed to no longer be extant on Oahu, and *Cyrtandra waiolani*, which may no longer be extant in the wild, each of the critical habitat units in these ecosystems contain both occupied areas and areas that are currently unoccupied but essential for the conservation of the species. Because of their small numbers or low population sizes, each of the 124 species requires suitable habitat and space for the expansion of existing populations to achieve a level that could approach recovery. For example, although *Cyanea calycina* is found in multiple critical habitat units across

four ecosystem types, its entire distribution is comprised of only 325 to 339 individuals (U.S. Army 2006; HBMP 2008). The unoccupied areas within each unit where the species occurs are essential for the expansion of this species to achieve viable population numbers and maintain its historical geographical and ecological distribution.

Current and historical species location information was used to develop initial critical habitat boundaries (polygons) in each of the 7 ecosystems that would provide for the conservation of the 124 species addressed in this proposed rule. While all 3 damselfly species are historically known from both the Koolau and Waianae Mountains, 85 of the 121 plant species for which we propose critical habitat are historically known from only one mountain range on Oahu. Forty-nine plant species (*Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Bidens amplexens*, *Cenchrus agrimonioides* var. *agrimonioides*, *Chamaesyce herbstii*, *C. skottsbergii* var. *skottsbergii*, *Colubrina oppositifolia*, *Cyanea grimesiana* ssp. *obatae*, *C. pinnatifida*, *Cyanea superba*, *Cyperus pennatififormis* var. *pennatififormis*, *C. trachysanthos*, *Diellia unisora*, *Diplazium molokaiense*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gouania vitifolia*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron pyrifolium*, *Kadua degeneri*, *K. parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niiauensis*, *Melanthera tenuifolia*, *Melicope christophersenii*, *M. makahae*, *M. pallida*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*,

Platydesma cornuta var. *decurrens*, *Sanicula mariversa*, *Schiedea hookeri*, *S. kealiae*, *S. obovata*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Stenogyne kanehoana*, *Tetramolopium filiforme*, *T. lepidotum* ssp. *lepidotum*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*) are known only from the Waianae Mountains. Thirty-six plant species (*Adenophorus periens*, *Chamaesyce deppeana*, *C. rockii*, *Cyanea crispa*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Diellia erecta*, *Doryopteris takeuchii*, *Huperzia nutans*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. monostachya*, *Lysimachia filifolia*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *T. lydgatei*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*) are known only from the Koolau Mountains. For these species, we are proposing to designate critical habitat only in ecosystems within the mountain range of their historical occurrence. The initial polygons were superimposed over digital topographic maps of the island of Oahu and further evaluated. In general, land areas that were identified as highly degraded were removed from the proposed critical habitat units, and natural or manmade features (e.g., ridge lines, valleys, streams, coastlines, roads, obvious land features, etc.) were used to delineate the proposed critical habitat boundaries.

The critical habitat areas described below constitute our best assessment of the habitat containing the physical or biological features essential for the

recovery and conservation of the 124 species, including that needed for expansion of reduced populations. The approximate size of each of the 66 plant critical habitat units and the 40 damselfly critical habitat units, and the status of their land ownership, are identified in Tables 5A and 5B, respectively. The species that currently occupy each of the 66 plant and 40 damselfly units are identified in Table 7A, along with areas determined to be exempt from critical habitat designation under section 4(a)(3) of the Act (for summary of exemptions, see Table 7B; see also Exemptions, below, for further information). Table 7A also identifies the areas designated for *Cyrtandra waiolani* (a species that may no longer be extant in the wild) that may be currently unoccupied by this species. All 40 damselfly critical habitat units overlap areas that are also proposed for designation as plant critical habitat.

When determining critical habitat boundaries within this proposed rule, we made every effort to avoid including developed areas such as buildings, paved areas, and other structures that lack the physical or biological features essential for the conservation of the 124 species. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, Federal actions involving these areas would not trigger section 7 consultation with respect to critical habitat unless the specific action would affect the adjacent critical habitat or its primary constituent elements.

TABLE 6A—CRITICAL HABITAT PROPOSED FOR 121 OAHU PLANT SPECIES

[Totals may not sum due to rounding]

Proposed critical habitat area	Size of unit in acres	Size of unit in hectares	Land ownership (acres)			
			State	Federal	City and county	Private
Oahu—Coastal						
—Unit 1	958	388	957	0	0	2
—Unit 2	12	5	12	0	0	0
—Unit 3	15	6	15	0	0	0
—Unit 4	3	1	3	0	0	0
—Unit 5	12	5	12	0	0	0
—Unit 6	9	4	9	0	0	0
—Unit 7	67	27	67	0	0	0
—Unit 8	10	4	10	0	0	0
—Unit 9	84	34	84	0	0	0
—Unit 10	74	30	0	0	74	0
—Unit 11	20	8	0	0	20	0
—Unit 12	11	5	0	0	11	0

TABLE 6A—CRITICAL HABITAT PROPOSED FOR 121 OAHU PLANT SPECIES—Continued

[Totals may not sum due to rounding]

Proposed critical habitat area	Size of unit in acres	Size of unit in hectares	Land ownership (acres)			
			State	Federal	City and county	Private
—Unit 13	24	10	0	0	19	4
—Unit 14	4	2	0	2	0	2
—Unit 15	34	14	0	31	0	2
TOTAL Coastal	1,339	542	1,169	33	124	10
Oahu—Lowland Dry						
—Unit 1	102	41	49	0	0	54
—Unit 2	29	12	29	0	0	0
—Unit 3	25	10	0	25	0	0
—Unit 4	18	7	0	18	0	0
—Unit 5	8	3	0	8	0	0
—Unit 6	287	116	287	0	0	0
—Unit 7	15	6	15	0	0	0
—Unit 8	292	118	207	0	0	84
—Unit 9	40	16	1	17	20	3
—Unit 10	43	17	43	0	0	0
—Unit 11	166	67	0	166	0	0
TOTAL Lowland Dry	1,025	413	631	234	20	141
Oahu—Lowland Mesic						
—Unit 1	4,450	1,801	3,564	0	583	303
—Unit 2	1,063	430	1,063	0	0	0
—Unit 3	353	143	353	0	0	0
—Unit 4	20	8	20	0	0	0
—Unit 5	29	12	29	0	0	0
—Unit 6	247	100	12	0	0	235
—Unit 7	1,669	676	683	0	130	857
TOTAL Lowland Mesic	7,831	3,170	5,724	0	713	1,395
Oahu—Lowland Wet						
—Unit 1	541	219	428	0	112	0
—Unit 2	20	8	20	0	0	0
—Unit 3	29	12	29	0	0	0
—Unit 4	27	11	27	0	0	0
—Unit 5	76	31	74	2	0	0
—Unit 6	790	320	0	0	0	790
—Unit 7	1,790	724	1,501	0	0	289
—Unit 8	3,041	1,231	1,385	0	0	1,656
—Unit 9	15,728	6,365	2,921	4,510	148	8,148
—Unit 10	124	50	0	0	0	124
—Unit 11	124	50	0	0	124	0
—Unit 12	53	21	0	0	27	26
—Unit 13	161	65	13	52	96	0
—Unit 14	478	193	282	0	196	0
—Unit 15	407	165	407	0	0	0
—Unit 16	2,507	1,014	1,534	0	365	607
TOTAL Lowland Wet	25,896	10,479	8,621	4,564	1,068	11,640
Oahu—Montane Wet						
—Unit 1	370	150	353	0	17	0
TOTAL Montane Wet	370	150	353	0	17	0
Oahu—Dry Cliff						
—Unit 1	49	20	49	0	0	0
—Unit 2	412	167	321	0	91	0
—Unit 3	450	182	101	0	349	0
—Unit 4	108	44	26	82	0	0
—Unit 5	26	10	0	26	0	0
—Unit 6	255	103	150	105	0	0
—Unit 7	208	84	96	113	0	0
—Unit 8	259	105	259	0	0	0

TABLE 6A—CRITICAL HABITAT PROPOSED FOR 121 OAHU PLANT SPECIES—Continued

[Totals may not sum due to rounding]

Proposed critical habitat area	Size of unit in acres	Size of unit in hectares	Land ownership (acres)			
			State	Federal	City and county	Private
TOTAL Dry Cliff	1,767	715	1,002	326	440	0
Oahu—Wet Cliff						
—Unit 1	235	95	167	0	68	0
—Unit 2	7	3	5	2	0	0
—Unit 3	16	6	16	0	0	0
—Unit 4	23	9	23	0	0	0
—Unit 5	43	17	23	20	0	0
—Unit 6	151	61	151	0	0	0
—Unit 7	144	58	144	0	0	0
—Unit 8	4,649	1,881	1,666	5	1,280	1,698
TOTAL Wet Cliff	5,268	2,130	2,195	27	1,348	1,698
TOTAL ALL UNITS	43,491	17,603	19,695	5,184	3,730	14,884

TABLE 6B—CRITICAL HABITAT PROPOSED FOR 3 OAHU DAMSELFLY SPECIES

[Totals may not sum due to rounding]

Proposed critical habitat unit	Size of unit in acres	Size of unit in hectares	Landownership (acres)			
			State	Federal	City and county	Private
Crimson Hawaiian Damselfly—Lowland Wet						
—Unit 1	790	320	0	0	0	790
—Unit 2	1,790	724	1,501	0	0	289
—Unit 3	3,041	1,231	1,385	0	0	1,656
—Unit 4	15,728	6,365	2,921	4,510	148	8,148
—Unit 5	124	50	0	0	0	124
—Unit 6	124	50	0	0	124	0
—Unit 7	53	21	0	0	27	26
—Unit 8	161	65	13	52	96	0
—Unit 9	478	193	282	0	196	0
—Unit 10	407	165	407	0	0	0
—Unit 11	2,507	1,014	1,534	0	365	607
TOTAL Crimson Hawaiian Damselfly—Lowland Wet	25,203	10,198	8,043	4,562	956	11,640
Crimson Hawaiian Damselfly—Wet Cliff						
—Unit 12	151	61	151	0	0	0
—Unit 13	144	58	144	0	0	0
—Unit 14	4,649	1,881	1,666	5	1,280	1,698
TOTAL Crimson Hawaiian Damselfly—Wet Cliff	4,944	2,000	1,961	5	1,280	1,698
Blackline Hawaiian Damselfly—Lowland Wet						
—Unit 1	790	320	0	0	0	790
—Unit 2	1,790	724	1,501	0	0	289
—Unit 3	3,041	1,231	1,385	0	0	1,656
—Unit 4	15,728	6,365	2,921	4,510	148	8,148
—Unit 5	124	50	0	0	0	124
—Unit 6	124	50	0	0	124	0
—Unit 7	53	21	0	0	27	26
—Unit 8	161	65	13	52	96	0
—Unit 9	478	193	282	0	196	0
—Unit 10	407	165	407	0	0	0
—Unit 11	2,507	1,014	1,534	0	365	607
TOTAL Blackline Hawaiian Damselfly—Lowland Wet	25,203	10,198	8,043	4,562	956	11,640
Oceanic Hawaiian Damselfly—Lowland Mesic						
—Unit 1	247	100	12	0	0	235

TABLE 6B—CRITICAL HABITAT PROPOSED FOR 3 OAHU DAMSELFLY SPECIES—Continued

[Totals may not sum due to rounding]

Proposed critical habitat unit	Size of unit in acres	Size of unit in hectares	Landownership (acres)			
			State	Federal	City and county	Private
TOTAL Oceanic Hawaiian Damselfly—Lowland Mesic	247	100	12	0	0	235
Oceanic Hawaiian Damselfly—Lowland Wet						
—Unit 2	790	320	0	0	0	790
—Unit 3	1,790	724	1,501	0	0	289
—Unit 4	3,041	1,231	1,385	0	0	1,656
—Unit 5	15,728	6,365	2,921	4,510	148	8,148
—Unit 6	124	50	0	0	0	124
—Unit 7	124	50	0	0	124	0
—Unit 8	53	21	0	0	27	26
—Unit 9	161	65	13	52	96	0
—Unit 10	478	193	282	0	196	0
—Unit 11	407	165	407	0	0	0
—Unit 12	2,507	1,014	1,534	0	365	607
TOTAL Oceanic Hawaiian Damselfly—Lowland Wet	25,203	10,198	8,043	4,562	956	11,640
Oceanic Hawaiian Damselfly—Wet Cliff						
—Unit 13	151	61	151	0	0	0
—Unit 14	144	58	144	0	0	0
—Unit 15	4,649	1,881	1,666	5	1,280	1,698
TOTAL Oceanic Hawaiian Damselfly—Wet Cliff	4,944	2,000	1,961	5	1,280	1,698

TABLE 7A—SPECIES FOR WHICH CRITICAL HABITAT IS PROPOSED FOR DESIGNATION IN EACH ECOSYSTEM, AND SECTION 4(a)(3) EXEMPT AREAS

[See discussion below]

Species	Coastal	Lowland dry	Lowland mesic	Lowland wet	Montane wet	Dry cliff	Wet cliff	Critical habitat ac (ha)	Exempt from critical habitat ac (ha) under 4(a)(3)	Total critical habitat plus exempt ac (ha)
PLANTS										
<i>Abutilon sandwicense</i>			X ^W			X ^W		7,633 (3,089)	169 (68)	7,802 (3,157)
<i>Achyranthes splendens</i> var. <i>rotundata</i>	X ^W	X ^W				X ^W		3,510 (1,423)	0 (0)	3,510 (1,423)
<i>Adenophorus periers</i>				X ^{K-H}			X ^{K-H}	30,147 (12,198)	0 (0)	30,147 (12,198)
<i>Alectryon macrococcus</i>			X ^{W, K-H}		X ^W	X ^W		9,968 (4,035)	169 (68)	10,137 (4,103)
<i>Bidens amplexiflora</i>	X ^W	X ^W						1,140 (461)	16 (7)	1,156 (468)
<i>Bonamia menziesii</i>		X ^W	X ^{W, K}			X ^W		9,780 (3,958)	583 (236)	10,363 (4,194)
<i>Cenchrus agrimonoides</i>			X ^W			X ^W		7,633 (3,089)	169 (68)	7,802 (3,157)
<i>Centaurium seabaeoides</i>	X ^{W, K}							1,275 (517)	0 (0)	1,275 (517)
<i>Chamaesyce celastroides</i> var. <i>kaenana</i>	X ^W	X ^W	X ^{W, K-H}					8,971 (3,631)	53 (21)	9,024 (3,652)
<i>Chamaesyce deppeana</i>							X ^K	4,944 (2,000)	0 (0)	4,944 (2,000)
<i>Chamaesyce herbstii</i>			X ^W			X ^W		7,633 (3,089)	169 (68)	7,802 (3,157)
<i>Chamaesyce kuwaleana</i>	X ^{K-H}					X ^W		2,084 (844)	0 (0)	2,084 (844)
<i>Chamaesyce rockii</i>				X ^K			X ^K	30,147 (12,198)	5,254 (2,126)	35,401 (14,324)
<i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i>		X ^W						548 (221)	0 (0)	548 (221)
<i>Colubrina oppositifolia</i>			X ^W					5,866 (2,374)	0 (0)	5,866 (2,374)
<i>Ctenitis squamigera</i>			X ^{W, K-H}					7,831 (3,170)	811 (328)	8,642 (3,498)
<i>Cyanea acuminata</i>			X ^{W, K}	X ^{W, K}	X ^W		X ^{W, K}	39,365 (15,929)	7,183 (2,906)	46,548 (18,835)
<i>Cyanea calycina</i>			X ^{W, K}	X ^{W, K}	X ^W		X ^{W, K}	39,365 (15,929)	6,588 (2,665)	45,953 (18,594)
<i>Cyanea crispa</i>			X ^K	X ^K			X ^K	32,112 (12,994)	5,306 (2,147)	37,418 (15,141)
<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>			X ^{W, K}	X ^{W, K}				33,727 (13,649)	0 (0)	33,727 (13,649)
<i>Cyanea grimesiana</i> ssp. <i>obatae</i>			X ^W	X ^W		X ^W		8,326 (3,370)	1,567 (634)	9,893 (4,004)
<i>Cyanea humboldtiana</i>				X ^K			X ^K	30,147 (12,198)	5,306 (2,147)	35,453 (14,345)
<i>Cyanea koolauensis</i>				X ^K				25,203 (10,198)	5,893 (2,385)	31,096 (12,583)
<i>Cyanea lanceolata</i>			X ^K					27,168 (10,994)	5,298 (2,144)	32,466 (13,138)
<i>Cyanea longiflora</i>			X ^{W, K-H}					7,831 (3,170)	125 (51)	7,956 (3,221)
<i>Cyanea pinnatifida</i>			X ^{W-H}					5,866 (2,374)	0 (0)	5,866 (2,374)
<i>Cyanea purpurellifolia</i>				X ^K			X ^K	30,147 (12,198)	5,298 (2,144)	35,445 (14,342)
<i>Cyanea st-johnii</i>				X ^K			X ^K	30,147 (12,198)	5,298 (2,144)	35,445 (14,342)
<i>Cyanea superba</i>			X ^W					5,866 (2,374)	693 (280)	6,559 (2,654)
<i>Cyanea truncata</i>			X ^K	X ^{K-H}			X ^{K-H}	32,112 (12,994)	0 (0)	32,112 (12,994)
<i>Cyperus pennatifolius</i>			X ^{W-H}					5,866 (2,374)	0 (0)	5,866 (2,374)
<i>Cyperus trachysanthos</i>	X ^{W, K}	X ^{W, K}						181 (74)	0 (0)	181 (74)

TABLE 7A—SPECIES FOR WHICH CRITICAL HABITAT IS PROPOSED FOR DESIGNATION IN EACH ECOSYSTEM, AND SECTION 4(a)(3) EXEMPT AREAS—Continued
[See discussion below]

Species	Coastal	Lowland dry	Lowland mesic	Lowland wet	Montane wet	Dry cliff	Wet cliff	Critical habitat ac (ha)	Exempt from critical habitat ac (ha) under 4(a)(3)	Total critical habitat plus exempt ac (ha)
<i>Cyrtandra dentata</i>			X ^{W, K}	X ^{W, K}		X ^W		38,995 (15,779)	5,468 (2,213)	44,463 (17,992)
<i>Cyrtandra gracilis</i>				X ^K				25,203 (10,198)	0 (0)	25,203 (10,198)
<i>Cyrtandra kaulantha</i>				X ^K			X ^K	30,147 (12,198)	0 (0)	30,147 (12,198)
<i>Cyrtandra polyantha</i>			X ^K	X ^K				27,168 (10,994)	0 (0)	27,168 (10,994)
<i>Cyrtandra sessilis</i>				X ^K			X ^K	30,147 (12,198)	0 (0)	30,147 (12,198)
<i>Cyrtandra subumbellata</i>				X ^K			X ^K	30,147 (12,198)	595 (241)	30,742 (12,439)
<i>Cyrtandra viridiflora</i>				X ^K			X ^K	30,147 (12,198)	5,306 (2,147)	35,453 (14,345)
<i>Cyrtandra waiolani</i>			X ^{K-H}	X ^{K-H}				27,168 (10,994)	0 (0)	27,168 (10,994)
<i>Delissea subcordata</i>			X ^{W, K-H}					7,831 (3,170)	693 (280)	8,524 (3,450)
<i>Diellia erecta</i>			X ^K					1,965 (796)	0 (0)	1,965 (796)
<i>Diellia falcata</i>			X ^{W, K-H}			X ^W		9,598 (3,885)	1,406 (569)	11,004 (4,454)
<i>Diellia unisora</i>			X ^W			X ^W		7,633 (3,089)	0 (0)	7,633 (3,089)
<i>Diplazium molokaiense</i>			X ^{W-H}	X ^{W-H}				6,559 (2,655)	0 (0)	6,559 (2,655)
<i>Doryopteris takeuchii</i>		X ^K						302 (122)	0 (0)	302 (122)
<i>Dubautia herbstobatae</i>			X ^W			X ^W		7,633 (3,089)	583 (236)	8,216 (3,325)
<i>Eragrostis fosbergii</i>			X ^W			X ^W		7,633 (3,089)	0 (0)	7,633 (3,089)
<i>Eugenia koolauensis</i>			X ^{W, K}					7,831 (3,170)	125 (51)	7,956 (3,221)
<i>Euphorbia haeleleana</i>		X ^W	X ^W					6,048 (2,447)	53 (21)	6,101 (2,468)
<i>Flueggea neowawraea</i>			X ^W			X ^W		7,633 (3,089)	1,406 (569)	9,039 (3,658)
<i>Gardenia mannii</i>			X ^{W, K}	X ^{W, K}				33,727 (13,649)	5,298 (2,144)	39,025 (15,793)
<i>Gouania meyenii</i>		X ^{W, K-H}	X ^W			X ^W		8,117 (3,284)	0 (0)	8,117 (3,284)
<i>Gouania vitifolia</i>		X ^W	X ^{W-H}	X ^W		X ^W		8,508 (3,443)	0 (0)	8,508 (3,443)
<i>Hesperomannia arborescens</i>			X ^{W, K}	X ^K				33,034 (13,368)	5,298 (2,144)	38,332 (15,512)
<i>Hesperomannia arbuscula</i>			X ^W	X ^W				6,559 (2,655)	0 (0)	6,559 (2,655)
<i>Hibiscus brackenridgei</i>		X ^W	X ^W					6,048 (2,447)	18 (7)	6,066 (2,454)
<i>Huperzia nutans</i>				X ^K			X ^K	30,147 (12,198)	5,901 (2,388)	36,048 (14,586)
<i>Isodendron laurifolium</i>			X ^{W, K-H}			X ^W		9,598 (3,885)	0 (0)	9,598 (3,885)
<i>Isodendron longifolium</i>			X ^{W, K}	X ^{W, K}				33,727 (13,649)	595 (241)	34,322 (13,890)
<i>Isodendron pyriforme</i>		X ^{W-H}				X ^{W-H}		1,949 (788)	0 (0)	1,949 (788)
<i>Kadua conacea</i>			X ^{W-H, K-H}					7,831 (3,170)	0 (0)	7,831 (3,170)
<i>Kadua degeneri</i>			X ^W			X ^W		7,633 (3,089)	170 (69)	7,803 (3,158)
<i>Kadua parvula</i>			X ^W			X ^W		7,633 (3,089)	583 (236)	8,216 (3,325)
<i>Korthalsella degeneri</i>						X ^W		1,767 (715)	412 (167)	2,179 (882)
<i>Labordia cyrtandrae</i>			X ^{W, K}	X ^{W, K}	X ^W		X ^{W, K}	39,365 (15,929)	7,183 (2,906)	46,548 (18,835)
<i>Lepidium arbuscula</i>						X ^W		1,767 (715)	690 (280)	2,457 (995)
<i>Lipochaeta lobata</i> var. <i>leptophylla</i>						X ^W		1,767 (715)	0 (0)	1,767 (715)
<i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i>				X ^K				25,203 (10,198)	595 (241)	25,798 (10,439)
<i>Lobelia monostachya</i>			X ^K					1,965 (796)	0 (0)	1,965 (796)
<i>Lobelia niihauensis</i>			X ^W			X ^W		7,633 (3,089)	583 (236)	8,216 (3,325)
<i>Lobelia oahuensis</i>				X ^{W, K}	X ^W		X ^{W, K}	31,210 (12,629)	642 (259)	31,852 (12,888)
<i>Lysimachia lilifolia</i>							X ^K	4,944 (2,000)	0 (0)	4,944 (2,000)
<i>Marsilea villosa</i>	X ^{W, K}	X ^{W, K}						181 (74)	0 (0)	181 (74)
<i>Melanthera tenuifolia</i>		X ^W	X ^W			X ^W		7,815 (3,162)	753 (305)	8,568 (3,467)
<i>Melicope christophersenii</i>					X ^W		X ^W	694 (280)	481 (194)	1,175 (474)
<i>Melicope hiakae</i>				X ^K				25,203 (10,198)	5,298 (2,144)	30,501 (12,342)
<i>Melicope lydgatei</i>			X ^K	X ^K				27,168 (10,994)	5,298 (2,144)	32,466 (13,138)
<i>Melicope makahae</i>			X ^W	X ^W		X ^W		8,326 (3,370)	583 (236)	8,909 (3,606)
<i>Melicope pallida</i>			X ^W					5,866 (2,374)	0 (0)	5,866 (2,374)
<i>Melicope saint-johnii</i>			X ^{W, K-H}			X ^W		9,598 (3,885)	0 (0)	9,598 (3,885)
<i>Myrsine juddii</i>				X ^K				25,203 (10,198)	5,298 (2,144)	30,501 (12,342)
<i>Neraudia angulata</i>		X ^W	X ^W			X ^W		7,815 (3,162)	1,406 (569)	9,221 (3,731)
<i>Nototrichum humile</i>		X ^W	X ^W			X ^W		7,815 (3,162)	193 (78)	8,008 (3,240)
<i>Peucedanum sandwicense</i>						X ^W		1,767 (715)	0 (0)	1,767 (715)
<i>Phyllostegia hirsuta</i>			X ^{W, K}	X ^{W, K}	X ^W		X ^{W, K}	39,365 (15,929)	7,183 (2,906)	46,548 (18,835)
<i>Phyllostegia kaalaensis</i>			X ^W					7,633 (3,089)	0 (0)	7,633 (3,089)
<i>Phyllostegia mollis</i>			X ^{W, K-H}	X ^W				8,524 (3,451)	801 (324)	9,325 (3,775)
<i>Phyllostegia parviflora</i> var. <i>lydgatei</i>			X ^{W-H}					5,866 (2,374)	0 (0)	5,866 (2,374)
<i>Phyllostegia parviflora</i> var. <i>parviflora</i>			X ^{K-H}	X ^K			X ^K	32,112 (12,994)	0 (0)	32,112 (12,994)
<i>Plantago princeps</i> var. <i>longibracteata</i>				X ^{K-H}				25,203 (10,198)	0 (0)	25,203 (10,198)
<i>Plantago princeps</i> var. <i>princeps</i>			X ^{W, K-H}	X ^{W, K}		X ^W	X ^K	40,438 (16,364)	896 (352)	41,334 (16,716)
<i>Platanthera holochila</i>				X ^K				25,203 (10,198)	0 (0)	25,203 (10,198)
<i>Platydesma cornuta</i> var. <i>cornuta</i>				X ^K				25,203 (10,198)	5,893 (2,385)	31,096 (12,583)
<i>Platydesma cornuta</i> var. <i>decurrens</i>			X ^W			X ^W		7,633 (3,089)	1,406 (569)	9,039 (3,658)
<i>Pleomele forbesii</i>		X ^W	X ^{W, K}	X ^W		X ^W		10,473 (4,239)	753 (305)	11,226 (4,544)
<i>Psychotria hexandra</i> ssp. <i>oahuensis</i>			X ^{W, K}	X ^K			X ^K	30,147 (12,198)	5,306 (2,147)	35,453 (14,345)
<i>Pteralyxia macrocarpa</i>			X ^{W, K}	X ^{W, K}		X ^W	X ^{W, K}	40,762 (16,494)	1,174 (718)	42,536 (17,212)
<i>Ptenis lidgatei</i>				X ^K				25,203 (10,198)	5,893 (2,385)	31,096 (12,583)

TABLE 7A—SPECIES FOR WHICH CRITICAL HABITAT IS PROPOSED FOR DESIGNATION IN EACH ECOSYSTEM, AND SECTION 4(a)(3) EXEMPT AREAS—Continued
[See discussion below]

Species	Coastal	Lowland dry	Lowland mesic	Lowland wet	Montane wet	Dry cliff	Wet cliff	Critical habitat ac (ha)	Exempt from critical habitat ac (ha) under 4(a)(3)	Total critical habitat plus exempt ac (ha)
<i>Sanicula maritima</i>			X ^W			X ^W		7,633 (3,089)	583 (236)	8,216 (3,325)
<i>Sanicula purpurea</i>				X ^K			X ^K	30,147 (12,198)	5,901 (2,388)	36,048 (14,586)
<i>Schiedea hookeri</i>		X ^W	X ^W	X ^W		X ^W	X ^W	8,832 (3,573)	1,066 (431)	9,898 (4,004)
<i>Schiedea kaalae</i>			X ^{W, K}	X ^W			X ^{W, K}	13,792 (5,581)	883 (357)	14,675 (5,938)
<i>Schiedea kealii</i>	X ^W	X ^W						1,140 (461)	0 (0)	1,140 (461)
<i>Schiedea nuttallii</i>			X ^{W, K-H}					7,831 (3,170)	864 (349)	8,695 (3,519)
<i>Schiedea obovata</i>			X ^W			X ^W		7,633 (3,089)	169 (68)	7,802 (3,157)
<i>Schiedea trinervis</i>					X ^W	X ^W	X ^W	2,461 (995)	494 (199)	2,955 (1,194)
<i>Sesbania tomentosa</i>	X ^{W, K}							1,275 (517)	0 (0)	1,275 (517)
<i>Silene lanceolata</i>						X ^W		1,767 (715)	412 (167)	2,179 (882)
<i>Silene perlmanii</i>			X ^W			X ^W		7,633 (3,089)	0 (0)	7,633 (3,089)
<i>Solanum sandwicense</i>			X ^{W-H, K-H}					7,831 (3,170)	640 (259)	8,471 (3,429)
<i>Spermolepis hawaiiensis</i>		X ^{W, K}				X ^W		2,251 (910)	0 (0)	2,251 (910)
<i>Stenogyne kanehoana</i>			X ^W					5,866 (2,374)	640 (259)	6,506 (2,633)
<i>Tetramolopium filiforme</i>						X ^W		1,767 (715)	412 (167)	2,179 (882)
<i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>			X ^W			X ^W		7,633 (3,089)	0 (0)	7,633 (3,089)
<i>Tetraplasandra gymnocarpa</i>			X ^K	X ^K			X ^K	32,112 (12,994)	125 (51)	32,237 (13,045)
<i>Tetraplasandra lydgatei</i>			X ^K					1,965 (796)	0 (0)	1,965 (796)
<i>Trematolobelia singularis</i>				X ^K			X ^K	30,147 (12,198)	0 (0)	30,147 (12,198)
<i>Urera kaalae</i>			X ^W	X ^W				6,559 (2,655)	0 (0)	6,559 (2,655)
<i>Vigna o-hahuensis</i>	X ^{W-H, K-H}							6,219 (2,517)	0 (0)	6,219 (2,517)
<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>			X ^W			X ^W		7,633 (3,089)	583 (236)	8,216 (3,325)
<i>Viola oahuensis</i>				X ^K			X ^K	25,203 (10,198)	595 (241)	25,798 (10,439)
<i>Zanthoxylum oahuense</i>				X ^K				25,203 (10,198)	5,893 (2,385)	31,096 (12,583)
ANIMALS										
blackline Hawaiian damselfly				X ^{W-H, K}				25,203 (10,198)	5,893 (2,385)	31,096 (12,583)
crimson Hawaiian damselfly				X ^{W-H, K}			X ^K	30,147 (12,198)	5,901 (2,388)	36,048 (14,586)
oceanic Hawaiian damselfly			X ^K	X ^{W-H, K}			X ^K	30,394 (12,298)	5,306 (2,147)	35,700 (14,445)
Proposed CH ac (ha)	1,339 (542)	1,025 (413)	7,831 (3,170)	25,896 (10,479)	370 (150)	1,767 (715)	5,268 (2,130)			
Exempt Area ac (ha)	0 (0)	18 (7)	989 (400)	6,054 (2,450)	399 (161)	547 (222)	90 (36)			
Total Area Considered Proposed CH (including Exempt Area) ac (ha)	1,339 (542)	1,041 (421)	8,819 (3,569)	31,948 (12,929)	769 (311)	2,314 (937)	5,358 (2,168)			

W = occurs within indicated ecosystem in the Waianae Mountain caldera complex.
 K = occurs within indicated ecosystem in the Koolau Mountain caldera complex.
 W-H = known historically (last observed > 20 yrs ago) from indicated ecosystem in the Waianae Mountain caldera complex.
 K-H = known historically (last observed > 20 yrs ago) from indicated ecosystem in the Koolau Mountain caldera complex.
 The area known to be occupied by species for which the unit is designated also provides area essential to the conservation of all of the species that occur in that particular ecosystem. Unoccupied habitat provides space and appropriate environmental conditions for activities such as seed dispersal and reproduction that will serve to expand the existing populations.
 * This species may no longer occur in the wild.
Note: Total number of species in table is greater than 124 because we identify the applicable ecosystems and section 4(A)(3) exempt areas for the Oahu varieties of *Phyllostegia parviflora* and *Plantago princeps*.

TABLE 7B—AREAS BY ECOSYSTEM DETERMINED TO BE EXEMPT FROM DESIGNATION UNDER SECTION 4(a)(3) OF THE ACT

Ecosystem	Proposed critical habitat		Acres (hectares) exempt from critical habitat		Total area considered	
	ac	ha	ac	ha	ac	ha
Coastal	1,339	542	0	0	1,339	542
Lowland Dry	1,025	413	18	7	1,041	421
Lowland Mesic	7,831	3,170	989	400	8,820	3,570
Lowland Wet	25,896	10,479	6,054	2,450	31,950	12,929
Montane Wet	370	150	399	161	769	311
Dry Cliff	1,767	715	547	222	2,314	937
Wet Cliff	5,268	2,130	90	36	4,739	1,917

Special Management Considerations or Protections

The term critical habitat is defined in section 3(5)(A) of the Act, in part, as

geographic areas on which are found the physical or biological features essential to the conservation of the species and "which may require special

management considerations or protection."

In identifying critical habitat in occupied areas, we determine whether

those areas that contain the features essential to the conservation of the species require any special management actions. Although the determination that special management may be required is not a prerequisite to designating critical habitat in unoccupied areas, special management is needed throughout all of the proposed critical habitat units. The following discussion of special management needs is therefore applicable to each of the 124 Oahu species for which we are herein proposing to designate critical habitat.

The 124 Oahu species for which we are proposing to designate critical habitat include 116 species that are currently found in the wild on Oahu; 7 plant species found currently only on other Hawaiian Islands, but which were historically found on Oahu; and 1 plant species, *Cyrtandra waiolani*, which may not be extant in the wild. For each of the 123 species currently found in the wild, we have determined the features essential to their conservation are those required for the successful functioning of the ecosystem(s) in which they occur (see Tables 4 and 5). As described earlier, in some cases, additional species-specific primary constituent elements were also identified (see Table 5). Special management considerations or protections are necessary throughout the critical habitat areas proposed here to avoid further degradation or destruction of those features essential to their conservation. The primary threats to the physical or biological features essential to the conservation of all of these species include habitat destruction and modification by feral ungulates, competition with nonnative species, hurricanes, landslides, rockfalls, flooding, fire, drought, and climate change. The Hawaiian damselflies are additionally threatened by destruction and modification of their aquatic habitat due to conversion and fill for agriculture and development, and stream alterations (diversions, channelization, and dewatering). The reduction of these threats will require the implementation of special management actions within each of the critical habitat areas identified in this proposed rule.

All proposed critical habitat, except that in the coastal ecosystem on Oahu, requires active management to address the ongoing degradation and loss of native habitat caused by feral ungulates (pigs and goats). Feral ungulates also impact the habitat through predation and trampling. Without this special management, habitat containing the features that are essential for the conservation of these species will continue to be degraded and destroyed.

All proposed critical habitat requires active management to address the ongoing degradation and loss of native habitat caused by nonnative plants. Special management is also required to prevent the introduction of new alien plant species into native habitats. Particular attention is required during nonnative plant control efforts to avoid creating additional disturbances that may facilitate the further introduction and establishment of invasive plant seeds. Precautions are also required to avoid the inadvertent trampling of listed plant species in the course of management activities.

The active control of nonnative plant species will help to address the threat posed by fire to 29 of the proposed ecosystem critical habitat units in particular: Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8. This threat is largely a result of the presence of nonnative plant species such as the grasses *Cenchrus ciliaris* and *Melinis minutiflora* that increase the fuel load and quickly regenerate after a fire. These nonnative grass species can outcompete native plants that are not adapted to fire, creating a grass-fire cycle that alters ecosystem functions (D'Antonio and Vitousek 1992, pp. 64–66; Brooks *et al.* 2004, p. 680).

Thirty-five of the proposed ecosystem critical habitat units (Oahu—Coastal—Unit 1, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—

Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8) may require special management to reduce the threat of landslides, rockfalls, and flooding. These threaten to further degrade habitat conditions in these units and have the potential to eliminate some populations of 24 plants (e.g., *Cyanea grimesiana* ssp. *grimesiana*, *C. lanceolata*, *Cyrtandra dentata*, *C. kaulantha*, *C. sessilis*, *Doryopteris takeuchii*, *Huperzia nutans*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lysimachia filifolia*, *Melicope makahae*, *Phyllostegia hirsuta*, *P. mollis*, *P. parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *cornuta*, *P. cornuta* var. *decurrens*, *Psychotria hexandra* ssp. *oahuensis*, *Sanicula marivera*, *Schiedea kealiae*, *S. obovata*, *Solanum sandwicense*, *Spermolepis hawaiiensis*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*) and 3 damselfly species found on steep slopes and cliffs, or in narrow gulches. In addition, perennial streams in 40 of the overlapping ecosystem units (blackline Hawaiian damselfly Lowland Wet units 1–11; crimson Hawaiian damselfly Lowland Wet units 1–11 and Wet Cliff units 12–14; and oceanic Hawaiian damselfly critical habitat units 1–Lowland Mesic, Lowland Wet units 2–12, and Wet Cliff units 13–15) may require special management to reduce the threats to the blackline, crimson, and oceanic Hawaiian damselflies from diversions, dewatering, vertical wells, and stream channelization.

In summary, we find that each of the areas we are proposing as critical habitat contains features essential for the conservation of the species that may require special management considerations or protection to ensure the conservation of the 124 Oahu species. These special management considerations and protections are required to preserve and maintain the essential features provided to these species by the ecosystems upon which they depend. The specific areas proposed for critical habitat that are outside the geographical area occupied

by these species have been determined to be essential for their conservation.

Proposed Critical Habitat Designation

We are proposing 43,491 ac (17,600 ha) as critical habitat in 7 ecosystem types for 124 species. The proposed critical habitat is comprised of 66 critical habitat units for the plants, and 40 critical habitat units for the damselflies (see Tables 5A and 5B, above, for details). The proposed critical habitat includes land under State, City and County of Honolulu, Federal (Department of Defense—Navy; Department of Homeland Security—Coast Guard; Department of Interior—Fish and Wildlife Service), and private ownership. The critical habitat units we describe below constitute our current best assessment of those areas that meet the definition of critical habitat for the 124 species of plants and animals.

Descriptions of Proposed Critical Habitat Units

The unit descriptions presented here represent the 7 essential ecosystem areas that we have identified for all 124 species. Critical habitat for the 121 Oahu plant species and critical habitat for the 3 Oahu damselflies are published in separate sections of the Code of Federal Regulations (CFR); critical habitat is published in 50 CFR 17.99(i) for Oahu plants and in 50 CFR 17.95(i) for the three damselfly species. However, the same geographic area represents proposed critical habitat for both plants and damselflies in some portions of Oahu. For example, Oahu—Lowland Mesic—Unit 6 (represented by map 26 in our proposed revision to 50 CFR 17.99(i)) and oceanic Hawaiian damselfly—Unit 1—Lowland Mesic (represented by map 2 for this species in 50 CFR 17.95(i)) correspond to the same geographic area. Therefore, because the unit boundaries are the same, we are describing them only once to avoid redundancy and reduce publication costs for this proposed rule, as indicated by “(and)” following the unit name.

As provided under section 4(b)(2) of the Act, all or portions of each of these areas may be considered for exclusion from critical habitat when this rule is finalized. Exclusions are considered based on the relative costs and benefits of designating critical habitat, including information provided during the public comment period on potential economic impacts of this proposed critical habitat designation, and are made at the discretion of the Secretary. The consideration of potential economic impacts applies solely to the designation of critical habitat, and is not

a factor in our assessment of whether a species warrants listing as endangered or threatened under the Act.

Oahu—Coastal—Unit 1 consists of 958 ac (388 ha) in the coastal ecosystem along the northwestern coast of Oahu from Kaena Point east to Kauhao Pali and southeast to Keawaula. This unit is State-owned, and partially within Kaena Point State Park. It is occupied by the plants *Achyranthes splendens* var. *rotundata*, *Chamaesyce celastroides* var. *kaenana*, and *Sesbania tomentosa*, and includes the mixed hermland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 1 is not known to be occupied by *Bidens amplexens*, *Centaurium sebaeoides*, *Schiedea kealiae*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within their historical range. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 2 consists of 12 ac (5 ha) in the coastal ecosystem on Mokuauia, an islet east of Kalanai Point on the northeastern coast of Oahu. This unit is State-owned and is classified as a State Seabird Sanctuary. It includes the mixed hermland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). Although this unit is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 3 consists of 15 ac (6 ha) in the coastal ecosystem, on the larger of two islets (Moku Manu) off

the windward coast of Oahu near Mokapu Peninsula. This unit is State-owned, classified as a State Seabird Sanctuary, and includes the mixed hermland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as PCEs in the coastal ecosystem (see Table 4). Although this unit is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 4 consists of 3 ac (1 ha) in the coastal ecosystem, the smaller of two islets (Moku Manu) off the windward coast of Oahu near Mokapu Peninsula. This unit is State-owned, classified as a State Seabird Sanctuary, and includes the mixed hermland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). Although Oahu—Coastal—Unit 4 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 5 consists of 12 ac (5 ha) in the coastal ecosystem, the larger of two islands (Mokulua Islands) off the windward coast of Oahu near Wailea Point. This unit is State-owned, classified as a State Seabird Sanctuary, and includes the mixed hermland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). Although this unit is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*, we have determined this area to be essential for the

conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 6 consists of 9 ac (4 ha) in the coastal ecosystem, on the smaller of two islands (Mokulua Islands) off the windward coast of Oahu near Wailea Point. This unit is State-owned, classified as a State Seabird Sanctuary, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). Although Oahu—Coastal—Unit 6 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 7 consists of 67 ac (27 ha) in the coastal ecosystem, on the larger of two islands (Manana Island) off the windward coast of Oahu near Makapuu Point. This unit is State-owned, classified as a State Seabird Sanctuary, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). Although Oahu—Coastal—Unit 7 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 8 consists of 10 ac (4 ha) in the coastal ecosystem, on

the smaller of two islands (Kaohikaipu Island) off the windward coast of Oahu near Makapuu Point. This unit is State-owned, classified as a State Seabird Sanctuary, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). This unit is occupied by the plant *Sesbania tomentosa* and contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 8 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, and *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 9 consists of 84 ac (34 ha) of State land and 0.02 ac (0.01 ha) of privately owned land in the coastal ecosystem on the leeward side of Makapuu Point (Puukopihulu). This unit is occupied by the plants *Cyperus trachysanthos* and *Marsilea villosa*, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem, as well as the unique species PCEs for the plants *C. trachysanthos* and *M. villosa* (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 9 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 10 consists of 74 ac (30 ha) in the coastal ecosystem, owned by the City and County of Honolulu at Halona Point on the leeward side of Koko Crater, extending from Sandy Beach to Kahauloa. It is occupied by the plant *Centaurium sebaeoides* and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 10 is not known to be occupied by *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 11 consists of 20 ac (8 ha) of City and County of Honolulu land in the coastal ecosystem, at Iihihilauakea on Koko Head (Kaihuokapuaa). This unit is occupied by the plant *Marsilea villosa*, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem, as well as the unique species PCEs for this species (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 11 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Cyperus trachysanthos*, *Sesbania tomentosa*, and *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve

population levels that could achieve recovery.

