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Samoa Dunes Recreation Area

Final Visitor Services Plan



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BUREAU OF LAND MANAGEMENT
Arcata Resource Area
1695 Heindon Road
Arcata, California 95521-4573

1220
CA-330(P)

September 10, 1997

Dear Interested Citizen:

Enclosed is a copy of the Final Samoa Dunes Visitor Services Plan. This document outlines the management actions the Arcata Resource Area, Bureau of Land Management (BLM) plans to implement at Samoa Dunes Recreation Area to enhance services to visitors and to protect natural and cultural resource values.

This plan was developed to improve BLM's delivery of visitor services and resource protection by building upon the existing general land use objectives and allocations contained in the 1995 Arcata Resource Area Resource Management Plan (RMP) Amendment.

The final plan is a result of relevant comments/concerns expressed during two public scoping meetings held on November 12th and 13th, 1996 and a 60-day public review period of the draft plan that ended on April 21, 1997. Revisions to the draft plan and Environmental Assessment have been made in response to these public comments.

This document is a working activity plan that is intended to remain flexible as resource conditions and visitor trends change. Public involvement is welcome and encouraged to assist BLM in future management of this unique area.

Thank you for your participation and assistance in this planning process.

Sincerely,

Lynda J. Roush
Arcata Area Manager

#38571965

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United States
Department of the Interior
Bureau of Land Management
Arcata Resource Area

FINAL
VISITOR SERVICES PLAN

SAMOA DUNES RECREATION AREA

Prepared by: Bruce R. Cann
Bruce R. Cann
Outdoor Recreation Planner

9/5/97
Date

Approved: Lynda J. Roush
Lynda J. Roush
Area Manager

9-5-97
Date

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SAMOA DUNES VISITOR SERVICES PLAN

Part I. INTRODUCTION

A. Background

The first intensive planning effort for the 300-acre Samoa Dunes public land parcel occurred in 1982 with the completion of the Samoa Peninsula Off-Road Vehicle Recreation Area Environmental Assessment. The primary objective of this plan was to regulate and manage off-highway vehicle (OHV) use by segregating recreational uses into geographical zones to limit user conflicts, and to provide proper facilities and control in the area that exhibited indiscriminate and incompatible use of the public land. Management actions identified in the 1982 document included several off-highway vehicle (OHV) trail systems, an OHV staging area, two campgrounds, fencing of endangered plant and wetland habitats, debris removal and signing. In 1989, facilities were constructed and other improvements made to provide the public with a high quality recreation area. Funds for these improvements were provided by the California Off-Highway Motor Vehicle Division (the Green Sticker Program).

Since the development of the original plan, several management actions were implemented to protect resource values and provide for public safety. These included closing the area to overnight camping, prohibiting public use inside the endangered plant protection area, increased resource monitoring, cultural resource excavations, improved signing, road paving, installation of a surfer shower and call box by the Surfrider Foundation, development of the caretaker residence and visitor use surveys. Maintenance of the area continues to be funded by both the BLM and Green Sticker Program.

In 1992, the Record of Decision, Arcata Resource Area Resource Management Plan and Environmental Impact Statement was written to provide a broad framework of land use management in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA). This decision document identified resource condition objectives, land use allocations, and refined many of the management actions that were included in the 1982 Environmental Assessment. Decisions relevant to this planning document include:

1. Forty acres are available for temporary use on a periodic basis by the U.S. Army Corps of Engineers for jetty construction and maintenance.
2. The area is divided into zones that are designated as either

open, limited or closed to vehicle use.

3. Approximately 50 acres will remain under a withdrawal to the U.S. Coast Guard for the administration of their facilities and operations.

4. The area is not available for disposal, mineral material sales or livestock grazing.

In July, 1995 the Decision Record, Arcata Resource Area Resource Management Plan Amendment was written to address the changes in management direction that occurred after the 1992 plan was adopted. The only substantial changes in this plan were 1) the nightly closure to vehicles 1/2 hour after sunset to incoming traffic and one hour after sunset to outgoing traffic, and reopening the area to vehicle use one hour before sunrise, and 2) to improve OHV riding opportunities.

B. Purpose

The purpose of the Final Samoa Dunes Visitor Services Plan (VSP) is to explain the management actions the BLM should take to implement the 1995 Arcata Resource Area Resource Management Plan Amendment. The VSP states the visitor management objectives, identifies the recreation activities, opportunities, and experiences to be provided, and the recreation facilities and staffing needs required to meet the management objectives. The VSP also addresses the visitor service actions necessary to maintain or enhance the recreation experience consistent with the management objectives and sound ecological principles.

C. Method of Plan Preparation

The Final VSP preparation relied primarily on a 60-day public comment period on the Draft VSP that ended April 21, 1997. existing information, the assistance of Resource Area staff, two OHV Master Performers, input received from the public during two scoping sessions held on November 12th and 13th, 1996, a meeting with members of the Surfrider Foundation and an informal advisory group called "Partners of Samoa Dunes". Information was gathered and evaluated to determine the current recreation management situation, identify visitor management issues and recommend appropriate management actions. A separate Environmental Assessment addresses the environmental impacts of plan implementation (Appendix A).

D. Summary of Public Comments

The draft VSP generated 27 letters from individuals representing themselves, 9 letters from interest groups and three letters from government agencies. Twenty-nine form letters were also received. Among the individual letters, 15 favored the Proposed Action because it provided for, and enhanced OHV riding opportunities. The other 12 letters opposed the enhancement of OHV riding opportunities and expressed concerns that implementing the Proposed Action would "over-develop" the area. These individuals stated that BLM should ensure that the interests of other recreation user groups are considered and are provided for on an equal level as OHV enthusiasts. The form letter supported the No Action Alternative and stated that the 1) Proposed Action treated all user groups except OHV users unfairly, 2) current growth at Samoa Dunes has not exceeded the existing facilities or administrative staffing, 3) \$75,000 per year to manage the area over the next 10 years is not reasonable. Concerns expressed from the letters of the various interest groups were oriented toward enhancing and restoring the natural dune ecosystems, and any management activity occurring at Samoa Dunes should be consistent with natural and cultural resource protection and preservation. Several organizations emphasized the need to provide much more money for dune restoration projects, did not favor importing soil or planting native trees, stated that the use of OHVs was not a proper method for removing exotic plants, and disagreed with projections of visitor use.