Oahu—Coastal—Unit 12 consists of 11 ac (5 ha) of City and County land in the coastal ecosystem, at Nonoula on Koko Head (Kaihuokapuaa). This unit is occupied by the plant *Marsilea villosa*, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem, as well as the unique species PCEs for this species (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 12 is not currently occupied by *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Cyperus trachysanthos*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 13 consists of 24 ac (10 ha) in the coastal ecosystem, on City, County and private land at Kalaeloa. This unit is occupied by the plant *Achyranthes splendens* var. *rotundata*, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 13 is not known to be occupied by *Bidens amplexans*, *Centaurium sebaeoides*, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 14 consists of 4 ac (2 ha) in the coastal ecosystem, on private and federal (U.S. Coast Guard) land at Kalaeloa. This unit is occupied by the plant *Achyranthes splendens* var. *rotundata*, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 14 is not known to be occupied by *Bidens amplexans*, *Centaurium sebaeoides*, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Coastal—Unit 15 consists of 34 ac (14 ha) in the coastal ecosystem, on State, private, and federal (Pearl Harbor NWR) land at Kalaeloa. This unit is occupied by the plant *Achyranthes splendens* var. *rotundata*, and includes the mixed herbland and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the coastal ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Coastal—Unit 15 is not known to be occupied by *Bidens amplexans*, *Centaurium sebaeoides*, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, or *Vigna o-wahuensis*, we have determined this area to be essential for the conservation and recovery of these coastal species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 1 consists of 102 ac (41 ha) in the lowland dry

ecosystem, on State and privately owned land in the Waianae Mountains, extending from Haili Gulch to Kawaipahai. This unit is occupied by the plants *Bidens amplexans*, *Hibiscus brackenridgei*, *Nototrichium humile*, and *Schiedea kealiae*, and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 1 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Isodendron pyriformum*, *Melanthera tenuifolia*, *Neraudia angulata*, *Pleomele forbesii*, *Schiedea hookeri*, or *Spermatolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 2 consists of 29 ac (12 ha) in the lowland dry ecosystem in the Waianae Mountains, on State-owned land within Kaena Point State Park. This unit is occupied by the plants *Bonamia menziesii*, *Melanthera tenuifolia*, *Nototrichium humile*, and *Pleomele forbesii*, and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 2 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformum*, *Neraudia*, *Schiedea hookeri*, *S. kealiae*, or *Spermatolepis hawaiiensis*, we have

determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 3 consists of 25 ac (10 ha) in the lowland dry ecosystem in the Waianae Mountains, on Federal land (U.S. Navy) in Lualualei Valley, south of Mailiili Stream. This unit is occupied by the plant *Marsilea villosa*, and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem, as well as unique PCEs for this species (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 3 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Cyperus trachysanthos*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 4 consists of 18 ac (7 ha) in the lowland dry ecosystem in the Waianae Mountains, on Federal land (U.S. Navy) in Lualualei Valley, along Paakea Road. This unit is occupied by the plant *Marsilea villosa*, and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem, as well as

unique PCEs for this plant (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 4 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Cyperus trachysanthos*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 5 consists of 8 ac (3 ha) in the lowland dry ecosystem in the Waianae Mountains, on Federal land (U.S. Navy) in Lualualei Valley, northeast of Paakea Road. This unit is occupied by the plant *Cyperus trachysanthos* and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem, as well as unique PCEs for this plant (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 5 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Marsilea villosa*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of

wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 6 consists of 287 ac (116 ha) of State land in the lowland dry ecosystem, on the outer rim of Leahi (Diamond Head) Crater within Diamond Head State Monument. This unit is occupied by the plants *Doryopteris takeuchii* and *Spermolepis hawaiiensis*, and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 6 is not known to be occupied by the plant *Gouania meyenii*, we have determined this area to be essential for the conservation and recovery of this lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to its small numbers of individuals or low population sizes, this species requires suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 7 consists of 15 ac (6 ha) of State land in the lowland dry ecosystem, in Leahi (Diamond Head) Crater within Diamond Head State Monument. This unit is occupied by the plant *Cyperus trachysanthos* and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem, as well as unique PCEs for this plant (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 7 is not known to be occupied by the plants *Doryopteris takeuchii*, *Gouania meyenii*, *Marsilea villosa*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the

species, and the unique PCEs for the species *M. villosa*. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 8 consists of 292 ac (118 ha) of State and private land in the lowland dry ecosystem, at Barbers Point Harbor. Although Oahu—Lowland Dry—Unit 8 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *C. skottsbergii* var. *skottsbergii*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species, and the unique PCEs for the species *C. skottsbergii* var. *skottsbergii*. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 9 consists of 40 ac (16 ha) of City and County, State, private, and federal (Pearl Harbor NWR) land in the lowland dry ecosystem at Kalaeloa. This unit is occupied by the plant *Achyranthes splendens* var. *rotundata*, and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 9 is not known to be occupied by the plants *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *C. skottsbergii* var. *skottsbergii*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential

for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species, and the unique PCEs for the species *C. skottsbergii* var. *skottsbergii*. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 10 consists of 43 ac (17 ha) of State land (Department of Hawaiian Homelands (DHHL)) in the lowland dry ecosystem at Kalaeloa. This unit is occupied by the plant *Chamaesyce skottsbergii* var. *skottsbergii* and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry ecosystem, as well as unique PCEs for this plant (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although DHHL Lowland Dry—Unit 10 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species, and the unique PCEs for the species *C. skottsbergii* var. *skottsbergii*. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Dry—Unit 11 consists of 166 ac (67 ha) of federal land (U.S. Navy) in the lowland dry ecosystem, at Kalaeloa. This unit is occupied by the plant *Chamaesyce skottsbergii* var. *skottsbergii* and includes the dry forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland dry

ecosystem, as well as unique PCEs for this plant (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Dry—Unit 11 is not known to be occupied by the plants *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Gouania meyenii*, *G. vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformis*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *S. kealiae*, or *Spermolepis hawaiiensis*, we have determined this area to be essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species, and the unique PCEs for the species *C. skottsbergii* var. *skottsbergii*. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 1 consists of 4,450 ac (1,801 ha) in the lowland mesic ecosystem in the Waianae Mountains, encompassing a large area including the north slopes of Mt. Kaala, from the Pahole Natural Area Reserve (NAR) to the Kaala NAR, and south to the Waianae Kai Forest Reserve (FR), on State, City and County of Honolulu, and privately owned land. This unit is occupied by the plants *Abutilon sandwicense*, *Alectryon macrococcus* var. *macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonoides*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squarigera*, *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. grimesiana* ssp. *obatae*, *C. longiflora*, *C. superba*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia falcata*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Hesperomannia arborescens*, *H. arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *I. longifolium*, *Kadua degeneri*, *Lobelia nihakauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *M. pallida*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia kaalaensis*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *S. kaalae*, *S. nuttallii*, *S. obovata*, and

Viola chamissoniana ssp. *chamissoniana*, and includes the mesic forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Mesic—Unit 1 is not known to be occupied by the plants *Chamaesyce celastroides* var. *kaenana*, *Cyanea pinnatifida*, *Cyperus pennatifidus*, *Diellia unisora*, *Diplazium molokaiense*, *Eugenia koolauensis*, *Gardenia mannii*, *Gouania meyenii*, *G. vitifolia*, *Kadua coriacea*, *K. parvula*, *Labordia cyrtandrae*, *Melicope saint-johnii*, *Phyllostegia hirsuta*, *P. mollis*, *P. parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Sanicula marivera*, *Silene perlmanii*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, or *Urera kaalae*, we have determined this area to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 2 consists of 1,063 ac (430 ha) in the lowland mesic ecosystem on the windward side of the Waianae Mountains, from Puuhapapa south to Puukaua. This area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit is occupied by the plants *Abutilon sandwicense*, *Alectryon macrococcus*, *Cenchrus agrimonioides*, *Chamaesyce herbsterii*, *Cyanea calycina*, *C. grimesiana* ssp. *obatae*, *Delissea subcordata*, *Diellia falcata*, *Gardenia mannii*, *Phyllostegia hirsuta*, *P. kaalaensis*, *P. mollis*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *S. kaalae*, *Solanum sandwicense*, *Stenogyne kanehoana*, and *Urera kaalae*, and includes the mesic forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem (see Table 4).

This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Mesic—Unit 2 is not known to be occupied by the plants *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *C. grimesiana* ssp. *grimesiana*, *C. longiflora*, *C. pinnatifida*, *C. superba*, *Cyperus pennatifidus*, *Cyrtandra dentata*, *Diellia unisora*, *Diplazium molokaiense*, *Dubautia herbsteratae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gouania meyenii*, *G. vitifolia*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *I. longifolium*, *Kadua coriacea*, *K. degeneri*, *K. parvula*, *Labordia cyrtandrae*, *Lobelia niihauense*, *Melanthera tenuifolia*, *Melicope makahae*, *M. pallida*, *M. saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Sanicula marivera*, *Schiedea nuttallii*, *S. obovata*, *Silene perlmanii*, *Tetramolopium lepidotum* ssp. *lepidotum*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 3 consists of 353 ac (143 ha) in the lowland mesic ecosystem on the windward side of the Waianae Mountains, from Pohakea Pass to Kaiakuakai Gulch. This area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit is occupied by the plants *Alectryon macrococcus* var. *macrococcus*, *Cenchrus agrimonioides*, *Delissea subcordata*, *Diellia falcata*, *D. unisora*, *Hesperomannia arbuscula*, *Melicope saint-johnii*, *Phyllostegia mollis*, *P. parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *Silene perlmanii*, and *Urera kaalae*, and includes the mesic forest and shrubland, the moisture

regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Mesic—Unit 3 is not known to be occupied by the plants *Abutilon sandwicense*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *C. herbsterii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. longiflora*, *C. pinnatifida*, *C. superba*, *Cyperus pennatifidus*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Dubautia herbsteratae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gouania meyenii*, *G. vitifolia*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *I. longifolium*, *Kadua coriacea*, *K. degeneri*, *K. parvula*, *Labordia cyrtandrae*, *Lobelia niihauense*, *Melanthera tenuifolia*, *Melicope makahae*, *M. pallida*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia hirsuta*, *P. kaalaensis*, *Platydesma cornuta* var. *decurrens*, *Sanicula marivera*, *Schiedea hookeri*, *S. nuttallii*, *S. obovata*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 4 consists of 20 ac (8 ha) in the lowland mesic ecosystem on the windward side of the Koolau Mountains, between the Waipilopilo and Hanaimoa gulches, on State-owned land within the Hauula Forest Reserve. This unit includes the lowland mesic forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem (see Table 4). Although Oahu—Lowland Mesic—Unit 4 is not known to be occupied by the plants

Alectryon macrococcus, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. lanceolata*, *C. longiflora*, *C. truncata*, *Cyrtandra dentata*, *C. polyantha*, *C. waiolani*, *Delissea subcordata*, *Diellia erecta*, *D. falcata*, *Eugenia koolauensis*, *Gardenia manni*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *I. longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *M. saint-johnii*, *Phyllostegia hirsuta*, *P. mollis*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *S. nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, or *T. lydgatei*, we have determined this area to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 5 consists of 29 ac (12 ha) in the lowland mesic ecosystem on the windward side of the Koolau Mountains, in Maakua Gulch and ridge; is State-owned; and is within the Hauula FR. This unit includes the mesic forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem (see Table 4). Although Oahu—Lowland Mesic—Unit 5 is not known to be occupied by the plants *Alectryon macrococcus* s, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. lanceolata*, *C. longiflora*, *C. truncata*, *Cyrtandra dentata*, *C. polyantha*, *C. waiolani*, *Delissea subcordata*, *Diellia erecta*, *D. falcata*, *Eugenia koolauensis*, *Gardenia manni*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *I. longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *M. saint-johnii*, *Phyllostegia hirsuta*, *P. mollis*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *S. nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, or *T. lydgatei*, we have

determined this area to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 6 (and) Oceanic Hawaiian damselfly—Unit 1—Lowland Mesic

This area consists of 247 ac (100 ha) in the lowland mesic ecosystem on the windward side of the Koolau Mountains, inland of Kaaawa Point, on State and privately owned land, and is partially within Ahupuaa O Kahana State Park. This area is occupied by the plants *Cyanea acuminata*, *C. crispa*, *C. truncata*, *Gardenia manni*, *Pteralyxia macrocarpa*, and *Schiedea kaalae*; and the invertebrate, the oceanic Hawaiian damselfly. This area includes the lowland mesic forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem, as well as unique PCEs for the damselfly (see Table 4). Because the streams and upland foraging and cover areas required by the oceanic Hawaiian damselfly are dispersed in the lowland mesic ecosystem, the lowland mesic ecosystem physical or biological features are essential to the damselfly because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not known to be occupied by the plants *Alectryon macrococcus*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea calycina*, *C. grimesiana* ssp. *grimesiana*, *C. lanceolata*, *C. longiflora*, *Cyrtandra dentata*, *C. polyantha*, *C. waiolani*, *Delissea subcordata*, *Diellia erecta*, *D. falcata*, *Eugenia koolauensis*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *I. longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *M. saint-johnii*, *Phyllostegia hirsuta*, *P. mollis*, *P. parviflora* var. *parviflora*, *Plantago princeps*, *Pleomele forbesii*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, or *T. lydgatei*, we have determined this area

to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Mesic—Unit 7 consists of 1,669 ac (676 ha) in the lowland mesic ecosystem on the leeward side of the Koolau Mountains, on State and privately owned land, on Waialae Nui ridge. This unit is occupied by the plants *Bonamia menziesii*, *Cyanea acuminata*, *C. grimesiana* ssp. *grimesiana*, *C. lanceolata*, *Cyrtandra polyantha*, *Diellia erecta*, *Lobelia monostachya*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, and *Tetraplasandra lydgatei*, and includes the mesic forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland mesic ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Mesic—Unit 7 is not known to be occupied by the plants *Alectryon macrococcus*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea calycina*, *C. crispa*, *C. longiflora*, *C. truncata*, *Cyrtandra dentata*, *C. waiolani*, *Delissea subcordata*, *Diellia falcata*, *Eugenia koolauensis*, *Gardenia manni*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *I. longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Melicope lydgatei*, *M. saint-johnii*, *Phyllostegia hirsuta*, *P. mollis*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Schiedea kaalae*, *S. nuttallii*, *Solanum sandwicense*, or *Tetraplasandra gymnocarpa*, we have determined this area to be essential for the conservation and recovery of these lowland mesic species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 1 consists of 541 ac (219 ha) owned by the State of Hawaii and City and County of Honolulu, in the lowland wet ecosystem on the windward side of the Waianae

Mountains, and partially within the Mokuleia and Waianae Kai Forest Reserves. This unit is occupied by the plants *Gouania vitifolia*, *Melicope makahae*, *Pleomele forbesii*, *Schiedea hookeri*, and *Urera kaalae*, and includes the wet forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Wet—Unit 1 is not known to be occupied by the plants *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Phyllostegia hirsuta*, *P. mollis*, *Plantago princeps* var. *princeps*, *Pteralyxia macrocarpa*, or *Schiedea kaalae*, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 2 consists of 20 ac (8 ha) in the lowland wet ecosystem on the windward side of the Waianae Mountains at Puuhapapa. This area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit is occupied by the plants *Phyllostegia hirsuta*, *P. mollis*, and *Urera kaalae*, and includes the wet forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Wet—Unit 2 is not known to be occupied by the plants *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania*

vitifolia, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, or *S. kaalae*, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 3 consists of 29 ac (12 ha) in the lowland wet ecosystem on the windward side of the Waianae Mountains at Puukanehoa. This area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit is occupied by the plants *Phyllostegia hirsuta*, *P. mollis*, and *Schiedea hookeri*, and includes the wet forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Wet—Unit 3 is not known to be occupied by the plants *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania vitifolia*, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, or *Urera kaalae*, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 4 consists of 27 ac (11 ha) in the lowland wet ecosystem on the windward side of the Waianae Mountains on State land at Puukaua. A portion of this area was part

of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit is occupied by the plant *Phyllostegia mollis* and includes the wet forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Wet—Unit 4 is not known to be occupied by the plants *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania vitifolia*, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Phyllostegia hirsuta*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *S. kaalae*, or *Urera kaalae*, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 5 consists of 74 ac (29 ha) owned by the State of Hawaii and 2 ac (1 ha) of Federal land owned by the U.S. Navy (Lualualei) in the lowland wet ecosystem, on the windward side of the Waianae Mountains at Palikea. A portion of this area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit is occupied by the plants *Cyanea calycina*, *C. grimesiana* ssp. *obatae*, *Hesperomannia arbuscula*, and *Schiedea kaalae*, and includes the wet forest and shrubland, the moisture regime, and canopy, subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Lowland Wet—Unit 5 is not known to be

occupied by the plants *Cyanea acuminata*, *C. grimesiana* ssp. *grimesiana*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania vitifolia*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Phyllostegia hirsuta*, *P. mollis*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, or *Urera kaalae*, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 6 (and) Blackline Hawaiian damselfly—Unit 1—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 1—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 2—Lowland Wet

This area consists of 790 ac (320 ha) in the lowland wet ecosystem, on privately owned land on the windward side of the Koolau Mountains, and includes Kahawainui, Ihihi, Wailele, and Koloa gulches. This area is occupied by the plant *Hesperomannia arborescens* and by the blackline and oceanic Hawaiian damselflies, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the blackline and oceanic Hawaiian damselflies are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C.*

viridiflora, *C. waiolani*, *Gardenia mannii*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiikae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the crimson Hawaiian damselfly, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 7 (and) Blackline Hawaiian damselfly—Unit 2—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 2—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 3—Lowland Wet

This area consists of 1,790 ac (724 ha) in the lowland wet ecosystem on the windward side of the Koolau Mountains, on State and privately owned land within the Kaipapau and Haula Forest Reserves and Sacred Falls State Park, from Puukainapuaa to Kaluanui (Sacred Falls). This unit is occupied by the plants *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. humboldtiana*, *C. purpurellifolia*, *C. truncata*, *Cyrtandra viridiflora*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Platydesma cornuta* var. *cornuta*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Tetraplasandra gymnocarpa*, *Viola oahuensis*, and *Zanthoxylum oahuense*, and by the blackline and oceanic Hawaiian damselflies. This unit includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the blackline and oceanic Hawaiian damselflies are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or

biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. The streams, foraging areas, and cover areas that are occupied contain the essential PCEs, and the streams and upland areas that are not occupied are essential to the conservation of the species because they support the proper ecological functioning of the occupied areas within the ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Cyanea crispa*, *C. grimesiana* ssp. *grimesiana*, *C. koolauensis*, *C. lanceolata*, *C. st.-johnii*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. waiolani*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiikae*, *M. lydgatei*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Psychotria hexandra* ssp. *oahuensis*, *Sanicula purpurea*, *Trematolobelia singularis*, or the crimson Hawaiian damselfly, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 8 (and) Blackline Hawaiian damselfly—Unit 3—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 3—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 4—Lowland Wet

This area consists of 3,041 ac (1,231 ha) in the lowland wet ecosystem on the windward side of the Koolau Mountains, on State and private land partially within the Ahupuaa O Kahana State Park, including Waihoi Springs, and Punaluu, Kahana, Waikane, Waikeekae, and Uwao streams. This area is occupied by the plant *Cyrtandra kaulantha* and by the invertebrates, the blackline and crimson Hawaiian damselflies. This area includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the

lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the blackline and crimson Hawaiian damselflies are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by the plants *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the oceanic Hawaiian damselfly, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 9 (and) Blackline Hawaiian damselfly—Unit 4—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 4—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 5—Lowland Wet

This area consists of 15,728 ac (6,365 ha) in the lowland wet ecosystem on the leeward side of the Koolau Mountains, on Federal (U.S. Fish and Wildlife Service), State, City and County of Honolulu, and privately owned land, partially within the Ewa FR Waimano

Section and the Oahu Forest National Wildlife Refuge. This area extends along the Koolau summit from Waipio to Manaiki Stream, and is occupied by the plants *Chamaesyce rockii*, *Cyanea calycina*, *C. humboldtiana*, *C. koolauensis*, *C. st.-johnii*, *Cyrtandra viridiflora*, *Gardenia mannii*, *Hesperomannia arborescens*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *cornuta*, *Pteris lidgatei*, *Tetraplasandra gymnocarpa*, *Viola oahuensis*, and *Zanthoxylum oahuense*, and by the blackline and crimson Hawaiian damselflies. This area includes the wet forest and shrubland, the-moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the blackline and crimson Hawaiian damselflies are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Cyanea acuminata*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. waiolani*, *Huperzia nutans*, *Isodendron longifolium*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Myrsine juddii*, *Plantago princeps* var. *longibracteata*, *Platanthera holochila*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Trematolobelia singularis*, or the oceanic Hawaiian damselfly, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 10 (and) Blackline Hawaiian damselfly—Unit 5—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 5—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 6—Lowland Wet

This area consists of 124 ac (50 ha) in the lowland wet ecosystem on private land on the windward side of the Koolau Mountains, along Kaalaea Stream. This area is occupied by the blackline Hawaiian damselfly, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the blackline Hawaiian damselfly (see Table 4). Because the streams and upland foraging and cover areas required by the blackline Hawaiian damselfly are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to this damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the crimson and oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low

population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 11 (and) Blackline Hawaiian damselfly—Unit 6—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 6—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 7—Lowland Wet

This area consists of 124 ac (50 ha) in the lowland wet ecosystem, owned by the City and County of Honolulu on the windward side of the Koolau Mountains, along Waihee Stream. This area is occupied by the blackline and oceanic Hawaiian damselflies, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the blackline and oceanic Hawaiian damselflies are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to these damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia manni*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the crimson Hawaiian damselfly, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it

provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 12 (and) Blackline Hawaiian damselfly—Unit 7—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 7—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 8—Lowland Wet

This area consists of 53 ac (21 ha) in the lowland wet ecosystem on privately owned land on the windward side of the Koolau Mountains, along Kahaaluu Stream and tributary. This area is occupied by the blackline Hawaiian damselfly, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for this Hawaiian damselfly (see Table 4). Because the streams and upland foraging and cover areas required by the blackline Hawaiian damselfly are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to this damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia manni*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or

the crimson and oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 13 (and) Blackline Hawaiian damselfly—Unit 8—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 8—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 9—Lowland Wet

This area consists of 161 ac (65 ha) in the lowland wet ecosystem in Federal and City and County of Honolulu land on the windward side of the Koolau Mountains, along Heeia Stream and tributaries. This area is occupied by the blackline Hawaiian damselfly, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for this Hawaiian damselfly (see Table 4). Because the streams and upland foraging and cover areas required by the blackline Hawaiian damselfly are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to this damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulantha*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia manni*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp.

oahuensis, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the crimson and oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 14 (and) Blackline Hawaiian damselfly—Unit 9—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 9—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 10—Lowland Wet

This area consists of 478 ac (193 ha) in the lowland wet ecosystem on State and City and County of Honolulu land on the leeward side of the Koolau Mountains, extending from the Wilson Tunnel area southeast to Moole Stream. This area is occupied by the plant *Cyanea koolauensis*, and by the blackline Hawaiian damselfly, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselfly (see Table 4). Because the streams and upland foraging and cover areas required by the blackline Hawaiian damselfly are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. lanceolata*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulanthea*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope*

hiiakae, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the crimson and oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 15 (and) Blackline Hawaiian damselfly—Unit 10—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 10—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 11—Lowland Wet

This area consists of 407 ac (165 ha) in the lowland wet ecosystem on State of Hawaii Department of Land and Natural Resources Land Division land on the windward side of the Koolau Mountains in Maunawili Valley, including Omao and Maunawili streams and Kapakahi and Pikoakea Springs. This area is occupied by the plant *Cyanea crispa*, and the blackline Hawaiian damselfly, and includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem, as well as unique PCEs for the Hawaiian damselfly (see Table 4). Because the streams and upland foraging and cover areas required by the blackline Hawaiian damselfly are dispersed in the lowland wet ecosystem, the lowland wet ecosystem physical or biological features are essential to this damselfly species because they provide for the proper ecological functioning of this ecosystem. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *C. calycina*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. lanceolata*, *C.*

purpurellifolia, *C. st.-johnii*, *C. truncata*, *Cyrtandra dentata*, *C. gracilis*, *C. kaulanthea*, *C. polyantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the crimson and oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Lowland Wet—Unit 16 (and) Blackline Hawaiian damselfly—Unit 11—Lowland Wet (and) Crimson Hawaiian damselfly—Unit 11—Lowland Wet (and) Oceanic Hawaiian damselfly—Unit 12—Lowland Wet

This area consists of 2,507 ac (1,014 ha) in the lowland wet ecosystem on State, City and County of Honolulu, and private land on the leeward side of the Koolau Mountains, partly within the Honolulu Watershed Forest Reserve, extending from the eastern side of Nuuanu Valley southeast along the Koolau summit to Kulepeamo Ridge. This area is occupied by the plants *Cyanea acuminata*, *C. calycina*, *C. crispa*, *C. grimesiana* ssp. *grimesiana*, *C. humboldtiana*, *C. koolauensis*, *C. lanceolata*, *C. st.-johnii*, *Cyrtandra gracilis*, *C. polyantha*, *C. sessilis*, *Gardenia mannii*, *Hesperomannia arborescens*, *Platydesma cornuta* var. *cornuta*, *Sanicula purpurea*, and *Tetraplasandra gymnocarpa*. This area includes the wet forest and shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the lowland wet ecosystem (see Table 4). This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs (including the

unique PCEs for the Hawaiian damselfly) necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea purpurellifolia*, *C. truncata*, *Cyrtandra dentata*, *C. kaulantha*, *C. subumbellata*, *C. viridiflora*, *C. waiolani*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. oahuensis*, *Melicope hiiakae*, *M. lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *P. princeps* var. *princeps*, *Platanthera holochila*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Trematolobelia singularis*, *Viola oahuensis*, *Zanthoxylum oahuense*, or the blackline, crimson or oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these lowland wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Montane Wet—Unit 1 consists of 370 ac (150 ha) in the montane wet ecosystem at the summit of the Waianae Mountains at Kaala, on City and County of Honolulu and State land, and partially within the Mokuleia Forest Reserve and the Kaala Natural Area Reserve. This unit is occupied by the plants *Cyanea acuminata*, *C. calycina*, *Labordia cyrtandrae*, *Melicope christophersenii*, and *Schiedea trinervis*, and includes the wet forest and shrubland, the moisture regime, canopy, subcanopy, and understory native plant species identified as physical or biological features in the montane wet ecosystem (see Table 4). This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Montane Wet—Unit 1 is not known to be occupied by the plants *Alectryon macrococcus* var. *macrococcus*, *Lobelia oahuensis*, or *Phyllostegia hirsuta*, we have determined this area to be essential for the conservation and recovery of these montane wet species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of

individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 1 consists of 49 ac (20 ha) in the dry cliff ecosystem, on the leeward side of the Waianae Mountains, along the rim of Makua Valley. This unit is on State land within the Pahole Natural Area Reserve, and includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4). This unit is occupied by the plants *Alectryon macrococcus*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Kadua degeneri*, *Plantago princeps* var. *princeps*, and *Schiedea obovata*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 1 is not currently occupied by *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Bonamia menziesii*, *Chamaesyce kuwaleana*, *Diellia falcata*, *D. unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *G. vitifolia*, *Isodendron laurifolium*, *I. pyrifolium*, *Kadua parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *M. saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *T. lepidotum* ssp. *lepidotum*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 2 consists of 412 ac (167 ha) in the dry cliff ecosystem, on the leeward side of the Waianae Mountains, along the ridge from Keaau to Ohikilolo. This unit is on

State and City and County of Honolulu land almost entirely within the Makua Keaau Forest Reserve, and includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4). Dry Cliff—Unit 2 is occupied by the plants *Abutilon sandwicense*, *Alectryon macrococcus*, *Dubautia herbstobatae*, *Gouania vitifolia*, *Kadua parvula*, *Lepidium arbuscula*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Nototrichium humile*, *Peucedanum sandwicense*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Sanicula mariversa*, *Schiedea hookeri*, *Tetramolopium filiforme*, and *Viola chamissoniana* ssp. *chamissoniana*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 2 is not currently occupied by *Achyranthes splendens* var. *rotundata*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *C. kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *D. unisora*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *Isodendron laurifolium*, *I. pyrifolium*, *Kadua degeneri*, *Korthalsella degeneri*, *Lipochaeta lobata* var. *leptophylla*, *Melicope saint-johnii*, *Neraudia angulata*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Pteralyxia macrocarpa*, *Schiedea obovata*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Spermolepis hawaiiensis*, or *Tetramolopium lepidotum* ssp. *lepidotum*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 3 consists of 450 ac (182 ha) in the dry cliff ecosystem on the leeward side of the Waianae Mountains, along the eastern rim of Makaha Valley along Kamaileunu Ridge. This unit is on State and City and County of Honolulu land partially within the Waianae Kai Forest Reserve, and includes the shrubland, the moisture regime, and subcanopy and understory native plant species

identified as physical or biological features in the dry cliff ecosystem (see Table 4). This unit is occupied by the plants *Abutilon sandwicense*, *Alectryon macrococcus*, *Bonamia menziesii*, *Diellia falcata*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *Isodendron laurifolium*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Silene lanceolata*, *Tetramolopium filiforme*, and *Viola chamissoniana* ssp. *chamissoniana*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 3 is not currently occupied by *Achyranthes splendens* var. *rotundata*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *C. kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia unisora*, *Gouania vitifolia*, *Isodendron pyriforme*, *Kadua degeneri*, *K. parvula*, *Melicope saint-johnii*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Sanicula mariversa*, *Schiedea obovata*, *S. trinervis*, *Silene perlmanii*, *Spermolepis hawaiiensis*, or *Tetramolopium lepidotum* ssp. *lepidotum*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 4 consists of 108 ac (44 ha) in the dry cliff ecosystem on the leeward side of the Waianae Mountains, along Kauaopuu ridge, which divides Waianae Kai and Lualualei valleys. This unit is on State and Federal land partially within the Waianae Kai Forest Reserve, and includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4). This unit is occupied by the plants *Alectryon macrococcus*, *Chamaesyce kuwaleana*, and *Spermolepis hawaiiensis*. This unit also contains unoccupied habitat that is

essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 4 is not currently occupied by *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *D. unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *G. vitifolia*, *Isodendron laurifolium*, *I. pyriforme*, *Kadua degeneri*, *K. parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *M. saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *S. obovata*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Tetramolopium filiforme*, *T. lepidotum* ssp. *lepidotum*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 5 consists of 26 ac (10 ha) in the dry cliff ecosystem, on the leeward side of the Waianae Mountains in Federal land (U.S. Navy) between Kolekole Pass and Puuhapapa, and includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4). This unit is occupied by the plants *Alectryon macrococcus*, *Bonamia menziesii*, *Flueggea neowawraea*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Nototrichium humile*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, and *Schiedea hookeri*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 5 is not currently occupied

by *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *C. kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *D. unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Gouania meyenii*, *G. vitifolia*, *Isodendron laurifolium*, *I. pyriforme*, *Kadua degeneri*, *K. parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Melanthera tenuifolia*, *Melicope angulata*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea obovata*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *T. lepidotum* ssp. *lepidotum*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 6 consists of 255 ac (103 ha) in the dry cliff ecosystem on the leeward side of the Waianae Mountains, on State and Federal (U.S. Navy) land along the rim of Lualualei Valley from Puukanehoa to Puukaua. A portion of this area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4), and is occupied by the plants *Cenchrus agrimonioides*, *Diellia unisora*, *Flueggea neowawraea*, *Lepidium arbuscula*, *Lobelia niihauensis*, *Melicope saint-johnii*, *Neraudia angulata*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, and *Tetramolopium lepidotum* ssp. *lepidotum*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 6 is not currently occupied by *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Alectryon macrococcus*, *Bonamia menziesii*,

Chamaesyce herbstii, *C. kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Gouania meyenii*, *G. vitifolia*, *Isodendron laurifolium*, *I. pyrifolium*, *Kadua degeneri*, *K. parvula*, *Korthalsella degeneri*, *Lipochaeta lobata* var. *leptophylla*, *Melanthera tenuifolia*, *Melicope makahae*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Platydesma cornuta* var. *decurrens*, *Sanicula mariversa*, *Schiedea hookeri*, *S. obovata*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 7 consists of 208 ac (84 ha) in the dry cliff ecosystem on the leeward side of the Waianae Mountains, on State and Federal (U.S. Navy) land along the rim of Lualualei Valley from Pohakea to Palikea. A small portion of this area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4). It is occupied by the plants *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Diellia unisora*, *Flueggea neowawraea*, *Kadua parvula*, *Lepidium arbuscula*, *Melicope saint-johnii*, *Neraudia angulata*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Silene perlmanii*, and *Viola chamissoniana* ssp. *chamissoniana*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 7 is not currently occupied by *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonoides*, *Chamaesyce herbstii*, *C. kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *D. unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Gouania meyenii*, *G. vitifolia*, *Isodendron laurifolium*, *I. pyrifolium*, *Kadua degeneri*, *K. parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Melanthera tenuifolia*, *Melicope makahae*, *M. saint-johnii*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*,

Isodendron laurifolium, *I. pyrifolium*, *Kadua degeneri*, *Korthalsella degeneri*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niuhauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *S. obovata*, *S. trinervis*, *Silene lanceolata*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, or *T. lepidotum* ssp. *lepidotum*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Dry Cliff—Unit 8 consists of 259 ac (105 ha) in the dry cliff ecosystem on the leeward side of the Waianae Mountains, on State land along the rim of Nanakuli Valley from Palehua to Puumanawana, and partially within the Nanakuli Forest Reserve. A small portion of this area was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the dry cliff ecosystem (see Table 4). It is occupied by the plants *Abutilon sandwicense*, *Bonamia menziesii*, *Flueggea neowawraea*, *Lobelia niuhauensis*, *Neraudia angulata*, *Nototrichium humile*, and *Pleomele forbesii*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Dry Cliff—Unit 8 is not currently occupied by *Achyranthes splendens* var. *rotundata*, *Alectryon macrococcus*, *Cenchrus agrimonoides*, *Chamaesyce herbstii*, *C. kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *D. unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Gouania meyenii*, *G. vitifolia*, *Isodendron laurifolium*, *I. pyrifolium*, *Kadua degeneri*, *K. parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Melanthera tenuifolia*, *Melicope makahae*, *M. saint-johnii*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*,

Plantago princeps var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *S. obovata*, *S. trinervis*, *Silene lanceolata*, *S. perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *T. lepidotum* ssp. *lepidotum*, or *Viola chamissoniana* ssp. *chamissoniana*, we have determined this area to be essential for the conservation and recovery of these dry cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 1 consists of 235 ac (95 ha) in the wet cliff ecosystem on State and City and County of Honolulu land in the Waianae Mountains, near the summit of Kaala, and partially within the Mokuleai and Waianae Kai FRs and the Kaala Natural Area Reserve. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem (see Table 4). Oahu—Wet Cliff—Unit 1 is occupied by the plants *Cyanea calycina*, *Melicope christophersenii*, and *Schiedea trinervis*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Wet Cliff—Unit 1 is not currently occupied by *Cyanea acuminata*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, or *S. kaalae*, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 2 consists of 7 ac (3 ha) in the wet cliff ecosystem on State and Federal land (U.S. Navy) in the Waianae Mountains at Puuhapapa, partially within a small area that was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit includes the

shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem (see Table 4). Oahu—Wet Cliff—Unit 2 is occupied by the plants *Cyanea calycina* and *Melicope christophersenii*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Wet Cliff—Unit 2 is not currently occupied by *Cyanea acuminata*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *S. kaalae*, or *S. trinervis*, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 3 consists of 16 ac (6 ha) in the wet cliff ecosystem on State land in the Waianae Mountains at Puukanehoa, partially within an area that was part of the Honouliuli Preserve, managed by The Nature Conservancy of Hawaii, and was recently acquired by the State. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem (see Table 4). Although Oahu—Wet Cliff—Unit 3 is not currently occupied by *Cyanea acuminata*, *C. calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *S. kaalae*, or *S. trinervis*, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 4 consists of 23 ac (9 ha) in the wet cliff ecosystem on State land in the Waianae Mountains at Puukaua, partially overlapping an area that was part of the Honouliuli Preserve, managed by The Nature

Conservancy of Hawaii, and was recently acquired by the State. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem (see Table 4). It is occupied by the plants *Phyllostegia hirsuta* and *Schiedea hookeri*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although Oahu—Wet Cliff—Unit 4 is not currently occupied by *Cyanea acuminata*, *C. calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, or *S. trinervis*, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 5 consists of 43 ac (17 ha) in the wet cliff ecosystem on State and Federal (U.S. Navy) land in the Waianae Mountains, at Palikea and north of Palikea. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem (see Table 4). Although Oahu—Wet Cliff—Unit 5 is not currently occupied by *Cyanea acuminata*, *C. calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *S. kaalae*, or *S. trinervis*, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 6 (and) Crimson Hawaiian Damsselfly—Unit 12—Lowland Wet (and) Oceanic Hawaiian Damsselfly—Unit 13—Lowland Wet

This area consists of 151 ac (61 ha) in the wet cliff ecosystem on State land on the windward side of the Koolau Mountains in Kaipapau Gulch, entirely

within the Kaipapau Forest Reserve. This area includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem, as well as the unique species PCEs for the Hawaiian damsselfies (see Table 4). Because the streams and upland foraging and cover areas required by the crimson and oceanic Hawaiian damsselfies are dispersed in the wet cliff ecosystem, the wet cliff ecosystem's physical or biological features are essential to the damsselfly species because they provide for the proper ecological functioning of this ecosystem. This area is occupied by *Cyanea crispera*, *Huperzia nutans*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, and the oceanic Hawaiian damsselfly. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by the plants *Adenophorus periens*, *Chamaesyce deppeana*, *C. rockii*, *Cyanea acuminata*, *C. calycina*, *C. humboldtiana*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra kaulantha*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Lysimachia filifolia*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Psychotria hexandra* ssp. *oahuensis*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, or the crimson Hawaiian damsselfly, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 7 (and) Crimson Hawaiian Damsselfly—Unit 13—Lowland Wet (and) Oceanic Hawaiian Damsselfly—Unit 14—Lowland Wet

This area consists of 144 ac (58 ha) in the wet cliff ecosystem on State land on the windward side of the Koolau Mountains in Hauula Gulch, entirely within the Hauula Forest Reserve. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem, as

well as the unique species PCEs for the crimson and oceanic Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the crimson and oceanic Hawaiian damselflies are dispersed in the wet cliff ecosystem, the wet cliff ecosystem's physical or biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. This area is occupied by *Cyanea crispa*, *Psychotria hexandra* ssp. *oahuensis*, *Schiedea kaalae*, and the crimson and oceanic Hawaiian damselflies. This area also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce deppeana*, *C. rockii*, *Cyanea acuminata*, *C. calycina*, *C. humboldtiana*, *C. purpurellifolia*, *C. st.-johnii*, *C. truncata*, *Cyrtandra kaulanthera*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *Huperzia nutans*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Lysimachia filifolia*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, or *Viola oahuensis*, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Oahu—Wet Cliff—Unit 8 (and) Crimson Hawaiian Damselfly—Unit 14—Lowland Wet (and) Oceanic Hawaiian Damselfly—Unit 15—Lowland Wet

This area consists of 4,649 ac (1,881 ha) in the wet cliff ecosystem on State, City and County of Honolulu, State of Hawaii Department of Land and Natural Resources Land Division, and private land, along the summit of the Koolau Mountains, overlapping portions of Sacred Falls State Park, the Waiahole FR (Waiahole and Iolekaa sections), the Kaneohe and Honolulu Watershed FRs, and the Nuuanu Pali State Wayside. This unit includes the shrubland, the moisture regime, and subcanopy and understory native plant species identified as physical or biological features in the wet cliff ecosystem, as well as the unique species PCEs for the

crimson and oceanic Hawaiian damselflies (see Table 4). Because the streams and upland foraging and cover areas required by the crimson and oceanic Hawaiian damselflies are dispersed in the wet cliff ecosystem, the wet cliff ecosystem's physical or biological features are essential to the damselfly species because they provide for the proper ecological functioning of this ecosystem. This area is occupied by the plants *Cyanea acuminata*, *C. calycina*, *C. humboldtiana*, *C. purpurellifolia*, *C. st.-johnii*, *Cyrtandra kaulanthera*, *C. sessilis*, *C. subumbellata*, *C. viridiflora*, *Huperzia nutans*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Lysimachia filifolia*, *Phyllostegia hirsuta*, *P. parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, and *Viola oahuensis*. This unit also contains unoccupied habitat that is essential to the conservation of these species by providing the PCEs necessary for the expansion of the existing wild populations. Although this area is not currently occupied by *Adenophorus periens*, *Chamaesyce deppeana*, *C. rockii*, *Cyanea crispa*, *C. truncata*, *Psychotria hexandra* ssp. *oahuensis*, *Schiedea kaalae*, or the crimson and oceanic Hawaiian damselflies, we have determined this area to be essential for the conservation and recovery of these wet cliff species because it provides the PCEs necessary for the reestablishment of wild populations within the historical ranges of the species. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could achieve recovery.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act, as amended, requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. Decisions by the Fifth and Ninth Circuit Court of Appeals have invalidated our definition of "destruction or adverse modification" (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442F (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical

habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain those physical or biological features that relate to the current ability of the area to support the species) to serve its intended conservation role for the species.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

If we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define "reasonable and prudent alternatives" at 50 CFR 402.02 as alternative actions identified during consultation that:

- Can be implemented in a manner consistent with the intended purpose of the action;
- Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction;
- Are economically and technologically feasible; and
- Would, in the Director's opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinstate formal consultation on previously reviewed actions in instances where we have

listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Federal activities that may adversely affect the species included in this proposed rule or their designated critical habitat require section 7 consultation under the Act. This includes activities on State, tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*), a permit from us under section 10 of the Act), or activities involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). These types of activities are subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7 consultations.

Application of the Jeopardy and Adverse Modification Standards

Application of the Jeopardy Standard

The jeopardy analysis usually expresses the survival and recovery needs of a listed species in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, the jeopardy analysis focuses on the status of a species, the factors responsible for that condition, and what is necessary for the species to survive and recover. An emphasis is also placed on characterizing the condition of the species in the area affected by the proposed Federal action. That context is then used to determine the significance of adverse and beneficial effects of the proposed Federal action and any cumulative effects for purposes of making the jeopardy determination. The jeopardy analysis also considers any conservation measures that may be proposed by a Federal action agency to minimize or compensate for adverse

project effects to the species or to promote its recovery.

Application of the Adverse Modification Standard

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analysis for Federal actions affecting critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or would retain its current ability for the essential features to be functionally established. Activities that may destroy or adversely modify critical habitat are those that alter the essential features to an extent that appreciably reduces the conservation value of critical habitat for the 124 species identified in this proposed rule.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that, when carried out, funded, or authorized by a Federal agency, may destroy or adversely modify critical habitat for the 124 species, and therefore may be affected by this proposed designation, include, but are not limited to:

(1) Activities that might appreciably degrade or destroy the physical or biological features for the species including, but not limited to, the following: Overgrazing; maintaining or increasing feral ungulate levels; clearing or cutting native live trees and shrubs (e.g., woodcutting, bulldozing, construction, road building, mining, herbicide application); and taking actions that pose a risk of fire.

(2) Activities that may alter watershed characteristics in ways that would appreciably reduce groundwater recharge or alter natural, wetland, aquatic, or vegetative communities. Such activities include new water diversion or impoundment, excess groundwater pumping, and manipulation of vegetation through activities such as the ones mentioned in (1) above

(3) Recreational activities that may appreciably degrade vegetation.

(4) Mining sand or other minerals.

(5) Introducing or encouraging the spread of nonnative plant species.

(6) Importing nonnative species for research, agriculture, and aquaculture, and releasing biological control agents.

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- A statement of goals and priorities;
- A detailed description of management actions to be implemented to provide for these ecological needs; and
- A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the areas that were being considered for critical habitat designation during the development of this proposed rule to determine if these installations may warrant consideration for exemption under section 4(a)(3) of the Act. Each of the Department of Defense (DOD) installations identified below owns or manages such lands, which have been analyzed for

exemption under the authority of section 4(a)(3) of the Act.

Approved INRMPs

The U.S. Army has six training installations under its jurisdiction on the island of Oahu: Dillingham Military Reservation (DMR), Kawaioloa Training Area (KLOA), Kahuku Training Area (KTA), Makua Military Reservation (MMR), Schofield Barracks Military Reservation (SBMR), and Schofield Barracks Military Reservation—East Range (SBER). These lands are administered by the Army Garrison Hawaii for various types of military training. In our 2003 final rule to designate critical habitat for 99 plant species on Oahu (68 FR 35950), we did not designate critical habitat on areas managed by the Army that met the following criteria: (1) The area was subject to a current and final INRMP that provides a conservation benefit to the species; (2) there were assurances the conservation management strategies will be implemented; and (3) there were assurances the conservation management strategies will be effective. These determinations were based primarily on section 4(b)(2) of the Act.

Our previous analysis determined the ongoing and proposed management activities described in the 2002 INRMP provide a conservation benefit to the plant species, and that the INRMP provided assurances the conservation plan would be implemented and effective (68 FR 35950, June 17, 2003). After applying the above three criteria, we determined in the 2003 final rule that 26,946 ac (10,905 ha) of Army lands were exempt from critical habitat designation. Our exclusion analysis of Army lands determined that the benefits of excluding these lands based on impacts to national security and other relevant factors outweighed the benefits of designating these lands as critical habitat. The exclusion of Army lands in the 2003 final rule was based on our review and analysis of the Army's INRMP (Army 2002), Ecosystem Management Plan (Army 1998), and Endangered Species Management Plan (Research Corporation of Hawaii 1998). We also evaluated the monthly and annual summary reports describing natural resources management projects performed under the Ecosystems Management Programs for each of the six Oahu installations, and we reviewed the Army's Wildland Fire Management Plan for Makua Military Installation (Army 2000) and the Draft Wildland Fire Management Plan for the other five Oahu installations (Army 2003).

Subsequent to publication of the 2003 final rule, the National Defense

Authorization Act of 2004 (Pub. L. 108–136) was enacted, which amended the Act. The Army's 2001 INRMP was updated in 2010 (see below), and we have reevaluated the conservation and management activities for the species that occur on Army lands within this statutory framework for purposes of this proposed rule.

The Army recently updated their 2001 INRMP, which was finalized in August, 2010 (U.S. Army Garrison Hawaii, 2010). The INRMP identifies management actions during 2010–2014 for threatened, endangered, and candidate species, and critical habitat, for the Oahu elepaio (an endangered flycatcher) on all of their Oahu training installations (U.S. Army Garrison Hawaii 2010, p. 4–1). The INRMP incorporates management actions developed as Implementation Plans by a team of biologists and field experts from State, Federal, and private agencies and organizations, who are familiar with the species and their habitats (U.S. Army Garrison Hawaii 2003; 2008, Addendum; U.S. Army Garrison Hawaii, 2005). The Implementation Plans and Addendum were prepared under the terms of biological opinions issued by the Service (USFWS 1999; USFWS 2003, 356 pp; USFWS 2007, 776 pp.).

Species conservation/management activities conducted under the Army INRMP include (1) Propagation and outplanting of plants to augment existing populations and reintroduce species and populations to areas where they no longer occur; (2) construction of fences to protect plants from feral ungulates; (3) nonnative rodent, slug, and snail control to protect plants from fruit and seed predation and reduce predation of elepaio nests (by rats); (4) habitat restoration (e.g., restoration of fire-altered native habitats to native vegetation, erosion control); (5) control of nonnative plants, nonnative invertebrates (e.g., black-twig borer), and feral ungulate populations; (6) surveys and monitoring of rare plants and animals; (7) monitoring for weeds; and (8) monitoring fenced areas for ungulate activity (U.S. Army Garrison Hawaii 2010, pp. 4–3–4–29). In addition, the Army contracts with field experts to monitor rare plants and conduct predator control on their lands, and supports several important research projects (e.g., developing methods to control nonnative slugs and snails; developing methods to restore nonnative, highly flammable grasslands to native forest vegetation; and determining home range and density of rats (U.S. Army Garrison Hawaii 2010, p. 4–28)).

The Army provides monthly and annual summary reports to the Service regarding the natural resources management projects implemented under to the Implementation Plans and the Addendum, which are integrated in the INRMP for the six installations. These summary reports provide information on management actions implemented and whether they have proven beneficial to listed species and species proposed for listing. Examples of ecosystem management activities that protect rare species habitat and provide conservation benefits include fence construction; removal of feral ungulates from within fenced areas; and minimizing the threat of fire through the control and eradication of fire-tolerant nonnative plant species, construction of fuel breaks, maintenance of existing roads, roadside weed clearing, and investing in firefighting equipment and training fire crews (U.S. Army Garrison Hawaii 2010, p. 4–14 and pp. 4–65–4–66).

In 2003, the Army completed an integrated wildland fire management plan (WFMP) for all of its Oahu training installations, which is integrated in the 2010 INRMP (U.S. Army 2010, p. 4–65). The goal of the WFMP is to reduce the threat of wildfire, which represents a threat to listed and other rare species, including 6 of the 23 species proposed for listing and 34 previously listed plant species that occur on one or more of Oahu's six Army training installations. Specific conservation/management activities for individual plant species are detailed in the Implementation Plans and the Addendum, and integrated in the INRMP (U.S. Army Garrison Hawaii 2010, pp. 4–20–4–22 and Appendix 4). Each of these documents is available online at "U.S. Army Garrison Hawaii Natural Resource Program Reports," <http://manoa.hawaii.edu/hpicesu/dpw.htm>. We reviewed the management activities described in these plans and have determined that they provide conservation benefits to the 14 plant species proposed for listing and 63 previously listed plant species that have been reported on one or more of Oahu's six Army training installations. Accordingly, we have determined that 8,098 ac (3,277 ha) of land on Oahu's six Army training installations (see Figures 1–4) are exempt from critical habitat designation in accordance with section 4(a)(3)(B)(i) of the Act. The conservation actions identified in the 2010–2014 INRMP for the Army's Oahu installations, which incorporates the 2003 and 2008 Implementation Plans, the 2005 Addendum (USFWS 2003, 356

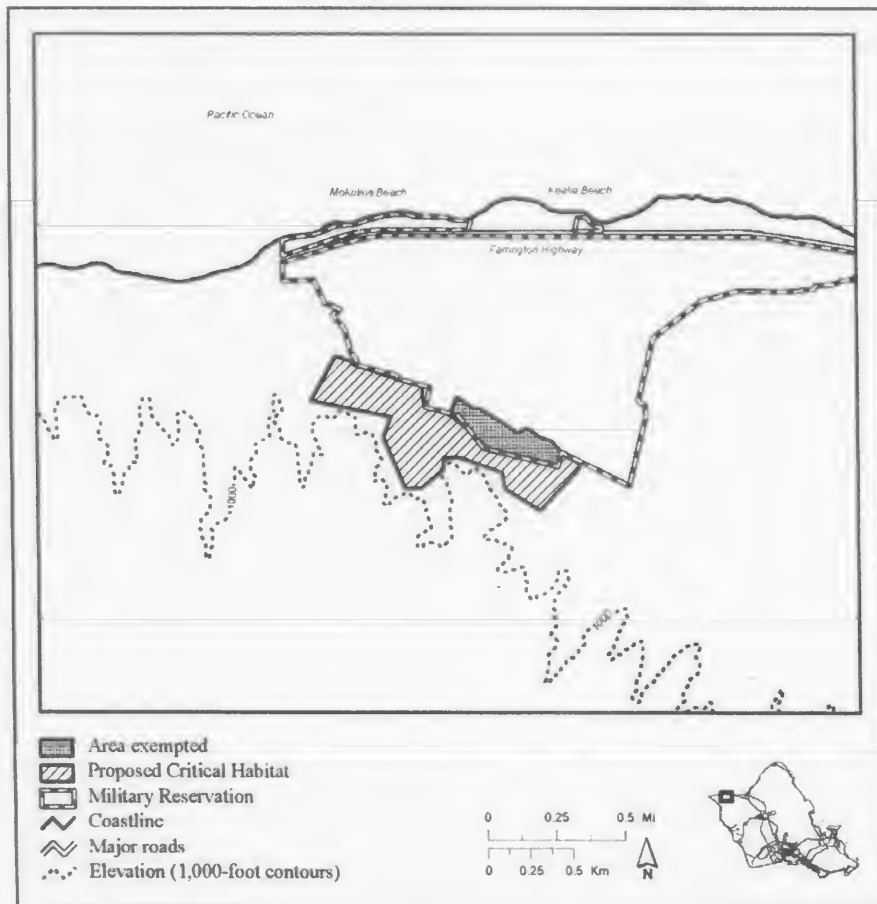
pp; U.S. Army Garrison 2005; USFWS 2007, 776 pp.), and the 2003 WFMP, provide conservation benefits to 14 plant species proposed for listing that occur within the six Oahu training areas, which include *Bidens amplexans*, *Cyanea calycina*, *C. lanceolata*, *C. purpurellifolia*, *Korthalsella degeneri*, *Melicope christophersenii*, *M. hiiakae*, *M. makahae*, *Platydesma cornuta* var. *cornuta*, *P. cornuta* var. *decurrens*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, and *Zanthoxylum oahuense*. The 2010–2014 INRMP also provide conservation benefits to 63 previously listed plant species that occur within the six Oahu training areas, which include *Abutilon sandwicense*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus*

agrimonioides, *Chamaesyce celastroides* var. *kaenana*, *C. herbstii*, *C. rockii*, *Ctenitis squamigera*, *Cyanea acuminata*, *C. crispa*, *C. grimesiana* ssp. *obatae*, *C. humboldtiana*, *C. koolauensis*, *C. longiflora*, *C. st-johnii*, *C. superba*, *Cyrtandra dentata*, *C. subumbellata*, *C. viridiflora*, *Delissea subcordata*, *Diellia falcata*, *Dubautia herbstobatae*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gardenia manni*, *Hesperomannia arborescens*, *H. arbuscula*, *Hibiscus brackenridgei*, *Huperzia nutans*, *Isodendron laurifolium*, *Kadua degeneri*, *K. parvula*, *Labordia cyrtandrae*, *Lepidium arbuscula*, *Lobelia gaudichaudii* ssp. *koolauensis*, *L. niihauensis*, *L. oahuensis*, *Melanthera tenuifolia*, *Melicope lydgatei*, *Myrsine juddii*, *Neraudia angulata*, *Nototrichium*

humile, *Phyllostegia hirsuta*, *P. mollis*, *Plantago princeps* var. *princeps*, *Pritchardia kaalae*, *Pteris lidgatei*, *Sanicula marivera*, *S. purpurea*, *Schiedea hookeri*, *S. kaalae*, *S. nuttallii*, *S. obovata*, *S. trinervis*, *Silene lanceolata*, *Solanum sandwicense*, *Spermolepis hawaiiensis*, *Stenogyne kanehoana*, *Tetramolopium filiforme*, *Tetraplasandra gymnocarpa*, *Viola chamissoniana* ssp. *chamissoniana*, and *V. oahuensis* (see Table 7A and B, above) (U.S. Army Garrison 2003, 2005, 2008, 2010; USFWS 2003, 356 pp.; USFWS 2007, 776 pp.). Figures 1–4 identify the above areas on Army-managed lands that were evaluated under section 4(a)(3)(B)(i) of the Act.

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Figure 1
Dillingham Military Reservation



Bonamia menziesii, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *C. kuwaleana*, *Chamaesyce skottsbergii* var. *skottsbergii*, *Cyanea acuminata*, *C. calycina*, *C. grinesiana* ssp. *obatae*, *Cyperus trachysanthos*, *Diellia falcata*, *D. unisora*, *Flueggea neowawraea*, *Gouania meyenii*, *Hesperoinannia arbuscula*, *Kadua parvula*, *Labordia cyrtandrae*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *L. oahuensis*, *Marsilea villosa*, *Melicope christophersenii*, *M. pallida*, *M. saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia hirsuta*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula marivera*, *Schiedea hookeri*, *S. kaalae*, *S. trinervis*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*.

The proposed management, protection, and conservation measures for rare plants at NAVMAG PH Lualualei Branch include protecting native communities, monitoring threatened and endangered plants and plants with special conservation status, and controlling the spread of invasive plant species through the use of cooperative agreements and partnerships. The 2001 INRMP states that to protect native plants, the Navy will control feral goats in partnership with other Federal, State, and private organizations, with the goal of eradication in Lualualei Valley. A proposed funding schedule for goat control efforts is included in the INRMP, although the specific goals and objectives for each funding year are not identified. A fenced enclosure was constructed in the Halona Management Area to protect a small population of *Abutilon sandwicense* from feral ungulates (U.S. Navy 2001a, p. 4-44), and another fenced enclosure was constructed at Puu Hapapa Management Area to protect "about five" listed species (U.S. Navy 2001a, p. 4-44), which include *Abutilon sandwicense*, *Bonamia menziesii*, *Flueggea neowawraea*, *Lipochaeta lobata* var. *leptophylla*, and *Nototrichium humile* (68 FR 35950). Only 1.5 ac (0.61 ha) of these two management areas, which total 310 ac (125.5 ha), have been fenced and are weeded. In addition, the 2001 INRMP does not address other nonnative animals that may predate native plants, such as rats, slugs, snails, and insects (e.g., black-twig borer). The 2001 INRMP states that existing enclosures should be maintained as

needed, but does not require the construction of new fenced enclosures to protect native vegetation or native plant communities.

The leeward coast of the Waianae Mountains (which includes Lualualei Valley) is dangerously prone to forest and range fires during the dry season, however there have been few fires on the installation's valley floor because of effective firebreaks, the presence of a fire station on site and a fire management plan. However, wildfire is a major threat to the forested, less accessible areas in the higher elevations where most of the critical habitat is proposed on Navy lands. The 2001 INRMP refers to the 1997 Management Plan (U.S. Navy 2001a, p. 3-14) for information regarding where fire incidents are likely to negatively impact sensitive natural resources on the installation, and states the onsite Federal fire station would respond to fires on the installation. However, the plan does not include actions to reduce the threat of wildfire, which adversely affects listed and other rare species and their habitat on the higher elevation Navy lands.

To address plant monitoring needs, the 2001 INRMP states that regular monitoring of listed plant species is necessary to ensure their protection and recovery and that "endangered plants and animals should be monitored as part of the implementation of the monitoring program." However, the 2001 INRMP does not describe how monitoring will be implemented, nor does it identify the species to be monitored over the 5-year implementation timeframe (U.S. Navy 2001a, pp. 1-2, 6-7). The plan acknowledges that nonnative, invasive plants threaten native plant communities and should be "occasionally controlled," "especially in fenced areas where alien plants are competing with endangered plants" (U.S. Navy 2001a, p. 4-45). The plan does not include a schedule or identify where nonnative plant control will be implemented, other than "within fenced-in areas as needed" over the plan's 5-year implementation timeframe (U.S. Navy 2001a, pp. 1-2 and 6-7). The endangered aquatic fern, *Marsilea villosa*, occurs in the northwest corner of the installation in a cattle grazing outlease area, and on NRTF Lualualei lands. The 2001 INRMP does not identify beneficial management actions for this species, although the Navy considers it to be adequately protected on NAVMAG PH lands and not adversely affected under the terms of the grazing lease (M. Kaku, Department of the Navy, in litt. 2001).

The proposed management, protection, and conservation measures for rare plants at NRTF Lualualei, includes mowing nonnative grasses and other vegetation during the dry season to prevent their incursion into the areas where *Marsilea villosa* occurs, monitoring known populations of rare plants, conducting flora surveys, and monitoring feral ungulate populations (U.S. Navy 2001b, pp. 6-7-6-11). In addition, the 2001 INRMP recommends that managers evaluate the benefits of controlling nonnative grasses and other plants with "controlled" grazing rather than mowing in the areas where *Marsilea villosa* occurs (U.S. Navy 2001b, p. 6-5). Mowing nonnative grasses and other nonnative vegetation to prevent their incursion into the *Marsilea* areas contributes to the maintenance of these individuals in these areas.

Since the 2001 INRMPs were finalized, five subpopulations of *Marsilea villosa* have been reported on Navy lands at Lualualei (NAVMAG PH Lualualei and NRTF Lualualei) (U.S. Navy 2009, in litt. p. 4-49). Three of the subpopulations on NRTF Lualualei are in areas that are regularly mowed, and one is in an area that is not managed for this species. The Navy has posted signs near four of the five subpopulations to avoid inadvertent negative impacts from activities such as mowing when areas are flooded and *Marsilea* is likely to be growing, and to avoid construction and other vehicle traffic (U.S. Navy 2009, in litt. p. 4-49). However, no additional management measures have been developed to protect the species in the cattle grazing outlease area (U.S. Navy 2009, in litt. p. 4-27).

While the Navy's 2001 INRMPs describe management actions such as protective fencing for some individuals of listed plants, which include *Abutilon sandwicense*, *Bonamia menziesii*, *Flueggea neowawraea*, *Lipochaeta lobata* var. *leptophylla*, and *Nototrichium humile*, and mowing restrictions for *Marsilea villosa*, these actions contribute only to maintenance of these individuals, that is, avoiding extirpation rather than improving the potential for their recovery on Navy lands. In addition, the 2001 INRMPs do not address the conservation needs of the other 39 of the 44 species for which we are proposing critical habitat on Navy lands. Therefore, based on our analysis discussed above, we have determined the Navy's 2001 INRMPs do not provide an adequate conservation benefit for 39 previously listed species for which critical habitat is being revised. These species include *Abutilon sandwicense*, *Achyranthes splendens*

var. *rotundata*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonoides*, *Chamaesyce herbstii*, *C. kuwaleana*, *C. skottsbergii* var. *skottsbergii*, *Cyanea acuminata*, *C. grimesiana* ssp. *obatae*, *Cyperus trachysanthos*, *Diellia falcata*, *D. unisora*, *Flueggea neowawraea*, *Gouania meyenii*, *Hesperomannia arbuscula*, *Kadua parvula*, *Labordia cyrtandrae*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *L. oahuensis*, *Marsilea villosa*, *Melicope pallida*, *M. saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia hirsuta*, *Plantago princeps* var. *princeps*, *Sanicula mariversa*, *Schiedea hookeri*, *S. kaalae*, *S. trinervis*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urea kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*. The INRMP also does not provide an adequate conservation benefit for the 5 plant species proposed for listing as endangered with critical habitat in this proposed rule: *Cyanea calycina*, *Melicope christophersenii*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, and *Pteralyxia macrocarpa*. Therefore, we are proposing to designate a total of 567 ac (228 ha) of habitat on Navy lands at NAVMAG PH Lualualei Branch, NRTF Lualualei, and Barber's Point as critical habitat for 45 species. Of the 567 ac (228 ha) of proposed critical habitat, approximately 393 ac (159.2 ha) or 69 percent of the proposed critical habitat on Navy lands is already designated critical habitat (for plants and a bird, the Oahu elepaio).

We will encourage the Navy to work collaboratively with the Service to develop appropriate special management considerations or protections for the 44 species, in light of section 7(a)(1) of the Act and our shared conservation opportunities under section 4(a)(3) of the Act. Examples of activities that would likely satisfy the requirements under section 4(a)(3) of the Act include (but are not limited to) substantially increasing efforts to reduce fragmentation of habitat; establishing, maintaining, or increasing rare plant populations; eradicating ungulates; installing fencing around sensitive areas; controlling the spread of nonnative species; enhancing and restoring habitats; monitoring and reporting habitat conditions and rare plant population status; and similar types of conservation actions. We are available and prepared to work closely with, and provide technical assistance, to the Navy in this regard. We will fully consider all special management

considerations or protective measures included in the Navy's revised INRMP in our final critical habitat rule, provided the revised INRMP is finalized within a timeframe consistent with the rulemaking schedule for this regulatory action.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. The Secretary may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts.

In considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If based on this analysis, the Secretary makes this determination, then he can exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

When considering the benefits of inclusion for an area, we consider the additional regulatory benefits under section 7 of the Act the area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat. Benefits could include public awareness of the presence of listed species and the importance of habitat protection, and in cases where a Federal nexus exists, increased habitat protection due to the protection from adverse modification or destruction of critical habitat.

When considering the benefits of excluding an area from critical habitat, we consider whether exclusion is likely

to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide.

In evaluating the existence of a conservation plan when considering the benefits of exclusion, we consider a variety of factors, including, but not limited to, whether the plan is finalized; how it provides for the conservation of essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in the plan are likely to be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After evaluating the benefits of inclusion and the benefits of exclusion, the two sides are carefully weighed to determine whether the benefits of exclusion outweigh those of inclusion. If they do, we then determine whether exclusion of the particular area would result in the extinction of the species. If exclusion of an area from critical habitat will result in extinction, it will not be excluded from the designation.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the probable economic impacts of the proposed critical habitat designation and related factors.

We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at the Federal eRulemaking Portal: <http://www.regulations.gov>, or by contacting the Pacific Islands Fish and Wildlife Office directly (see **FOR FURTHER INFORMATION CONTACT** section). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and as an outcome of our analysis of this information, we may exclude areas from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense (DOD) where a national security impact might exist. In preparing this proposal, we have exempted from the designation of critical habitat those Department of Defense lands with completed INRMPs determined to provide a benefit to the 124 species. We have determined that certain lands within the proposed designation of critical habitat are owned or managed by the DOD (Department of the Navy), at NAVMAG PH Lualualei Branch and NRFT Lualualei. There are also lands owned or managed at six Department of the Army training installations (see discussion under "Approved INRMPs"); however, those lands are not being proposed as critical habitat pursuant to section 4(a)(3)(B)(i) of the Act. At this time, we are unaware of any potential impacts to national security on any DOD lands; therefore, we do not propose to exclude any areas from the final designation based on impacts to national security, but will fully consider all comments in this regard in the final critical habitat designation.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors including whether the landowners have developed any conservation plans or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. We also consider any social impacts that might occur because of the designation.

In preparing this proposed rule, we have determined that the landowners have not developed conservation plans or other management plans for the 99 previously listed plant species, the two previously listed plant species without designated critical habitat, or the 23 species proposed for listing as endangered. In addition, we have determined there are no conservation partnerships that would be encouraged by the exclusion from critical habitat. We anticipate no impact to partnerships, or habitat conservation plans (HCPs) or other management plans from this proposed critical habitat designation. Accordingly, we do not propose to exert our discretion to exclude any areas from the final

designation based on other relevant impacts.

However, as stated under the Public Comments section above, we request specific comments on whether any specific areas proposed for designation for the 124 species should be excluded under section 4(b)(2) of the Act from the final designation. Based on public comments on the draft economic analysis or the proposed designation itself, the Secretary may exclude any area proposed as critical habitat in this rule under section 4(b)(2) of the Act.

Peer Review

In accordance with our joint policy published in the *Federal Register* on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have posted our peer review plan on our Web site at <http://www.fws.gov/informationquality>. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information we receive during the comment period on this proposed rule during our preparation of a final rulemaking. Accordingly, our final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings must be made in writing within 45 days of the publication of this proposal (see **DATES** section). We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and place of those hearings, in the *Federal Register* and local newspapers at least 15 days before the first hearing.

Persons needing reasonable accommodations to attend and participate in a public hearing should contact the Pacific Islands Fish and Wildlife Office at 808-792-9400 as soon as possible. To allow sufficient time to process requests, please call no later than one week before the hearing date. Information regarding this proposal is available in alternative formats upon request.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is not significant under Executive Order 12866 (E.O. 12866). OMB bases its determination upon the following four criteria:

(1) Whether the rule will have an annual effect of \$100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(2) Whether the rule will create inconsistencies with other Federal agencies' actions.

(3) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

(4) Whether the rule raises novel legal or policy issues.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended RFA to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack all of the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the draft economic analysis prepared under section 4(b)(2) of the Act and E.O. 12866. The draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce availability of the draft economic analysis in the *Federal Register* and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory

flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination.

Small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, the draft economic analysis will consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if a designation of critical habitat could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (e.g., housing development, grazing, oil and gas production, timber harvesting). We apply the "substantial number" test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define "substantial number" or "significant economic impact." Consequently, to assess whether a "substantial number" of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Under the Act, designation of critical habitat only affects activities carried out, funded, or permitted by Federal

agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. However, in some states there are state laws that limit activities in designated critical habitat even where there is no federal nexus. If there is a Federal nexus, Federal agencies will be required to consult with us under section 7 of the Act on activities they fund, permit, or carry out that may affect critical habitat. If we conclude, in a biological opinion, that a proposed action is likely to destroy or adversely modify critical habitat, we can offer "reasonable and prudent alternatives." Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid destroying or adversely modifying critical habitat.

A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Within the proposed critical habitat designation, the types of actions or authorized activities that we have identified to date as potential concerns and that may be subject to consultation under section 7 if there is a Federal nexus are: (1) Activities that might degrade or destroy the primary constituent elements for the species, including, but not limited to (a) grazing, (b) maintaining or increasing feral ungulate levels, (c) clearing or cutting native live trees and shrubs, (d) bulldozing, (e) construction, (f) road building, (g) mining, (h) herbicide application, and (i) taking actions that pose a risk of fire; (2) activities that may alter watershed characteristics in ways that would reduce groundwater recharge or alter natural, wetland, aquatic, or

vegetative communities (e.g., new water diversion or impoundment activities, groundwater pumping, and manipulation of vegetation through activities such as the ones mentioned above); (3) recreational activities that may degrade vegetation; (4) mining sand or other minerals; (5) introducing or encouraging the spread of nonnative plant species; (6) importing nonnative species for research, agriculture, and aquaculture; and (7) releasing biological control agents.

We are specifically aware of some potential development activities in the Barber's Point area, which could potentially affect the following proposed critical habitat units: Oahu—Coastal 13, Oahu—Coastal 14, Oahu—Coastal 15, Oahu—Lowland Dry 8, Oahu—Lowland Dry 9, Oahu—Lowland Dry 10, and Oahu—Lowland Dry 11. These potential development activities will be evaluated in the draft economic analysis we will prepare for this proposed rule. None of the other proposed critical habitat units contains significant residential, commercial, industrial, or golf-course projects; crop farming; or intensive livestock operations, and few projects are planned for locations in the other proposed critical habitat areas. This situation reflects the fact that:

(1) Most of the land is unsuitable for development, farming, or other economic activities due to the rugged mountain terrain, lack of access, and remote locations; and

(2) Existing land-use controls severely limit development and most other economic activities in the mountainous interior of Oahu.

Existing and planned projects, land uses, and activities that could affect the proposed critical habitat but have no Federal involvement would not require section 7 consultation with the Service, so they are not restricted by the requirements of the Act. Further, although some existing and continuing activities involve the operation and maintenance of existing manmade features and structures in certain areas, these areas do not contain the PCEs for the species, and would not be impacted by the designation. Finally, for the anticipated projects and activities that will have Federal involvement, many are conservation efforts that will not negatively impact the species or their habitats, so they will not be subject to a minimal level of informal section 7 consultation. We anticipate that a developer or other project proponent could modify a project or take measures to protect the 124 Oahu species. The kinds of actions that may be included if future reasonable and prudent

alternatives become necessary include conservation set-asides, management of competing nonnative species, restoration of degraded habitat, and regular monitoring. These measures are not likely to result in a significant economic impact to project proponents, because nearly all of the lands proposed for critical habitat designation are unsuitable for development, as well as for most commercial projects, land uses, and activities. This is due to their remote location, lack of access, and rugged terrain.

In addition, Federal agencies may also need to reinstate a previous consultation if discretionary involvement or control over the Federal action has been retained or is authorized by law and the activities may affect critical habitat. Since critical habitat was designated on Oahu in June 2003 (for 99 Oahu plants), and, most recently in December 2008 (for 12 picture-wing flies, 73 FR 73795), we have conducted 28 formal consultations and 137 informal consultations on this island, in addition to consultations on Federal grants to State wildlife programs that do not affect small entities. Of these, 13 formal consultations and 34 informal consultations were primarily consultations regarding Federal permits to Service employees to implement conservation actions for listed species. The remainder, 15 formal consultations and 103 informal consultations, involved the U.S. Army, U.S. Army Corps of Engineers, U.S. Marine Corps, U.S. Marine Corps Base of Hawaii, U.S. Navy, U.S. Air Force, Department of Commerce, Department of Homeland Security, Environmental Protection Agency, Federal Aviation Administration, Federal Highways Administration, Department of Agriculture (USDA—Natural Resources Conservation Service (NRCS); USDA—Animal and Plant Health Inspection Service), General Services Administration, Housing and Urban Development, National Oceanic and Atmospheric Administration, U.S. Geological Survey, Hawaii Department of Transportation, State of Hawaii, Housing and Community Development Corporation of Hawaii, and the University of Hawaii. The majority of formal consultations were related to project effects on seabird flyways, nesting by endangered waterbirds, human disturbance such as fire from military training exercises, and research permits. The majority of informal consultations were related to project effects on seabird flyways and nesting by endangered waterbirds. About a quarter of the informal consultations

were conducted with the USDA—NRCS for proposed funding for habitat restoration projects under the auspices of the Wildlife Habitat Incentives Program.

Seven of the formal consultations concerned designated critical habitat, and we concurred with each agency's determination that the project, as proposed, was not likely to adversely affect critical habitat. Of these seven formal consultations, one was conducted on behalf of the Navy in upper Halawa Valley, one was conducted on behalf of the Army regarding routine military training and transformation of the 2nd Brigade 25th Infantry (Light) at six Army installations, and five were conducted on behalf of the Army regarding reinitiation for routine military training at Makua Military Reservation. The Navy consultation involved a retrieval of remains from a remote area crash site in designated plant critical habitat, and although it was carried out in an area that is also proposed for critical habitat in this rule, it was a single, one-time action that is not ongoing. The project regarding training at six Army installations on Oahu is being implemented on lands that we are not exempting from critical habitat in this rule. Five of the Army consultations, those that involve routine military training at Makua Military Reservation, involve actions that are still ongoing. Because these five Federal actions were subject to previous section 7 consultations, there may be a requirement to reinstate consultation for ongoing Federal projects on these lands.

Sixteen of the 103 informal consultations concerned designated critical habitat, and in all cases we concurred with each agency's determination that the project, as proposed, was not likely to adversely affect critical habitat. These projects were evenly divided between conservation actions that would benefit listed species, changes in labeling on pesticides for use throughout the State to manage conservation areas, and effects on listed species by routine training actions on the Army's Makua Military Reservation. For the 87 informal consultations that did not concern designated critical habitat, we concurred with each agency's determination that the project, as proposed, was not likely to adversely affect listed species.

In this rule, we are proposing to designate critical habitat on a total of 43,491 ac (17,600 ha) of land. Ninety-three percent (40,447 ac (16,369 ha)) of this proposed critical habitat

designation is already designated critical habitat for one or more species, and seven percent (3,044 ac (1,231 ha)) of the proposed designation is on land newly proposed as critical habitat. Some of the Federal actions that were subject to previous section 7 consultation are on the lands we are proposing as critical habitat in this rule. Therefore, there may be a requirement to reinstate consultation for some ongoing Federal projects.

In the 2001, 2002, and 2008 economic analyses of the designation of critical habitat for the Oahu elepaio, 99 species of Oahu plants, and 12 picture-wing flies, we evaluated the potential economic effects on small business entities resulting from the protection of these species and their habitats related to the proposed designation of critical habitat and determined that it would not have a significant economic impact on a substantial number of small entities. The RFA defines "small governmental jurisdiction" as the government of a city, county, town, school district, or special district with a population of less than 50,000. By this definition, Honolulu County is not a small governmental jurisdiction because its population was 876,156 residents in 2000. Certain State agencies, such as the Department of Land and Natural Resources and the State Department of Transportation, may be affected by the proposed critical habitat designation. However, for the purposes of the RFA, State governments are considered independent sovereigns, not small governments. The significant overlap between the critical habitat designations for the Oahu elepaio, 99 plant species, and the 12 picture-wing flies and this proposed critical habitat designation may be an indication that this proposal will not have a significant economic impact on a substantial number of small entities. This potential issue will be fully examined in our draft economic analysis.

We have concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic information and provide the necessary opportunity for public comment.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal

mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not jeopardize the continued existence of the species, or destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the

Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(b) We do not believe that this rule would significantly or uniquely affect small governments. The lands we are proposing for critical habitat designation are owned by the City and County of Honolulu, the State of Hawaii, private citizens, and the Federal government. None of these entities fit the definition of "small governmental jurisdiction." Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for each of the 124 species in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for each of these species does not pose significant takings implications for lands within or affected by the proposed designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Hawaii. The critical habitat designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the essential features themselves are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits,

or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the physical and biological features within the designated areas to assist the public in understanding the habitat needs of each of the species being considered in this proposed rule.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This proposed rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 et seq.) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (a) Be logically organized;
- (b) Use the active voice to address readers directly;
- (c) Use clear language rather than jargon;
- (d) Be divided into short sections and sentences; and
- (e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994, Government-to-Government Relations with Native American Tribal Governments (59 FR 22951), E.O. 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act," we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same

controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

We have determined that there are no tribal lands occupied at the time of listing that contain the features essential for the conservation, and no tribal lands that are essential for the conservation, of the 124 Oahu species. Therefore, we have not proposed designation of critical habitat for any of the 124 species on tribal lands.

Energy Supply, Distribution, or Use

On May 18, 2001, the President issued an Executive Order (E.O. 13211; Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) on regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This proposed rule to designate critical habitat for 124 species is not a significant regulatory action under E.O. 12866 and we do not expect it to significantly affect energy supplies, distribution, or use because these areas are not presently used for energy production, and we are unaware of any future plans in this regard. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

References Cited

A complete list of references cited in this proposed rule is available on the

internet at <http://www.regulations.gov> and upon request from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**, above).

Authors

The primary authors of this document are the staff members of the Pacific Islands Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.11(h), the List of Endangered and Threatened Wildlife by adding entries for "Damselfly, blackline Hawaiian", "Damselfly, crimson Hawaiian", and "Damselfly, oceanic Hawaiian", in alphabetical order under **INSECTS**, to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
* * * * *							
INSECTS							
* * * * *							
Damselfly, blackline Hawaiian.	<i>Megalagrion nigrohamatum nigrolineatum.</i>	U.S.A. (HI)	NA	E	.....	17.95(i)	NA
Damselfly, crimson Hawaiian.	<i>Megalagrion leptodemas.</i>	U.S.A. (HI)	NA	E	.....	17.95(i)	NA
* * * * *							
Damselfly, oceanic Hawaiian.	<i>Megalagrion oceanicum.</i>	U.S.A. (HI)	NA	E	.....	17.95(i)	NA
* * * * *							

3. Amend § 17.12(h), the List of Endangered and Threatened Plants, as follows:

a. By removing the entries for *Alsiniidendron obovatum*, *Alsiniidendron trinerve*, *Chamaesyce skottsbergii* var. *kalaeloana*, *Hedyotis*

coriacea, *Hedyotis degeneri*, *Hedyotis parvula*, *Lipochaeta tenuifolia*, and *Mariscus pennatiformis* under **FLOWERING PLANTS**;

b. By revising the entry for *Achyranthes splendens* var. *rotundata* under FLOWERING PLANTS to read as set forth below;

c. By adding entries for *Bidens amplexens*, *Chamaesyce skottsbergii* var. *skottsbergii*, *Cyanea calycina*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyperus pennatififormis*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra waiolani*, *Kadua coriacea*, *Kadua degeneri*, *Kadua parvula*, *Korthalsella*

degeneri, *Melanthera tenuifolia*, *Melicope christophersenii*, *Melicope hiiakae*, *Melicope makahae*, *Platydesma cornuta* var. *cornuta*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Schiedea obovata*, *Schiedea trinervis*, *Tetraplasandra lydgatei*, and *Zanthoxylum oahuense* in alphabetical order under FLOWERING PLANTS to read as set forth below;

d. By removing the entry for *Phlegmariurus nutans* under FERNS AND ALLIES; and

e. By adding entries for *Doryopteris takeuchii* and *Huperzia nutans* in alphabetical order under FERNS AND ALLIES to read as set forth below.

§ 17.12 Endangered and threatened plants.

* * * * *
(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
<i>Achyranthes splendens</i> var. <i>rotundata</i> .	Round-leaved chaff flower.	U.S.A. (HI)	Amaranthaceae	E	220	17.99(i)	NA
<i>Bidens amplexens</i>	Kookoolau	U.S.A. (HI)	Asteraceae	E		17.99(i)	NA
<i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i> .	Ewa Plains akoko ..	U.S.A. (HI)	Euphorbiaceae	E	120	17.99(i)	NA
<i>Cyanea calycina</i>	Haha	U.S.A. (HI)	Campanulaceae	E		17.99(i)	NA
<i>Cyanea lanceolata</i> ..	Haha	U.S.A. (HI)	Campanulaceae	E		17.99(i)	NA
<i>Cyanea purpurellifolia</i> .	Haha	U.S.A. (HI)	Campanulaceae	E		17.99(i)	NA
<i>Cyperus pennatififormis</i> .	None	U.S.A. (HI)	Cyperaceae	E	559	17.99(a)(1), (e)(1), (g), and (i).	NA
<i>Cyrtandra gracilis</i> ...	Haiwale	U.S.A. (HI)	Gesneriaceae	E		17.99(i)	NA
<i>Cyrtandra kaulantha</i>	Haiwale	U.S.A. (HI)	Gesneriaceae	E		17.99(i)	NA
<i>Cyrtandra sessilis</i> ...	Haiwale	U.S.A. (HI)	Gesneriaceae	E		17.99(i)	NA
<i>Cyrtandra waiolani</i> ..	Haiwale	U.S.A. (HI)	Gesneriaceae	E		17.99(i)	NA
<i>Kadua coriacea</i>	Kioele	U.S.A. (HI)	Rubiaceae	E	467	17.99(e)(1) and (i).	NA
<i>Kadua degeneri</i>	None	U.S.A. (HI)	Rubiaceae	E	448	17.99(i)	NA
<i>Kadua parvula</i>	None	U.S.A. (HI)	Rubiaceae	E	448	17.99(i)	NA
<i>Korthalsella degeneri</i> .	Hulumoa	U.S.A. (HI)	Viscaceae	E		17.99(i)	NA
<i>Melanthera tenuifolia</i> .	Nehe	U.S.A. (HI)	Asteraceae	E	448	17.99(i)	NA

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
<i>Melicope christophersenii</i>	Alani	U.S.A. (HI)	Rutaceae	E		17.99(i)	NA
<i>Melicope hiiakae</i>	Alani	U.S.A. (HI)	Rutaceae	E		17.99(i)	NA
<i>Melicope makahae</i>	Alani	U.S.A. (HI)	Rutaceae	E		17.99(i)	NA
<i>Platydesma comuta</i> var. <i>comuta</i>	None	U.S.A. (HI)	Rutaceae	E		17.99(i)	NA
<i>Platydesma comuta</i> var. <i>decurrens</i>	None	U.S.A. (HI)	Rutaceae	E		17.99(i)	NA
<i>Pleomele forbesii</i>	Hala pepe	U.S.A. (HI)	Asparagaceae	E		17.99(i)	NA
<i>Psychotria hexandra</i> ssp. <i>oahuensis</i>	Kopiko	U.S.A. (HI)	Rubiaceae	E		17.99(i)	NA
<i>Pteralyxia macrocarpa</i>	Kaulu	U.S.A. (HI)	Apocynaceae	E		17.99(i)	NA
<i>Schiedea obovata</i>	None	U.S.A. (HI)	Caryophyllaceae	E	448	17.99(i)	NA
<i>Schiedea trinervis</i>	None	U.S.A. (HI)	Caryophyllaceae	E	448	17.99(i)	NA
<i>Tetraplasandra lydgatei</i>	None	U.S.A. (HI)	Araliaceae	E		17.99(i)	NA
<i>Zanthoxylum oahuense</i>	Ae	U.S.A. (HI)	Rutaceae	E		17.99(i)	NA
FERNS AND ALLIES							
<i>Doryopteris takeuchii</i>	None	U.S.A. (HI)	Pteridaceae	E		17.99(i)	NA
<i>Huperzia nutans</i>	Wāwaeiole	U.S.A. (HI)	Lycopodiaceae	E	467	17.99(e)(1)	NA

4. Amend § 17.95 paragraph (i), by adding critical habitat for “Blackline Hawaiian Damsselfly (*Megalagrion nigrohamatum nigrolineatum*)”, “Crimson Hawaiian Damsselfly (*Megalagrion leptodemas*)”, and “Oceanic Hawaiian Damsselfly (*Megalagrion oceanicum*)”, in the same alphabetical order as these species occur in the table at § 17.11(h), to read as set forth below.

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(i) *Insects.*
* * * * *

Blackline Hawaiian damsselfly (*Megalagrion nigrohamatum nigrolineatum*)

(1) Critical habitat units are depicted for Honolulu County, Hawaii, on the maps below.

(2) *Primary constituent elements.* The primary constituent elements of critical habitat for the blackline Hawaiian damsselfly (*Megalagrion nigrohamatum nigrolineatum*) are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.
- (vii) Perennial streams.
- (viii) Slow reaches of streams.

(ix) Pools.
 (3) Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas, do not contain one or more of the physical and biological

features. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or in adjacent critical habitat.

(4) *Critical habitat maps.* Maps were created in GIS, with coordinates in UTM

Zone 4, units in meters using North American datum of 1983 (NAD 83).

(5) Index map of critical habitat units for the blackline Hawaiian damselfly (*Megalagrion nigrohamatum nigrolineatum*) follows:

BILLING CODE 4310-55-P

Map 1
Megalagrion nigrohamatum nigrolineatum—Index Map



(6) *Megalagrion nigrohamatum nigrolineatum*—Unit 1—Lowland Wet, Honolulu County, Hawaii (790 ac; 320 ha); *Megalagrion nigrohamatum nigrolineatum*—Unit 2—Lowland Wet, Honolulu County, Hawaii (1,790 ac; 724 ha); and *Megalagrion nigrohamatum nigrolineatum*—Unit 3—Lowland Wet, Honolulu County, Hawaii (3,041 ac; 1,231 ha).

(i) [Reserved for textual description of Unit 1.] This unit is critical habitat for

the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

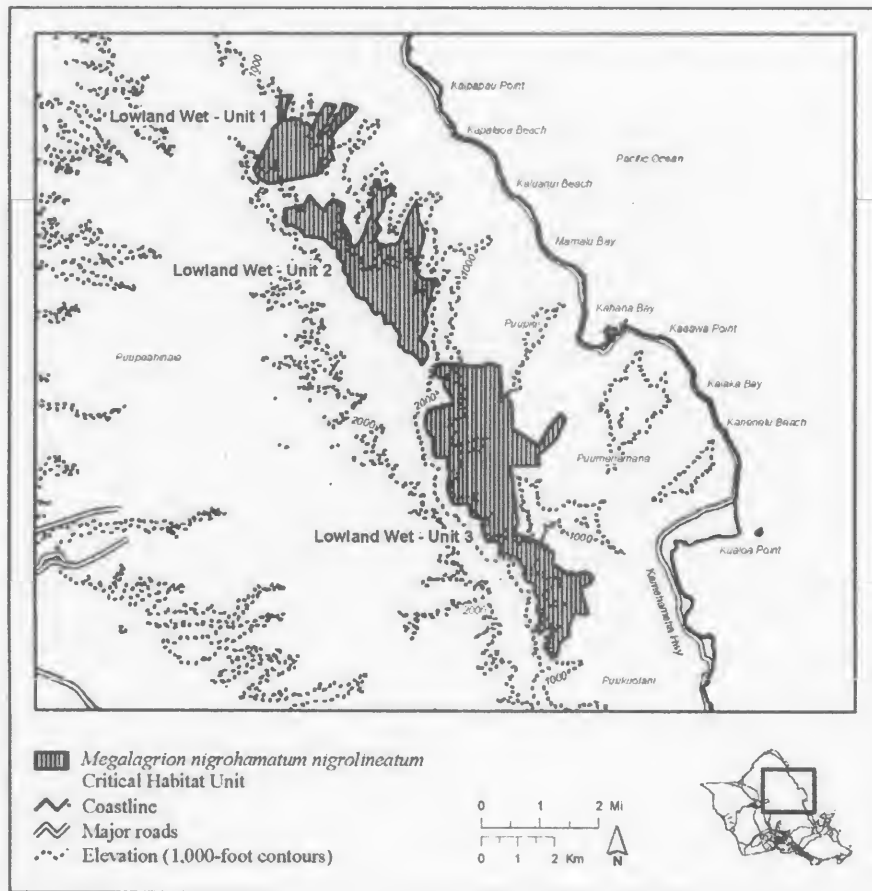
(ii) [Reserved for textual description of Unit 2.] This unit is critical habitat for the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

(iii) [Reserved for textual description of Unit 3.] This unit is critical habitat for the blackline Hawaiian damselfly,

Megalagrion nigrohamatum nigrolineatum.

(iv) **Note:** Map of *Megalagrion nigrohamatum nigrolineatum*—Unit 1—Lowland Wet, *Megalagrion nigrohamatum nigrolineatum*—Unit 2—Lowland Wet, and *Megalagrion nigrohamatum nigrolineatum*—Unit 3—Lowland Wet follows:

***Megalagrion nigrohamatum nigrolineatum*
Lowland Wet
Unit 1, Unit 2 and Unit 3**



(8) *Megalagrion nigrohamatum nigrolineatum*—Unit 5—Lowland Wet, Honolulu County, Hawaii (124 ac; 50 ha); *Megalagrion nigrohamatum nigrolineatum*—Unit 6—Lowland Wet, Honolulu County, Hawaii (124 ac; 50 ha); and *Megalagrion nigrohamatum nigrolineatum*—Unit 7—Lowland Wet, Honolulu County, Hawaii (53 ac; 21 ha).

(i) [Reserved for textual description of Unit 5.] This unit is critical habitat for

the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

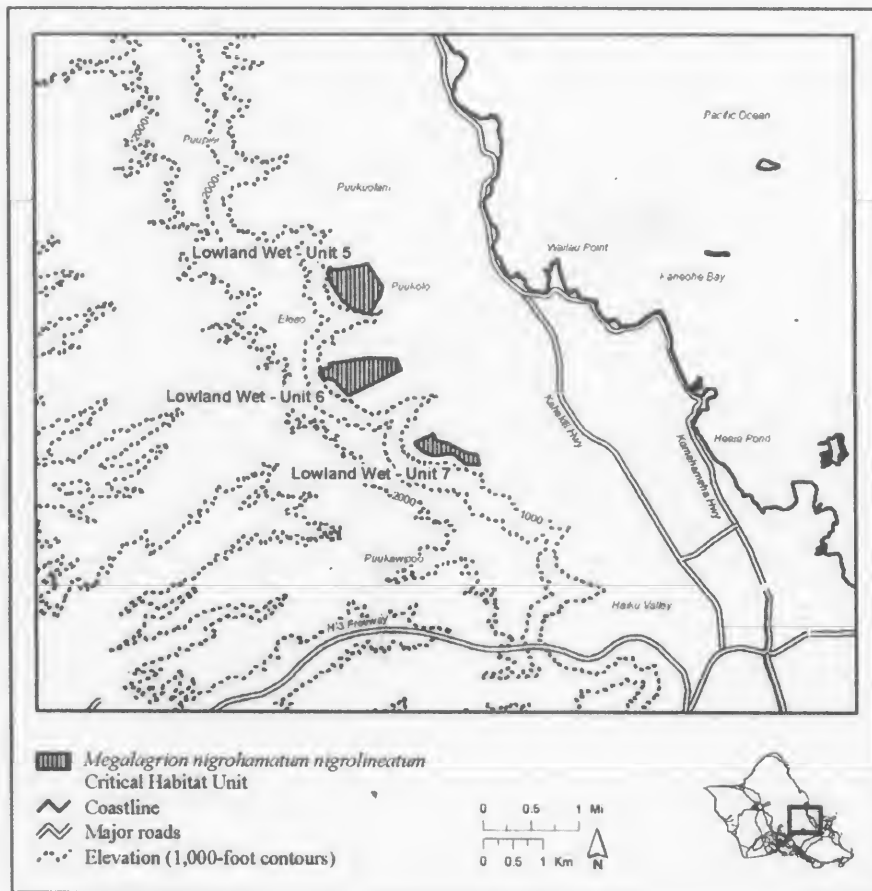
(ii) [Reserved for textual description of Unit 6.] This unit is critical habitat for the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

(iii) [Reserved for textual description of Unit 7.] This unit is critical habitat for the blackline Hawaiian damselfly,

Megalagrion nigrohamatum nigrolineatum.

(iv) **Note:** Map of *Megalagrion nigrohamatum nigrolineatum*—Unit 5—Lowland Wet, *Megalagrion nigrohamatum nigrolineatum*—Unit 6—Lowland Wet, and *Megalagrion nigrohamatum nigrolineatum*—Unit 7—Lowland Wet follows:

Megalagrion nigrohamatum nigrolineatum
Lowland Wet
Unit 5, Unit 6 and Unit 7



(9) *Megalagrion nigrohamatum nigrolineatum*—Unit 8—Lowland Wet, Honolulu County, Hawaii (161 ac; 65 ha); *Megalagrion nigrohamatum nigrolineatum*—Unit 9—Lowland Wet, Honolulu County, Hawaii (478 ac; 193 ha); *Megalagrion nigrohamatum nigrolineatum*—Unit 10—Lowland Wet, Honolulu County, Hawaii (407 ac; 165 ha); and *Megalagrion nigrohamatum nigrolineatum*—Unit 11—Lowland Wet, Honolulu County, Hawaii (2,507 ac; 1,014 ha).

(i) [Reserved for textual description of Unit 8.] This unit is critical habitat for the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

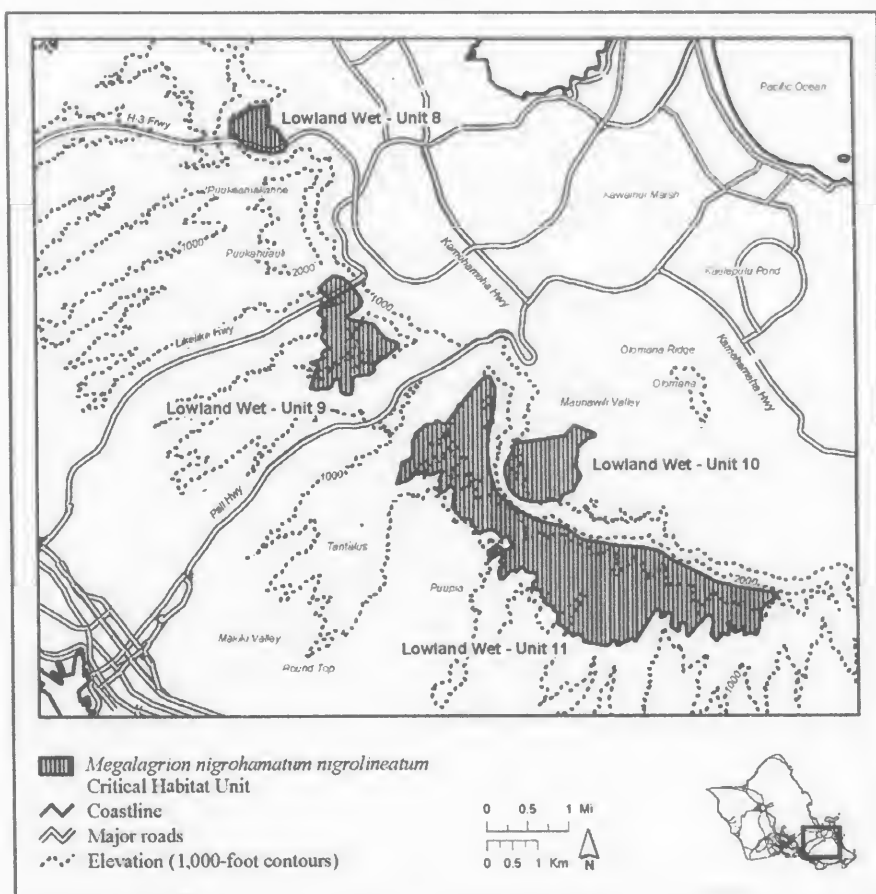
(ii) [Reserved for textual description of Unit 9.] This unit is critical habitat for the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

(iii) [Reserved for textual description of Unit 10.] This unit is critical habitat for the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

(iv) [Reserved for textual description of Unit 11.] This unit is critical habitat for the blackline Hawaiian damselfly, *Megalagrion nigrohamatum nigrolineatum*.