E. Location and Setting

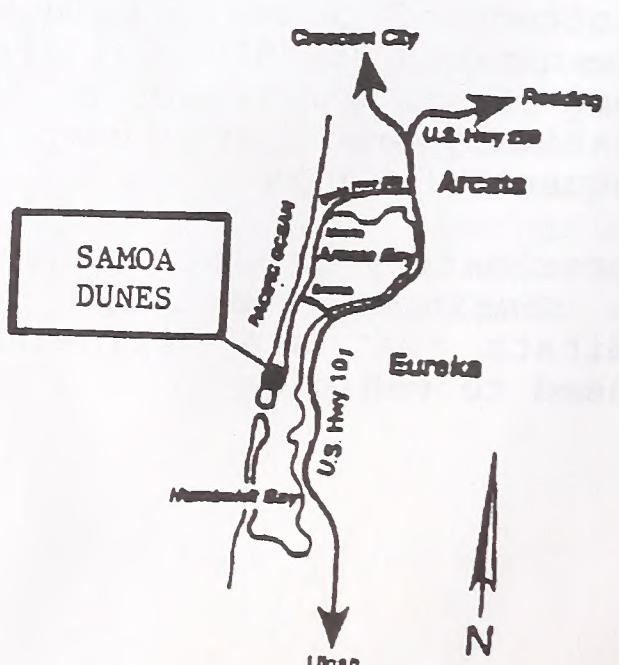
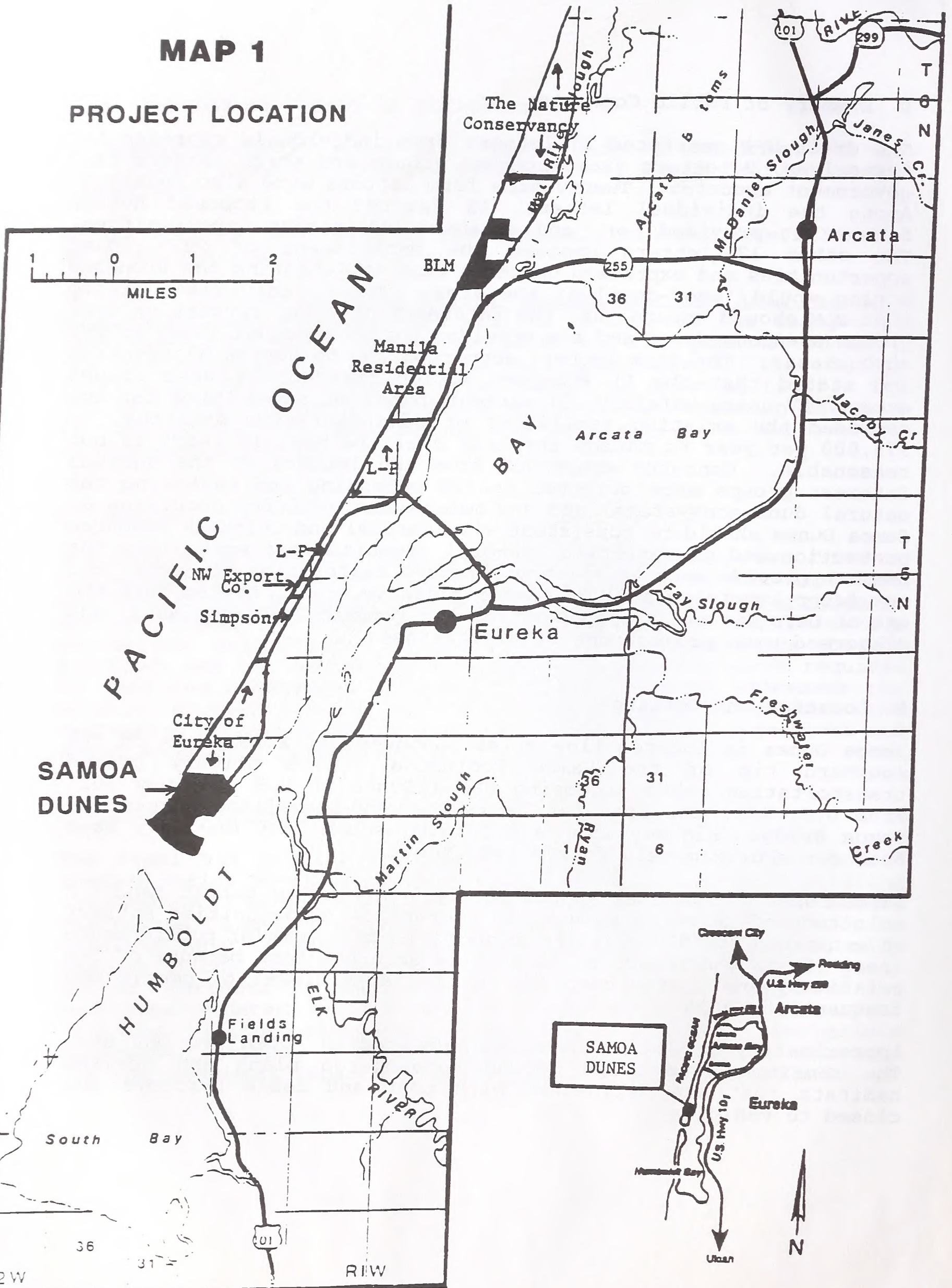
Samoa Dunes is located five miles southwest of Eureka, CA on the southern tip of the Samoa Peninsula. The primary ground transportation route accessing Samoa Dunes is U.S. Highway 101. From U.S. 101, the area can be reached by travelling across the Samoa Bridge (Highway 255) and turning south onto New Navy Base Road for approximately four miles (Map 1).

Samoa Dunes encompasses approximately 300 acres of public land. A multitude of resource values and recreation opportunities attract an estimated 150,000 visitors annually to this popular public beach area. It is considered by many to be an urban park because of its relatively small size compared to the large number of people who frequent the area.

Approximately 140 acres have been designated "open" to OHV use. The remaining 160 acres include endangered plant and wetland habitats that are delineated with post and cable barriers and closed to vehicles.

MAP 1

PROJECT LOCATION



H2W

36

31

RIW

F. Recreation Use

A wide variety of recreation uses occur at Samoa Dunes. The most popular activities include surfing, OHV riding, fishing, picnicking and beachcombing/sightseeing. It is anticipated that OHV use will continue to increase during the next several years due to the vehicle closure along most of the remaining portions of the Samoa Peninsula. Surfing continues to be a popular activity, and is projected to increase as well. With the development of additional beach access points and parking areas along the Samoa Peninsula, it is anticipated that hiking, beachcombing, sightseeing and picnicking will decrease slightly at Samoa Dunes.