(v) **Note:** Map of *Megalagrion nigrohamatum nigrolineatum*—Unit 8—Lowland Wet, *Megalagrion nigrohamatum nigrolineatum*—Unit 9—Lowland Wet, *Megalagrion nigrohamatum nigrolineatum*—Unit 10—Lowland Wet, and *Megalagrion nigrohamatum nigrolineatum*—Unit 11—Lowland Wet follows:

Megalagrion nigrohamatum nigrolineatum
Lowland Wet
Unit 8, Unit 9, Unit 10 and Unit 11



Crimson Hawaiian damselfly
(*Megalagrion leptodemas*)

(1) Critical habitat units are depicted for Honolulu County, Hawaii, on the maps below.

(2) *Primary constituent elements.*

(i) In units 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11, the primary constituent elements of critical habitat for the crimson Hawaiian damselfly are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(G) Perennial streams.

(H) Slow reaches of streams or ponds.

(ii) In units 12, 13, and 14, the primary constituent elements of critical habitat for the crimson Hawaiian damselfly are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

(G) Perennial streams.

(H) Slow reaches of streams or ponds.

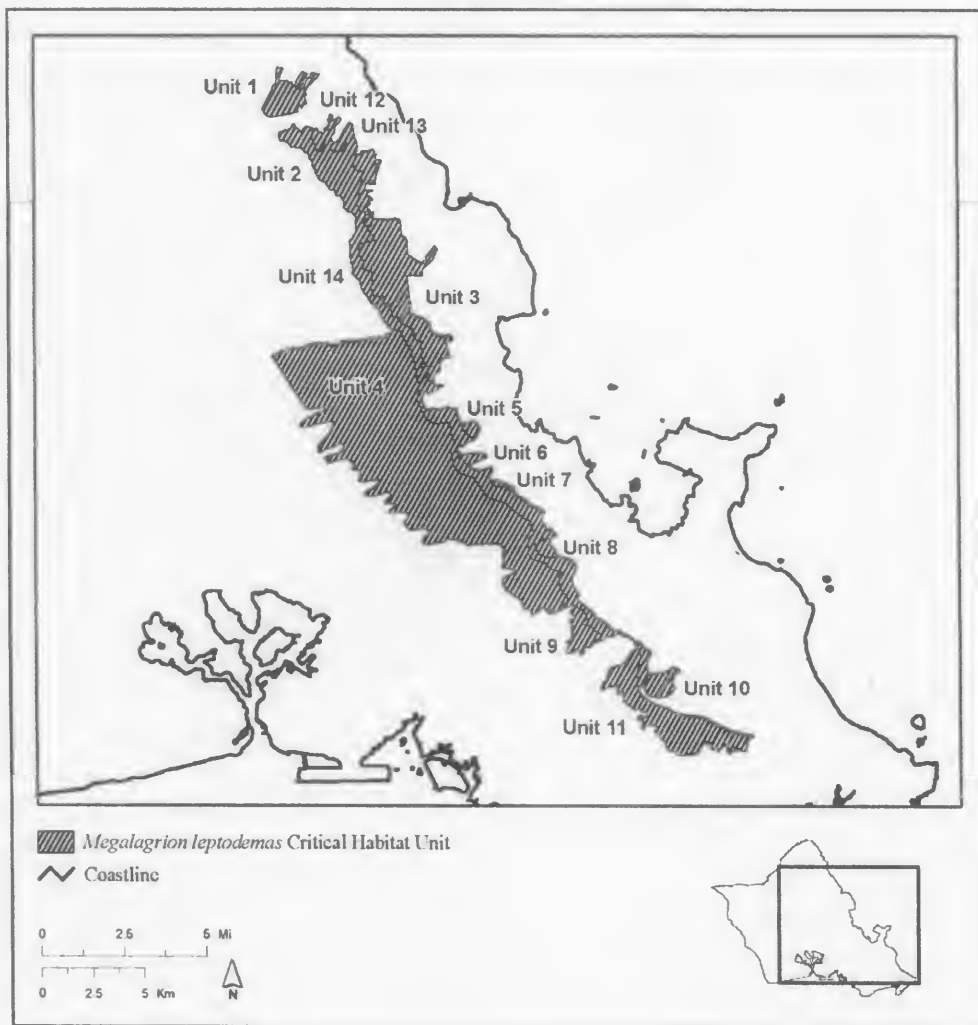
(3) Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas, do not contain one or

more of the physical and biological features. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or physical or biological features in adjacent critical habitat.

(4) *Critical habitat maps.* Maps were created in GIS, with coordinates in UTM Zone 4, units in meters using North American datum of 1983 (NAD 83).

(5) Index map of critical habitat units for the crimson Hawaiian damselfly (*Megalagrion leptodemas*) follows:

Map 1
Megalagrion leptodemas—Index Map



(6) *Megalagrion leptodemas*—Unit 1—Lowland Wet, Honolulu County, Hawaii (790 ac; 320 ha); *Megalagrion leptodemas*—Unit 2—Lowland Wet, Honolulu County, Hawaii (1,790 ac; 724 ha); and *Megalagrion leptodemas*—Unit 3—Lowland Wet, Honolulu County, Hawaii (3,041 ac; 1,231 ha).

(i) [Reserved for textual description of Unit 1.] This unit is critical habitat for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

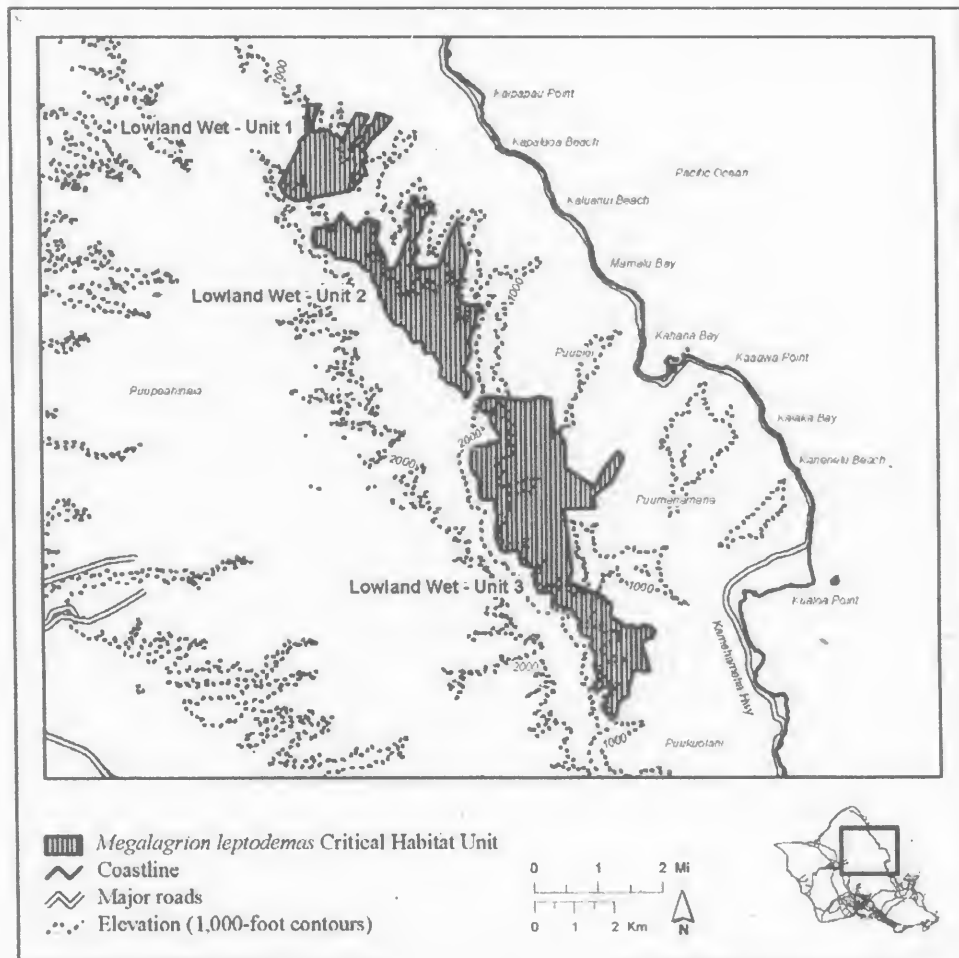
(ii) [Reserved for textual description of Unit 2.] This unit is critical habitat for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

(iii) [Reserved for textual description of Unit 3.] This unit is critical habitat

for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

(iv) **Note:** Map of *Megalagrion leptodemas*—Unit 1—Lowland Wet, *Megalagrion leptodemas*—Unit 2—Lowland Wet, and *Megalagrion leptodemas*—Unit 3—Lowland Wet follows:

***Megalagrion leptodemas*
Lowland Wet
Unit 1, Unit 2 and Unit 3**

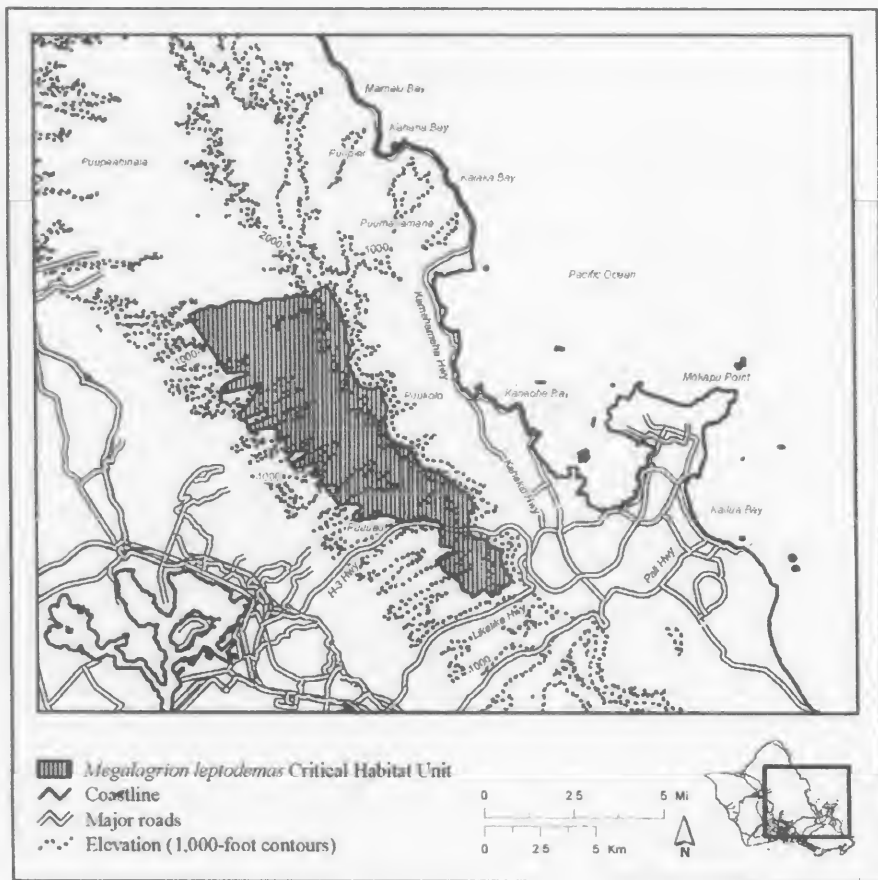


(7) *Megalagrion leptodemas*—Unit 4—
Lowland Wet, Honolulu County, Hawaii
(15,728 ac; 6,365 ha).

(i) [Reserved for textual description of
unit.] This unit is critical habitat for the
crimson Hawaiian damselfly,
Megalagrion leptodemas.

(ii) **Note:** Map of *Megalagrion
leptodemas*—Unit 4—Lowland Wet
follows:

Megalagrion leptodemas
Lowland Wet
Unit 4



(8) *Megalagrion leptodemas*—Unit 5—Lowland Wet, Honolulu County, Hawaii (124 ac; 50 ha); *Megalagrion leptodemas*—Unit 6—Lowland Wet, Honolulu County, Hawaii (124 ac; 50 ha); and *Megalagrion leptodemas*—Unit 7—Lowland Wet, Honolulu County, Hawaii (53 ac; 21 ha).

(i) [Reserved for textual description of Unit 5.] This unit is critical habitat for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

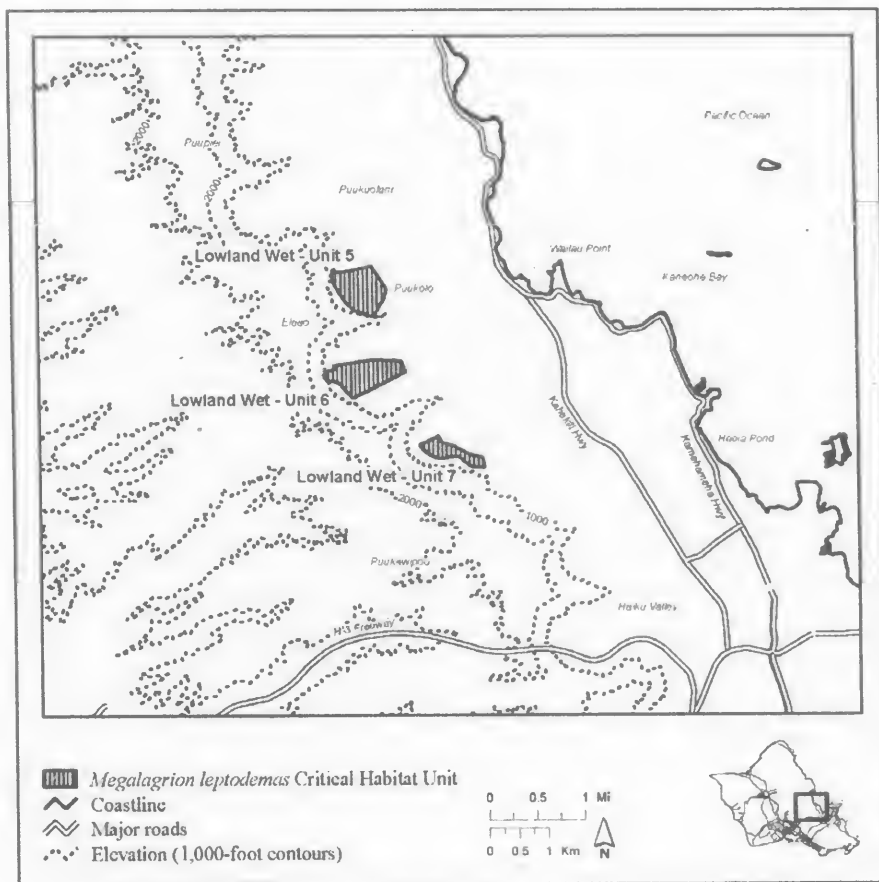
(ii) [Reserved for textual description of Unit 6.] This unit is critical habitat for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

(iii) [Reserved for textual description of Unit 7.] This unit is critical habitat

for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

(iv) **Note:** Map of *Megalagrion leptodemas*—Unit 5—Lowland Wet, *Megalagrion leptodemas*—Unit 6—Lowland Wet, and *Megalagrion leptodemas*—Unit 7—Lowland Wet follows:

***Megalagrion leptodemas*
Lowland Wet
Unit 5, Unit 6 and Unit 7**



(10) *Megalagrion leptodemas*—Unit 12—Wet Cliff, Honolulu County, Hawaii (151 ac; 61 ha) and *Megalagrion leptodemas*—Unit 13—Wet Cliff, Honolulu County, Hawaii (144 ac; 58 ha).

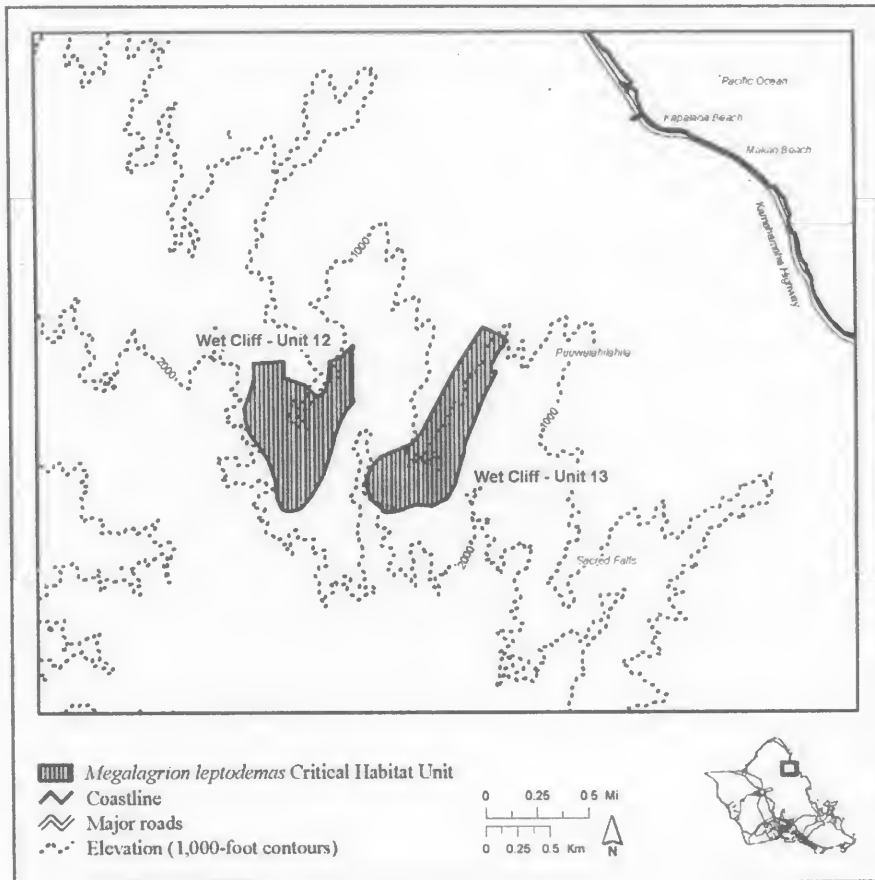
(i) [Reserved for textual description of Unit 12.] This unit is critical habitat for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

(ii) [Reserved for textual description of Unit 13.] This unit is critical habitat

for the crimson Hawaiian damselfly, *Megalagrion leptodemas*.

(iii) **Note:** Map of *Megalagrion leptodemas*—Unit 12—Wet Cliff and *Megalagrion leptodemas*—Unit 13—Wet Cliff follows:

Megalagrion leptodemas
Wet Cliff
Unit 12 and Unit 13



(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

(G) Perennial streams.

(I) Swift-flowing sections and riffles of streams.

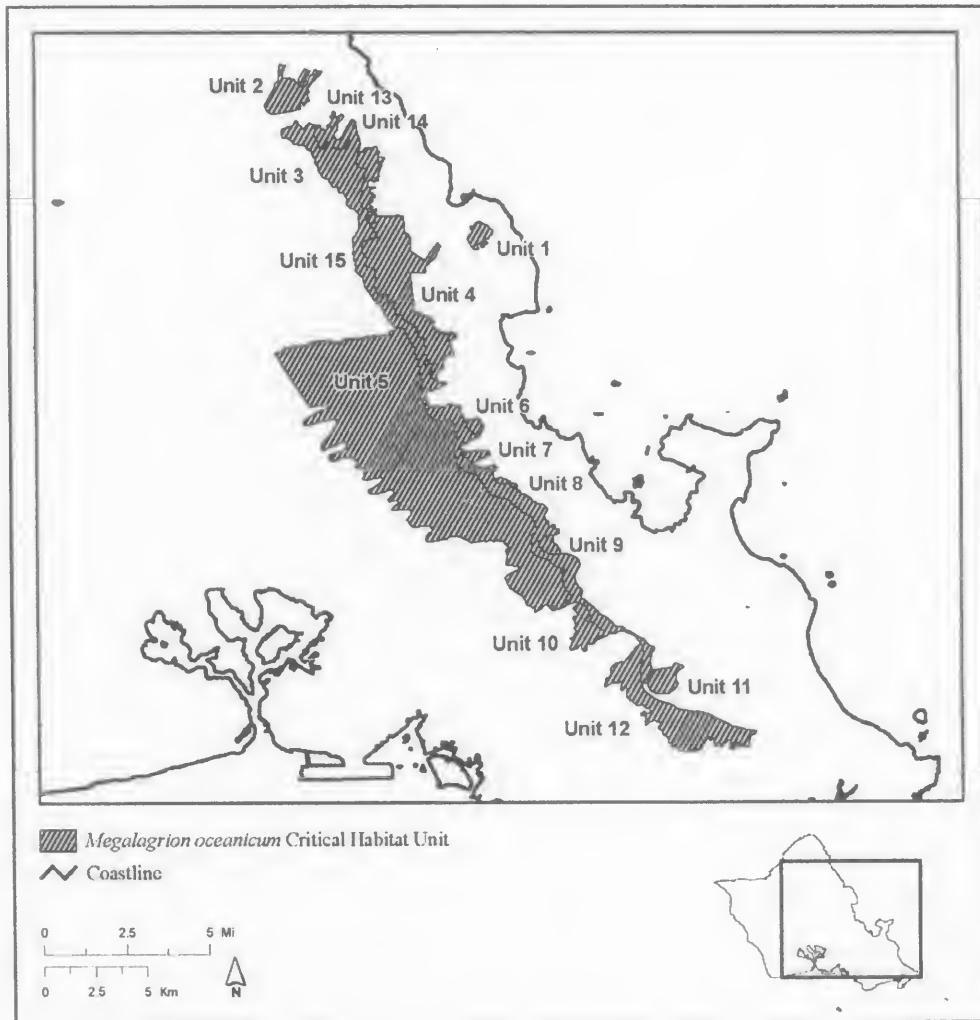
(3) Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas, do not contain one or more of the physical and biological features. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or

physical and biological features in adjacent critical habitat.

(4) *Critical habitat maps.* Maps were created in GIS, with coordinates in UTM Zone 4, units in meters using North American datum of 1983 (NAD 83).

(5) Index map of critical habitat units for the oceanic Hawaiian damselfly (*Megalagrion oceanicum*; Map 1) follows:

Map 1
Megalagrion oceanicum—Index Map

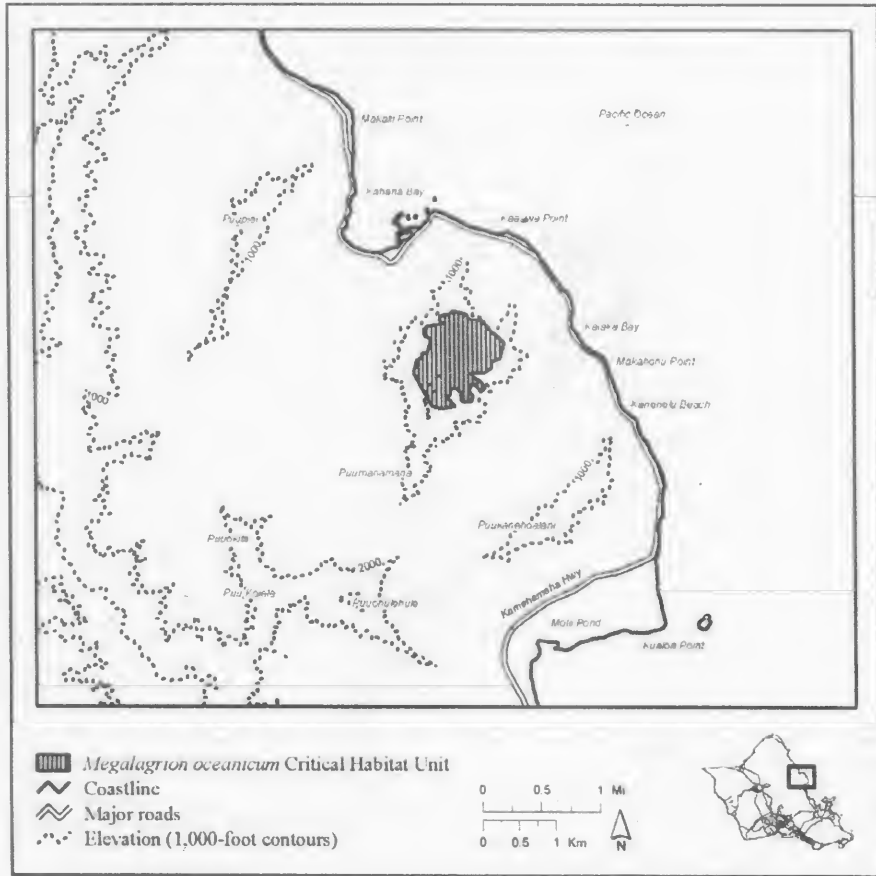


(6) *Megalagrion oceanicum*—Unit 1—
Lowland Mesic, Honolulu County,
Hawaii (247 ac; 100 ha).

(i) [Reserved for textual description of
unit.] This unit is critical habitat for the
oceanic Hawaiian damselfly,
Megalagrion oceanicum.

(ii) **Note:** Map of *Megalagrion
oceanicum*—Unit 1—Lowland Mesic
(Map 2) follows:

Megalagrion oceanicum
Lowland Mesic
Unit 1



(7) *Megalagrion oceanicum*—Unit 2—Lowland Wet, Honolulu County, Hawaii (790 ac; 320 ha); *Megalagrion oceanicum*—Unit 3—Lowland Wet, Honolulu County, Hawaii (1,790 ac; 724 ha); and *Megalagrion oceanicum*—Unit 4—Lowland Wet, Honolulu County, Hawaii (3,041 ac; 1,231 ha).

(i) [Reserved for textual description of Unit 2.] This unit is critical habitat for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

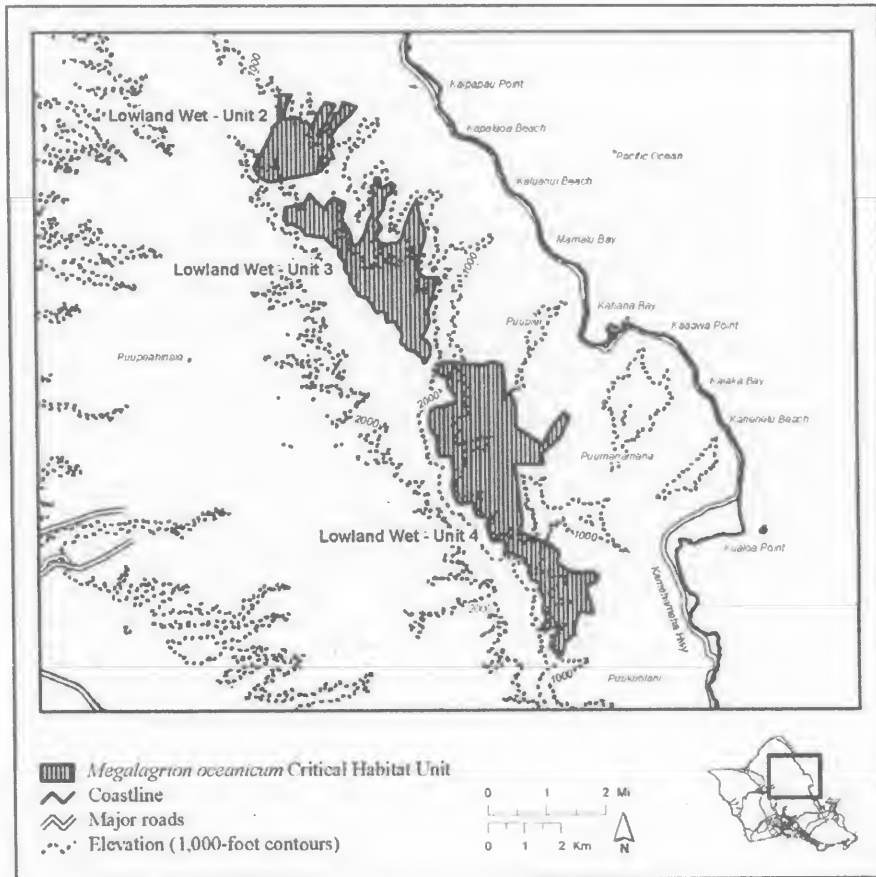
(ii) [Reserved for textual description of Unit 3.] This unit is critical habitat for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

(iii) [Reserved for textual description of Unit 4.] This unit is critical habitat

for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

(iv) **Note:** Map of *Megalagrion oceanicum*—Unit 2—Lowland Wet, *Megalagrion oceanicum*—Unit 3—Lowland Wet, and *Megalagrion oceanicum*—Unit 4—Lowland Wet follows:

Megalagrion oceanicum
Lowland Wet
Unit 2, Unit 3 and Unit 4

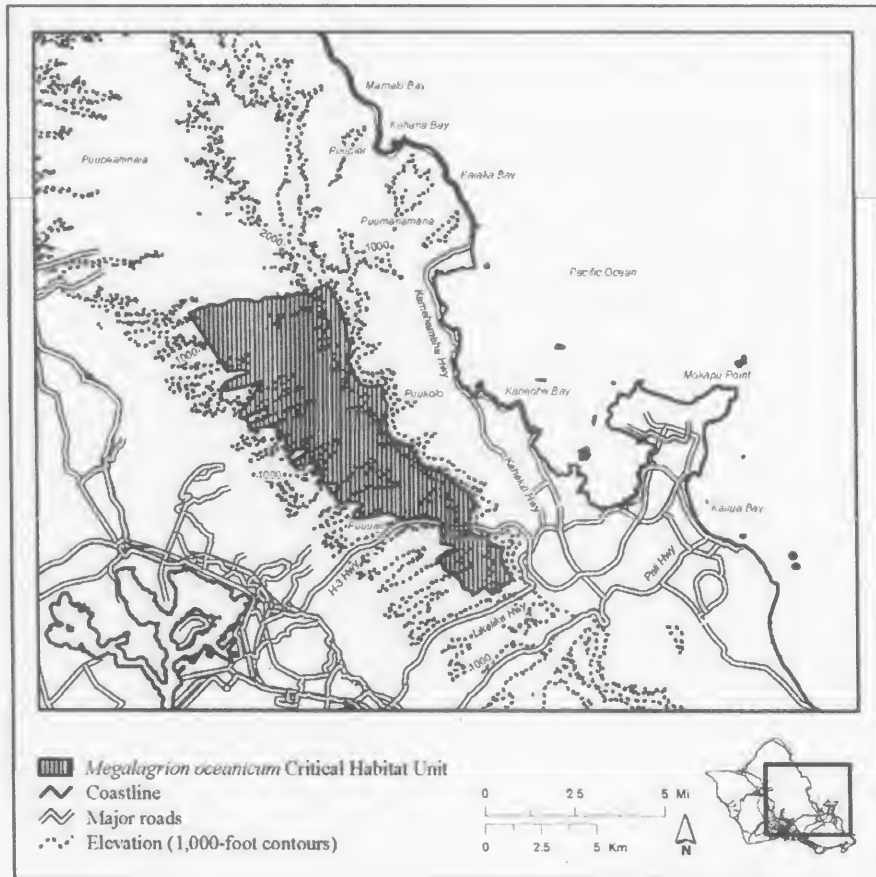


(8) *Megalagrion oceanicum*—Unit 5—
Lowland Wet, Honolulu County, Hawaii
(15,728 ac; 6,365 ha).

(i) [Reserved for textual description of
unit.] This unit is critical habitat for the
oceanic Hawaiian damselfly,
Megalagrion oceanicum.

(ii) **Note:** Map of *Megalagrion
oceanicum*—Unit 5—Lowland Wet
follows:

Megalagrion oceanicum
Lowland Wet
Unit 5



(9) *Megalagrion oceanicum*—Unit 6—Lowland Wet, Honolulu County, Hawaii (124 ac; 50 ha); *Megalagrion oceanicum*—Unit 7—Lowland Wet, Honolulu County, Hawaii (124 ac; 50 ha); and *Megalagrion oceanicum*—Unit 8—Lowland Wet, Honolulu County, Hawaii (53 ac; 21 ha).

(i) [Reserved for textual description of Unit 6.] This unit is critical habitat for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

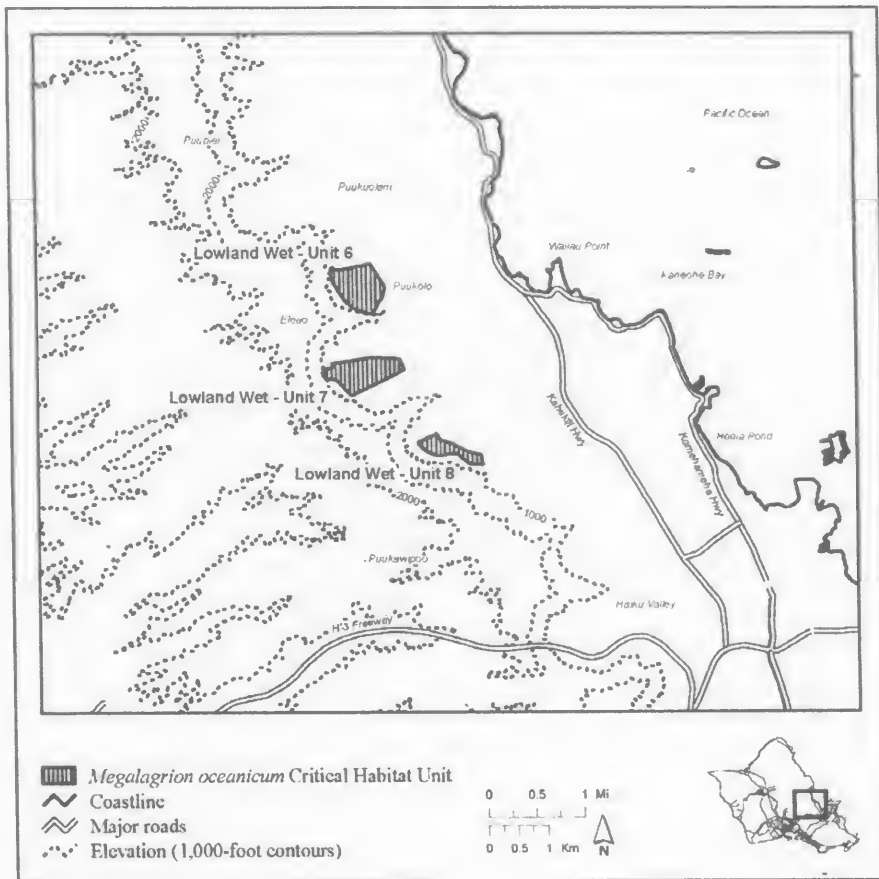
(ii) [Reserved for textual description of Unit 7.] This unit is critical habitat for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

(iii) [Reserved for textual description of Unit 8.] This unit is critical habitat

for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

(iv) **Note:** Map of *Megalagrion oceanicum*—Unit 6—Lowland Wet, *Megalagrion oceanicum*—Unit 7—Lowland Wet, and *Megalagrion oceanicum*—Unit 8—Lowland Wet follows:

***Megalagrion oceanicum*
Lowland Wet
Unit 6, Unit 7 and Unit 8**



(11) *Megalagrion oceanicum*—Unit 13—Wet Cliff, Honolulu County, Hawaii (151 ac; 61 ha) and *Megalagrion oceanicum*—Unit 14—Wet Cliff, Honolulu County, Hawaii (144 ac; 58 ha).

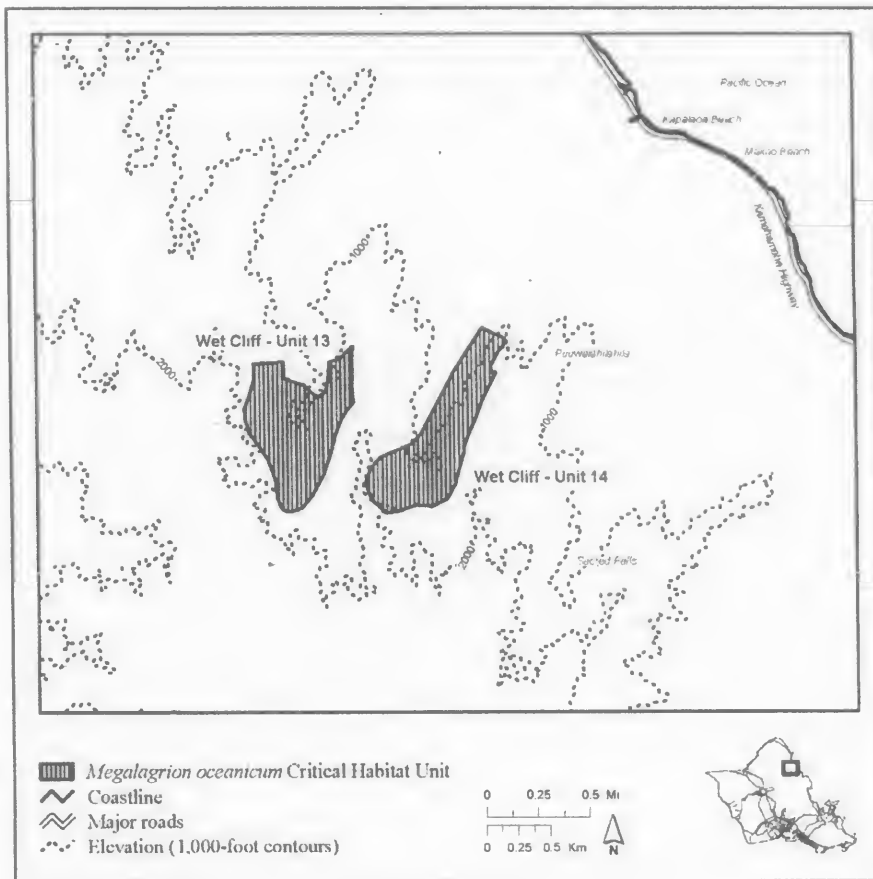
(i) [Reserved for textual description of Unit 13.] This unit is critical habitat for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

(ii) [Reserved for textual description of Unit 14.] This unit is critical habitat

for the oceanic Hawaiian damselfly, *Megalagrion oceanicum*.

(iii) **Note:** Map of *Megalagrion oceanicum*—Unit 13—Wet Cliff and *Megalagrion oceanicum*—Unit 14—Wet Cliff follows:

Megalagrion oceanicum
Wet Cliff
Unit 13 and Unit 14



Paragraph designation	Remove	Add
(a)(1)(civ), the introductory text	Kauai 10— <i>Phlegmariurus nutans</i> —a	Kauai 10— <i>Huperzia nutans</i> —a.
(a)(1)(ccxl), the introductory text	Kauai 11— <i>Mariscus pennatiformis</i> —a	Kauai 11— <i>Cyperus pennatiformis</i> —a.

b. Amend paragraph (a)(1) by removing the maps in paragraphs (a)(1)(civ)(B) and (a)(1)(ccxl)(B), and adding in their place the maps set forth below.

c. In paragraph (a)(1)(cdlix), amend the Table of Protected Species Within Each Critical Habitat Unit for Kauai, by removing the words listed in the "Remove" column below and adding in

their place the words listed in the "Add" column below:

Column heading	Remove	Add
Unit name	Kauai 10— <i>Phlegmariurus nutans</i> —a	Kauai 10— <i>Huperzia nutans</i> —a.
Species unoccupied	<i>Phlegmariurus nutans</i>	<i>Huperzia nutans</i> .
Unit name	Kauai 11— <i>Mariscus pennatiformis</i> —a	Kauai 11— <i>Cyperus pennatiformis</i> —a.
Species unoccupied	<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .

d. Amend paragraph (b)(1) by removing the words listed in the

"Remove" column below in all places that they appear and adding in their

place the words listed in the "Add" column below:

Remove	Add
Family Cyperaceae: <i>Mariscus pennatiformis</i> (NCN)	Family Cyperaceae: <i>Cyperus pennatiformis</i> (NCN).
Kauai 11— <i>Mariscus pennatiformis</i> —a	Kauai 11— <i>Cyperus pennatiformis</i> —a.
<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .

e. Amend paragraph (b)(2) by removing the words listed in the

"Remove" column below in all places that they appear and adding in their

place the words listed in the "Add" column below:

Remove	Add
Family Lycopodiaceae: <i>Phlegmariurus nutans</i> (wawaeiole)	Family Lycopodiaceae: <i>Huperzia nutans</i> (wawaeiole).
Kauai 10— <i>Phlegmariurus nutans</i> —a	Kauai 10— <i>Huperzia nutans</i> —a.
<i>Phlegmariurus nutans</i>	<i>Huperzia nutans</i> .

f. Amend paragraph (e)(1) by removing the words listed in the "Remove" column below and adding in

their place the words listed in the "Add" column below:

Paragraph designation	Remove	Add
(e)(1)(xii), the introductory text	Maui 6— <i>Mariscus pennatiformis</i> —a	Maui 6— <i>Cyperus pennatiformis</i> —a.
(e)(1)(civ), the introductory text	Maui 17— <i>Hedyotis coriacea</i> —a	Maui 17— <i>Kadua coriacea</i> —a.
(e)(1)(cv), the introductory text	Maui 17— <i>Hedyotis coriacea</i> —b	Maui 17— <i>Kadua coriacea</i> —b.

g. Amend paragraph (e)(1) by removing the maps in paragraphs (e)(1)(xii)(B), (e)(1)(civ)(B), and (e)(1)(cv)(B), and adding in their place the maps set forth below.

h. In paragraph (e)(1)(cxxxviii), amend the Table of Protected Species Within Each Critical Habitat Unit for Maui, by removing the words listed in the "Remove" column below and

adding in their place the words listed in the "Add" column below:

Column heading	Remove	Add
Unit name	Maui 6— <i>Mariscus pennatiformis</i> —a	Maui 6— <i>Cyperus pennatiformis</i> —a.
Species occupied	<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .
Unit name	Maui 17— <i>Hedyotis coriacea</i> —a	Maui 17— <i>Kadua coriacea</i> —a.
Species occupied	<i>Hedyotis coriacea</i>	<i>Kadua coriacea</i> .
Unit name	Maui 17— <i>Hedyotis coriacea</i> —b	Maui 17— <i>Kadua coriacea</i> —b.
Species unoccupied	<i>Hedyotis coriacea</i>	<i>Kadua coriacea</i> .

i. Amend paragraph (f)(1) by removing the words listed in the "Remove"

column below in all places that they appear and adding in their place the

words listed in the "Add" column below:

Remove	Add
Family Cyperaceae: <i>Mariscus pennatiformis</i> (NCN)	Family Cyperaceae: <i>Cyperus pennatiformis</i> (NCN).
Maui 6— <i>Mariscus pennatiformis</i> —a	Maui 6— <i>Cyperus pennatiformis</i> —a.
<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .
Family Rubiaceae: <i>Hedyotis coriacea</i> (kioele)	Family Rubiaceae: <i>Kadua coriacea</i> (kioele).
Maui 17— <i>Hedyotis coriacea</i> —a	Maui 17— <i>Kadua coriacea</i> —a.
Maui 17— <i>Hedyotis coriacea</i> —b	Maui 17— <i>Kadua coriacea</i> —b.
<i>Hedyotis coriacea</i>	<i>Kadua coriacea</i> .

j. Amend paragraph (g) by removing the words listed in the “Remove” column below and adding in their place the words listed in the “Add” column below:

Paragraph designation	Remove	Add
(g)(7), the introductory text	Laysan 1— <i>Mariscus pennatiformis</i> —entire island.	Laysan 1— <i>Cyperus pennatiformis</i> —entire island.

k. Amend paragraph (g) by removing the map in paragraph (g)(7)(ii), and adding in its place the map set forth below. l. In paragraph (g)(9), amend the Table of Protected Species Within Each Critical Habitat Unit for the Northwestern Hawaiian Islands, by removing the words listed in the “Remove” column below and adding in their place the words listed in the “Add” column below:

Column heading	Remove	Add
Species—Occupied	<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .

m. Amend paragraph (h) by removing the words listed in the “Remove” column below in all places that they appear and adding in their place the words listed in the “Add” column below:

Remove	Add
Family Cyperaceae: <i>Mariscus pennatiformis</i> (NCN)	Family Cyperaceae: <i>Cyperus pennatiformis</i> (NCN).
Laysan 1— <i>Mariscus pennatiformis</i>	Laysan 1— <i>Cyperus pennatiformis</i> .
<i>Mariscus pennatiformis</i>	<i>Cyperus pennatiformis</i> .

n. Revise paragraphs (i) and (j) to read as set forth below.

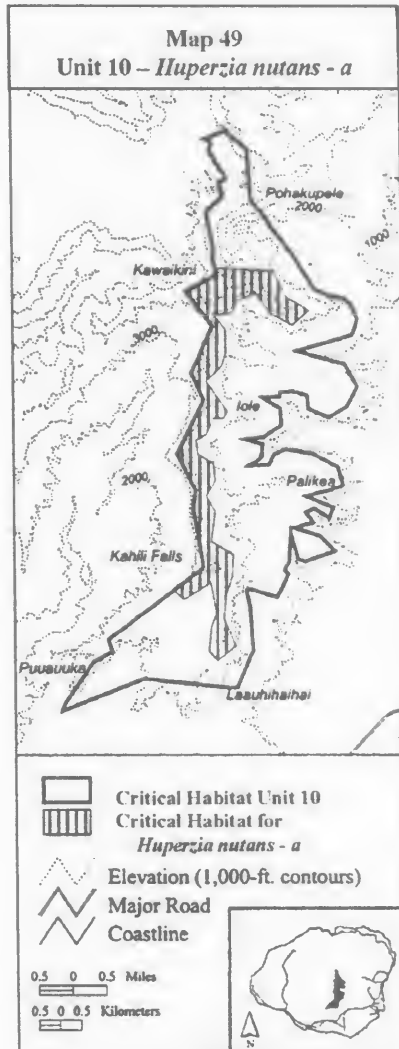
§ 17.99 Critical habitat; plants on the islands of Kauai, Niihau, Molokai, Maui, Kahoolawe, Oahu, and Hawaii, HI, and on the Northwestern Hawaiian Islands.