G. Planning Goals and Objectives

The planning goals and objectives for the VSP include:

1. Preserve, protect and enhance natural and cultural resource values, including the 40-acre endangered plant protection area and the 120-acre wetlands area.
2. All management actions must be consistent with the RMP Amendment.
3. Improve recreation management of Samoa Dunes, particularly enhancement of OHV opportunities.
4. Improve public safety.
5. Improve cooperative management between government agencies and local user groups.
6. Educate visitors of resource values.

Part II. VISITOR MANAGEMENT ISSUES

A. Major Issue Identification

The major issues identified below and subsequent management actions described in the next few pages are the result, to a large extent, of public input and participation which included a 60-day public comment period, two informal public scoping sessions, the "Partners of Samoa Dunes" advisory group, BLM staff and resource information compiled over many years.

Major Issues

1. How can OHV Opportunities be Enhanced?

Comment

The Samoa Dunes Recreation Area, although small, is one of the few coastal OHV riding areas remaining in California. With the recent closure of nearly all of the Samoa Peninsula to OHV use, this area is receiving even greater use pressures than in past years. Visitor use is estimated to increase each year for the foreseeable future. Consistent with the July, 1995 Arcata Resource Area Resource Management Plan Amendment, one of the management objectives for this area is to enhance OHV riding opportunities.

Considerations:

- trail expansion
- facility development and maintenance
- enforcement
- signing
- maps/brochures

2. Public Safety

Comment

The fact that this relatively small (300 acres) area accommodates approximately 150,000 visitors annually and is open to OHV use poses an inherent safety problem. Many of these safety concerns can be dealt with using proper educational tools, signing and separating incompatible recreation activities.

Considerations:

- traffic
- speeding
- trail design
- road design
- signing
- non-OHV users in the open riding areas
- maps/brochures
- environmental hazards
- emergency services

3. Surfing

Comment

Surfing is a major recreational activity at Samoa Dunes. Use has tripled over the past three years. The rapid growth of this low-

impact use will continue due to the amount of available wave space in the area. A substantial number of surfers use 4WD vehicles to access the wave slope from both Jetty and Bunker Roads. Some surfers also use a 4WD route just north of the harbor entrance that ends nearby the Surfrider-maintained shower facility. The nearby foredunes are traditional sites for evaluating wave activity, currents and wave size so that surfers can make a safe, well informed decision on where to enter the water. A typical surfer visits Samoa Dunes two to four times per week to evaluate whether the surf is "up" and how it is changing. An average stay of approximately three hours is common. Most surfers require very little in the way of facilities.

Considerations:

- wave slope access
- facility maintenance

4. User Fees

Comment

For the past six years, the U.S. Congress has recommended that users need to pay a greater share of the expense to recreate on public lands. The Budget Reconciliation Act of 1993 further addressed this premise by amending the Land and Water Conservation Fund Act. By amending this Act, Congress liberalized the criteria for charging fees in campgrounds, and allowed agencies to charge fees for specialized sites such as managed parking facilities, boating ramps, etc. The 1995 Visitor Services Improvement and Outdoor Legacy Act was proposed so that agencies would establish recreation fee programs designed to generate 75 percent of the annual cost of providing visitor services for any particular recreation site. Should this bill or something similar be enacted, Congress intends for the BLM to charge the public for providing visitor services on the public lands. This means all users of the public lands including hikers, equestrians, mountain bike riders, campers, OHVers, etc. Currently, 100 percent of the fees collected from BLM recreation sites are returned to the Resource Area from which they are generated.

Considerations:

- should this area be considered a fee site
- how much to charge
- would donations generate income
- how would a fee collection system be implemented
- daily, annual, monthly fees

5. Resource Protection/Monitoring/Enhancement

Comment

The 40-acre Endangered Plant Protection Area is closed to all public use and the 120-acre Wetland Protection Area is closed to vehicle use. These closures provide protection for the endangered Humboldt Bay wallflower and beach layia, as well as habitat for many wildlife species. Monitoring of these resources and restoration of dunes that have been taken over by exotic plants continues on an annual basis. The two areas are protected with post and cable barriers that need repair and maintenance periodically.

Several historical resources exist at Samoa Dunes. The Humboldt Harbor Lighthouse, constructed in 1856, and numerous World War II ammunition bunkers provide valuable historic information and lend themselves to public interpretation. Nearby culturally significant sites, such as Indian Island, and the Indian uses and occupation along the Samoa Peninsula could also be interpreted.

Considerations:

- exotic plant removal
- historic resource excavations/interpretation
- use restrictions
- surveys and studies
- regulation enforcement
- facility maintenance
- interpretation

6. Mushroom Picking

Comment

Every winter a portion of the vegetated dunes are disturbed by visitors searching for mushrooms. Populations of endangered plants have been impacted by this activity, and a concerted effort has been undertaken to protect this important habitat.

Considerations:

- use restrictions
- regulation enforcement
- resource damage
- American Indian traditional uses

7. Accommodation of Other User Groups

Comment

A wide range of recreation activities occurs at Samoa Dunes in

addition to OHV riding and surfing. These include fishing, hiking, sightseeing, beachcombing, wildlife viewing, nature study and picnicking. How to accommodate such activities within this small area and minimizing user conflicts should be addressed.

Considerations:

- separating the different uses
- promoting incompatible uses elsewhere on the peninsula
- signing

8. Management Coordination Between Agencies and User Groups

Considerations:

- permitting process
- law enforcement assistance
- user group MOU's
- information sharing

Part III. MANAGEMENT OBJECTIVES

A. Introduction

The management objectives identify the environmental setting, activity and experience opportunities to be applied in each of the three management zones identified below. The management objectives are based on criteria developed from the Recreation Opportunity Spectrum (ROS) classes (Appendix B). The management zones represent the synthesis of ROS inventory data, decisions in the RMP and RMP Amendment and the opportunities to provide a spectrum of recreation activities to the users of Samoa Dunes (Map 2).

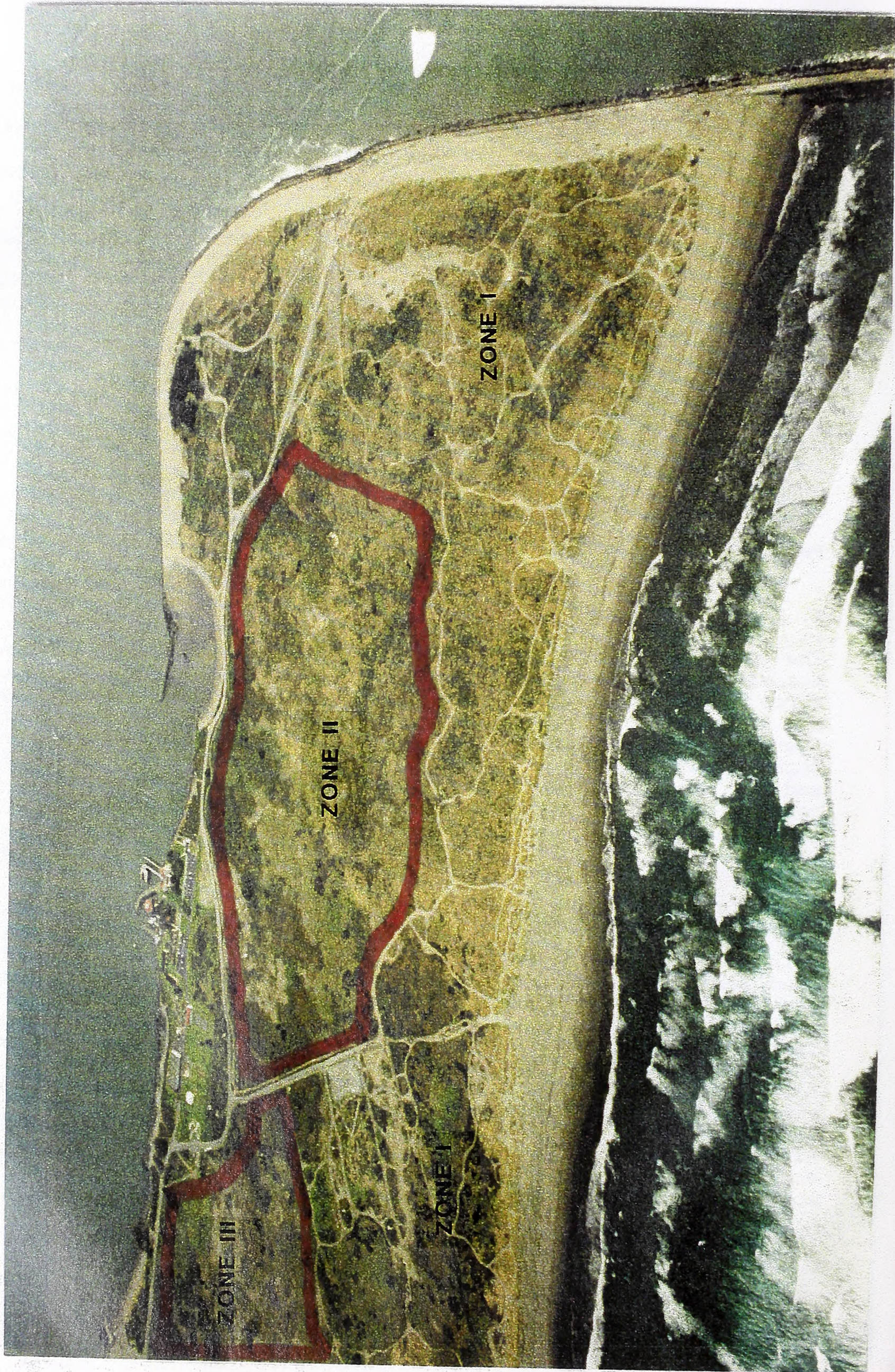
B. Management Zone Objectives

Zone I (Open Riding Area)

This area encompasses approximately 140 acres of mostly accreted land formed as a result of the Humboldt Bay jetty construction. The vegetation is comprised almost exclusively of exotic, non-native plants (beach grass and lupine), and has undergone extensive landscape alterations involving heavy equipment that occurred during World War II. The area will be managed primarily to provide for a multitude of motorized recreation opportunities and activities, and is designated "open" to vehicle use.

Within this zone, the concentration of users will be moderate, encounters with other users will be frequent, and resource modification and utilization of natural resources will be evident.

Map 2
Visitor Management Zones



Modification of the characteristic landscape elements should not exceed Class III Visual Resource Management (VRM) class objectives.

Location of rights-of-way, utility corridors, management facilities, and other surface disturbing activities will be favored in this zone over placement in Zone II or Zone III. The consumption of natural resources will normally not be constrained.

Zone II (Wetlands Protection Area)

This zone encompasses approximately 120 acres known as the Wetlands Protection Area. Primary recreation activities within this zone will include hiking, wildlife viewing and nature study. Motorized vehicle use is prohibited.

This area will be managed to be largely free from the evidence of man. Limited facilities for the administration of visitor use will be allowed, but off-site administration is encouraged. Project designs should stress protection of natural values. The area will be managed to maintain a good probability of experiencing minimum contact with others.

Use levels and management of renewable resources will be dependent on maintaining naturally occurring ecosystems.

On-site visitor management activities will stress protection of natural values, in harmony with the existing site conditions and project designs will be rustic in nature.

Zone III (Endangered Plant Protection Area)

This area encompasses approximately 40 acres known as the Endangered Plant Protection Area. The primary activities within this zone include the restoration of natural dune ecosystems and scientific research. The area is closed to all public use, unless authorized by the BLM.

This zone will be managed to be essentially free from the evidence of human activity. The management of renewable resources will be dependent on maintaining natural ecosystems. On-site visitor management activities will be designed in harmony with the existing ecological site conditions.

Part IV. THE MANAGEMENT PROGRAM

The management program is composed of separate actions which, when implemented, will resolve issues and accomplish the management goals and objectives.

In response to public comments, the number of management actions has been substantially reduced; from 68 in the draft plan to 39 in this final plan. Some actions were consolidated while others were eliminated. Proposed facility developments were reduced from 21 to 13. Cost estimates for implementing several of the resource protection measures has been increased.

Management Actions

Facility Developments

1. Develop an OHV tot lot supervised play area for children.
2. Install a drinking water fountain at the staging area/scenic overlook.
3. Construct a fishing pier near the entrance to Samoa Dunes at the Eucalyptus Grove.
4. Develop a sand drag just west of the staging area/scenic overlook.
5. Design and construct a 4X4 safety course.
6. Develop an ATV training area adjacent to the caretaker site.
7. Continue paving Jetty Road to lagoon area and the OHV staging area.
8. Work with Surfrider Foundation to develop restroom/changing room and/or other facilities if appropriate.
9. Develop a hiking loop trail in the Wetlands Area.
10. Increase OHV trail mileage by at least 10 miles. This includes, but is not limited to, delineating a motorcycle trail north of the bunkers, widening the trail on the north side of Bunker Road, expanding the trail system south and west of the Wetlands Area and developing a trail between the Samoa Boat Ramp and Samoa Dunes.
11. Maintain existing facilities and replace them if necessary.