(a) * * *

(1) * * *

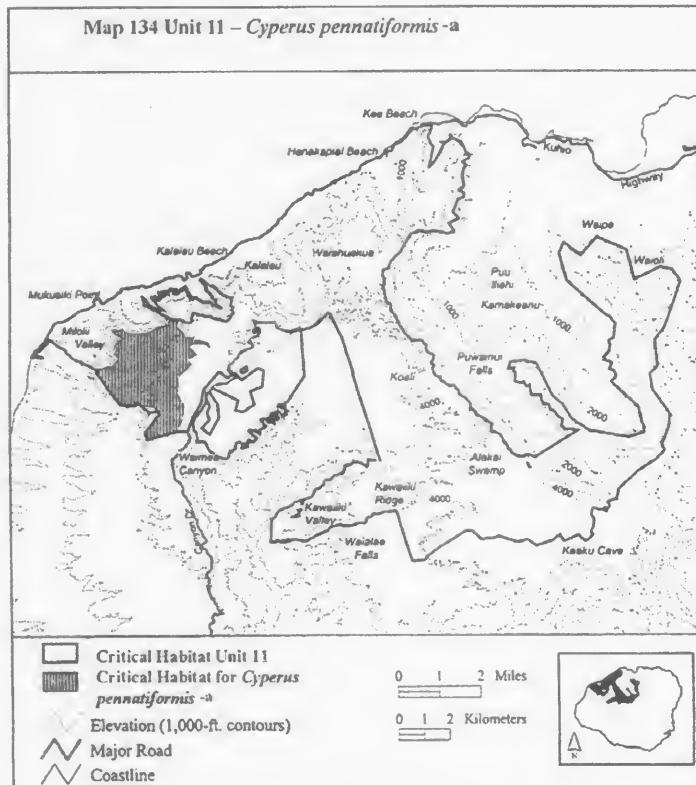
(civ) * * *

(B) Note: Map 49 follows:



* * * * *
(ccxl) * * *

(B) Note: Map 134 follows:



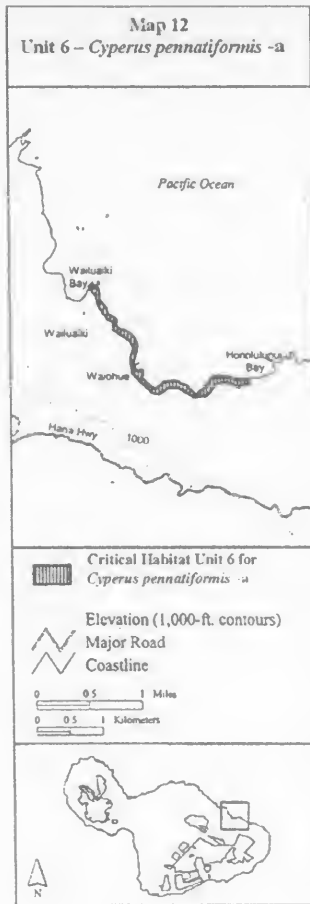
* * * * *

(e) * * *

(1) * * *

(xii) * * *

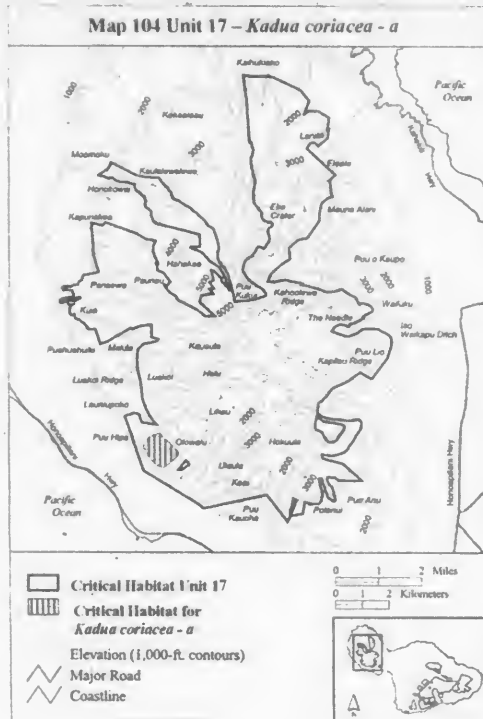
(B) Note: Map 12 follows:



(civ) * * *

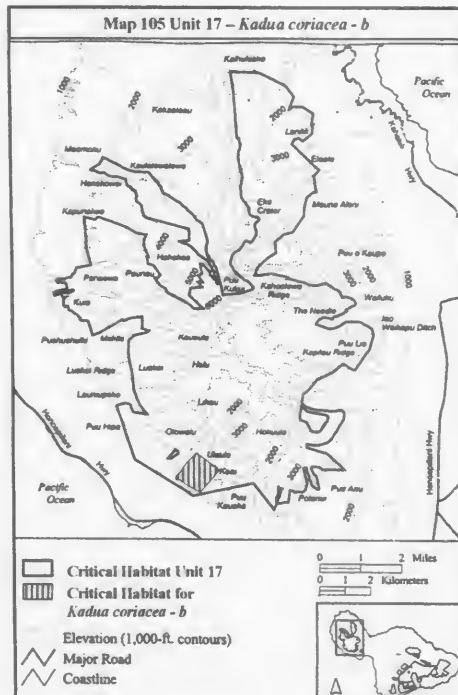
(B) Note: Map 104 follows:

* * * * *



(cv) * * *

(B) Note: Map 105 follows:

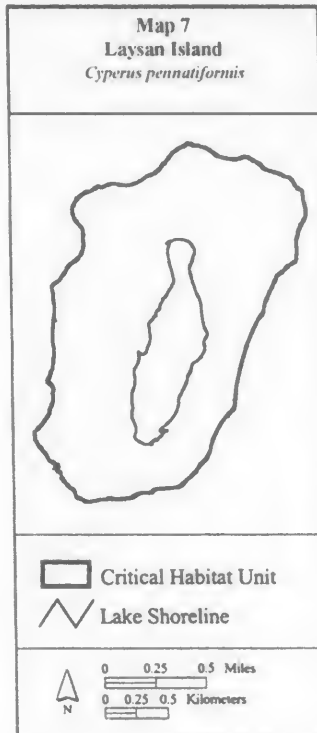


* * * * *

(g) * * *

(7) * * *

(ii) Note: Map 7 follows:



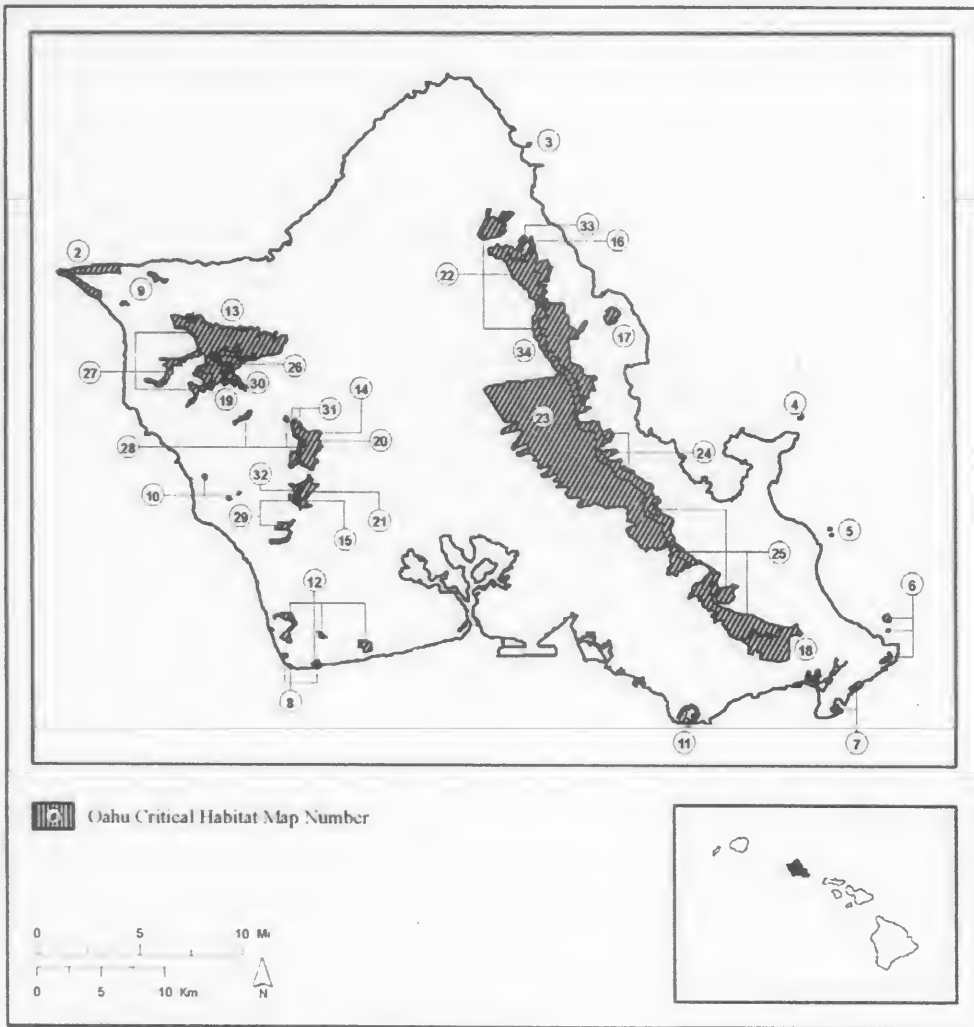
* * * * *

(i) *Oahu*. Critical habitat units are described below. Coordinates are in UTM Zone 4 with units in meters using North American Datum of 1983 (NAD83). The following map shows the general locations of the critical habitat units designated on the island of Oahu. Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas, do not contain one or more of the physical and biological features. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or physical or biological features in adjacent critical habitat.

(1) Note: Map 1—Index map follows:

BILLING CODE 4310-55-P

Map 1
Oahu Critical Habitat-Island Index Map



(2) Oahu—Coastal—Unit 1 (958 ac; 388 ha)

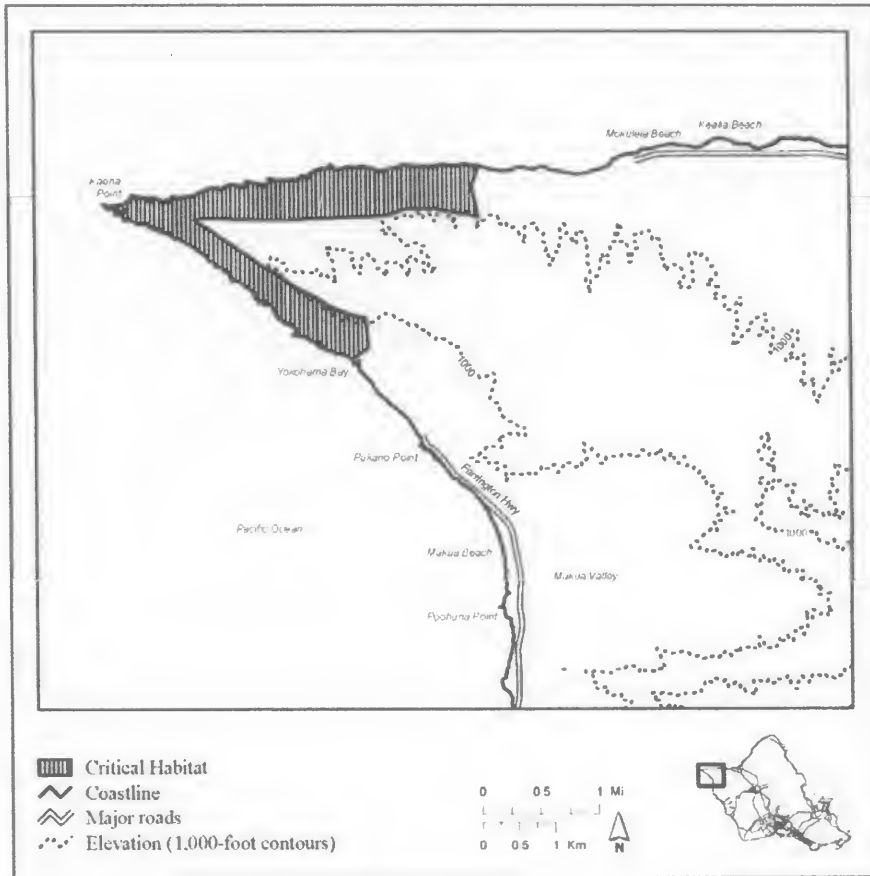
(i) [Reserved for textual description of unit.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*,

Bidens amplexans, *Centaurium sebaeoides*, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) **Note:**

Map of Oahu—Coastal—Unit 1 (Map 2) follows:

Map 2
Oahu—Coastal
Unit 1



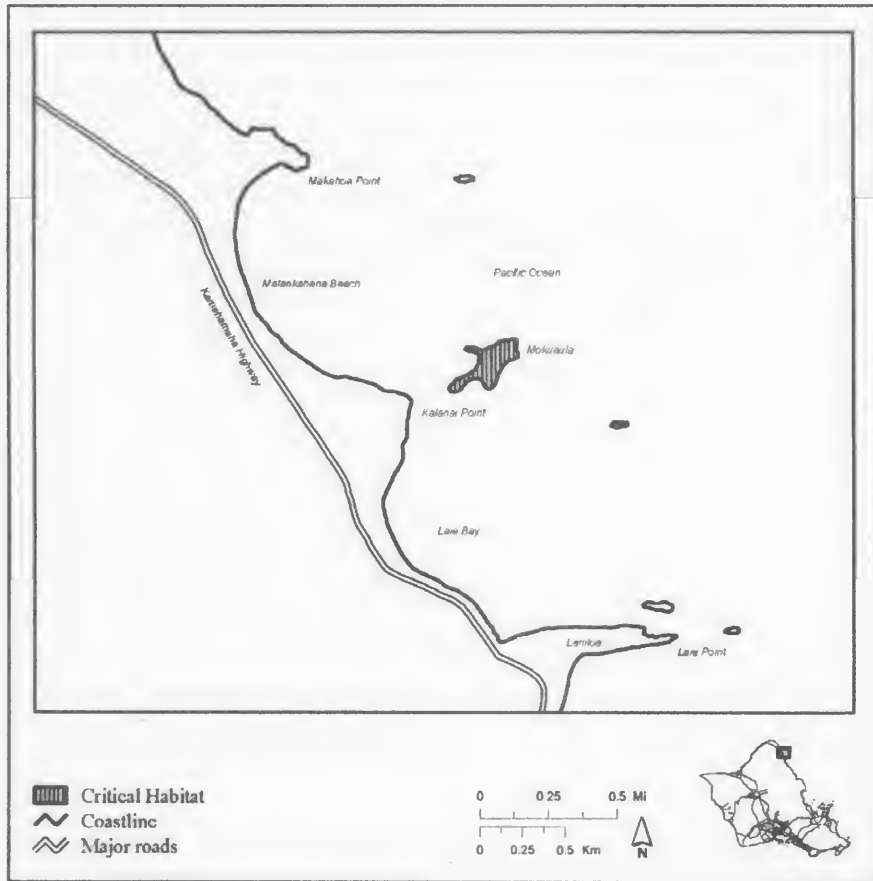
(3) Oahu—Coastal—Unit 2 (12 ac; 5 ha)

(i) [Reserved for textual description of unit.] This unit is critical habitat for

Centaurium sebaeoides, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) **Note:** Map of Oahu—Coastal—Unit 2 (Map 3) follows:

Map 3
Oahu—Coastal
Unit 2



(4) Oahu—Coastal—Unit 3 (15 ac; 6 ha) and Oahu—Coastal—Unit 4 (3 ac; 1 ha)

(i) [Reserved for textual description of Unit 3.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce*

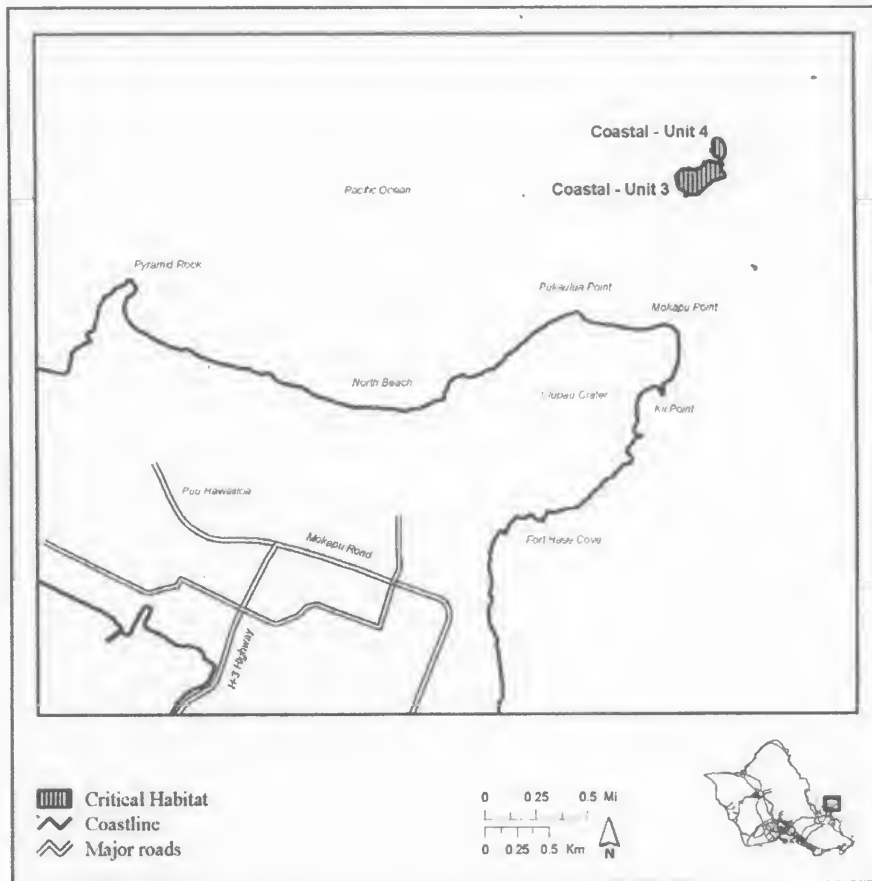
kuwaleana, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) [Reserved for textual description of Unit 4.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce*

kuwaleana, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iii) **Note:** Map of Oahu—Coastal—Unit 3 and Oahu—Coastal—Unit 4 (Map 4) follows:

Map 4
Oahu—Coastal
Unit 3 and Unit 4



(5) Oahu—Coastal—Unit 5 (12 ac; 5 ha) and Oahu—Coastal—Unit 6 (9 ac; 4 ha)

(i) [Reserved for textual description of Unit 5.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce*

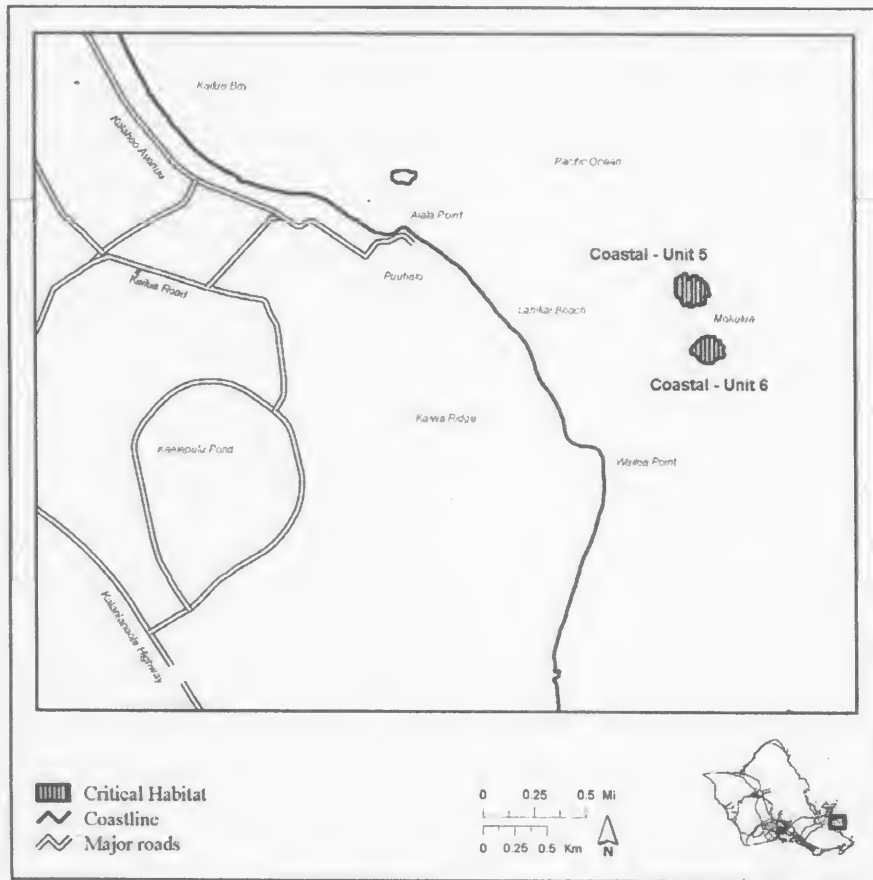
kuwaleana, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) [Reserved for textual description of Unit 6.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce*

kuwaleana, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iii) **Note:** Map of Oahu—Coastal—Unit 5 and Oahu—Coastal—Unit 6 (Map 5) follows:

Map 5
Oahu—Coastal
Unit 5 and Unit 6



(6) Oahu—Coastal—Unit 7 (67 ac; 27 ha), Oahu—Coastal—Unit 8 (10 ac; 4 ha), and Oahu—Coastal—Unit 9 (84 ac; 34 ha)

(i) [Reserved for textual description of Unit 7.] This unit is critical habitat for, *Centaurium sebaeoides*, *Chamaesyce*

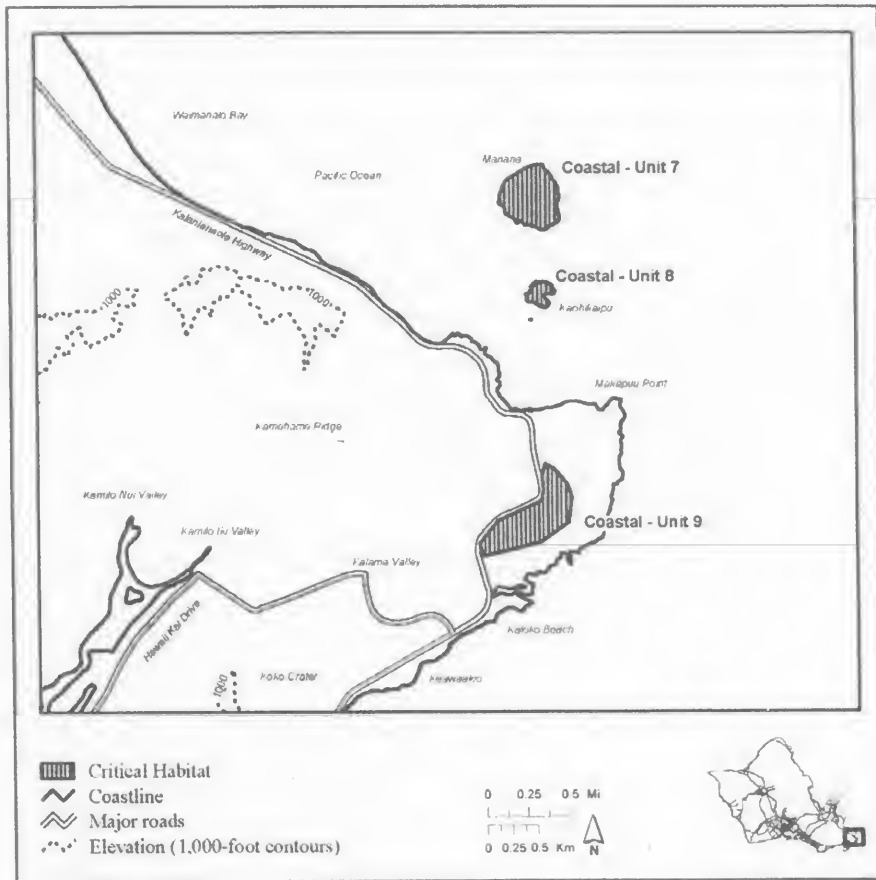
kuwaleana, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(ii) [Reserved for textual description of Unit 8.] This unit is critical habitat for, *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iii) [Reserved for textual description of Unit 9.] This unit is critical habitat for, *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iv) **Note:** Map of Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, and Oahu—Coastal—Unit 9 (Map 6) follows:

Map 6
Oahu—Coastal
Unit 7, Unit 8 and Unit 9



(7) Oahu—Coastal—Unit 10 (74 ac; 30 ha), Oahu—Coastal—Unit 11 (20 ac; 8 ha), and Oahu—Coastal—Unit 12 (11 ac; 5 ha)

(i) [Reserved for textual description of Unit 10.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

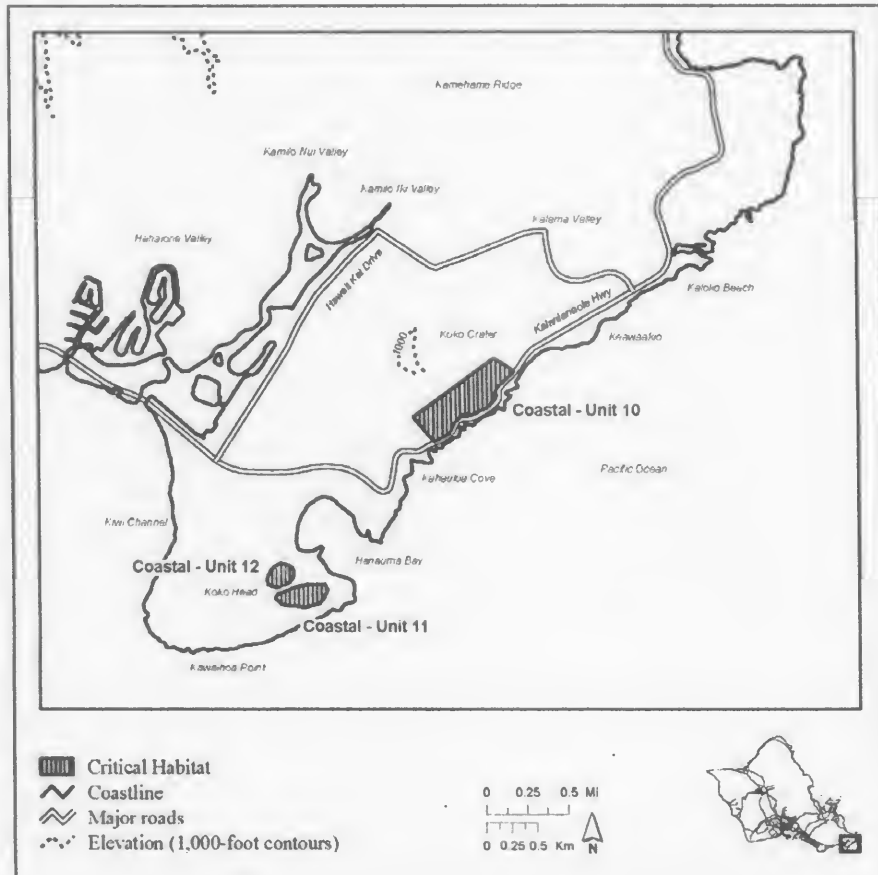
(ii) [Reserved for textual description of Unit 11.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce kuwaleana*, *Cyperus trachysanthos*, *Marsilea villosa*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iii) [Reserved for textual description of Unit 12.] This unit is critical habitat for *Centaurium sebaeoides*, *Chamaesyce*

kuwaleana, *Cyperus trachysanthos*, *Marsilea villosa*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iv) **Note:** Map of Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12 (Map 7) follows:

Map 7
Oahu—Coastal
Unit 10, Unit 11 and Unit 12



(8) Oahu—Coastal—Unit 13 (24 ac; 10 ha), Oahu—Coastal—Unit 14 (4 ac; 2 ha), and Oahu—Coastal—Unit 15 (34 ac; 14 ha)

(i) [Reserved for textual description of Unit 13.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Centaurium sebaeoides*, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

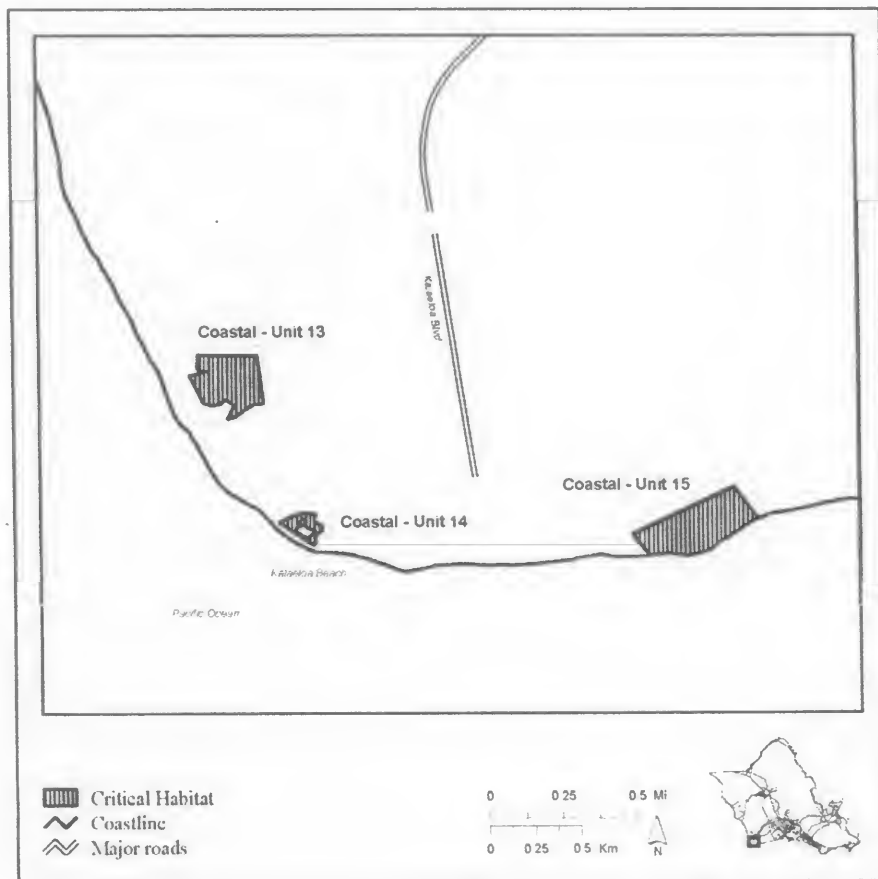
(ii) [Reserved for textual description of Unit 14.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Centaurium sebaeoides*, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iii) [Reserved for textual description of Unit 15.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*,

Centaurium sebaeoides, *Chamaesyce celastroides* var. *kaenana*, *Schiedea kealiae*, *Sesbania tomentosa*, and *Vigna o-wahuensis*.

(iv) **Note:** Map of Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15 (Map 8) follows:

Map 8
Oahu—Coastal
Unit 13, Unit 14 and Unit 15



(9) Oahu—Lowland Dry—Unit 1 (102 ac; 41 ha) and Oahu—Lowland Dry—Unit 2 (29 ac; 12)

(i) [Reserved for textual description of Unit 1.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformum*,

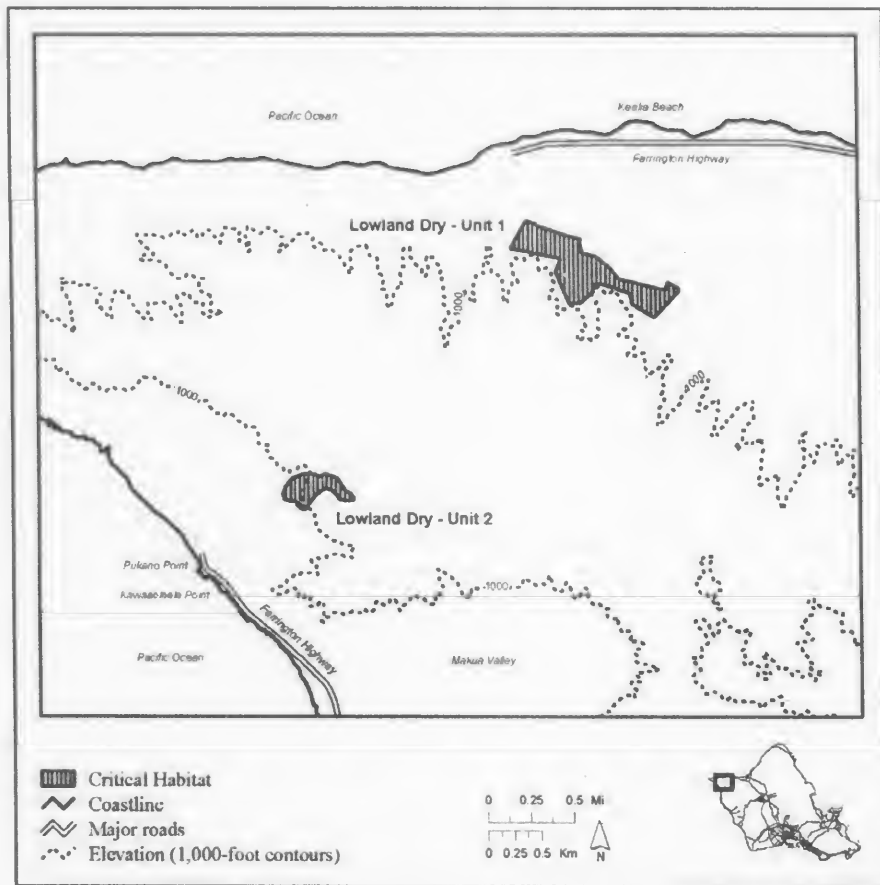
Melanthera tenuifolia, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(ii) [Reserved for textual description of Unit 2.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Euphorbia haeleleana*,

Gouania meyenii, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriformum*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(iii) **Note:** Map of Oahu—Lowland Dry—Unit 1 and Oahu—Lowland Dry—Unit 2 (Map 9) follows:

Map 9
Oahu—Lowland Dry
Unit 1 and Unit 2



(11) Oahu—Lowland Dry—Unit 6 (287 ac; 116 ha) and Oahu—Lowland Dry—Unit 7 (15 ac; 6 ha)

(i) [Reserved for textual description of Unit 6.] This unit is critical habitat for

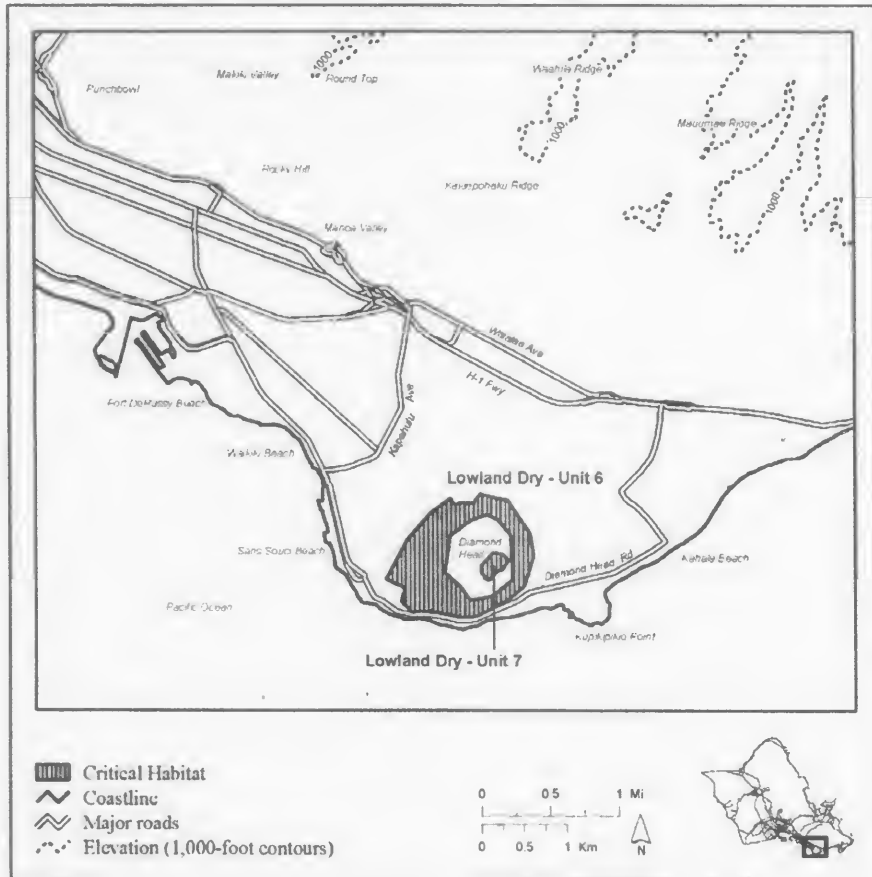
Doryopteris takeuchii, *Gouania meyenii*, and *Spermolepis hawaiiensis*.

(ii) [Reserved for textual description of Unit 7.] This unit is critical habitat for *Cyperus trachysanthos*, *Doryopteris*

takeuchii, *Gouania meyenii*, *Marsilea villosa*, and *Spermolepis hawaiiensis*.

(iii) **Note:** Map of Oahu—Lowland Dry—Unit 6 and Oahu—Lowland Dry—Unit 7 (Map 11) follows:

Map 11
Oahu—Lowland Dry
Unit 6 and Unit 7



(12) Oahu—Lowland Dry—Unit 8 (292 ac; 118 ha), Oahu—Lowland Dry—Unit 9 (40 ac; 16 ha), Oahu—Lowland Dry—Unit 10 (43 ac; 17 ha), and Oahu—Lowland Dry—Unit 11 (166 ac; 67 ha)

(i) [Reserved for textual description of Unit 8.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce skottsbergii* var. *skottsbergii*, *Euphorbia haeleleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriform*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(ii) [Reserved for textual description of Unit 9.] This unit is critical habitat for *Achyranthes splendens* var.

rotundata, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce skottsbergii* var. *skottsbergii*, *Euphorbia haeleleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriform*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

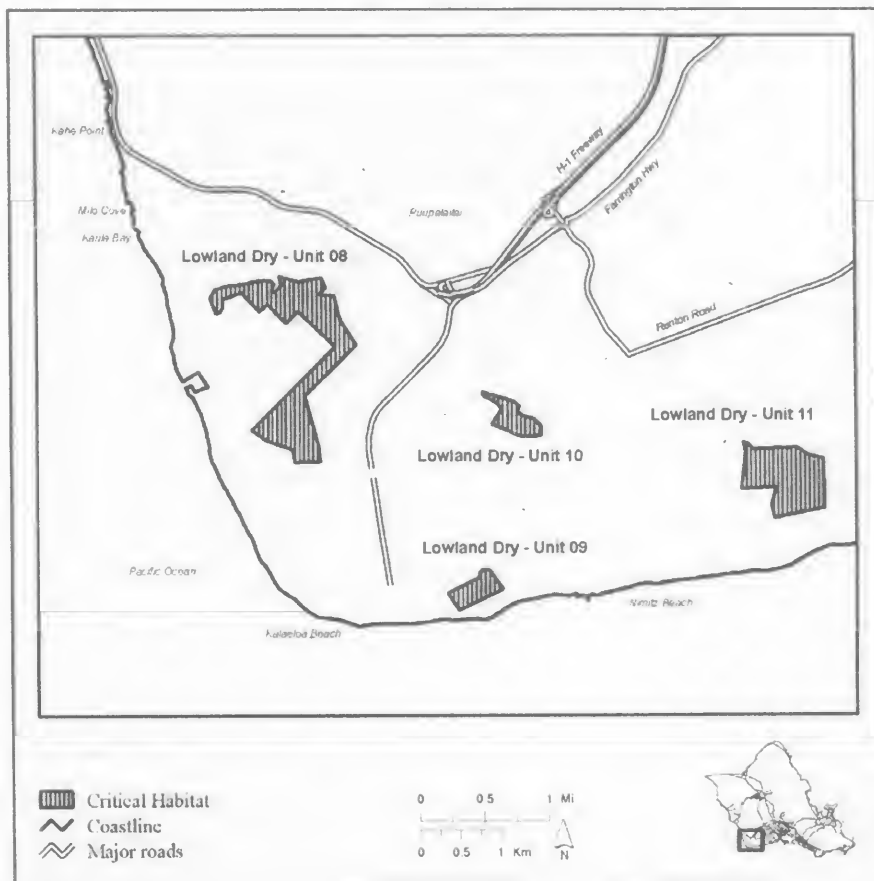
(iii) [Reserved for textual description of Unit 10.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce skottsbergii* var. *skottsbergii*, *Euphorbia haeleleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriform*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium*

humile, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(iv) [Reserved for textual description of Unit 11.] This unit is critical habitat for *Achyranthes splendens* var. *rotundata*, *Bidens amplexans*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce skottsbergii* var. *skottsbergii*, *Euphorbia haeleleana*, *Gouania meyenii*, *Gouania vitifolia*, *Hibiscus brackenridgei*, *Isodendron pyriform*, *Melanthera tenuifolia*, *Neraudia angulata*, *Nototrichium humile*, *Pleomele forbesii*, *Schiedea hookeri*, *Schiedea kealiae*, and *Spermolepis hawaiiensis*.

(v) **Note:** Map of Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11 (Map 12) follows:

Map 12
Oahu—Lowland Dry
Unit 8, Unit 9, Unit 10 and Unit 11



(13) Oahu—Lowland Mesic—Unit 1
(4,450 ac; 1,801 ha)

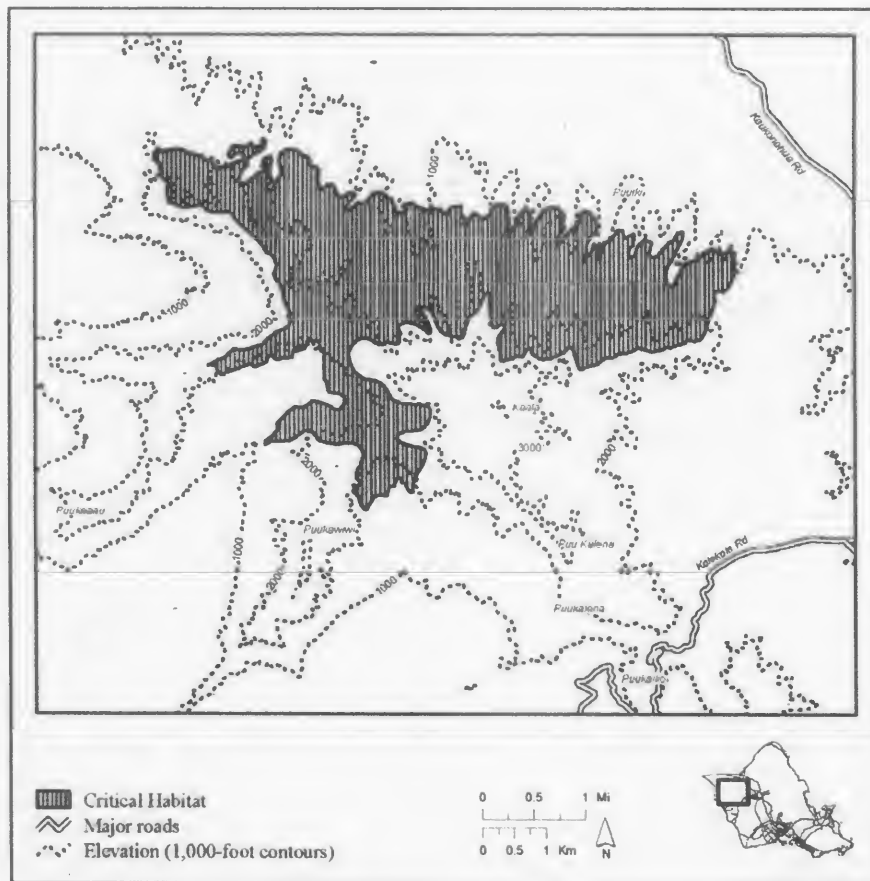
(i) [Reserved for textual description of unit.] This unit is critical habitat for *Abutilon sandwicense*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyanea longiflora*, *Cyanea pinnatifida*, *Cyanea superba*, *Cyperus pennatifolius*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia falcata*,

Diellia unisora, *Diplazium molokaiense*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gardenia mannii*, *Gouania meyenii*, *Gouania vitifolia*, *Hesperomannia arborescens*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Kadua degeneri*, *Kadua parvula*, *Labordia cyrtandrae*, *Lobelia niuhauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope pallida*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*,

Phyllostegia hirsuta, *Phyllostegia kaalaensis*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *Schiedea kaalae*, *Schiedea nuttallii*, *Schiedea obovata*, *Silene perlmanni*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*.