12. Improve parking areas and install new or additional picnic tables, trash receptacles and cooking grills at high use sites, such as the Eucalyptus Grove, Cypress Grove and end of Jetty Road.

Public Safety

13. Develop and implement a sign plan for the area, and coordinate with interested parties, i.e. Coastal Conservancy and Humboldt County, in developing a sign and beach access plan for the Samoa Peninsula.
14. Provide more frequent law enforcement patrols.
15. Designate pedestrian routes to the beach.
16. Require flags on OHV's.
17. Re-route OHV trails near high use areas, such as the surfer shower site.
18. Restrict OHV travel to 15 mph within 50 feet of domestic animals, people or other vehicles.

Resource Protection/Monitoring/Enhancement

19. Monitor endangered plant populations and potential occurrence of the Western snowy plover.
20. Coordinate with California Department of Fish & Game to develop a recovery plan for endangered plants.
21. Remove exotic plants. Methods include, but may not be limited to, hand clearing, use of mechanical equipment and prescribed burning.
22. Develop maps, brochures and other interpretive information to educate the public about the area's resource values.
23. Continue working with the scientific community regarding endangered plants and other environmentally sensitive habitats.
24. Continue monitoring and excavation of the Humboldt Harbor Lighthouse.
25. Restrict use in the Wetlands Area to pedestrians only.

26. Monitor vegetation changes within the open riding area. Develop remedial actions to prevent negative impacts to sensitive habitat areas.
27. Conduct visitor use surveys/questionnaires.
28. Monitor amount, type and location of visitor activities. Establish carrying capacities for the various recreation uses.
29. Maintain closure to vegetative gathering. Permits may be issued for American Indian traditional uses.

Coordination Between Agencies and User Groups

30. Work with all user groups to expand on the "Partners of Samoa Dunes".
31. Coordinate with the U.S. Coast Guard on revoking the withdrawal of that portion of Samoa Dunes no longer required for navigational purposes.
32. Coordinate with the Army Corps of Engineers on applying for a Right-of-way for jetty maintenance.
33. Coordinate with user groups on the "Adopt a Beach" program.
34. Develop a Cooperative Management Agreement, Memorandum of Understanding or other agreements as necessary with the City of Eureka for coordinated management of portions of the Skypark property, if appropriate.
35. Develop agreements with other agencies, user groups and organizations to help manage Samoa Dunes in a cost effective manner.
36. Work with user groups, organizations, other government agencies and the general public to develop consensus on whether or not to charge a user fee. If a user fee is to be charged, determine type and develop an implementation plan.
37. Coordinate with Surfrider Foundation on rights-of-ways for washdown facility, drinking water supply and other facilities as necessary.
38. Continue to apply for "Green Sticker" funds, and other grant funding sources, challenge cost shares, etc. as appropriate.
39. If appropriate and authorized by the Area Manager, permits may be issued on a case-by-case basis to organized groups for overnight camping and night riding.

Part V. COST ESTIMATES AND IMPLEMENTATION PHASING

Costs include employee salaries, operation and maintenance costs, materials and contract labor expenses.

ACTION	YEAR									
	1	2	3	4	5	6	7	8	9	10
1. Tot Lot		2					1			
2. Water Fountain	2									
3. Fishing Pier									10	50
4. Sand Drag	2	1	1	1	1	1	1	1	1	1
5. 4X4 Course	3	3		1		1		1		1
6. ATV Training	1		1		1		1		1	
7. Paving							15	15		
8. Surfer Fac.			1							
9. Hiking Trail	1	1	1			1				
10. OHV Trails	5		5							
11. Fac. Maint.	15	15	20	20	15	15	15	15	15	15
12. Parking Areas					4	4				
13. Signing	1	1	1	1		1		1		1
14. Patrols	15	15	15	15	15	15	15	15	15	15
15. Ped. Routes	1	1								
16. Flags										
17. Re-route Trs.	1	1	1	1	1					
18. OHV mph										
19. Monitor Plants	1	1	1	1	1	1	1	1	1	1
20. Recovery Plan		1								
21. Exotic Plants	20	20	20	20	20	20	20	20	20	20
22. Maps, Brochure			2	2		1		1		1
23. Research	1		1	1	1	1	1	1	1	1
24. Lighthouse		1								
25. Wetland Use										
26. Mon. Veg. Change		1	1	1	1	1	1	1	1	1
27. Questionnaire				1			1			
28. Mon. Rec. Use				1						
29. Veg. Closure										
30. Partners										
31. Withdrawal										
32. Army Corps ROW										
33. Adopt a Beach										
34. Eureka CMA	1									
35. Agreements										
36. Fees		1								
37. Surfer Coord.										
38. Green Sticker										
39. Permits										
TOTALS	70	66	70	66	60	62	72	72	65	107

Part VI. APPENDICES

A. Environmental Assessment

As a result of increased use and interest in management of the Samoa Dunes Recreation Area, the BLM decided to prepare a Visitor Services Plan for the area. This Environmental Assessment (EA) addresses the impacts that are anticipated to occur from implementing the proposed management actions identified in Part IV of this document, and the two alternatives described below.

The Proposed Action has been revised to reflect public comments on the Draft VSP. The majority of comments favored BLM taking a more passive role in managing the area. The number of management actions was reduced from 68 in the Draft VSP to 39 in the Final VSP.

Proposed Action and Alternatives

Proposed Action

The Proposed Action is to implement those actions listed in Part IV - The Management Program of the Samoa Dunes Recreation Area Final Visitor Services Plan. The management plan includes 39 specific management actions designed to provide resolutions to the eight major issues and considerations contained in Part II.

The management plan includes actions which represent minor changes in degree, approach to, and intensity of the BLM's recreation management direction or policy within the Samoa Dunes Recreation Area, and identifies the support facilities, staffing, cooperating relationships, and other actions needed to implement the plan (see Map 3 for Facility Improvements).

Alternatives

1. No Action Alternative (Continuation of Present Management)

Under the No Action Alternative, the Samoa Dunes Recreation Area Final Visitor Services Plan would not be implemented and BLM management activities would be limited to those identified in the Arcata RMP Amendment. These include:

- Continue to apply for "Green Sticker" funds.
- Monitor botanical and cultural resources.
- Continue to work with local governments in the management of the entire peninsula.
- Conduct dune restoration and exotic plant removal.
- Post boundaries/fencing, where appropriate.

Map 3
Facility Improvements



NOTE: Numbers refer to Management Actions described in Part IV.