(ii) **Note:** Map of Oahu—Lowland Mesic—Unit 1 (Map 13) follows:

Map 13
Oahu—Lowland Mesic
Unit 1



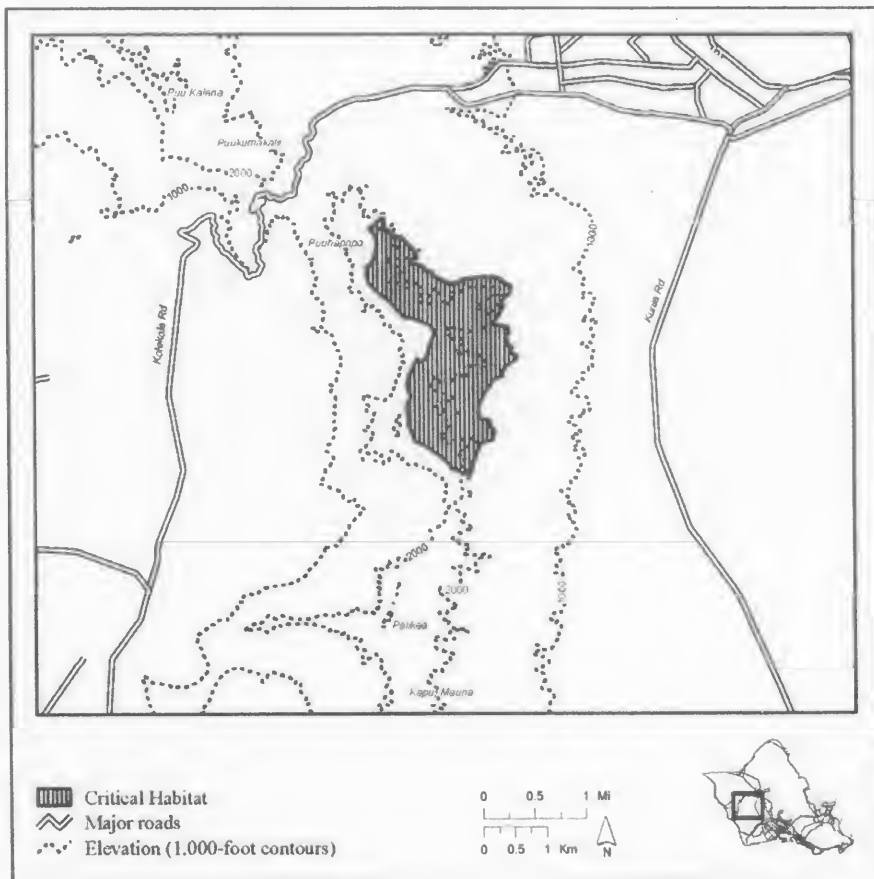
(14) Oahu—Lowland Mesic—Unit 2
(1,063 ac; 430 ha)

(i) [Reserved for textual description of unit.] This unit is critical habitat for *Abutilon sandwicense*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonioides* *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyanea longiflora*, *Cyanea pinnatifida*, *Cyanea superba*, *Cyperus pennatifolius*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia falcata*,

Diellia unisora, *Diplazium molokaiense*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gardenia mannii*, *Gouania meyenii*, *Gouania vitifolia*, *Hesperomannia arborescens*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Kadua degeneri*, *Kadua parvula*, *Labordia cyrtandrae*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope pallida*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*,

Phyllostegia hirsuta, *Phyllostegia kaalaensis*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *Schiedea kaalae*, *Schiedea nuttallii*, *Schiedea obovata*, *Silene perlmanii*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*.
(ii) **Note:** Map of Oahu—Lowland Mesic—Unit 2 (Map 14) follows:

Map 14
Oahu—Lowland Mesic
Unit 2



(15) Oahu—Lowland Mesic—Unit 3
(353 ac; 143 ha)

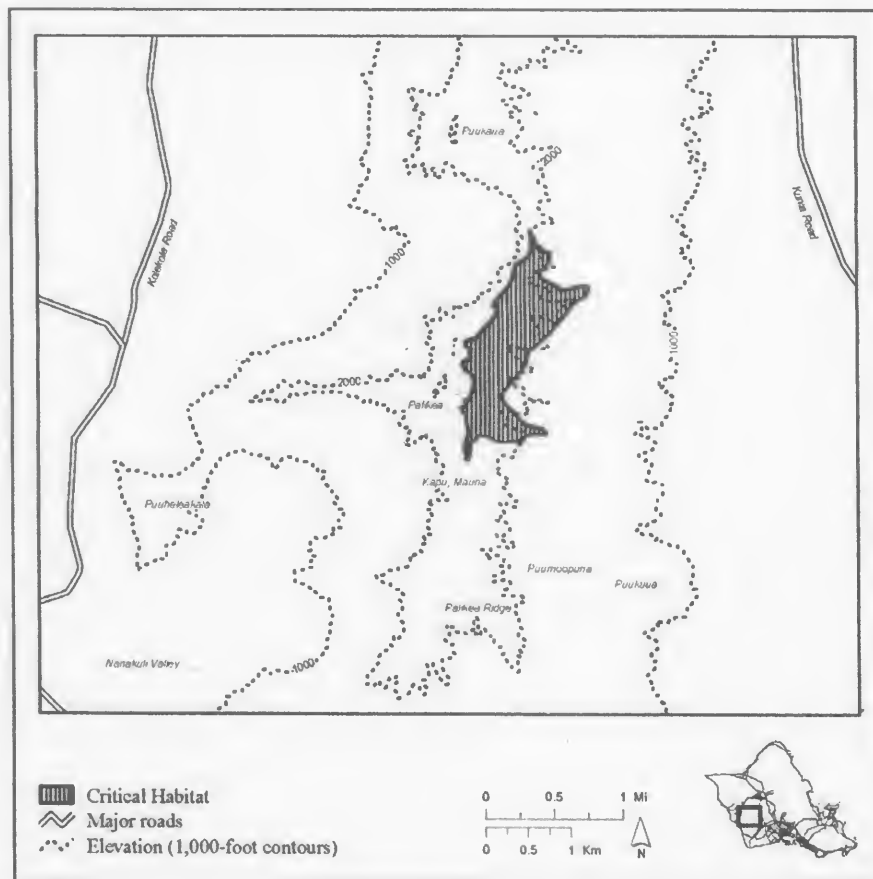
(i) [Reserved for textual description of unit.] This unit is critical habitat for *Abutilon sandwicense*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonoides*, *Chamaesyce celastroides* var. *kaenana*, *Chamaesyce herbstii*, *Colubrina oppositifolia*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyanea longiflora*, *Cyanea pinnatifida*, *Cyanea superba*, *Cyperus pennatifolius*, *Cyrtandra dentata*, *Delissea subcordata*, *Diellia falcata*,

Diellia unisora, *Diplazium molokaiense*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Eugenia koolauensis*, *Euphorbia haeleleana*, *Flueggea neowawraea*, *Gardenia mannii*, *Gouania meyenii*, *Gouania vitifolia*, *Hesperomannia arborescens*, *Hesperomannia arbuscula*, *Hibiscus brackenridgei*, *Isodendron longifolium*, *Kadua coriacea*, *Kadua degeneri*, *Kadua parvula*, *Labordia cyrtandrae*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope pallida*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Phyllostegia hirsuta*, *Phyllostegia*

kaalaensis, *Phyllostegiamollis*, *Phyllostegia parviflora* var. *lydgatei*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *Schiedea kaalae*, *Schiedea nuttallii*, *Schiedea obovata*, *Silene perlmanii*, *Solanum sandwicense*, *Stenogyne kanehoana*, *Tetramolopium lepidotum* ssp. *lepidotum*, *Urera kaalae*, and *Viola chamissoniana* ssp. *chamissoniana*.

(ii) **Note:** Map of Oahu—Lowland Mesic—Unit 3 (Map 15) follows:

Map 15
Oahu—Lowland Mesic
Unit 3

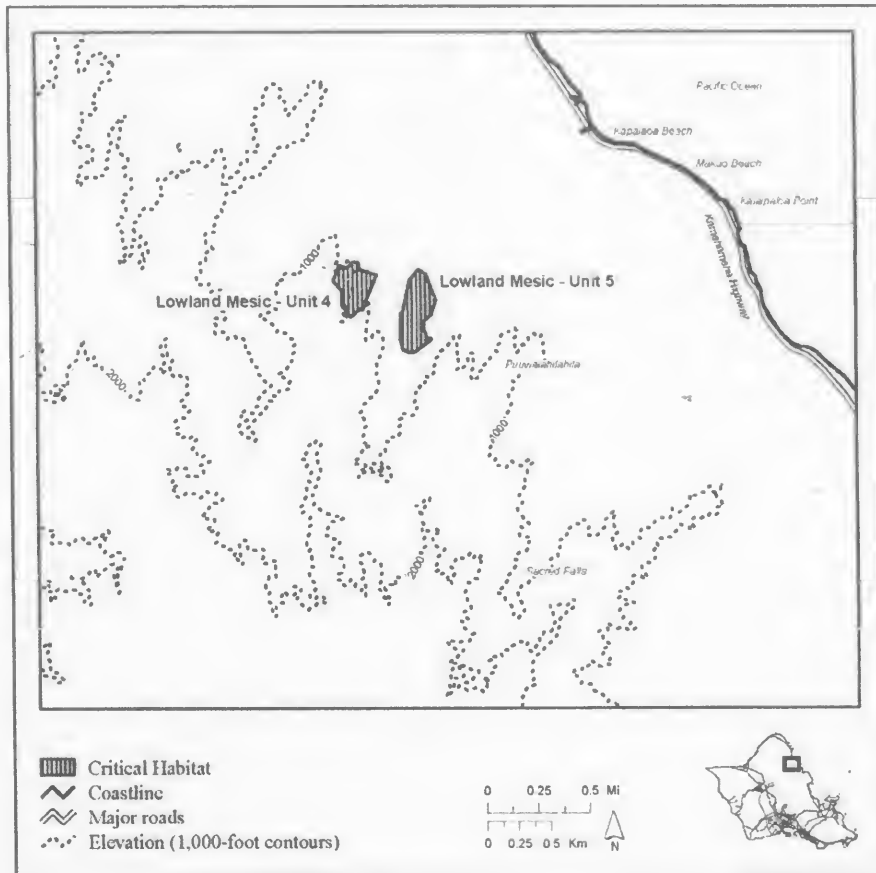


(16) Oahu—Lowland Mesic—Unit 4 (20 ac; 8 ha) and Oahu—Lowland Mesic—Unit 5 (29 ac; 12 ha)
 (i) [Reserved for textual description of Unit 4.] This unit is critical habitat for *Alectryon macrococcus*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea longiflora*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Cyrtandra waiolani*, *Delissea subcordata*, *Diellia erecta*, *Diellia falcata*, *Eugenia koolauensis*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*,

Melicope lydgatei, *Melicope saint-johnii*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, and *Tetraplasandra lydgatei*
 (ii) [Reserved for textual description of Unit 5.] This unit is critical habitat for *Alectryon macrococcus*, *Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea longiflora*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Cyrtandra waiolani*, *Delissea*

subcordata, *Diellia erecta*, *Diellia falcata*, *Eugenia koolauensis*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *Melicope saint-johnii*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, and *Tetraplasandra lydgatei*
 (iii) **Note:** Map of Oahu—Lowland Mesic—Unit 4 and Oahu—Lowland Mesic—Unit 5 (Map 16) follows:

Map 16
 Oahu—Lowland Mesic
 Unit 4 and Unit 5



(17) Oahu—Lowland Mesic—Unit 6
(247 ac; 100 ha)

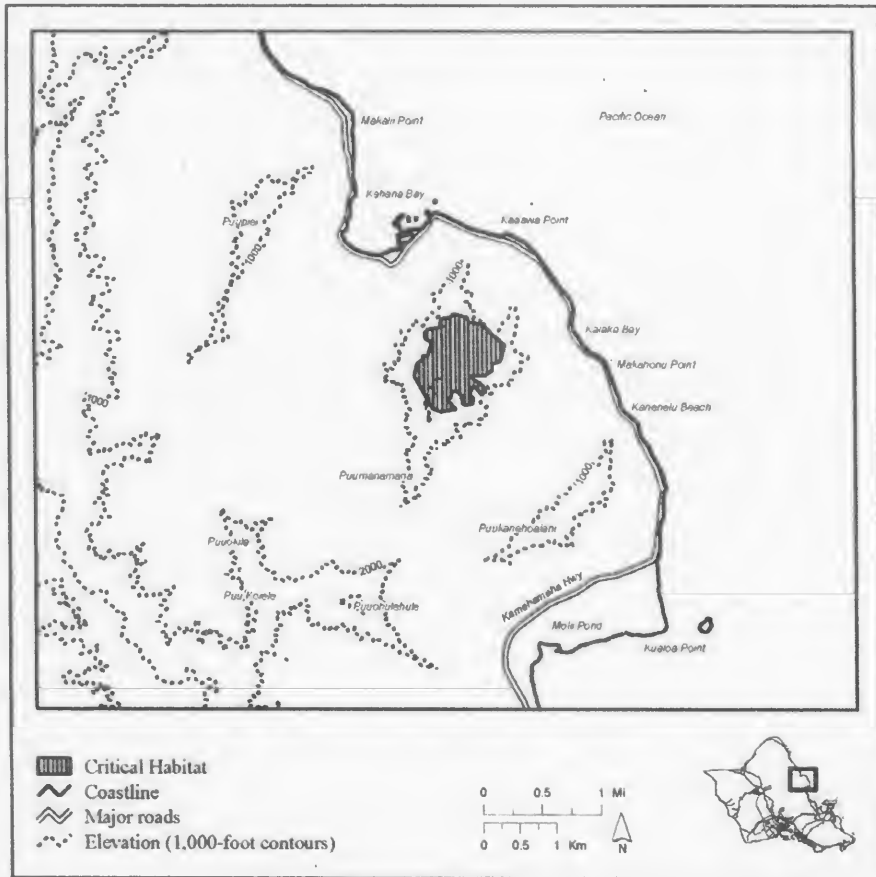
(i) [Reserved for textual description of unit.] This unit is critical habitat for *Alectryon macrococcus Bonamia menziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispera*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea*

longiflora, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Cyrtandra waiolani*, *Delissea subcordata*, *Diellia erecta*, *Diellia falcata*, *Eugenia koolauensis*, *Gardenia mannii*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *Melicope saint-*

johnii, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, and *Tetraplasandra lydgatei*.

(ii) Note: Map of Oahu—Lowland Mesic—Unit 6 (Map 17) follows:

Map 17
Oahu—Lowland Mesic
Unit 6



(18) Oahu—Lowland Mesic—Unit 7
(1,669 ac; 676 ha)

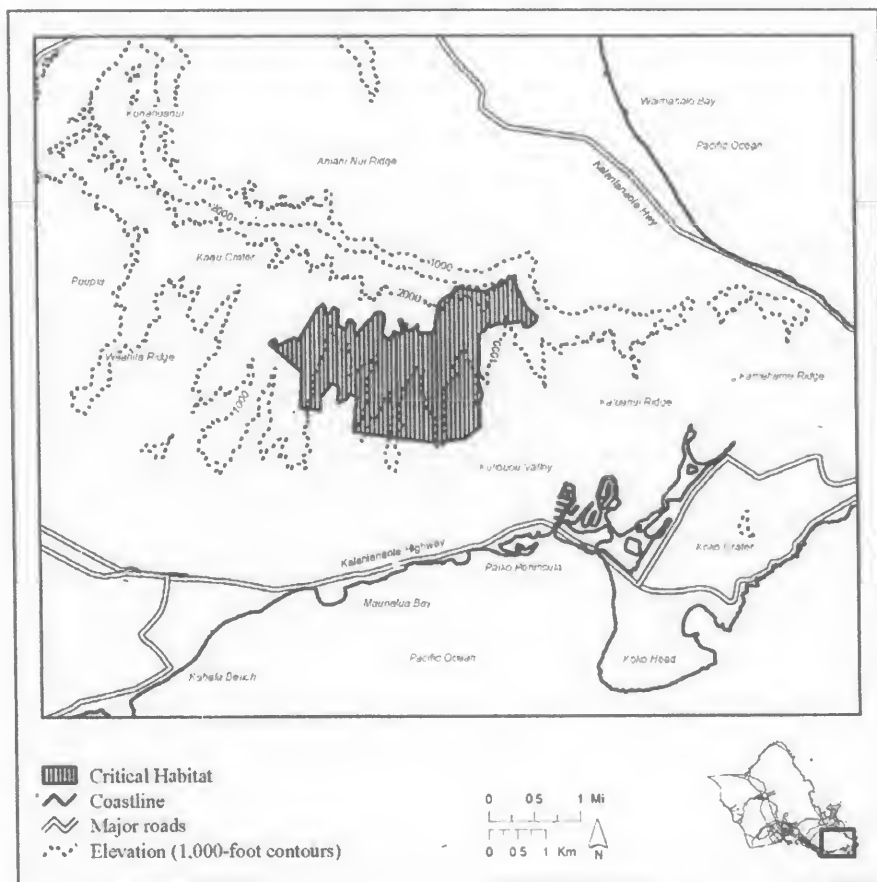
(i) [Reserved for textual description of unit.] This unit is critical habitat for *Alectryon macrococcus*, *Bonania inenziesii*, *Chamaesyce celastroides* var. *kaenana*, *Ctenitis squamigera*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispera*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea lanceolata*, *Cyanea*

longiflora, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra polyantha*, *Cyrtandra waiolani*, *Delissea subcordata*, *Diellia erecta*, *Diellia falcata*, *Eugenia koolauensis*, *Gardenia manni*, *Hesperomannia arborescens*, *Isodendron laurifolium*, *Isodendron longifolium*, *Kadua coriacea*, *Labordia cyrtandrae*, *Lobelia monostachya*, *Melicope lydgatei*, *Melicope saint-*

johnii, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea kaalae*, *Schiedea nuttallii*, *Solanum sandwicense*, *Tetraplasandra gymnocarpa*, and *Tetraplasandra lydgatei*.

(ii) **Note:** Map of Oahu—Lowland Mesic—Unit 7 (Map 18) follows:

Map 18
Oahu—Lowland Mesic
Unit 7



(20) Oahu—Lowland Wet—Unit 2 (20 ac; 8 ha), Oahu—Lowland Wet—Unit 3 (29 ac; 12 ha), and Oahu—Lowland Wet—Unit 4 (27 ac; 11 ha)

(i) [Reserved for textual description of Unit 2.] This unit is critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania vitifolia*, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea*

hookeri, *Schiedea kaalae*, and *Urera kaalae*.

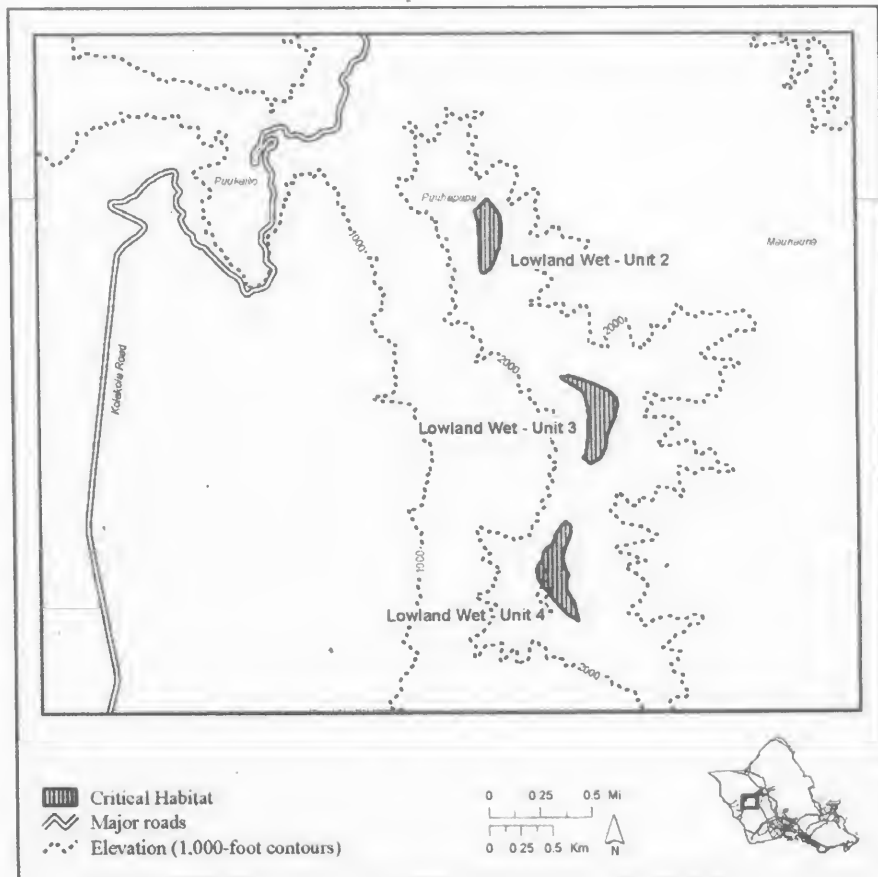
(ii) [Reserved for textual description of Unit 3.] This unit is critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania vitifolia*, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Urera kaalae*.

(iii) [Reserved for textual description of Unit 4.] This unit is critical habitat

for *Cyanea acuminata*, *Cyanea calycina*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diplazium molokaiense*, *Gardenia mannii*, *Gouania vitifolia*, *Hesperomannia arbuscula*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope makahae*, *Phyllostegia hirsuta*, *Phyllostegia mollis*, *Plantago princeps* var. *princeps*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Urera kaalae*.

(iv) Note: Map of Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, and Oahu—Lowland Wet—Unit 4 (Map 20) follows:

Map 20
Oahu—Lowland Wet
Unit 2, Unit 3 and Unit 4



(22) Oahu—Lowland Wet—Unit 6 (790 ac; 320 ha), Oahu—Lowland Wet—Unit 7 (1,790 ac; 724 ha), and Oahu—Lowland Wet—Unit 8 (3,041 ac; 1,231 ha)

(i) [Reserved for textual description of Unit 6.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*,

Viola oahuensis, and *Zanthoxylum oahuense*.

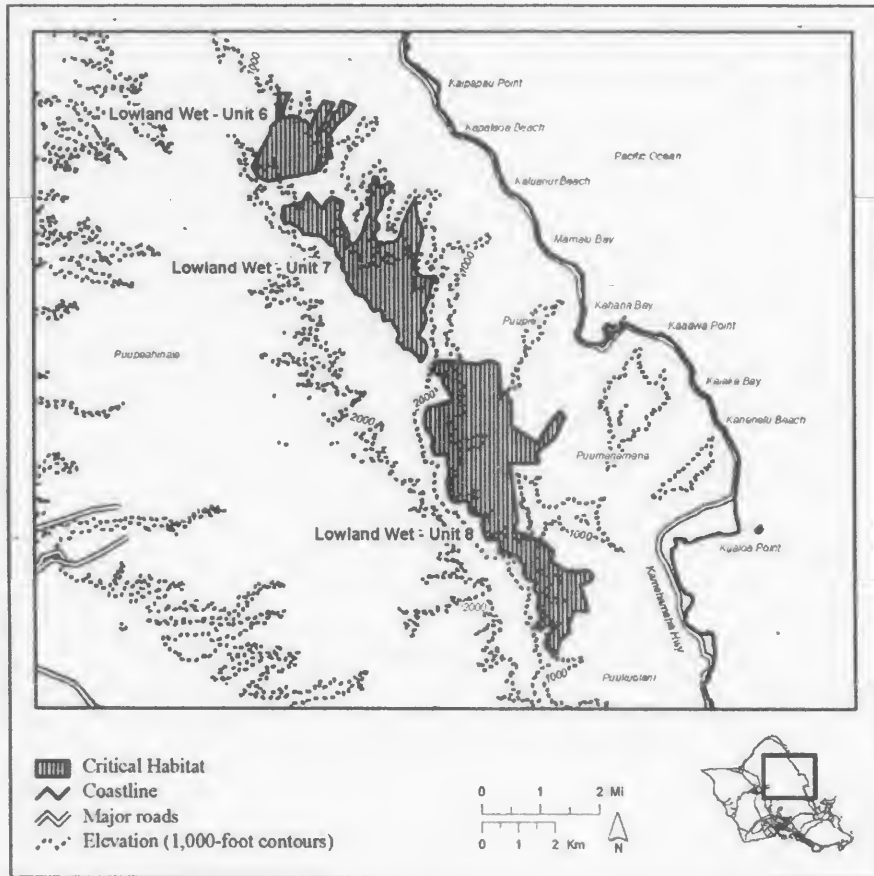
(ii) [Reserved for textual description of Unit 7.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(iii) [Reserved for textual description of Unit 8.] This unit is critical habitat

for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(iv) **Note:** Map of Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, and Oahu—Lowland Wet—Unit 8 (Map 22) follows:

Map 22
Oahu-Lowland Wet
Unit 6, Unit 7 and Unit 8



(23) Oahu—Lowland Wet—Unit 9 (15,728 ac; 6,365 ha)

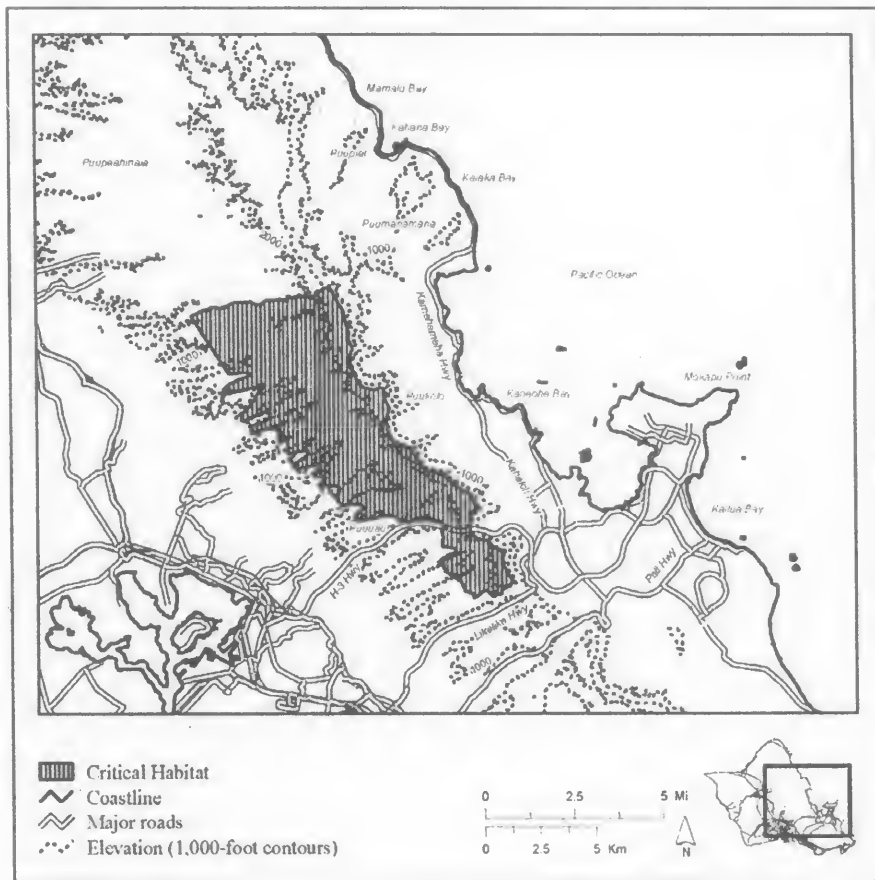
(i) [Reserved for textual description of unit.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*,

Cyrtandra gracilis, *Cyrtandra kaulanthera*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var.

parviflora, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(ii) **Note:** Map of Oahu—Lowland Wet—Unit 9 (Map 23) follows:

Map 23
Oahu—Lowland Wet
Unit 9



(24) Oahu—Lowland Wet—Unit 10 (124 ac; 50 ha), Oahu—Lowland Wet—Unit 11 (124 ac; 50 ha), and Oahu—Lowland Wet—Unit 12 (53 ac; 21 ha)

(i) [Reserved for textual description of Unit 10.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*,

Cyanea lanceolata, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulanthera*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia*

gaudichaudii ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra*

gymnocarpa, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(ii) [Reserved for textual description of Unit 11.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia*

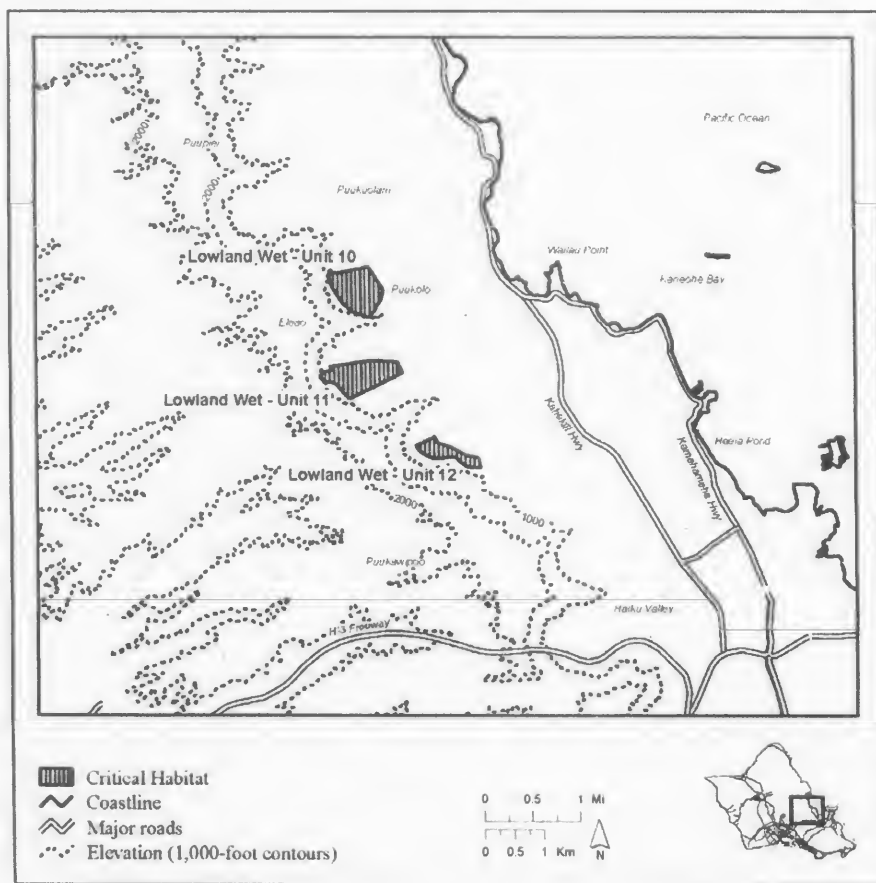
hirsuta, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(iii) [Reserved for textual description of Unit 12.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra*

subumbellata, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(iv) **Note:** Map of Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, and Oahu—Lowland Wet—Unit 12 (Map 24) follows:

Map 24
Oahu—Lowland Wet
Unit 10, Unit 11 and Unit 12



(25) Oahu—Lowland Wet—Unit 13 (161 ac; 65 ha), Oahu—Lowland Wet—Unit 14 (478 ac; 193 ha), Oahu—Lowland Wet—Unit 15 (407 ac; 165 ha), and Oahu—Lowland Wet—Unit 16 (2,507 ac; 1,014 ha)

(i) [Reserved for textual description of Unit 13.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(ii) [Reserved for textual description of Unit 14.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*,

Cyanea truncata, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(iii) [Reserved for textual description of Unit 15.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var.

longibracteata, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(iv) [Reserved for textual description of Unit 16.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispa*, *Cyanea grimesiana* ssp. *grimesiana*, *Cyanea humboldtiana*, *Cyanea koolauensis*, *Cyanea lanceolata*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra dentata*, *Cyrtandra gracilis*, *Cyrtandra kaulantha*, *Cyrtandra polyantha*, *Cyrtandra sessilis*, *Cyrtandra subumbellata*, *Cyrtandra viridiflora*, *Cyrtandra waiolani*, *Gardenia mannii*, *Hesperomannia arborescens*, *Huperzia nutans*, *Isodendron longifolium*, *Labordia cyrtandrae*, *Lobelia gaudichaudii* ssp. *koolauensis*, *Lobelia oahuensis*, *Melicope hiiakae*, *Melicope lydgatei*, *Myrsine juddii*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *longibracteata*, *Plantago princeps* var. *princeps*, *Platanthera holochila*, *Platydesma cornuta* var. *cornuta*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Pteris lidgatei*, *Sanicula purpurea*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, *Viola oahuensis*, and *Zanthoxylum oahuense*.

(v) **Note:** Map of Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16 (Map 25) follows:

saint-johnii, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sapicula mariversa*, *Schiedea hookeri*, *Schiedea obovata*, *Schiedea trinervis*, *Silene lanceolata*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *Tetramolopium lepidotum* ssp. *lepidotum*, and *Viola chamissoniana* ssp. *chamissoniana*.

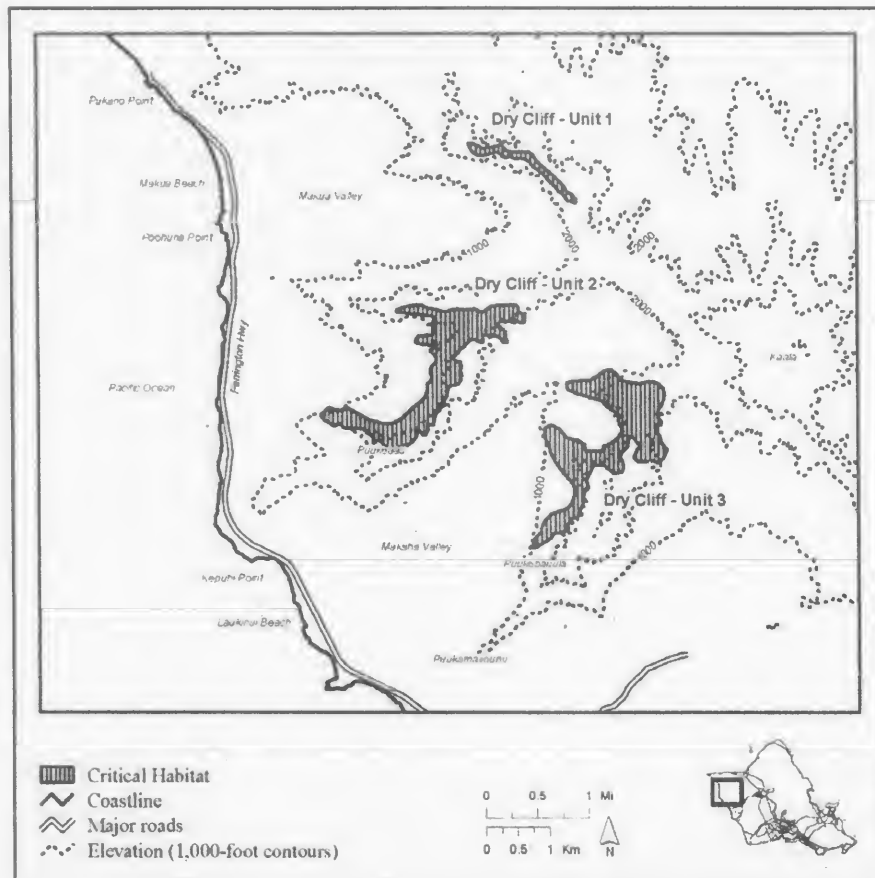
(iii) [Reserved for textual description of Unit 3.] This unit is critical habitat for *Abutilon sandwicense*, *Achyranthes*

splendens var. *rotundata*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *Diellia unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *Gouania vitifolia*, *Isodendron laurifolium*, *Isodendron pyriforme*, *Kadua degeneri*, *Kadua parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niuhauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope saint-johnii*, *Neraudia angulata*,

Nototrichium humile, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula mariversa*, *Schiedea hookeri*, *Schiedea obovata*, *Schiedea trinervis*, *Silene lanceolata*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *Tetramolopium lepidotum* ssp. *lepidotum*, and *Viola chamissoniana* ssp. *chamissoniana*.

(iv) **Note:** Map of Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, and Oahu—Dry Cliff—Unit 3 (Map 27) follows:

Map 27
Oahu—Dry Cliff
Unit 1, Unit 2 and Unit 3



(28) Oahu—Dry Cliff—Unit 4 (108 ac; 44 ha), Oahu—Dry Cliff—Unit 5 (26 ac; 10 ha), and Oahu—Dry Cliff—Unit 6 (255 ac; 103 ha)

(i) [Reserved for textual description of Unit 4.] This unit is critical habitat for

Abutilon sandwicense, *Achyranthes splendens* var. *rotundata*, *Alectryon macrococcus*, *Bonamia menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea grimesiana* ssp. *obatae*,

Cyrtandra dentata, *Diellia falcata*, *Diellia unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *Gouania vitifolia*, *Isodendron laurifolium*, *Isodendron pyriforme*, *Kadua*

degeneri, *Kadua parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula marivera*, *Schiedea hookeri*, *Schiedea obovata*, *Schiedea trinervis*, *Silene lanceolata*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *Tetramolopium lepidotum* ssp. *lepidotum*, and *Viola chamissoniana* ssp. *chamissoniana*.

(ii) [Reserved for textual description of Unit 5.] This unit is critical habitat for *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Alectryon macrococcus*, *Bonania menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea grimesiana* ssp. *obatae*, *Cyrtandra dentata*, *Diellia falcata*, *Diellia unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea*

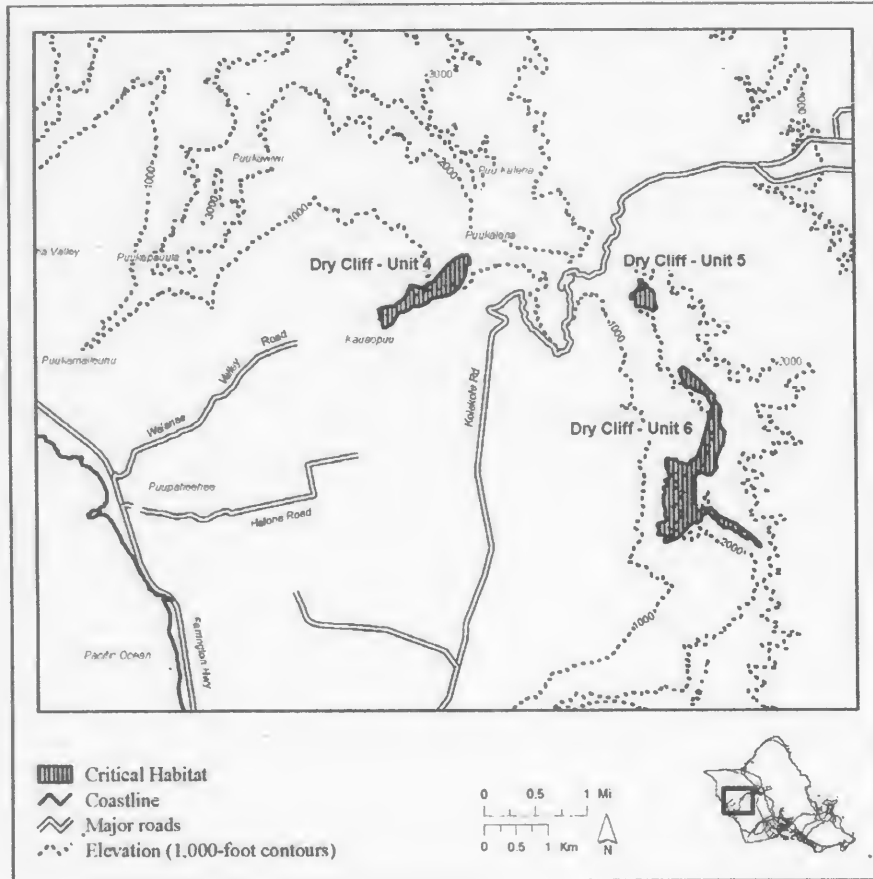
neowawraea, *Gouania meyenii*, *Gouania vitifolia*, *Isodendron laurifolium*, *Isodendron pyrifolium*, *Kadua degeneri*, *Kadua parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula marivera*, *Schiedea hookeri*, *Schiedea obovata*, *Schiedea trinervis*, *Silene lanceolata*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *Tetramolopium lepidotum* ssp. *lepidotum*, and *Viola chamissoniana* ssp. *chamissoniana*.

(iii) [Reserved for textual description of Unit 6.] This unit is critical habitat for *Abutilon sandwicense*, *Achyranthes splendens* var. *rotundata*, *Alectryon macrococcus*, *Bonania menziesii*, *Cenchrus agrimonioides*, *Chamaesyce herbstii*, *Chamaesyce kuwaleana*, *Cyanea grimesiana* ssp. *obatae*,

Cyrtandra dentata, *Diellia falcata*, *Diellia unisora*, *Dubautia herbstobatae*, *Eragrostis fosbergii*, *Flueggea neowawraea*, *Gouania meyenii*, *Gouania vitifolia*, *Isodendron laurifolium*, *Isodendron pyrifolium*, *Kadua degeneri*, *Kadua parvula*, *Korthalsella degeneri*, *Lepidium arbuscula*, *Lipochaeta lobata* var. *leptophylla*, *Lobelia niihauensis*, *Melanthera tenuifolia*, *Melicope makahae*, *Melicope saint-johnii*, *Neraudia angulata*, *Nototrichium humile*, *Peucedanum sandwicense*, *Phyllostegia kaalaensis*, *Plantago princeps* var. *princeps*, *Platydesma cornuta* var. *decurrens*, *Pleomele forbesii*, *Pteralyxia macrocarpa*, *Sanicula marivera*, *Schiedea hookeri*, *Schiedea obovata*, *Schiedea trinervis*, *Silene lanceolata*, *Silene perlmanii*, *Spermolepis hawaiiensis*, *Tetramolopium filiforme*, *Tetramolopium lepidotum* ssp. *lepidotum*, and *Viola chamissoniana* ssp. *chamissoniana*.

(iv) **Note:** Map of Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, and Oahu—Dry Cliff—Unit 6 (Map 28) follows:

Map 28
Oahu-Dry Cliff
Unit 4, Unit 5 and Unit 6

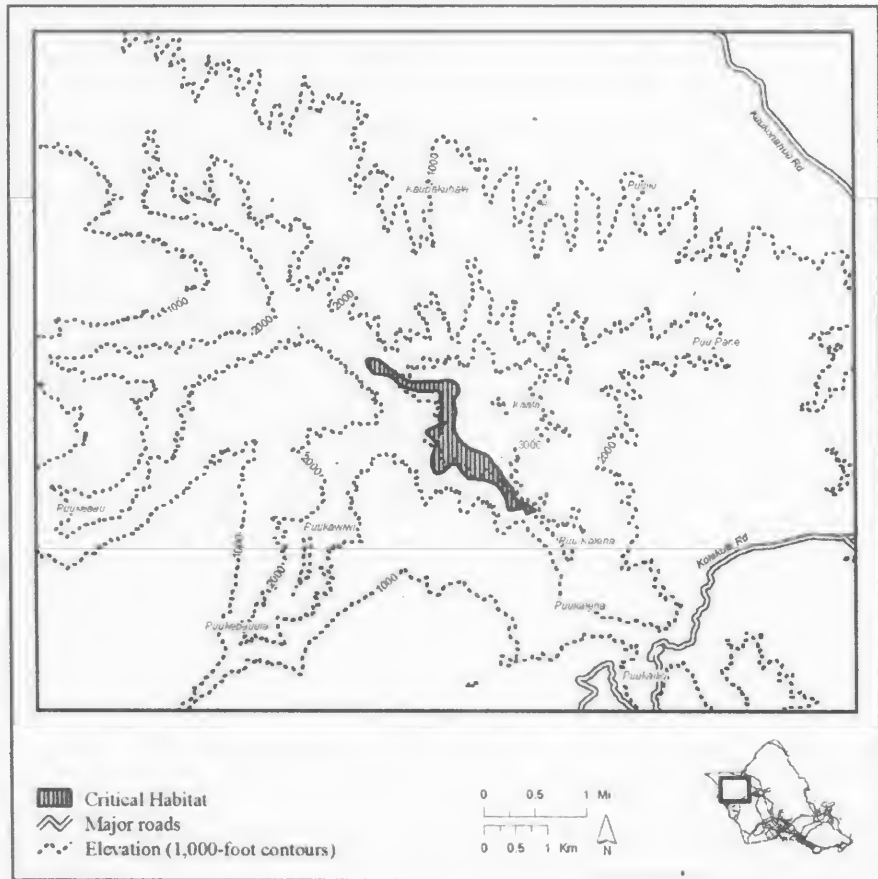


(30) Oahu—Wet Cliff—Unit 1 (235 ac; 95 ha)
 (i) [Reserved for textual description of unit 1.] This unit is critical habitat for

Cyanea acuminata, *Cyanea calycina*,
Labordia cyrtandrae, *Lobelia oahuensis*,
Melicope christophersenii, *Phyllostegia*
hirsuta, *Pteralyxia macrocarpa*,

Schiedea hookeri, *Schiedea kaalae*, and
Schiedea trinervis.
 (ii) **Note:** Map of Oahu—Wet Cliff—
 Unit 1 (Map 30) follows:

Map 30
Oahu—Wet Cliff
Unit 1



(31) Oahu—Wet Cliff—Unit 2 (7 ac; 3 ha), Oahu—Wet Cliff—Unit 3 (16 ac; 6 ha), and Oahu—Wet Cliff—Unit 4 (23 ac; 9 ha)

(i) [Reserved for textual description of Unit 2.] This unit is critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Schiedea trinervis*.

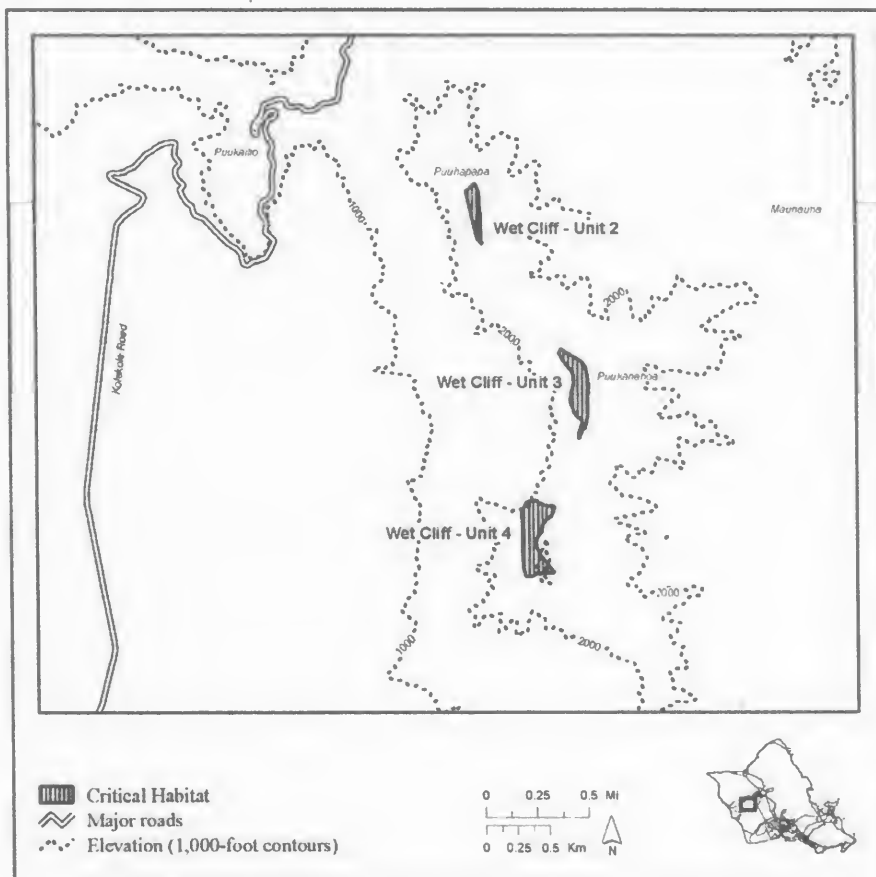
(ii) [Reserved for textual description of Unit 3.] This unit is critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Melicope christophersenii*, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Schiedea trinervis*.