2. Recreation Development Alternative

Under this alternative, emphasis would be placed on maximizing a spectrum of recreation opportunities, which would require more intensive management, visitor controls and public expenditures than either the Proposed Action or Alternative 1. Resource protection measures would include those actions necessary to mitigate for impacts resulting from the anticipated increase in visitor use. Pro-active protection and enhancement actions such as monitoring and exotic plant removal would not be included in this alternative.

Affected Environment

The Recreation Management Situation

The Samoa Dunes Recreation Area contains a wide range of natural resource based recreation opportunities. The BLM describes recreation opportunities using the Recreation Opportunity Spectrum (ROS) (BLM Manual Part 8320) which applies a set of criteria to a land area's physical, social and managerial settings to describe the existing conditions which in combination define a land area's capability and suitability for providing a particular range of recreational experience opportunities. The Samoa Dunes Recreation Area contains three of the six ROS settings. The total existing public land acreage within Samoa Dunes represented by each of the ROS Classes and the corresponding Visitor Management Zones described in Part III are as follows:

<u>ROS CLASS</u>	<u>ACREAGE</u>
Primitive (Zone III-Endangered Plant Protection Area)	40
Semi-Primitive Non-Motorized (Zone II-Wetlands)	120
Roaded Natural (Zone I-Open Riding Area)	140

General recreation activities include surfing, OHV use, fishing, sightseeing, picnicking, wildlife viewing, horseback riding, nature study and beachcombing. Total recreation use is estimated to be 150,000 visitor days per year. Two primary roads provide vehicle access where beach access and facility improvements can be utilized. These improvements include a staging area for OHV enthusiasts, a scenic overlook, and two picnic areas with restrooms, tables, cooking grills and trash receptacles.

The Physical Environment

The area encompasses approximately 300 acres of a coastal sand dune system located immediately north of the Humboldt Bay entrance. Nearly 200 acres of accreted land developed at the southwest portion of the area due to the installation of the North Jetty. A Coast Guard light beacon and fog horn are located in this area to facilitate navigation and reduce the hazard of entering Humboldt Bay. The Coast Guard has also developed a radio tower and other

communication facilities in the southern portion of the area. Several historic ammunition bunkers used during World War II are located north of the OHV staging area.

Biological Environment

There are several distinctive habitat types throughout the Samoa Dunes Recreation Area each with their characteristic native flora and fauna. Examples typifying these native habitats and plant associations include beach strand with dunegrass (*Leymus mollis*), sparsely vegetated dunes or dune mat with dune goldenrod, yellow sand verbena, and purple owl's clover (*Solidago spathulata*, *Abronia latifolia*, *Castilleja exserta ssp. latifolia*), woody hollows with coyote brush, Hooker's willow, and Pacific wax myrtle, (*Baccharis pilularis*, *Salix hookeriana*, *Myrica californica*), and herbaceous hollows with sedges, rushes, and Pacific silverweed, (*Carex lyngbyei*, *Carex obnupta*, *Juncus lesuerii*, *Potentilla anserina ssp. pacifica*).

Though there are many representative native associations, exotic plants and their associations have been continuing to spread over the years. If left untreated, these associations will dominate the Samoa Dunes Recreation Area. These invasive associations include European beachgrass (*Ammophila arenaria*), yellow bush lupine (*Lupinus arboreus*), iceplant (*Carpobrotus edulis*) and annual grasses including quaking grass and ripgut brome (*Bromus major* and *Bromus diandrus*). Less aggressive associates often found among the exotic species often are California beeplant (*Scrophularia californica*), and yarrow (*Achillea millefolium*).

Of special significance are two endangered plant species, Humboldt Bay wallflower (*Erysimum menziesii ssp. eurekaense*) and Beach Layia (*Layia carnosa*) which tend to grow in semi-stabilized native dune mat and more open, bare sand areas, respectively. The range for these species has decreased dramatically in recent years due to urban, industrial, recreational development, and noxious weed introduction and spread. The largest population of Humboldt Bay wallflower world-wide occurs within the Samoa Dunes Endangered Plant Protection Area; and the northern most boundary for the beach layia occurs at Mad River County Park approximately 15 miles north of Samoa Dunes Recreation Area.

The Humboldt Bay wallflower is considered a monocarpic biennial, in that it flowers once in late February/March after about two or so years, and then dies. The wallflower cannot grow in bare sand and requires slightly enriched, yet still nutrient poor soil to survive. Endangered species tend to exist in rare habitats with unique adaptations. The wallflower's unique ability to survive in poor soils and to go dormant in the dry summer months has allowed it to survive over time. However, increases in soil fertility brought about by introduced noxious weeds have allowed many exotic species to thrive and outcompete and displace the native plants,

including the wallflower. The beach layia is a pioneering annual that does well in bare sand, but still suffers from many of the competitive pressures similar to the wallflower.

The Western snowy plover (*Charadrius alexandrinus nivosus*) is a federally listed threatened species that has occasionally been sighted in the vicinity of Samoa Dunes but has not been observed in the area for several years. It nests just above the waveslope in wide expanses of nearly flat, bare, open sand. It has not been found to nest in dune areas. No preferred nesting habitat occurs in the plan area and no birds have been found to be nesting in the area after two years of surveys.

Because Samoa Dunes comprises a wide variety of microhabitats, it is home to many different forms of wildlife. Several papers prepared for the Humboldt County 1992 Beach and Dunes Management Plan and other recent study reports provide lists of the birds, amphibians, reptiles, mammals and insects that are likely to be found in the microhabitats which occur at Samoa Dunes (see References).

Cultural Resources

Prehistoric, Ethnographic, and Traditional

All the land along the Samoa Peninsula was inhabited by the Wiki group of Wiyot Indians of Algic stock speaking an Algonquian language. Wiyot settlements were located in close proximity to the rivers, streams, the bay, and sloughs. For the past thousand years, the Wiyot have occupied this area. As many as 35 Wiyot villages, including summer camps, existed on the Samoa Peninsula with at least 172 prehistoric and historic village sites identified in the Humboldt Bay area (Loud, 1918).

It is hypothesized that the north spit of the entrance to Humboldt Bay was used by the Wiyot seasonally to gather and process shellfish (Loud, 1918:272). The remains of shellfish processing is evident with scattered deposits of broken shell on the peninsula. One such site, CA-HUM-684, was recorded by Francis Berg in 1982. A close examination of this site revealed shell and fire-affected rock but no formed artifacts or other artifactual materials could be located. However, Loud (1918:272) mentions skeletal remains as an 80 year old informant stated that known burials had been collected by H. H. Stuart, a local dentist, from this area in the past. This site is located within a protected area excluded from OHV or any vehicular use.

During a survey in 1974, a professional archaeologist, Gary Berg, located a chert biface in a small concentration of shell in an area of Samoa Dunes lying within the existing OHV use area. He collected and examined all of the shell from a one meter square where the chert tool was located but did not feel the remains

constituted a site unto itself and did not record his find as a site although he recommended that a limited test excavation be done there. Attempts have been made by archaeologists to rediscover these materials without success (Fredrickson, 1977).

Llewellyn Loud reported that a village site, CA-HUM-15, was located in the vicinity of the U.S. Coast Guard buildings but this site has never been located although cultural specialists and Native Americans have attempted to find and record the site. Also, an early resident (1908) of the Life Saving Station noted that no prehistoric remains of any sort were ever encountered in that area.

Another site, CA-HUM-14, was thought to have been located at the southeast edge of Samoa Peninsula where the Cypress grove is presently located. However, given the various jetty building activities over the years since the 1860's and the changes to the shoreline from construction activities and sand deposits, this site has never been rediscovered. It is thought to have been located in an area not subject to disturbance by vehicles. To date, no prehistoric site located within the proposed project area has been determined eligible for the National Register of Historic Places. However, if, during any ground disturbing activity, any cultural resources are discovered, all work will stop and a qualified archaeologist as well as representatives from the Wiyot tribe should be contacted to evaluate the finding and make recommendations for treatment.

At present, the Wiyot people have identified the Samoa Peninsula as a traditional gathering area. They have expressed a wish that these gathering areas with natural resources be made accessible to their people in the event they want to gather materials for traditional uses such as basket weaving, food gathering, and regalia making. Any interpretive or educational projects for the Samoa Dunes area will be shared with and include input from the Wiyot people who also wish to be involved in the planning process and to ensure that the cultural resources are adequately protected.

Historic

Around 1860, the remaining Wiyot population was forcibly rounded up by the U.S. Army and placed in a holding area on the Samoa Peninsula until 1862 when they were sent to the Smith River Reservation.

Because of the dangers of entering Humboldt Bay due to Euro-American immigration which came via the sea, early attempts were made to establish Life Saving Stations. Funds were appropriated from Congress in 1853 to build the Humboldt Harbour Lighthouse, CA-HUM-662H. This structure was built in 1856 making it one of the first 16 lighthouses built on the Pacific Coast and the first to be erected in Humboldt County. The lighthouse site, CA-HUM-662H has been so much disturbed in the past that it now lacks physical

integrity and has been determined not eligible for inclusion on the National Register of Historic Places.

From 1851 on, there was much historic activity on the North Spit or Samoa Peninsula. Besides the Life Saving Station, the lighthouse, fog signal station, auxiliary residential and utility buildings, and alteration to the bay entrance through jetty construction and many tons of quarried rock fill brought in carts along a track and dumped, World War II generated more construction with ammunition bunkers, roads, and radio facilities being placed there.

The historic ruins of the earliest lighthouse with associated scatter, all located within a no vehicle zone, several of the ammunition bunkers, and the Coast Guard Station with its outbuildings, are still present at the Samoa Dunes area.

Environmental Consequences

Proposed Action

Impacts on Recreation Use

Off-highway vehicle use levels are anticipated to increase slightly each year for several years and then level off. This increased use will have minor impacts on other non-OHV visitors such as beachcombers, hikers and bird watchers who may have their experience disturbed as a result of the sights and sounds of the OHV's passing nearby. Some of these visitors may choose to recreate at other locations along the peninsula. Coordination among several agencies to develop a peninsula-wide map and brochure, and roadside parking areas, kiosks and hiking trails to the north of Samoa Dunes along New Navy Base Road will help these displaced visitors find a more suitable part of the beach for their particular activity.

Those non-OHV users that choose to recreate at Samoa Dunes will be encouraged (through signing, maps, and brochure) to recreate in selected areas either closed to OHV use or far enough away from the OHV's to minimize negative impacts caused by noise and safety concerns. The proposed hiking trail located in the Wetland Protection Area, which is closed to vehicle use, will help to separate pedestrians from OHV activity. Designating and signing pedestrian corridors to the waveslope within the OHV riding area, signing along OHV trails to warn riders of nearby high use areas, re-routing some existing OHV trails and reducing the speed limit near pedestrians will also help to minimize conflicts and potential accidents.

Providing more frequent law enforcement patrols will help to minimize illegal activities that oftentimes cause resource damage, conflicts between different recreation user group types and vandalism to facilities. An increased on-the-ground BLM presence

will provide more contact with the visiting public, and questions about rules, regulations and other information can be more readily disseminated. Enforcement of OHV rules, regulations and the vehicle closure north of the City of Eureka property will be emphasized to minimize any off-site impacts.

There will be positive impacts to OHV enthusiasts resulting from the development of new facilities. Their recreation experience will be enhanced substantially once these amenities are installed. It is anticipated that funding levels from the "Green Sticker" OHV grant program will increase as a result of providing more OHV riding opportunities. The money will be used to maintain facilities, provide for increased law enforcement and implement resource conservation projects such as monitoring endangered plants and potential occurrence of the Western snowy plover, developing maps, brochures and other interpretive information, signing and maintenance of vehicle barriers.

Impacts on Biological Resources

The anticipated increase in OHV use will not impact rare, threatened or endangered plants because these plants are enclosed by protective fencing and vehicles are prohibited from using these areas. Within the open riding area, however, OHV use will negatively impact the plants, animals, and their habitats. Most of the vegetation which will be impacted is exotic, invasive plants consisting primarily of lupine, ice plant and European beach grass. Continuous riding over these plants will destroy them, creating new paths void of all vegetation. Dune blowouts and sand migration usually result once the vegetation is gone. The entire configuration of the sand dune complex could change shape and an overall levelling of some dunes could occur in specific high use areas.

Any ecosystem which supports plant life also supports animal life of some type that is dependent upon or utilizes the ecosystem. Facility developments will remove habitat for some animals. Concentration of people will make habitats unacceptable for other species. These impacts are anticipated to be minor, but none the less they will be present.

Many of the management actions listed under Issue 5 - Resource Protection/Monitoring/Enhancement will have a positive impact on biological resources. These include monitoring endangered plants, developing a recovery plan, removing exotic plants, fencing, developing interpretive material, maintaining barriers, increasing law enforcement patrols, monitoring vegetative changes within the OHV riding areas, maintaining and installing new signs and establishing visitor use capacities.