(iii) [Reserved for textual description of Unit 4.] This unit is critical habitat for *Cyanea acuminata*, *Cyanea calycina*, *Labordia cyrtandrae*, *Lobelia oahuensis*,

Melicope christophersenii, *Phyllostegia hirsuta*, *Pteralyxia macrocarpa*, *Schiedea hookeri*, *Schiedea kaalae*, and *Schiedea trinervis*.

(iv) **Note:** Map of Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, and Oahu—Wet Cliff—Unit 4 (Map 31) follows:

Map 31
Oahu—Wet Cliff
Unit 2, Unit 3 and Unit 4



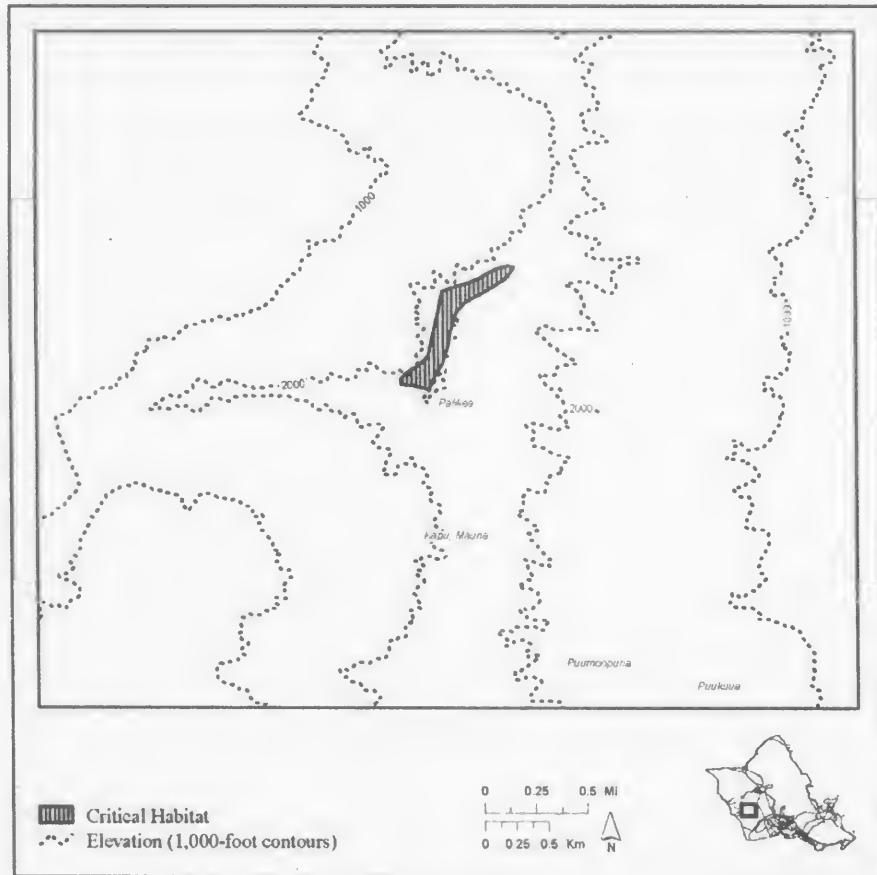
(32) Oahu—Wet Cliff—Unit 5 (43 ac; 17 ha)
 (i) [Reserved for textual description of unit 5.] This unit is critical habitat for

Cyanea acuminata, *Cyanea calycina*,
Labordia cyrtandrae, *Lobelia oahuensis*,
Melicope christophersenii, *Phyllostegia*
hirsuta, *Pteralyxia macrocarpa*,

Schiedea hookeri, *Schiedea kaalae*, and
Schiedea trinervis.

(ii) **Note:** Map of Oahu—Wet Cliff—Unit 5 (Map 32) follows:

Map 32
Oahu—Wet Cliff
Unit 5



(33) Oahu—Wet Cliff—Unit 6 (151 ac; 61 ha) and Oahu—Wet Cliff—Unit 7 (144 ac; 58 ha)

(i) [Reserved for textual description of Unit 6.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce deppeana*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispera*, *Cyanea humboldtiana*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra viridiflora*, *Huperzia nutans*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Lysimachia filifolia*, *Phyllostegia hirsuta*, *Phyllostegia*

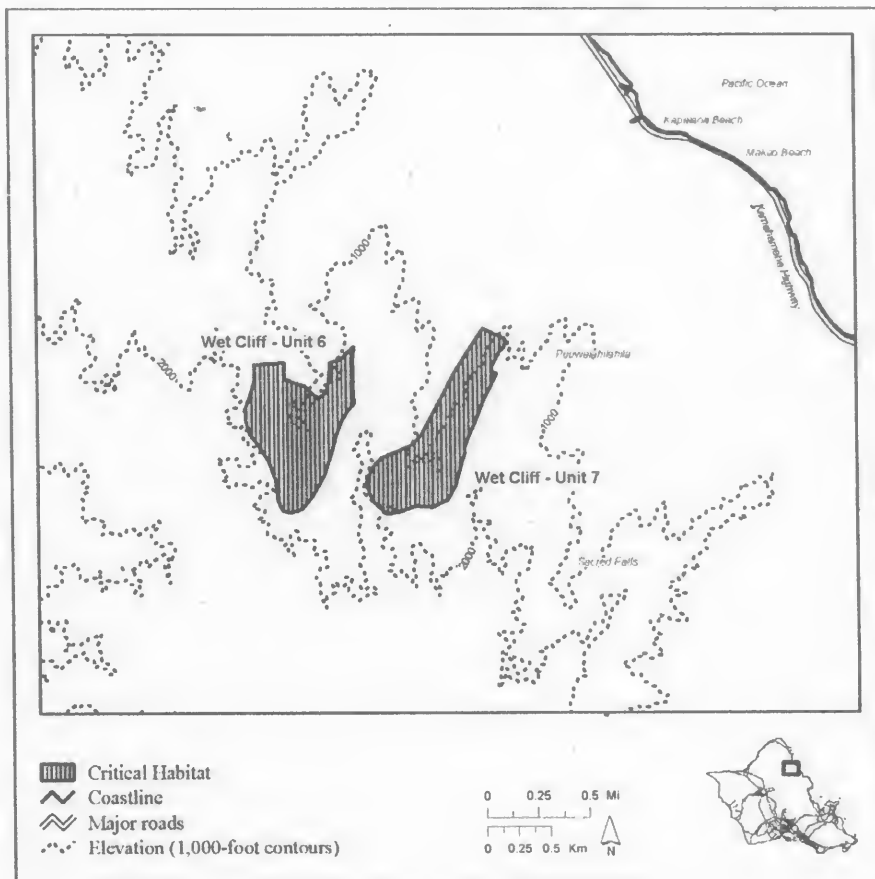
parviflora var. *parviflora*, *Plantago princeps* var. *princeps*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Schiedea kaalae*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, and *Viola oahuensis*.

(ii) [Reserved for textual description of Unit 7.] This unit is critical habitat for *Adenophorus periens*, *Chamaesyce deppeana*, *Chamaesyce rockii*, *Cyanea acuminata*, *Cyanea calycina*, *Cyanea crispera*, *Cyanea humboldtiana*, *Cyanea purpurellifolia*, *Cyanea st.-johnii*, *Cyanea truncata*, *Cyrtandra kaulantha*, *Cyrtandra sessilis*, *Cyrtandra*

subumbellata, *Cyrtandra viridiflora*, *Huperzia nutans*, *Labordia cyrtandrae*, *Lobelia oahuensis*, *Lysimachia filifolia*, *Phyllostegia hirsuta*, *Phyllostegia parviflora* var. *parviflora*, *Plantago princeps* var. *princeps*, *Psychotria hexandra* ssp. *oahuensis*, *Pteralyxia macrocarpa*, *Sanicula purpurea*, *Schiedea kaalae*, *Tetraplasandra gymnocarpa*, *Trematolobelia singularis*, and *Viola oahuensis*.

(iii) **Note:** Map of Oahu—Wet Cliff—Unit 6 and Oahu—Wet Cliff—Unit 7 (Map 33)—follows:

Map 33
Oahu—Wet Cliff
Unit 6 and Unit 7



(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU

Unit name	Species occupied	Species unoccupied
Oahu—Coastal—Unit 1	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Sesbania tomentosa</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Centaurium sebaeoides</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Schiedea kealiae</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 2		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 3		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 4		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 5		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 6		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 7		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 8		<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 9	<i>Sesbania tomentosa</i>	<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 10	<i>Cyperus trachysanthos</i> <i>Marsilea villosa</i>	<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Cyperus trachysanthos</i> <i>Marsilea villosa</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 11	<i>Centaurium sebaeoides</i>	<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 12	<i>Marsilea villosa</i>	<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Cyperus trachysanthos</i> <i>Marsilea villosa</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 13	<i>Marsilea villosa</i>	<i>Centaurium sebaeoides</i> <i>Chamaesyce kuwaleana</i> <i>Cyperus trachysanthos</i> <i>Marsilea villosa</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 13	<i>Achyranthes splendens</i> var. <i>rotundata</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Coastal—Unit 14	<i>Achyranthes splendens</i> var. <i>rotundata</i>	<i>Centaurium sebaeoides</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Schiedea kealiae</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Coastal—Unit 15	<i>Achyranthes splendens</i> var. <i>rotundata</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexens</i> <i>Centaurium sebaeoides</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Schiedea kealiae</i> <i>Sesbania tomentosa</i> <i>Vigna o-wahuensis</i>
Oahu—Lowland Dry—Unit 1	<i>Bidens amplexens</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexens</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Euphorbia haeleleana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i>
Oahu—Lowland Dry—Unit 2	<i>Hibiscus brackenridgei</i>	<i>Hibiscus brackenridgei</i> <i>Isodendron pyriform</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i>
Oahu—Lowland Dry—Unit 2	<i>Nototrichium humile</i>	<i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i>
Oahu—Lowland Dry—Unit 2	<i>Schiedea kealiae</i>	<i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 2	<i>Bonamia menziesii</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexens</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Euphorbia haeleleana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyriform</i>
Oahu—Lowland Dry—Unit 2	<i>Melanthera tenuifolia</i>	<i>Melanthera tenuifolia</i> <i>Neraudia angulata</i>
Oahu—Lowland Dry—Unit 2	<i>Nototrichium humile</i>	<i>Nototrichium humile</i>
Oahu—Lowland Dry—Unit 2	<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 3	<i>Marsilea villosa</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexens</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Cyperus trachysanthos</i> <i>Euphorbia haeleleana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyriform</i> <i>Marsilea villosa</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Dry—Unit 4	<i>Marsilea villosa</i>	<i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i> <i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Cyperus trachysanthos</i> <i>Euphorbia haelealeana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyriformum</i> <i>Marsilea villosa</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 5	<i>Cyperus trachysanthos</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Cyperus trachysanthos</i> <i>Euphorbia haelealeana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyriformum</i> <i>Marsilea villosa</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 6	<i>Doryopteris takeuchii</i>	<i>Doryopteris takeuchii</i> <i>Gouania meyenii</i>
Oahu—Lowland Dry—Unit 7	<i>Spermolepis hawaiiensis</i>	<i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 7	<i>Cyperus trachysanthos</i>	<i>Cyperus trachysanthos</i> <i>Doryopteris takeuchii</i> <i>Gouania meyenii</i> <i>Marsilea villosa</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 8		<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i> <i>Euphorbia haelealeana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyriformum</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 9	<i>Achyranthes splendens</i> var. <i>rotundata</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Bonamia menziesii</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Dry—Unit 10		<i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i> <i>Euphorbia haeleeleana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyrifolium</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Dry—Unit 11	<i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i> <i>Euphorbia haeleeleana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyrifolium</i> <i>Melanthera tenuifolia</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i>
Oahu—Lowland Mesic—Unit 1	<i>Abutilon sandwicense</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonioides</i> <i>Chamaesyce herbstii</i> <i>Colubrina oppositifolia</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyanea longiflora</i> <i>Cyanea superba</i> <i>Cyrtandra dentata</i> <i>Delissea subcordata</i> <i>Diellia falcata</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Bidens amplexans</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i> <i>Euphorbia haeleeleana</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hibiscus brackenridgei</i> <i>Isodendron pyrifolium</i> <i>Melanthera tenuifolia</i> <i>Neraudia</i> <i>Nototrichium humile</i> <i>Pleomele forbesii</i> <i>Schiedea hookeri</i> <i>Schiedea kealiae</i> <i>Spermolepis hawaiiensis</i> <i>Abutilon sandwicense</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonioides</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Chamaesyce herbstii</i> <i>Colubrina oppositifolia</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyanea longiflora</i> <i>Cyanea pinnatifida</i> <i>Cyanea superba</i> <i>Cyperus pennatififormis</i> <i>Cyrtandra dentata</i> <i>Delissea subcordata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Diplazium molokaiense</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
	<i>Dubautia herbstobatae</i>	<i>Dubautia herbstobatae</i>
	<i>Eragrostis fosbergii</i>	<i>Eragrostis fosbergii</i>
		<i>Eugenia koolauensis</i>
	<i>Euphorbia haeleleana</i>	<i>Euphorbia haeleleana</i>
	<i>Flueggea neowawraea</i>	<i>Flueggea neowawraea</i>
		<i>Gardenia mannii</i>
		<i>Gouania meyenii</i>
		<i>Gouania vitifolia</i>
	<i>Hesperomannia arborescens</i>	<i>Hesperomannia arborescens</i>
	<i>Hesperomannia arbuscula</i>	<i>Hesperomannia arbuscula</i>
	<i>Hibiscus brackenridgei</i>	<i>Hibiscus brackenridgei</i>
	<i>Isodendron laurifolium</i>	<i>Isodendron laurifolium</i>
	<i>Isodendron longifolium</i>	<i>Isodendron longifolium</i>
		<i>Kadua coriacea</i>
	<i>Kadua degeneri</i>	<i>Kadua degeneri</i>
		<i>Kadua parvula</i>
		<i>Labordia cyrtandrae</i>
	<i>Lobelia niihauensis</i>	<i>Lobelia niihauensis</i>
	<i>Melanthera tenuifolia</i>	<i>Melanthera tenuifolia</i>
	<i>Melicope makahae</i>	<i>Melicope makahae</i>
	<i>Melicope pallida</i>	<i>Melicope pallida</i>
		<i>Melicope saint-johnii</i>
	<i>Neraudia angulata</i>	<i>Neraudia angulata</i>
	<i>Nototrichium humile</i>	<i>Nototrichium humile</i>
		<i>Phyllostegia hirsuta</i>
	<i>Phyllostegia kaalaensis</i>	<i>Phyllostegia kaalaensis</i>
		<i>Phyllostegia mollis</i>
		<i>Phyllostegia parviflora</i> var. <i>lydgatei</i>
		<i>Plantago princeps</i> var. <i>princeps</i>
	<i>Platydesma cornuta</i> var. <i>decurrans</i>	<i>Platydesma cornuta</i> var. <i>decurrans</i>
	<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i>
	<i>Pteralyxia macrocarpa</i>	<i>Pteralyxia macrocarpa</i>
		<i>Sanicula mariversa</i>
	<i>Schiedea hookeri</i>	<i>Schiedea hookeri</i>
	<i>Schiedea kaalae</i>	<i>Schiedea kaalae</i>
	<i>Schiedea nuttallii</i>	<i>Schiedea nuttallii</i>
	<i>Schiedea obovata</i>	<i>Schiedea obovata</i>
		<i>Silene perlmanii</i>
		<i>Solanum sandwicense</i>
		<i>Stenogyne kanehoana</i>
		<i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>
		<i>Urea kaalae</i>
	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>
	<i>Abutilon sandwicense</i>	<i>Abutilon sandwicense</i>
	<i>Alectryon macrococcus</i>	<i>Alectryon macrococcus</i>
		<i>Bonamia menziesii</i>
	<i>Cenchrus agrimonioides</i>	<i>Cenchrus agrimonioides</i>
		<i>Chamaesyce celastroides</i> var. <i>kaenana</i>
	<i>Chamaesyce herbstii</i>	<i>Chamaesyce herbstii</i>
		<i>Colubrina oppositifolia</i>
		<i>Ctenitis squamigera</i>
		<i>Cyanea acuminata</i>
	<i>Cyanea calycina</i>	<i>Cyanea calycina</i>
		<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>
	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>
		<i>Cyanea longiflora</i>
		<i>Cyanea pinnatifida</i>
		<i>Cyanea superba</i>
		<i>Cyperus pennatifolius</i>
		<i>Cyrtandra dentata</i>
	<i>Delissea subcordata</i>	<i>Delissea subcordata</i>
	<i>Diellia falcata</i>	<i>Diellia falcata</i>
		<i>Diellia unisora</i>
		<i>Diplazium molokaiense</i>
		<i>Dubautia herbstobatae</i>
		<i>Eragrostis fosbergii</i>
		<i>Eugenia koolauensis</i>
		<i>Euphorbia haeleleana</i>
		<i>Flueggea neowawraea</i>
	<i>Gardenia mannii</i>	<i>Gardenia mannii</i>
		<i>Gouania meyenii</i>

Oahu—Lowland Mesic—Unit 2

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Mesic—Unit 3		<i>Gouania vitifolia</i> <i>Hesperomannia arborescens</i> <i>Hesperomannia arbuscula</i> <i>Hibiscus brackenridgei</i> <i>Isodendron launifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Labordia cyrtandrae</i> <i>Lobelia niihauensis</i> <i>Melanthera tenuifolia</i> <i>Melicope makahae</i> <i>Melicope pallida</i> <i>Melicope saint-johnii</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia kaalaensis</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>lydgatei</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platydesma comuta</i> var. <i>decurrens</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Solanum sandwicense</i> <i>Stenogyne kanehoana</i> <i>Urera kaalae</i> <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>
	<i>Alectryon macrococcus</i>	<i>Abutilon sandwicense</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonioides</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Chamaesyce herbstii</i> <i>Colubrina oppositifolia</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyanea longiflora</i> <i>Cyanea pinnatifida</i> <i>Cyanea superba</i> <i>Cyperus pennatififormis</i> <i>Cyrtandra dentata</i> <i>Delissea subcordata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Diplazium molokaiense</i> <i>Dubautia herbstobatae</i> <i>Eragrostis fosbergii</i> <i>Eugenia koolauensis</i> <i>Euphorbia haeleleana</i> <i>Flueggea neowawraea</i> <i>Gardenia mannii</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Hesperomannia arborescens</i> <i>Hesperomannia arbuscula</i> <i>Hibiscus brackenridgei</i> <i>Isodendron launifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i>
	<i>Cenchrus agrimonioides</i>	
	<i>Delissea subcordata</i>	
	<i>Diellia falcata</i>	
	<i>Diellia unisora</i>	
	<i>Hesperomannia arbuscula</i>	

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Mesic—Unit 4	<p><i>Melicope saint-johnii</i></p> <p><i>Phyllostegia mollis</i></p> <p><i>Phyllostegia parviflora</i> var. <i>lydgatei</i></p> <p><i>Plantago princeps</i> var. <i>princeps</i></p> <p><i>Pleomele forbesii</i></p> <p><i>Pteralyxia macrocarpa</i></p> <p><i>Schiedea kaalae</i></p> <p><i>Silene perlmanii</i></p> <p><i>Urera kaalae</i></p>	<p><i>Kadua degeneri</i></p> <p><i>Kadua parvula</i></p> <p><i>Labordia cyrtandrae</i></p> <p><i>Lobelia niihauensis</i></p> <p><i>Melanthera tenuifolia</i></p> <p><i>Melicope makahae</i></p> <p><i>Melicope pallida</i></p> <p><i>Melicope saint-johnii</i></p> <p><i>Neraudia angulata</i></p> <p><i>Nototrichium humile</i></p> <p><i>Phyllostegia hirsuta</i></p> <p><i>Phyllostegia kaalaensis</i></p> <p><i>Phyllostegia mollis</i></p> <p><i>Phyllostegia parviflora</i> var. <i>lydgatei</i></p> <p><i>Plantago princeps</i> var. <i>princeps</i></p> <p><i>Platydesma comuta</i> var. <i>decurrens</i></p> <p><i>Pleomele forbesii</i></p> <p><i>Pteralyxia macrocarpa</i></p> <p><i>Sanicula mariversa</i></p> <p><i>Schiedea hookeri</i></p> <p><i>Schiedea kaalae</i></p> <p><i>Schiedea nuttallii</i></p> <p><i>Schiedea obovata</i></p> <p><i>Silene perlmanii</i></p> <p><i>Solanum sandwicense</i></p> <p><i>Stenogyne kanehoana</i></p> <p><i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i></p> <p><i>Urera kaalae</i></p> <p><i>Viola chamissoniana</i> ssp. <i>chamissoniana</i></p> <p><i>Alectryon macrococcus</i></p> <p><i>Bonamia menziesii</i></p> <p><i>Chamaesyce celastroides</i> var. <i>kaenana</i></p> <p><i>Ctenitis squamigera</i></p> <p><i>Cyanea acuminata</i></p> <p><i>Cyanea calycina</i></p> <p><i>Cyanea crispa</i></p> <p><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i></p> <p><i>Cyanea lanceolata</i></p> <p><i>Cyanea longiflora</i></p> <p><i>Cyanea truncata</i></p> <p><i>Cyrtandra dentata</i></p> <p><i>Cyrtandra polyantha</i></p> <p><i>Cyrtandra waiolani</i></p> <p><i>Delissea subcordata</i></p> <p><i>Diellia erecta</i></p> <p><i>Diellia falcata</i></p> <p><i>Eugenia koolauensis</i></p> <p><i>Gardenia mannii</i></p> <p><i>Hesperomannia arborescens</i></p> <p><i>Isodendron laurifolium</i></p> <p><i>Isodendron longifolium</i></p> <p><i>Kadua coriacea</i></p> <p><i>Labordia cyrtandrae</i></p> <p><i>Lobelia monostachya</i></p> <p><i>Melicope lydgatei</i></p> <p><i>Melicope saint-johnii</i></p> <p><i>Phyllostegia hirsuta</i></p> <p><i>Phyllostegia mollis</i></p> <p><i>Phyllostegia parviflora</i> var. <i>parviflora</i></p> <p><i>Plantago princeps</i> var. <i>princeps</i></p> <p><i>Pleomele forbesii</i></p> <p><i>Pteralyxia macrocarpa</i></p> <p><i>Schiedea kaalae</i></p> <p><i>Schiedea nuttallii</i></p> <p><i>Solanum sandwicense</i></p> <p><i>Tetraplasandra gymnocarpa</i></p> <p><i>Tetraplasandra lydgatei</i></p> <p><i>Alectryon macrococcus</i></p> <p><i>Bonamia menziesii</i></p> <p><i>Chamaesyce celastroides</i> var. <i>kaenana</i></p>
Oahu—Lowland Mesic—Unit 5		

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Mesic—Unit 6	<i>Cyanea acuminata</i>	<i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea lanceolata</i> <i>Cyanea longiflora</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra waiolani</i> <i>Delissea subcordata</i> <i>Diellia erecta</i> <i>Diellia falcata</i> <i>Eugenia koolauensis</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Isodendron laurifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Labordia cyrtandrae</i> <i>Lobelia monostachya</i> <i>Melicope lydgatei</i> <i>Melicope saint-johnii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea kaalae</i> <i>Schiedea nuttallii</i> <i>Solanum sandwicense</i> <i>Tetraplasandra gymnocarpa</i> <i>Tetraplasandra lydgatei</i>
	<i>Cyanea crispa</i>	<i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea lanceolata</i> <i>Cyanea longiflora</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra waiolani</i> <i>Delissea subcordata</i> <i>Diellia erecta</i> <i>Diellia falcata</i> <i>Eugenia koolauensis</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Isodendron laurifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Labordia cyrtandrae</i> <i>Lobelia monostachya</i> <i>Melicope lydgatei</i> <i>Melicope saint-johnii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea kaalae</i> <i>Schiedea nuttallii</i> <i>Solanum sandwicense</i>
	<i>Cyanea truncata</i>	<i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea lanceolata</i> <i>Cyanea longiflora</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra waiolani</i> <i>Delissea subcordata</i> <i>Diellia erecta</i> <i>Diellia falcata</i> <i>Eugenia koolauensis</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Isodendron laurifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Labordia cyrtandrae</i> <i>Lobelia monostachya</i> <i>Melicope lydgatei</i> <i>Melicope saint-johnii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea kaalae</i> <i>Schiedea nuttallii</i> <i>Solanum sandwicense</i>
	<i>Gardenia mannii</i>	<i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea lanceolata</i> <i>Cyanea longiflora</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra waiolani</i> <i>Delissea subcordata</i> <i>Diellia erecta</i> <i>Diellia falcata</i> <i>Eugenia koolauensis</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Isodendron laurifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Labordia cyrtandrae</i> <i>Lobelia monostachya</i> <i>Melicope lydgatei</i> <i>Melicope saint-johnii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea kaalae</i> <i>Schiedea nuttallii</i> <i>Solanum sandwicense</i>
	<i>Pteralyxia macrocarpa</i>	<i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea lanceolata</i> <i>Cyanea longiflora</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra waiolani</i> <i>Delissea subcordata</i> <i>Diellia erecta</i> <i>Diellia falcata</i> <i>Eugenia koolauensis</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Isodendron laurifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Labordia cyrtandrae</i> <i>Lobelia monostachya</i> <i>Melicope lydgatei</i> <i>Melicope saint-johnii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea kaalae</i> <i>Schiedea nuttallii</i> <i>Solanum sandwicense</i>
	<i>Schiedea kaalae</i>	<i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea lanceolata</i> <i>Cyanea longiflora</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra waiolani</i> <i>Delissea subcordata</i> <i>Diellia erecta</i> <i>Diellia falcata</i> <i>Eugenia koolauensis</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Isodendron laurifolium</i> <i>Isodendron longifolium</i> <i>Kadua coriacea</i> <i>Labordia cyrtandrae</i> <i>Lobelia monostachya</i> <i>Melicope lydgatei</i> <i>Melicope saint-johnii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea kaalae</i> <i>Schiedea nuttallii</i> <i>Solanum sandwicense</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Mesic—Unit 7	<i>Bonamia menziesii</i>	<i>Tetraplasandra gymnocarpa</i> <i>Tetraplasandra lydgatei</i>
	<i>Cyanea acuminata</i>	<i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Chamaesyce celastroides</i> var. <i>kaenana</i> <i>Ctenitis squamigera</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i>
	<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>	<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>
	<i>Cyanea lanceolata</i>	<i>Cyanea lanceolata</i>
	<i>Cyrtandra polyantha</i>	<i>Cyanea longiflora</i>
		<i>Cyanea truncata</i>
	<i>Diellia erecta</i>	<i>Cyrtandra dentata</i>
		<i>Cyrtandra polyantha</i>
		<i>Cyrtandra waiolani</i>
		<i>Delissea subcordata</i>
		<i>Diellia erecta</i>
		<i>Diellia falcata</i>
		<i>Eugenia koolauensis</i>
		<i>Gardenia mannii</i>
		<i>Hesperomannia arborescens</i>
		<i>Isodendron laurifolium</i>
		<i>Isodendron longifolium</i>
		<i>Kadua coriacea</i>
		<i>Labordia cyrtandrae</i>
		<i>Lobelia monostachya</i>
		<i>Melicope lydgatei</i>
<i>Melicope saint-johnii</i>		
<i>Phyllostegia hirsuta</i>		
<i>Phyllostegia mollis</i>		
<i>Phyllostegia parviflora</i> var. <i>parviflora</i>		
<i>Plantago princeps</i> var. <i>princeps</i>		
<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i>	
<i>Pteralyxia macrocarpa</i>	<i>Pteralyxia macrocarpa</i>	
<i>Schiedea kaalae</i>		
<i>Schiedea nuttallii</i>		
<i>Solanum sandwicense</i>		
<i>Tetraplasandra gymnocarpa</i>		
<i>Tetraplasandra lydgatei</i>		
Oahu—Lowland Wet—Unit 1	<i>Tetraplasandra lydgatei</i>	<i>Cyanea acuminata</i>
	<i>Cyanea calycina</i>	
	<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>	
	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	
	<i>Cyrtandra dentata</i>	
	<i>Diplazium molokaiense</i>	
	<i>Gardenia mannii</i>	
	<i>Gouania vitifolia</i>	
	<i>Hesperomannia arbuscula</i>	
	<i>Isodendron longifolium</i>	
	<i>Labordia cyrtandrae</i>	
	<i>Lobelia oahuensis</i>	
	<i>Melicope makahae</i>	
	<i>Melicope makahae</i>	
	<i>Phyllostegia hirsuta</i>	
<i>Phyllostegia mollis</i>		
<i>Plantago princeps</i> var. <i>princeps</i>		
<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i>	
<i>Pteralyxia macrocarpa</i>		
<i>Schiedea hookeri</i>	<i>Schiedea hookeri</i>	
<i>Schiedea kaalae</i>		
<i>Urera kaalae</i>	<i>Urera kaalae</i>	
Oahu—Lowland Wet—Unit 2	<i>Cyanea acuminata</i>	
	<i>Cyanea calycina</i>	
	<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>	
	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	
	<i>Cyrtandra dentata</i>	
	<i>Diplazium molokaiense</i>	
	<i>Gardenia mannii</i>	
<i>Gouania vitifolia</i>		

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Wet—Unit 3	<i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i>	<i>Hesperomannia arbuscula</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope makahae</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Urera kaalae</i>
	<i>Urera kaalae</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diplazium molokaiense</i> <i>Gardenia mannii</i> <i>Gouania vitifolia</i> <i>Hesperomannia arbuscula</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope makahae</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Urera kaalae</i>
Oahu—Lowland Wet—Unit 4	<i>Schiedea hookeri</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diplazium molokaiense</i> <i>Gardenia mannii</i> <i>Gouania vitifolia</i> <i>Hesperomannia arbuscula</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope makahae</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia mollis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Urera kaalae</i>
Oahu—Lowland Wet—Unit 5	<i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Hesperomannia arbuscula</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diplazium molokaiense</i> <i>Gardenia mannii</i> <i>Gouania vitifolia</i> <i>Hesperomannia arbuscula</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope makahae</i> <i>Phyllostegia hirsuta</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Wet—Unit 6	<i>Schiedea kaalae</i>	<i>Phyllostegia mollis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Urera kaalae</i>
	<i>Hesperomannia arborescens</i>	<i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendrion longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma cornuta</i> var. <i>cornuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i>
Oahu—Lowland Wet—Unit 7	<i>Chamaesyce rockii</i>	<i>Adenophorus periens</i>
	<i>Cyanea acuminata</i>	<i>Chamaesyce rockii</i>
	<i>Cyanea calycina</i>	<i>Cyanea acuminata</i>
		<i>Cyanea calycina</i>
		<i>Cyanea crispa</i>
	<i>Cyanea humboldtiana</i>	<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>
		<i>Cyanea humboldtiana</i>
		<i>Cyanea koolauensis</i>
	<i>Cyanea purpurellifolia</i>	<i>Cyanea lanceolata</i>
		<i>Cyanea purpurellifolia</i>
	<i>Cyanea truncata</i>	<i>Cyanea st.-johnii</i>
		<i>Cyanea truncata</i>
		<i>Cyrtandra dentata</i>
		<i>Cyrtandra gracilis</i>
		<i>Cyrtandra kaulantha</i>
		<i>Cyrtandra polyantha</i>
		<i>Cyrtandra sessilis</i>
		<i>Cyrtandra subumbellata</i>
	<i>Cyrtandra viridiflora</i>	<i>Cyrtandra viridiflora</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied	
Oahu—Lowland Wet—Unit 8	<i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i>	<i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma comuta</i> var. <i>comuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i>	
	<i>Cyrtandra kaulantha</i>	<i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma comuta</i> var. <i>comuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i>	
	Oahu—Lowland Wet—Unit 9		<i>Adenophorus periens</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
	<i>Chamaesyce rockii</i>	<i>Chamaesyce rockii</i>
	<i>Cyanea calycina</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i>
	<i>Cyanea humboldtiana</i>	<i>Cyanea humboldtiana</i>
	<i>Cyanea koolauensis</i>	<i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i>
	<i>Cyanea st.-johnii</i>	<i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i>
	<i>Cyrtandra viridiflora</i>	<i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i>
	<i>Gardenia mannii</i>	<i>Gardenia mannii</i>
	<i>Hesperomannia arborescens</i>	<i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i>
	<i>Labordia cyrtandrae</i>	<i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i>
	<i>Lobelia oahuensis</i>	<i>Lobelia oahuensis</i>
	<i>Melicope hiiaekae</i>	<i>Melicope hiiaekae</i>
	<i>Melicope lydgatei</i>	<i>Melicope lydgatei</i> <i>Myrsine juddii</i>
	<i>Phyllostegia hirsuta</i>	<i>Phyllostegia hirsuta</i>
	<i>Phyllostegia parviflora</i> var. <i>parviflora</i>	<i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i>
	<i>Plantago princeps</i> var. <i>princeps</i>	<i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i>
	<i>Platydesma cornuta</i> var. <i>cornuta</i>	<i>Platydesma cornuta</i> var. <i>cornuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i>
	<i>Pteris lidgatei</i>	<i>Pteris lidgatei</i> <i>Sanicula purpurea</i>
	<i>Tetraplasandra gymnocarpa</i>	<i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i>
	<i>Viola oahuensis</i>	<i>Viola oahuensis</i>
	<i>Zanthoxylum oahuense</i>	<i>Zanthoxylum oahuense</i>
Oahu—Lowland Wet—Unit 10		<i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiaekae</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Wet—Unit 11		<i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma cornuta</i> var. <i>cornuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i>
Oahu—Lowland Wet—Unit 12		<i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra vindiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma cornuta</i> var. <i>cornuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i>
		<i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Wet—Unit 13		<p> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma cornuta</i> var. <i>cornuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i> </p> <p> <i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma cornuta</i> var. <i>cornuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> </p>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Wet—Unit 14	<i>Cyanea koolauensis</i>	<p><i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i></p> <p><i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Cyrtandra waiolani</i> <i>Gardenia mannii</i> <i>Hesperomannia arborescens</i> <i>Huperzia nutans</i> <i>Isodendron longifolium</i> <i>Labordia cyrtandrae</i> <i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i> <i>Lobelia oahuensis</i> <i>Melicope hiiakae</i> <i>Melicope lydgatei</i> <i>Myrsine juddii</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>longibracteata</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platanthera holochila</i> <i>Platydesma cornuta</i> var. <i>comuta</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Pteris lidgatei</i> <i>Sanicula purpurea</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i> <i>Zanthoxylum oahuense</i></p>
Oahu—Lowland Wet—Unit 15	<i>Cyanea crispa</i>	<p><i>Adenophorus periens</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> <i>Cyanea humboldtiana</i> <i>Cyanea koolauensis</i> <i>Cyanea lanceolata</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra dentata</i> <i>Cyrtandra gracilis</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra polyantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i></p>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Lowland Wet—Unit 16	<p><i>Cyanea acuminata</i></p> <p><i>Cyanea calycina</i></p> <p><i>Cyanea crisper</i></p> <p><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i></p> <p><i>Cyanea humboldtiana</i></p> <p><i>Cyanea koolauensis</i></p> <p><i>Cyanea lanceolata</i></p> <p><i>Cyanea st.-johnii</i></p> <p><i>Cyrtandra gracilis</i></p> <p><i>Cyrtandra polyantha</i></p> <p><i>Cyrtandra sessilis</i></p> <p><i>Gardenia mannii</i></p> <p><i>Hesperomannia arborescens</i></p> <p><i>Platydesma cornuta</i> var. <i>cornuta</i></p> <p><i>Sanicula purpurea</i></p> <p><i>Tetraplasandra gymnocarpa</i></p>	<p><i>Cyrtandra waiolani</i></p> <p><i>Gardenia mannii</i></p> <p><i>Hesperomannia arborescens</i></p> <p><i>Huperzia nutans</i></p> <p><i>Isodendron longifolium</i></p> <p><i>Labordia cyrtandrae</i></p> <p><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i></p> <p><i>Lobelia oahuensis</i></p> <p><i>Melicope hiiakae</i></p> <p><i>Melicope lydgatei</i></p> <p><i>Myrsine juddii</i></p> <p><i>Phyllostegia hirsuta</i></p> <p><i>Phyllostegia parviflora</i> var. <i>parviflora</i></p> <p><i>Plantago princeps</i> var. <i>longibracteata</i></p> <p><i>Plantago princeps</i> var. <i>princeps</i></p> <p><i>Platanthera holochila</i></p> <p><i>Platydesma cornuta</i> var. <i>cornuta</i></p> <p><i>Psychotria hexandra</i> ssp. <i>oahuensis</i></p> <p><i>Pteralyxia macrocarpa</i></p> <p><i>Pteris lidgatei</i></p> <p><i>Sanicula purpurea</i></p> <p><i>Tetraplasandra gymnocarpa</i></p> <p><i>Trematolobelia singularis</i></p> <p><i>Viola oahuensis</i></p> <p><i>Zanthoxylum oahuense</i></p> <p><i>Adenophorus periens</i></p> <p><i>Chamaesyce rockii</i></p> <p><i>Cyanea acuminata</i></p> <p><i>Cyanea calycina</i></p> <p><i>Cyanea crisper</i></p> <p><i>Cyanea grimesiana</i> ssp. <i>grimesiana</i></p> <p><i>Cyanea humboldtiana</i></p> <p><i>Cyanea koolauensis</i></p> <p><i>Cyanea lanceolata</i></p> <p><i>Cyanea purpurellifolia</i></p> <p><i>Cyanea st.-johnii</i></p> <p><i>Cyanea truncata</i></p> <p><i>Cyrtandra dentata</i></p> <p><i>Cyrtandra gracilis</i></p> <p><i>Cyrtandra kaulantha</i></p> <p><i>Cyrtandra polyantha</i></p> <p><i>Cyrtandra sessilis</i></p> <p><i>Cyrtandra subumbellata</i></p> <p><i>Cyrtandra viridiflora</i></p> <p><i>Cyrtandra waiolani</i></p> <p><i>Gardenia mannii</i></p> <p><i>Hesperomannia arborescens</i></p> <p><i>Huperzia nutans</i></p> <p><i>Isodendron longifolium</i></p> <p><i>Labordia cyrtandrae</i></p> <p><i>Lobelia gaudichaudii</i> ssp. <i>koolauensis</i></p> <p><i>Lobelia oahuensis</i></p> <p><i>Melicope hiiakae</i></p> <p><i>Melicope lydgatei</i></p> <p><i>Myrsine juddii</i></p> <p><i>Phyllostegia hirsuta</i></p> <p><i>Phyllostegia parviflora</i> var. <i>parviflora</i></p> <p><i>Plantago princeps</i> var. <i>longibracteata</i></p> <p><i>Plantago princeps</i> var. <i>princeps</i></p> <p><i>Platanthera holochila</i></p> <p><i>Platydesma cornuta</i> var. <i>cornuta</i></p> <p><i>Psychotria hexandra</i> ssp. <i>oahuensis</i></p> <p><i>Pteralyxia macrocarpa</i></p> <p><i>Pteris lidgatei</i></p> <p><i>Sanicula purpurea</i></p> <p><i>Tetraplasandra gymnocarpa</i></p> <p><i>Trematolobelia singularis</i></p> <p><i>Viola oahuensis</i></p> <p><i>Zanthoxylum oahuense</i></p> <p><i>Alectryon macrococcus</i> var. <i>macrococcus</i></p>
Oahu—Montane Wet—Unit 1		

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Dry Cliff—Unit 1	<i>Cyanea acuminata</i>	<i>Cyanea acuminata</i>
	<i>Cyanea calycina</i>	<i>Cyanea calycina</i>
	<i>Labordia cyrtandrae</i>	<i>Labordia cyrtandrae</i>
	<i>Lobelia oahuensis</i>	<i>Lobelia oahuensis</i>
	<i>Melicope christophersenii</i>	<i>Melicope christophersenii</i>
	<i>Phyllostegia hirsuta</i>	<i>Phyllostegia hirsuta</i>
	<i>Schiedea trinervis</i>	<i>Schiedea trinervis</i>
	<i>Abutilon sandwicense</i>	<i>Abutilon sandwicense</i>
	<i>Achyranthes splendens</i> var. <i>rotundata</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i>
	<i>Alectryon macrococcus</i>	<i>Alectryon macrococcus</i>
	<i>Bonamia menziesii</i>	<i>Bonamia menziesii</i>
	<i>Cenchrus agrimonioides</i>	<i>Cenchrus agrimonioides</i>
	<i>Chamaesyce herbstii</i>	<i>Chamaesyce herbstii</i>
	<i>Chamaesyce kuwaleana</i>	<i>Chamaesyce kuwaleana</i>
	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>
	<i>Cyrtandra dentata</i>	<i>Cyrtandra dentata</i>
	<i>Diellia falcata</i>	<i>Diellia falcata</i>
	<i>Diellia unisora</i>	<i>Diellia unisora</i>
	<i>Dubautia herbstobatae</i>	<i>Dubautia herbstobatae</i>
	<i>Eragrostis fosbergii</i>	<i>Eragrostis fosbergii</i>
<i>Flueggea neowawraea</i>	<i>Flueggea neowawraea</i>	
<i>Gouania meyenii</i>	<i>Gouania meyenii</i>	
<i>Gouania vitifolia</i>	<i>Gouania vitifolia</i>	
<i>Isodendron laurifolium</i>	<i>Isodendron laurifolium</i>	
<i>Isodendron pyriformium</i>	<i>Isodendron pyriformium</i>	
<i>Kadua degeneri</i>	<i>Kadua degeneri</i>	
<i>Kadua parvula</i>	<i>Kadua parvula</i>	
<i>Korthalsella degeneri</i>	<i>Korthalsella degeneri</i>	
<i>Lepidium arbuscula</i>	<i>Lepidium arbuscula</i>	
<i>Lipochaeta lobata</i> var. <i>leptophylla</i>	<i>Lipochaeta lobata</i> var. <i>leptophylla</i>	
<i>Lobelia niihauensis</i>	<i>Lobelia niihauensis</i>	
<i>Melanthera tenuifolia</i>	<i>Melanthera tenuifolia</i>	
<i>Melicope makahae</i>	<i>Melicope makahae</i>	
<i>Melicope saint-johnii</i>	<i>Melicope saint-johnii</i>	
<i>Neraudia angulata</i>	<i>Neraudia angulata</i>	
<i>Nototrichium humile</i>	<i>Nototrichium humile</i>	
<i>Peucedanum sandwicense</i>	<i>Peucedanum sandwicense</i>	
<i>Phyllostegia kaalaensis</i>	<i>Phyllostegia kaalaensis</i>	
<i>Plantago princeps</i> var. <i>princeps</i>	<i>Plantago princeps</i> var. <i>princeps</i>	
<i>Platydesma cornuta</i> var. <i>decurrens</i>	<i>Platydesma cornuta</i> var. <i>decurrens</i>	
<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i>	
<i>Pteralyxia macrocarpa</i>	<i>Pteralyxia macrocarpa</i>	
<i>Sanicula mariversa</i>	<i>Sanicula mariversa</i>	
<i>Schiedea hookeri</i>	<i>Schiedea hookeri</i>	
<i>Schiedea obovata</i>	<i>Schiedea obovata</i>	
<i>Schiedea trinervis</i>	<i>Schiedea trinervis</i>	
<i>Silene lanceolata</i>	<i>Silene lanceolata</i>	
<i>Silene perlmanii</i>	<i>Silene perlmanii</i>	
<i>Spermolepis hawaiiensis</i>	<i>Spermolepis hawaiiensis</i>	
<i>Tetramolopium filiforme</i>	<i>Tetramolopium filiforme</i>	
<i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>	<i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>	
<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	
Oahu—Dry Cliff—Unit 2	<i>Abutilon sandwicense</i>	<i>Abutilon sandwicense</i>
	<i>Achyranthes splendens</i> var. <i>rotundata</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i>
	<i>Alectryon macrococcus</i>	<i>Alectryon macrococcus</i>
	<i>Bonamia menziesii</i>	<i>Bonamia menziesii</i>
	<i>Cenchrus agrimonioides</i>	<i>Cenchrus agrimonioides</i>
	<i>Chamaesyce herbstii</i>	<i>Chamaesyce herbstii</i>
	<i>Chamaesyce kuwaleana</i>	<i>Chamaesyce kuwaleana</i>
	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>	<i>Cyanea grimesiana</i> ssp. <i>obatae</i>
	<i>Cyrtandra dentata</i>	<i>Cyrtandra dentata</i>
	<i>Diellia falcata</i>	<i>Diellia falcata</i>
	<i>Diellia unisora</i>	<i>Diellia unisora</i>
	<i>Dubautia herbstobatae</i>	<i>Dubautia herbstobatae</i>
	<i>Eragrostis fosbergii</i>	<i>Eragrostis fosbergii</i>
	<i>Flueggea neowawraea</i>	<i>Flueggea neowawraea</i>
	<i>Gouania meyenii</i>	<i>Gouania meyenii</i>
<i>Gouania vitifolia</i>	<i>Gouania vitifolia</i>	
<i>Isodendron laurifolium</i>	<i>Isodendron laurifolium</i>	
<i>Isodendron pyriformium</i>	<i>Isodendron pyriformium</i>	

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Dry Cliff—Unit 3	<i>Kadua parvula</i>	<i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Korthalsella degeneri</i>
	<i>Lepidium arbuscula</i>	<i>Lepidium arbuscula</i> <i>Lipochaeta lobata</i> var. <i>leptophylla</i>
	<i>Lobelia niihauensis</i>	<i>Lobelia niihauensis</i>
	<i>Melanthera tenuifolia</i>	<i>Melanthera tenuifolia</i>
	<i>Melicope makahae</i>	<i>Melicope makahae</i> <i>Melicope saint-johnii</i> <i>Neraudia angulata</i>
	<i>Nototrichium humile</i>	<i>Nototrichium humile</i>
	<i>Peucedanum sandwicense</i>	<i>Peucedanum sandwicense</i> <i>Phyllostegia kaalaensis</i> <i>Plantago princeps</i> var. <i>princeps</i>
	<i>Platydesma comuta</i> var. <i>decurrens</i>	<i>Platydesma comuta</i> var. <i>decurrens</i>
	<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i>
	<i>Sanicula mariversa</i>	<i>Sanicula mariversa</i>
	<i>Schiedea hookeri</i>	<i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i> <i>Silene lanceolata</i> <i>Silene perlmanii</i> <i>Spermolepis hawaiiensis</i>
	<i>Tetramolopium filiforme</i>	<i>Tetramolopium filiforme</i> <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>
	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>
	<i>Abutilon sandwicense</i>	<i>Abutilon sandwicense</i> <i>Achyranthes splendens</i> var. <i>rotundata</i>
	<i>Alectryon macrococcus</i>	<i>Alectryon macrococcus</i>
	<i>Bonamia menziesii</i>	<i>Bonamia menziesii</i> <i>Cenchrus agrimonioides</i> <i>Chamaesyce herbstii</i> <i>Chamaesyce kuwaleana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i>
	<i>Diellia falcata</i>	<i>Diellia falcata</i> <i>Diellia unisora</i>
	<i>Dubautia herbstobatae</i>	<i>Dubautia herbstobatae</i>
	<i>Eragrostis fosbergii</i>	<i>Eragrostis fosbergii</i>
	<i>Flueggea neowawraea</i>	<i>Flueggea neowawraea</i>
	<i>Gouania meyenii</i>	<i>Gouania meyenii</i> <i>Gouania vitifolia</i>
	<i>Isodendron laurifolium</i>	<i>Isodendron laurifolium</i> <i>Isodendron pyrifolium</i> <i>Kadua degeneri</i> <i>Kadua parvula</i>
	<i>Korthalsella degeneri</i>	<i>Korthalsella degeneri</i>
	<i>Lepidium arbuscula</i>	<i>Lepidium arbuscula</i>
	<i>Lipochaeta lobata</i> var. <i>leptophylla</i>	<i>Lipochaeta lobata</i> var. <i>leptophylla</i>
	<i>Lobelia niihauensis</i>	<i>Lobelia niihauensis</i>
	<i>Melanthera tenuifolia</i>	<i>Melanthera tenuifolia</i>
	<i>Melicope makahae</i>	<i>Melicope makahae</i> <i>Melicope saint-johnii</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i>
	<i>Neraudia angulata</i>	<i>Neraudia angulata</i>
	<i>Nototrichium humile</i>	<i>Nototrichium humile</i>
	<i>Peucedanum sandwicense</i>	<i>Peucedanum sandwicense</i> <i>Phyllostegia kaalaensis</i> <i>Plantago princeps</i> var. <i>princeps</i>
	<i>Phyllostegia kaalaensis</i>	<i>Phyllostegia kaalaensis</i> <i>Platydesma cornuta</i> var. <i>decurrens</i>
	<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i>
	<i>Pteralyxia macrocarpa</i>	<i>Pteralyxia macrocarpa</i> <i>Sanicula mariversa</i>
	<i>Schiedea hookeri</i>	<i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i>
	<i>Silene lanceolata</i>	<i>Silene lanceolata</i> <i>Silene perlmanii</i> <i>Spermolepis hawaiiensis</i>
	<i>Tetramolopium filiforme</i>	<i>Tetramolopium filiforme</i> <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied	
Oahu—Dry Cliff—Unit 4	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	
	<i>Alectryon macrococcus</i>	<i>Abutilon sandwicense</i> <i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonoides</i> <i>Chamaesyce herbstii</i> <i>Chamaesyce kuwaleana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Dubautia herbstobatae</i> <i>Eragrostis fosbergii</i> <i>Flueggea neowawraea</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Isodendron laurifolium</i> <i>Isodendron pyriformium</i> <i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Korthalsella degeneri</i> <i>Lepidium arbuscula</i> <i>Lipochaeta lobata</i> var. <i>leptophylla</i> <i>Lobelia niihauensis</i> <i>Melanthera tenuifolia</i> <i>Melicope makahae</i> <i>Melicope saint-johnii</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Peucedanum sandwicense</i> <i>Phyllostegia kaalaensis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platydesma cornuta</i> var. <i>decurrens</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Sanicula mariversa</i> <i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i> <i>Silene lanceolata</i> <i>Silene perlmanni</i> <i>Spermolepis hawaiiensis</i> <i>Tetramolopium filiforme</i> <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	
	Oahu—Dry Cliff—Unit 5	<i>Alectryon macrococcus</i>	<i>Abutilon sandwicense</i> <i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonoides</i> <i>Chamaesyce herbstii</i> <i>Chamaesyce kuwaleana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Dubautia herbstobatae</i> <i>Eragrostis fosbergii</i> <i>Flueggea neowawraea</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Isodendron laurifolium</i> <i>Isodendron pyriformium</i> <i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Korthalsella degeneri</i> <i>Lepidium arbuscula</i> <i>Lipochaeta lobata</i> var. <i>leptophylla</i> <i>Lobelia niihauensis</i>
		<i>Bonamia menziesii</i>	
		<i>Flueggea neowawraea</i>	
		<i>Lipochaeta lobata</i> var. <i>leptophylla</i>	
		<i>Lobelia niihauensis</i>	

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied	
Oahu—Dry Cliff—Unit 6	<i>Nototrichium humile</i>	<i>Melanthera tenuifolia</i> <i>Melicope makahae</i> <i>Melicope saint-johnii</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Peucedanum sandwicense</i> <i>Phyllostegia kaalaensis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platydesma cornuta</i> var. <i>decurrens</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Sanicula marivera</i> <i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i> <i>Silene lanceolata</i> <i>Silene perlmanni</i> <i>Spermolepis hawaiiensis</i> <i>Tetramolopium filiforme</i> <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	
	<i>Platydesma cornuta</i> var. <i>decurrens</i>		
	<i>Pleomele forbesii</i>		
	<i>Schiedea hookeri</i>		
	<i>Cenchrus agrimonioides</i>		<i>Abutilon sandwicense</i> <i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonioides</i> <i>Chamaesyce herbstii</i> <i>Chamaesyce kuwaleana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Dubautia herbstobatae</i> <i>Eragrostis fosbergii</i> <i>Flueggea neowawraea</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Isodendron laurifolium</i> <i>Isodendron pyrifolium</i> <i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Korthalsella degeneri</i> <i>Lepidium arbuscula</i> <i>Lipochaeta lobata</i> var. <i>leptophylla</i> <i>Lobelia niihauensis</i> <i>Melanthera tenuifolia</i> <i>Melicope makahae</i> <i>Melicope saint-johnii</i> <i>Neraudia angulata</i> <i>Nototrichium humile</i> <i>Peucedanum sandwicense</i> <i>Phyllostegia kaalaensis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platydesma cornuta</i> var. <i>decurrens</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Sanicula marivera</i> <i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i> <i>Silene lanceolata</i> <i>Silene perlmanni</i> <i>Spermolepis hawaiiensis</i> <i>Tetramolopium filiforme</i> <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>
	<i>Diellia unisora</i>		
	<i>Flueggea neowawraea</i>		
	<i>Lepidium arbuscula</i>		
	<i>Lobelia niihauensis</i>		
	<i>Melicope saint-johnii</i>		
	<i>Neraudia angulata</i>		
	<i>Plantago princeps</i> var. <i>princeps</i>		
	<i>Pleomele forbesii</i>		
	<i>Pteralyxia macrocarpa</i>		
	<i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i>		
	Oahu—Dry Cliff—Unit 7	<i>Abutilon sandwicense</i>	<i>Abutilon sandwicense</i> <i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i>
		<i>Achyranthes splendens</i> var. <i>rotundata</i>	

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Dry Cliff—Unit 8	<i>Diellia unisora</i>	<i>Cenchrus agrimonioides</i> <i>Chamaesyce herbstii</i> <i>Chamaesyce kuwaleana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Dubautia herbstobatae</i> <i>Eragrostis fosbergii</i>
	<i>Flueggea neowawraea</i>	<i>Flueggea neowawraea</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Isodendrion laurifolium</i> <i>Isodendrion pyriformium</i> <i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Korthalsella degeneri</i>
	<i>Kadua parvula</i>	<i>Kadua parvula</i>
	<i>Lepidium arbuscula</i>	<i>Lepidium arbuscula</i>
	<i>Melicope saint-johnii</i>	<i>Melicope saint-johnii</i>
	<i>Neraudia angulata</i>	<i>Neraudia angulata</i>
	<i>Plantago princeps</i> var. <i>princeps</i>	<i>Plantago princeps</i> var. <i>princeps</i>
	<i>Platydesma cornuta</i> var. <i>decurrens</i>	<i>Platydesma cornuta</i> var. <i>decurrens</i>
	<i>Pleomele forbesii</i>	<i>Pleomele forbesii</i>
	<i>Silene perlmanii</i>	<i>Pteralyxia macrocarpa</i> <i>Sanicula maritima</i> <i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i> <i>Silene lanceolata</i> <i>Silene perlmanii</i> <i>Spermolepis hawaiiensis</i> <i>Tetramolopium filiforme</i>
	<i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>	<i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>
	<i>Abutilon sandwicense</i>	<i>Abutilon sandwicense</i>
	<i>Bonamia menziesii</i>	<i>Achyranthes splendens</i> var. <i>rotundata</i> <i>Alectryon macrococcus</i> <i>Bonamia menziesii</i> <i>Cenchrus agrimonioides</i> <i>Chamaesyce herbstii</i> <i>Chamaesyce kuwaleana</i> <i>Cyanea grimesiana</i> ssp. <i>obatae</i> <i>Cyrtandra dentata</i> <i>Diellia falcata</i> <i>Diellia unisora</i> <i>Dubautia herbstobatae</i> <i>Eragrostis fosbergii</i>
	<i>Flueggea neowawraea</i>	<i>Flueggea neowawraea</i> <i>Gouania meyenii</i> <i>Gouania vitifolia</i> <i>Isodendrion laurifolium</i> <i>Isodendrion pyriformium</i> <i>Kadua degeneri</i> <i>Kadua parvula</i> <i>Korthalsella degeneri</i> <i>Lepidium arbuscula</i> <i>Lipochaeta lobata</i> var. <i>leptophylla</i>
	<i>Lobelia niihauensis</i>	<i>Lobelia niihauensis</i> <i>Melanthera tenuifolia</i> <i>Melicope makahae</i> <i>Melicope saint-johnii</i>
	<i>Neraudia angulata</i>	<i>Neraudia angulata</i>
	<i>Nototrichium humile</i>	<i>Nototrichium humile</i> <i>Peucedanum sandwicense</i>

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
Oahu—Wet Cliff—Unit 1	<i>Pleomele forbesii</i>	<i>Phyllostegia kaalaensis</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Platydesma comuta</i> var. <i>decurrens</i> <i>Pleomele forbesii</i> <i>Pteralyxia macrocarpa</i> <i>Sanicula mariversa</i> <i>Schiedea hookeri</i> <i>Schiedea obovata</i> <i>Schiedea trinervis</i> <i>Silene lanceolata</i> <i>Silene perlmanii</i> <i>Spermolepis hawaiiensis</i> <i>Tetramolopium filiforme</i> <i>Tetramolopium lepidotum</i> ssp. <i>lepidotum</i> <i>Viola chamissoniana</i> ssp. <i>chamissoniana</i>
Oahu—Wet Cliff—Unit 2	<i>Cyanea calycina</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope christophersenii</i> <i>Phyllostegia hirsuta</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Schiedea trinervis</i>
Oahu—Wet Cliff—Unit 3	<i>Melicope christophersenii</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope christophersenii</i> <i>Phyllostegia hirsuta</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Schiedea trinervis</i>
Oahu—Wet Cliff—Unit 4	<i>Schiedea trinervis</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope christophersenii</i> <i>Phyllostegia hirsuta</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Schiedea trinervis</i>
Oahu—Wet Cliff—Unit 5	<i>Cyanea calycina</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope christophersenii</i> <i>Phyllostegia hirsuta</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Schiedea trinervis</i>
Oahu—Wet Cliff—Unit 6	<i>Melicope christophersenii</i>	<i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Melicope christophersenii</i> <i>Phyllostegia hirsuta</i> <i>Pteralyxia macrocarpa</i> <i>Schiedea hookeri</i> <i>Schiedea kaalae</i> <i>Schiedea trinervis</i>
	<i>Phyllostegia hirsuta</i>	<i>Adenophorus perieni</i>
	<i>Schiedea hookeri</i>	

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied	
Oahu—Wet Cliff—Unit 7	<i>Cyanea crispa</i>	<i>Chamaesyce deppeana</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea humboldtiana</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Huperzia nutans</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Lysimachia filifolia</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Sanicula purpurea</i> <i>Schiedea kaalae</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i>	
	<i>Huperzia nutans</i>		
	<i>Pteralyxia macrocarpa</i>		
	<i>Schiedea kaalae</i>		
	<i>Cyanea crispa</i>	<i>Adenophorus periens</i> <i>Chamaesyce deppeana</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea humboldtiana</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Huperzia nutans</i> <i>Labordia cyrtandrae</i> <i>Lobelia oahuensis</i> <i>Lysimachia filifolia</i> <i>Phyllostegia hirsuta</i> <i>Phyllostegia parviflora</i> var. <i>parviflora</i> <i>Plantago princeps</i> var. <i>princeps</i> <i>Psychotria hexandra</i> ssp. <i>oahuensis</i> <i>Pteralyxia macrocarpa</i> <i>Sanicula purpurea</i> <i>Schiedea kaalae</i> <i>Tetraplasandra gymnocarpa</i> <i>Trematolobelia singularis</i> <i>Viola oahuensis</i>	
	<i>Psychotria hexandra</i> ssp. <i>oahuensis</i>		
	<i>Schiedea kaalae</i>		
	Oahu—Wet Cliff—Unit 8	<i>Cyanea acuminata</i>	<i>Adenophorus periens</i> <i>Chamaesyce deppeana</i> <i>Chamaesyce rockii</i> <i>Cyanea acuminata</i> <i>Cyanea calycina</i> <i>Cyanea crispa</i> <i>Cyanea humboldtiana</i> <i>Cyanea purpurellifolia</i> <i>Cyanea st.-johnii</i> <i>Cyanea truncata</i> <i>Cyrtandra kaulantha</i> <i>Cyrtandra sessilis</i> <i>Cyrtandra subumbellata</i> <i>Cyrtandra viridiflora</i> <i>Huperzia nutans</i>
		<i>Cyanea calycina</i>	
		<i>Cyanea humboldtiana</i>	
<i>Cyanea purpurellifolia</i>			
<i>Cyanea st.-johnii</i>			
<i>Cyrtandra kaulantha</i>			
<i>Cyrtandra sessilis</i>			
<i>Cyrtandra subumbellata</i>			
<i>Cyrtandra viridiflora</i>			
<i>Huperzia nutans</i>			

(35) TABLE OF PROTECTED SPECIES WITHIN EACH CRITICAL HABITAT UNIT FOR OAHU—Continued

Unit name	Species occupied	Species unoccupied
	<i>Labordia cyrtandrae</i>	<i>Labordia cyrtandrae</i>
	<i>Lobelia oahuensis</i>	<i>Lobelia oahuensis</i>
	<i>Lysimachia filifolia</i>	<i>Lysimachia filifolia</i>
	<i>Phyllostegia hirsuta</i>	<i>Phyllostegia hirsuta</i>
	<i>Phyllostegia parviflora</i> var. <i>parviflora</i>	<i>Phyllostegia parviflora</i> var. <i>parviflora</i>
	<i>Plantago princeps</i> var. <i>princeps</i>	<i>Plantago princeps</i> var. <i>princeps</i>
		<i>Psychotria hexandra</i> ssp. <i>oahuensis</i>
	<i>Pteralyxia macrocarpa</i>	<i>Pteralyxia macrocarpa</i>
	<i>Sanicula purpurea</i>	<i>Sanicula purpurea</i>
		<i>Schiedea kaalae</i>
	<i>Tetraplasandra gymnocarpa</i>	<i>Tetraplasandra gymnocarpa</i>
	<i>Trematolobelia singularis</i>	<i>Trematolobelia singularis</i>
	<i>Viola oahuensis</i>	<i>Viola oahuensis</i>

(j) *Plants on Oahu; Constituent elements.*(1) *Flowering plants.*

FAMILY AMARANTHACEAE:

Achyranthes splendens var. *rotundata* (round-leaved chaff flower)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Achyranthes splendens* var. *rotundata* on Oahu.

(i) In units Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland

Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Nototrichium humile (KULUI)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 7, and Oahu—

Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Nototrichium humile* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7,

and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*,

Chamaesyce, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*,

Melanthera, *Schiedea*.

FAMILY APIACEAE:

Peucedanum sandwicense (MAKOU)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Peucedanum sandwicense* on Oahu.

Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*,

Chamaesyce, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Sanicula mariversa (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Sanicula mariversa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*,

Chamaesyce, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Sanicula purpurea (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Sanicula purpurea* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: *Ferns*, *Bryophytes*, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Spermolepis hawaiiensis (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Spermolepis hawaiiensis* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical or biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY APOCYNACEAE:

Pteralyxia macrocarpa (KAULU)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Pteralyxia macrocarpa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—

Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY ARALIACEAE:

Tetraplasandra gymnocarpa (OHE OHE)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—

Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetraplasandra gymnocarpa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Tetraplasandra lydgatei (NCN)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetraplasandra lydgatei* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY ASPARAGACEAE:

Pleomele forbesii (HALA PEPE)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Pleomele forbesii* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY ASTERACEAE:

Bidens amplexens (KOOKOOLAU)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, and Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Bidens amplexens* on Oahu.

(i) In units Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

Dubautia herbstobatae (NAENAE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2,

Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Dubautia herbstobatae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Hesperomannia arborescens (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Hesperomannia arborescens* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2,

Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Hesperomannia arbuscula (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Hesperomannia arbuscula* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Lipochaeta lobata var. *leptophylla* (NEHE)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lipochaeta lobata* var. *leptophylla* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Melanthera tenuifolia (NEHE)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—

Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melanthera tenuifolia* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).xxx

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psyrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psyrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Tetramolopium filiforme (NCN)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3,

Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetramolopium filiforme* on Oahu.

Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Tetramolopium lepidotum ssp. *lepidotum* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Tetramolopium lepidotum* ssp. *lepidotum* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psyrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY BRASSICACEAE:

Lepidium arbuscula (ANAUNAU)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lepidium arbuscula* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY CAMPANULACEAE:

Cyanea acuminata (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Mesic—Unit 8, Oahu—Lowland Mesic—Unit 9, Oahu—Lowland Mesic—Unit 10, Oahu—Lowland Mesic—Unit 11, Oahu—Lowland Mesic—Unit 12, Oahu—Lowland Mesic—Unit 13, Oahu—Lowland Mesic—Unit 14, Oahu—Lowland Mesic—Unit 15, Oahu—Lowland Mesic—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea acuminata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Ferns, Bryophytes, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyanea calycina (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Mesic—Unit 8, Oahu—Lowland Mesic—Unit 9, Oahu—Lowland Mesic—Unit 10, Oahu—Lowland Mesic—Unit 11, Oahu—Lowland Mesic—Unit 12, Oahu—Lowland Mesic—Unit 13, Oahu—Lowland Mesic—Unit 14, Oahu—Lowland Mesic—Unit 15, Oahu—Lowland Mesic—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea calycina* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland

Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyanea crista (NCN)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—

Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea crispa* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyanea grimesiana ssp. *grimesiana* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea grimesiana* ssp. *grimesiana* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—

Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Cyanea grimesiana ssp. *obatae* (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea grimesiana* ssp. *obatae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Cyanea humboldtiana (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea humboldtiana* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaesia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyanea koolauensis (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea koolauensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Cyanea lanceolata (HAHA)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea lanceolata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Cyanea longiflora (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea longiflora* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Cyanea pinnatifida (HAHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea pinnatifida*

on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Cyanea purpurellifolia (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea purpurellifolia* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical or biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyanea st.-johnii (HAHA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea st.-johnii* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyanea superba (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3,

identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea superba* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Cyanea truncata (HAHA)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyanea truncata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—

Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Delissea subcordata (OHA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Delissea subcordata* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Lobelia gaudichaudii ssp. *koolauensis* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—

Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia gaudichaudii* ssp. *koolauensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Lobelia monostachya (NCN)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia monostachya* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(vii) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Lobelia niihauensis (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia niihauensis* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Psydrax*, *Pleomele*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Lobelia oahuensis (NCN)

Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lobelia oahuensis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—

Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iii) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Trematolobelia singularis (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Trematolobelia singularis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical or biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY CARYOPHYLLACEAE:

Schiedea hookeri (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, identified in the legal descriptions in paragraph (i)

of this section, constitute critical habitat for *Schiedea hookeri* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freyinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7,

and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.
(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.
(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(v) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.
(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.
(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Schiedea kaalae (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea kaalae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.
(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.
(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.
(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Schiedea kealiae (MAOLIOLI)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea kealiae* on Oahu.

(i) In unit Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

Schiedea nuttallii (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea nuttallii* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Schiedea obovata (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry

Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea obovata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Schiedea trinervis (NCN)

Oahu—Montane Wet—Unit 1, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Schiedea trinervis* on Oahu.

(i) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(iii) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Silene lanceolata (NCN)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Silene lanceolata* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Silene perlmantii (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—

Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Silene perlmantii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical or biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY CONVULVULACEAE:

Bonamia menziesii (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—

Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Bonamia menziesii* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY CYPERACEAE:

Cyperus pennatiformis (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyperus pennatiformis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Cyperus trachysanthos (PUUKAA)

Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, and Oahu—Lowland Dry—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyperus trachysanthos* on Oahu.

(i) In units Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, and Oahu—Lowland Dry—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

FAMILY EUPHORBIACEAE:

Chamaesyce celastroides var. *kaenana* (AKOKO)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, Oahu—Coastal—Unit 15, Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce celastroides* var. *kaenana* on Oahu.

(i) In units Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(iii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Chamaesyce deppeana (AKOKO)

Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce deppeana* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(iv) Canopy: None.

(v) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(vi) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Chamaesyce herbstii (AKOKO)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce herbstii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Chamaesyce kuwaleana (AKOKO)

Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce kuwaleana* on Oahu.

(i) In units Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12, the physical and biological features of critical habitat are:

(A) Elevation: Less than 980 ft (300 m).

(B) Annual precipitation: Less than 20 in (50 cm).

(C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Chamaesyce rockii (AKOKO)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce rockii* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Chamaesyce skottsbergii var. *skottsbergii* (EWA PLAINS AKOKO)

Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Chamaesyce skottsbergii* var. *skottsbergii* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

Euphorbia haeleleana (AKOKO)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Euphorbia haeleleana* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Flueggea neowawraea (MEHAMEHAME)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Flueggea neowawraea* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7,

and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY FABACEAE:

Sesbania tomentosa (OHA1)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Sesbania tomentosa* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 980 ft (300 m).

(ii) Annual precipitation: Less than 20 in (50 cm).

(iii) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(iv) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(v) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(vi) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

Vigna o-wahuensis (NCN)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Vigna o-wahuensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 980 ft (300 m).

(ii) Annual precipitation: Less than 20 in (50 cm).

(iii) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(iv) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(v) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(vi) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

FAMILY GENTIANACEAE:

Centaurium sebaeoides (AWIWI)

Oahu—Coastal—Unit 1, Oahu—Coastal—Unit 2, Oahu—Coastal—Unit 3, Oahu—Coastal—Unit 4, Oahu—Coastal—Unit 5, Oahu—Coastal—Unit 6, Oahu—Coastal—Unit 7, Oahu—Coastal—Unit 8, Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 10, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Coastal—Unit 13, Oahu—Coastal—Unit 14, and Oahu—Coastal—Unit 15, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Centaurium sebaeoides* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 980 ft (300 m).

(ii) Annual precipitation: Less than 20 in (50 cm).

(iii) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.

(iv) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.

(v) Subcanopy: *Gossypium*, *Sida*, *Vitex*.

(vi) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.

FAMILY GESNERIACEAE:

Cyrtandra dentata (HAIWALE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal

descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra dentata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freyinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Plomele*, *Psychrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Cyrtandra gracilis (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra gracilis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Cyrtandra kaulantha (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra kaulantha* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyrtandra polyantha (HAIWALE)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra polyantha* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—

Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Cyrtandra sessilis (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra sessilis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils, lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyrtandra subumbellata (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra subumbellata* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyrtandra viridiflora (HAIWALE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland

Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra viridiflora* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
 - (B) Annual precipitation: Greater than 75 in (190 cm).
 - (C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
 - (D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
 - (E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
 - (F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.
- (ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:
- (A) Elevation: Unrestricted.
 - (B) Annual precipitation: Greater than 75 in (190 cm).
 - (C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.
 - (D) Canopy: None.
 - (E) Subcanopy: *Broussaia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Cyrtandra waiolani (HAIWALE)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—

Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cyrtandra waiolani* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (E) Subcanopy: *Dodonea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY LAMIACEAE:

Phyllostegia hirsuta (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—

Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia hirsuta* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft, (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.
- (E) Subcanopy: *Dodonea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Phyllostegia kaalaensis (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia kaalaensis* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4,

Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Phyllostegia mollis (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia mollis* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Phyllostegia parviflora (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Phyllostegia parviflora* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *lydgatei* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *parviflora* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *parviflora* are:

(A) Elevation: Less than 3,300 ft (1,000 m).
(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat for *Phyllostegia parviflora* var. *parviflora* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Stenogyne kanehoana (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Stenogyne kanehoana* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freyinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY LOGANIACEAE:

Labordia cyrtandrae (KAMAKAHALA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Labordia cyrtandrae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freyinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—

Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

(A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Well-developed soils, montane bogs.

(D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.

(E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.

(F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iv) In units Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, Oahu—Wet Cliff—Unit 5, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY MALVACEAE:

Abutilon sandwicense (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Abutilon sandwicense* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2,

and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Hibiscus brackenridgei (MAO HAU HELE)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Hibiscus brackenridgei* var. *mokuleianus* and *Hibiscus brackenridgei* var. *molokaiana* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat for *Hibiscus brackenridgei* var. *mokuleianus* and *Hibiscus brackenridgei* var. *molokaiana* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat for *Hibiscus brackenridgei* var. *mokuleianus* and *Hibiscus brackenridgei* var. *molokaiana* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY MYRSINACEAE:

Myrsine juddii (KOLEA)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Myrsine juddii* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY MYRTACEAE:

Eugenia koolauensis (NIOI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—

Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Eugenia koolauensis* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY ORCHIDACEAE:

Platanthera holochila (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Platanthera holochila* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY PLANTAGINACEAE:

Plantago princeps (LAUKAHI KUAHIWI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4,

Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, Oahu—Dry Cliff—Unit 8, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Plantago princeps* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Less than 3,300 ft (1,000 m).
(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat for *Plantago princeps* var. *longibracteata* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepis*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepis*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(v) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat for *Plantago princeps* var. *princeps* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY POACEAE:

Cenchrus agrimonioides
(KAMANOMANO)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Cenchrus agrimonioides* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Eragrostis fosbergii (FOSBERG'S LOVE GRASS)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Eragrostis fosbergii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2,

and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).
(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY PRIMULACEAE

Lysimachia filifolia (NCN)

Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Lysimachia filifolia* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(iv) Canopy: None.

(v) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(vi) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY RHAMNACEAE:

Colubrina oppositifolia (KAUILA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Colubrina oppositifolia* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Gouania meyenii (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Gouania meyenii* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 6, Oahu—Lowland Dry—Unit 7, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Gouania vitifolia (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Gouania vitifolia* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iv) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY RUBIACEAE:

Gardenia mannii (NANU)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Gardenia mannii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Kadua coriacea (KIOELE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Kadua coriacea* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Kadua degeneri (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Kadua degeneri* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Less than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, rocky talus.
- (D) Canopy: None.
- (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
- (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Kadua parvula (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Kadua parvula* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
- (C) Substrate: Shallow soils, little to no herbaceous layer.
- (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Less than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, rocky talus.
- (D) Canopy: None.
- (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
- (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Psychotria hexandra ssp. *oahuensis* (KOPIKO)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Psychotria hexandra* ssp. *oahuensis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.
- (D) Canopy: None.
- (E) Subcanopy: *Broussaisia*, *Cheiodendron*, *Leptecophylla*, *Metrosideros*.
- (F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY RUTACEAE:

Melicope christophersenii (ALANI)

Oahu—Montane Wet—Unit 1, Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, identified in the legal descriptions in paragraph (i) of this

section, constitute critical habitat for *Melicope christophersenii* on Oahu.

(i) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

- (A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Well-developed soils, montane bogs.
- (D) Canopy: *Acacia*, *Charpentiera*, *Cheiodendron*, *Metrosideros*.
- (E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.
- (F) Understory: Ferns, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(ii) In unit Oahu—Wet Cliff—Unit 1, Oahu—Wet Cliff—Unit 2, Oahu—Wet Cliff—Unit 3, Oahu—Wet Cliff—Unit 4, and Oahu—Wet Cliff—Unit 5, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.
- (D) Canopy: None.
- (E) Subcanopy: *Broussaisia*, *Cheiodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

Melicope hiiakae (ALANI)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope hiiakae* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Greater than 75 in (190 cm).
- (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Melicope lydgatei (ALANI)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—

Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope lydgatei* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Melicope makahae (ALANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—

Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope makahae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Melicope pallida (ALANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and

Oahu—Lowland Mesic—Unit 3, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope pallida* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Melicope saint-johnii (ALANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Melicope saint-johnii* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
 (B) Annual precipitation: Less than 75 in (190 cm).
 (C) Substrate: Greater than 65 degree slope, rocky talus.
 (D) Canopy: None.
 (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
 (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Platydesma cornuta var. *cornuta* (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Platydesma cornuta* var. *cornuta* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
 (ii) Annual precipitation: Greater than 75 in (190 cm).
 (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
 (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
 (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
 (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Platydesma cornuta var. *decurrens* (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Platydesma cornuta* var. *decurrens* on Oahu.

- (i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:
 (A) Elevation: Less than 3,300 ft (1,000 m).
 (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
 (C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.
 (ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
 (B) Annual precipitation: Less than 75 in (190 cm).
 (C) Substrate: Greater than 65 degree slope, rocky talus.
 (D) Canopy: None.
 (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
 (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Zanthoxylum oahuense (AE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Zanthoxylum oahuense* on Oahu. Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
 (ii) Annual precipitation: Greater than 75 in (190 cm).
 (iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
 (iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
 (v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
 (vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY SAPINDACEAE:

Alectryon macrococcus (MAHOE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Montane Wet—Unit 1, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry

Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Alectryon macrococcus* var. *macrococcus* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
 (B) Annual precipitation: 50 to 75 in (130 to 190 cm).
 (C) Substrate: Shallow soils, little to no herbaceous layer.
 (D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.
 (ii) In unit Oahu—Montane Wet—Unit 1, the physical and biological features of critical habitat are:

- (A) Elevation: 3,300 to 6,600 ft (1,000 to 2,000 m).
 (B) Annual precipitation: Greater than 75 in (190 cm).
 (C) Substrate: Well-developed soils, montane bogs.
 (D) Canopy: *Acacia*, *Charpentiera*, *Cheirodendron*, *Metrosideros*.
 (E) Subcanopy: *Broussaisia*, *Cibotium*, *Eurya*, *Ilex*, *Myrsine*.
 (F) Understory: *Ferns*, *Carex*, *Coprosma*, *Leptecophylla*, *Oreobolus*, *Rhynchospora*, *Vaccinium*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

- (A) Elevation: Unrestricted.
 (B) Annual precipitation: Less than 75 in (190 cm).
 (C) Substrate: Greater than 65 degree slope, rocky talus.
 (D) Canopy: None.
 (E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.
 (F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

FAMILY SOLANACEAE:

Solanum sandwicense (POPOLO, AIAKEAKUA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Solanum sandwicense* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

FAMILY URTICACEAE:

Neraudia angulata (NCN)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Neraudia angulata* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat for *Neraudia angulata* var. *angulata* and *Neraudia angulata* var. *dentata* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little—weathered lava.

(D) Canopy: *Diospyros*, *Myoporium*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat for *Neraudia angulata* var. *angulata* and *Neraudia angulata* var. *dentata* are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(iii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat for *Neraudia angulata* var. *angulata* and *Neraudia angulata* var. *dentata* are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Urera kaalae (OPUHE)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Urera kaalae* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY VIOLACEAE:

Isodendron laurifolium (AUPAKA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Isodendron laurifolium* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Isodendron longifolium (AUPAKA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Lowland Mesic—Unit 8, Oahu—Lowland Mesic—Unit 9, Oahu—Lowland Mesic—Unit 10, Oahu—Lowland Mesic—Unit 11, Oahu—Lowland Mesic—Unit 12, Oahu—Lowland Mesic—Unit 13, Oahu—Lowland Mesic—Unit 14, Oahu—Lowland Mesic—Unit 15, and Oahu—Lowland Mesic—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Isodendron longifolium* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, Oahu—Lowland Wet—Unit 5, Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

Isodendron pyriforme (WAHINE NOHO KULA)

Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, Oahu—Lowland Dry—Unit 11, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Isodendron pyriforme* on Oahu.

(i) In units Oahu—Lowland Dry—Unit 1, Oahu—Lowland Dry—Unit 2, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, Oahu—Lowland Dry—Unit 8, Oahu—Lowland Dry—Unit 9, Oahu—Lowland Dry—Unit 10, and Oahu—Lowland Dry—Unit 11, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Less than 50 in (130 cm).

(C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Viola chamissoniana ssp. *chamissoniana* (PAMAKANI)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Viola chamissoniana* ssp. *chamissoniana* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Viola oahuensis (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Viola oahuensis* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY VISCACEAE:

Korthalsella degeneri (HULUMOA)

Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3,

Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Korthalsella degeneri* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Unrestricted.

(ii) Annual precipitation: Less than 75 in (190 cm).

(iii) Substrate: Greater than 65 degree slope, rocky talus.

(iv) Canopy: None.

(v) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(vi) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

(2) *Ferns and fern allies*.

FAMILY ADIANTACEAE:

Pteris lidgatei (NCN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Pteris lidgatei* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Greater than 75 in (190 cm).

(iii) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(iv) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(v) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(vi) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY ASPLENIACEAE:

Ctenitis squamigera (PAUOA)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Ctenitis squamigera* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Diellia erecta (ASPLENIUM-LEAVED DIELLIA)

Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Diellia erecta* on Oahu. Within these units, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: 50 to 75 in (130 to 190 cm).

(iii) Substrate: Shallow soils, little to no herbaceous layer.

(iv) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(v) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(vi) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

Diellia falcata (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, Oahu—Lowland Mesic—Unit 7, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Diellia falcata* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Mesic—Unit 4, Oahu—Lowland Mesic—Unit 5, Oahu—Lowland Mesic—Unit 6, and Oahu—Lowland Mesic—Unit 7, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Diellia unisora (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Diellia unisora* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Dry Cliff—Unit 1, Oahu—Dry Cliff—Unit 2, Oahu—Dry Cliff—Unit 3, Oahu—Dry Cliff—Unit 4, Oahu—Dry Cliff—Unit 5, Oahu—Dry Cliff—Unit 6, Oahu—Dry Cliff—Unit 7, and Oahu—Dry Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Less than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, rocky talus.

(D) Canopy: None.

(E) Subcanopy: *Antidesma*, *Chamaesyce*, *Diospyros*, *Dodonaea*.

(F) Understory: *Bidens*, *Eragrostis*, *Melanthera*, *Schiedea*.

Diplazium molokaiense (NCN)

Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, Oahu—Lowland Mesic—Unit 3, Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Diplazium molokaiense* on Oahu.

(i) In units Oahu—Lowland Mesic—Unit 1, Oahu—Lowland Mesic—Unit 2, and Oahu—Lowland Mesic—Unit 3, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: 50 to 75 in (130 to 190 cm).

(C) Substrate: Shallow soils, little to no herbaceous layer.

(D) Canopy: *Acacia*, *Diospyros*, *Metrosideros*, *Myrsine*, *Pouteria*, *Santalum*.

(E) Subcanopy: *Dodonaea*, *Freycinetia*, *Leptecophylla*, *Melanthera*, *Osteomeles*, *Pleomele*, *Psydrax*.

(F) Understory: *Carex*, *Dicranopteris*, *Diplazium*, *Elaphoglossum*, *Peperomia*.

(ii) In units Oahu—Lowland Wet—Unit 1, Oahu—Lowland Wet—Unit 2, Oahu—Lowland Wet—Unit 3, Oahu—Lowland Wet—Unit 4, and Oahu—Lowland Wet—Unit 5, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

FAMILY GRAMMITIDACEAE:

Adenophorus periens (PENDANT KIHU FERN)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—

Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Adenophorus periens* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

(A) Elevation: Less than 3,300 ft (1,000 m).

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.

(D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.

(E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.

(F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.

(ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:

(A) Elevation: Unrestricted.

(B) Annual precipitation: Greater than 75 in (190 cm).

(C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.

(D) Canopy: None.

(E) Subcanopy: *Broussaia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.

(F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY LYCOPODIACEAE:

Huperzia nutans (WAWAEIOLE)

Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7, Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, Oahu—Lowland Wet—Unit 16, Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Huperzia nutans* on Oahu.

(i) In units Oahu—Lowland Wet—Unit 6, Oahu—Lowland Wet—Unit 7,

Oahu—Lowland Wet—Unit 8, Oahu—Lowland Wet—Unit 9, Oahu—Lowland Wet—Unit 10, Oahu—Lowland Wet—Unit 11, Oahu—Lowland Wet—Unit 12, Oahu—Lowland Wet—Unit 13, Oahu—Lowland Wet—Unit 14, Oahu—Lowland Wet—Unit 15, and Oahu—Lowland Wet—Unit 16, the physical and biological features of critical habitat are:

- (A) Elevation: Less than 3,300 ft (1,000 m).
- (B) Annual precipitation: Greater than 75 in (190 cm).
- (C) Substrate: Clays; ashbeds; deep, well-drained soils; lowland bogs.
- (D) Canopy: *Antidesma*, *Metrosideros*, *Myrsine*, *Pisonia*, *Psychotria*.
- (E) Subcanopy: *Cibotium*, *Claoxylon*, *Kadua*, *Melicope*.
- (F) Understory: *Alyxia*, *Cyrtandra*, *Dicranopteris*, *Diplazium*, *Machaerina*, *Microlepia*.
- (ii) In units Oahu—Wet Cliff—Unit 6, Oahu—Wet Cliff—Unit 7, and Oahu—Wet Cliff—Unit 8, the physical and biological features of critical habitat are:
 - (A) Elevation: Unrestricted.
 - (B) Annual precipitation: Greater than 75 in (190 cm).
 - (C) Substrate: Greater than 65 degree slope, shallow soils, weathered lava.
 - (D) Canopy: None.
 - (E) Subcanopy: *Broussaisia*, *Cheirodendron*, *Leptecophylla*, *Metrosideros*.
 - (F) Understory: Bryophytes, Ferns, *Coprosma*, *Dubautia*, *Kadua*, *Peperomia*.

FAMILY MARSILEACEAE:

Marsilea villosa (IHI IHI)

Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, Oahu—Coastal—Unit 12, Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, and Oahu—Lowland Dry—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Marsilea villosa* on Oahu.

- (i) In units Oahu—Coastal—Unit 9, Oahu—Coastal—Unit 11, and Oahu—Coastal—Unit 12, the physical and biological features of critical habitat are:
 - (A) Elevation: Less than 980 ft (300 m).
 - (B) Annual precipitation: Less than 20 in (50 cm).
 - (C) Substrate: Well-drained, calcareous, talus slopes; weathered clay soils; ephemeral pools; mudflats.
 - (D) Canopy: *Hibiscus*, *Myoporum*, *Santalum*, *Scaevola*.
 - (E) Subcanopy: *Gossypium*, *Sida*, *Vitex*.
 - (F) Understory: *Eragrostis*, *Jacquemontia*, *Lyceum*, *Nama*, *Sesuvium*, *Sporobolus*, *Vigna*.
 - (ii) In units Oahu—Lowland Dry—Unit 3, Oahu—Lowland Dry—Unit 4, Oahu—Lowland Dry—Unit 5, and Oahu—Lowland Dry—Unit 7, the physical and biological features of critical habitat are:
 - (A) Elevation: Less than 3,300 ft (1,000 m).
 - (B) Annual precipitation: Less than 50 in (130 cm).
 - (C) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(D) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.

(E) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.

(F) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

FAMILY PTERIDACEAE:

Doryopteris takeuchii (NCN)

Oahu—Lowland Dry—Unit 6 and Oahu—Lowland Dry—Unit 7, identified in the legal descriptions in paragraph (i) of this section, constitute critical habitat for *Doryopteris takeuchii* on Oahu.

Within these units, the physical and biological features of critical habitat are:

- (i) Elevation: Less than 3,300 ft (1,000 m).
- (ii) Annual precipitation: Less than 50 in (130 cm).
- (iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.
- (iv) Canopy: *Diospyros*, *Myoporum*, *Pleomele*, *Santalum*, *Sapindus*.
- (v) Subcanopy: *Chamaesyce*, *Dodonaea*, *Leptecophylla*, *Osteomeles*, *Psydrax*, *Scaevola*, *Wikstroemia*.
- (vi) Understory: *Alyxia*, *Artemisia*, *Bidens*, *Chenopodium*, *Nephrolepis*, *Peperomia*, *Sicyos*.

* * * * *
Dated: June 29, 2011.

Jane Lyder,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2011-17162 Filed 8-1-11; 8:45 am]

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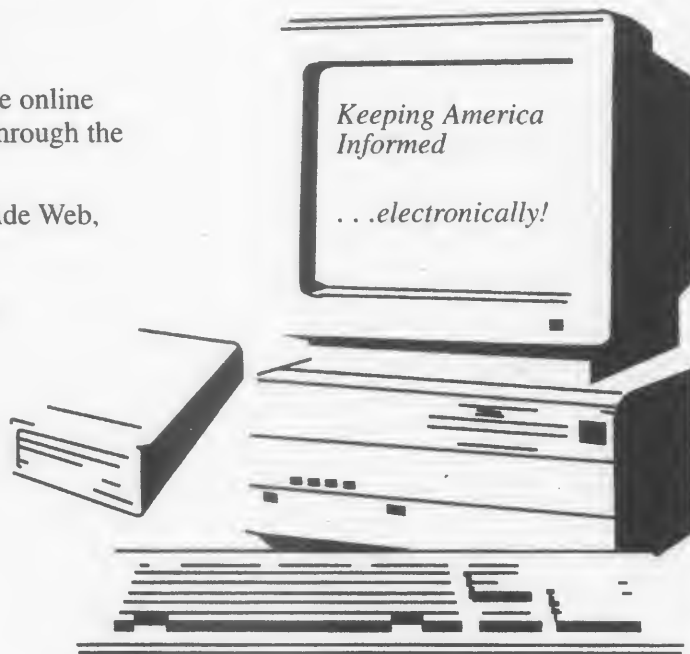
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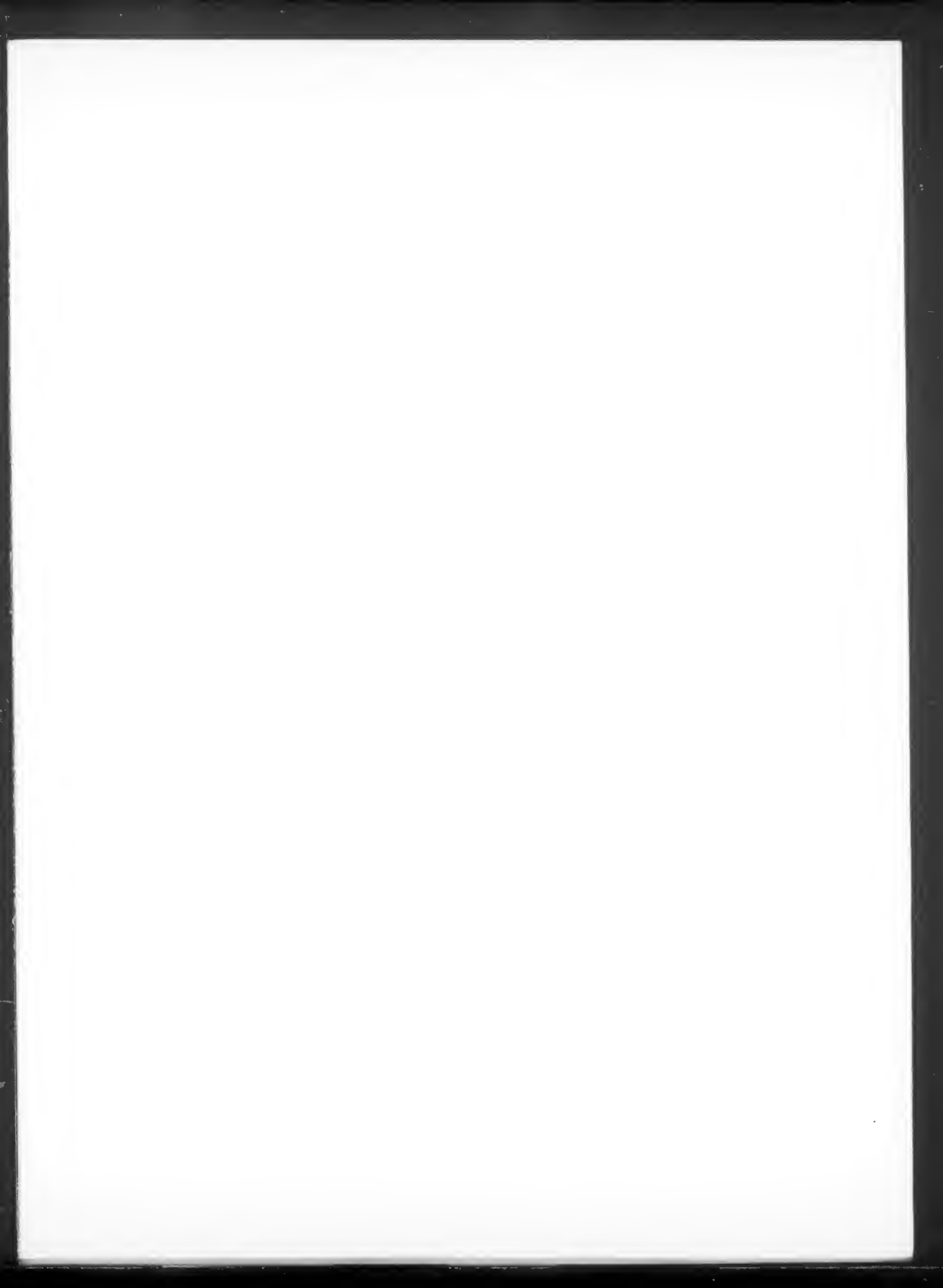


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