The protected 120 acre wetland area is biologically contiguous with the 40 acre Endangered Plant Protection Area, which is immediately

adjacent to an 80 acre mitigation bank owned by the City of Eureka and set aside for the purpose of native dune habitat restoration and endangered plant protection. Upon implementing the positive resource actions mentioned in the previous paragraph, a 240 acre zone of natural biological diversity will be maintained.

Implementation of this plan is expected to have no affect on the Western snowy plover because habitat generally used by this species does not occur in this area. The plan provides for monitoring to detect any plovers that may move into the area. Other bird species appear to have become adapted to the varied recreational pursuits that have occurred here for many years.

Impacts on Cultural Resources

The anticipated increase in OHV use will have a negligible impact on the cultural resources because all four recorded sites are within areas closed to OHV use. The only locale that could be affected by vehicles is where the chert biface was located. Another attempt will be made to rediscover these materials prior to this plan being implemented. If a new site is found and recorded, the area will be fenced and closed to OHV use.

The Humboldt Harbour Lighthouse, CA-HUM-662H, is adjacent to the proposed hiking trail within the Wetland Protection Area. This site was heavily disturbed before BLM assumed management responsibility over the area, but still lends itself to public interpretation. There could be additional disturbance to this site from an occasional hiker picking up a piece of material, but the overall impact is determined to be negligible. Interpretation of this site, as well as the World War II ammunition bunkers and prehistoric resources will have a positive impact on many visitors who choose to learn from the proposed interpretive brochures and displays.

Alternatives

No Action Alternative (Continuation of Present Management)

Under this alternative, only the management actions that are listed in the RMP Amendment would be implemented. These actions are described in this plan as well and include:

- Apply for "Green Sticker" funds
- Monitor botanical and cultural resources
- Conduct dune restoration and exotic plant removal
- Coordinate with other agencies on peninsula-wide management
- Post boundaries/fencing, where appropriate

Off-highway vehicle use levels would increase at a slightly slower rate than what would occur under the Proposed Action. The negative impacts on non-OHV visitors would increase slightly, but not enough

to displace them to other recreation areas along the Samoa Peninsula. They would continue to use Samoa Dunes for their various recreational pursuits, which would pose a greater safety problem than exists now because no signs would be installed informing people about the potential hazard of recreating in the open riding area.

Existing facilities would continue to be maintained but major repairs would not occur. Eventually the facilities would have to be removed because they no longer functioned properly or were found to be unsafe. No new facilities would be constructed. The area would eventually appear in more of a natural condition once the restrooms, picnic tables, trash containers, scenic overlook, kiosks and signs were removed. The two main access roads would be minimally maintained, enough to provide for safe passage. Potholes would be a common occurrence. Post and cable barriers would continue to be maintained to prevent OHV's from entering into the two closed areas.

Impacts on the various recreation user group types would differ. In general, surfers would not be impacted because they do not use most of the facilities. Their comments during the public comment period express this viewpoint, and many surfers prefer no facilities at all. Off-highway vehicle enthusiasts would be negatively affected by not developing the new OHV facilities outlined in the Proposed Action. Their opportunities to enjoy various aspects of riding would be diminished to the point that many users would begin searching out new areas to ride. Trespassing into areas closed to OHV use could increase substantially by not providing an adequate array of opportunities at Samoa Dunes. Off-site impacts such as vegetation damage, dune alterations and possible accidents with pedestrians would increase. Minor negative impacts to fishermen would occur by not constructing a fishing pier. Minor negative impacts to hikers and wildlife viewers would occur by not developing a pedestrian trail within the Wetland Area. The reduced number of OHV's compared with the Proposed Action and the other alternative would benefit these recreationists as well as beachcombers, sightseers and picnickers because of the reduced noise and potential safety hazard.

Monitoring botanical and cultural resources and removing exotic plants (lupine, beach grass and ice plant) will have a minor positive impact on restoring the dune ecosystem to a more natural condition; the same as the Proposed Action and other alternative.

Recreation Development Alternative

Under this alternative, emphasis would be placed on maximizing a variety of recreation opportunities. To accomplish this goal, more and improved facilities would be developed, and on-the-ground visitor management would be intensified. Additional OHV trails would be constructed, sterile soil would be imported to develop a

motorcycle trail and large dunes would be constructed. Parking areas at the end of Bunker Road and Jetty Road would be delineated with vehicle barriers, signed and gravelled.

The surfing community would be negatively impacted because most surfers desire a use area free of facility developments and the landscape maintained in a naturalized condition. They have very little need for improvements outlined in this alternative. They are generally opposed to use fees, and under this alternative, greater pressure would be put on the BLM to charge fees due to increased expenditures to develop and maintain new facilities.

Positive impacts to OHV enthusiasts would be greater under this alternative than the Proposed Action or Alternative 1, as more facilities would be provided for their use and enjoyment. Off-highway vehicle use levels and their impact on the physical, social and biological environment would increase more under this alternative. Non-OHV visitors such as beachcombers, hikers and bird watchers would be substantially disturbed as a result of the sights and sounds of the OHV's passing nearby. Many of these visitors would feel it necessary to leave the area and recreate at other locations along the peninsula. Signs, maps and brochures would be developed to inform people where they would most likely encounter OHV's. The proposed hiking trail located in the Wetland Protection Area, which is closed to vehicle use, will help to separate pedestrians from OHV activity. Designating and signing pedestrian corridors to the waveslope within the OHV riding area, re-routing some existing OHV trails and reducing the speed limit near pedestrians would also help to minimize conflicts and potential accidents.

The frequency of law enforcement patrols and visitor services personnel would be greater under this alternative than the Proposed Action. This would help to minimize illegal activities that oftentimes cause resource damage, reduce conflicts between different recreation user group types and help to eliminate vandalism to facilities. The potential for accidents between vehicles and pedestrians would increase substantially, however, as more and more visitors became attracted to new facilities.

Within the open riding area, OHV use would have a greater negative impact on the plants, animals, and their habitats when compared to the Proposed Action or Alternative 1. The increased number of OHV's and facilities to accommodate their use would create more areas void of vegetation. Dune blowouts and sand migration would occur at a greater rate, as would the overall levelling of some dunes in high use areas. Negative impacts to endangered plants would also result by not removing exotic plants, developing a recovery plan or monitoring the condition of the protected habitats. The Western snowy plover is not expected to be affected under this alternative.

Cumulative Impacts

Cumulative impacts are the effects on the environment which result from the incremental impact of the Proposed Action when added to other past, present and reasonably foreseeable future actions.

By implementing this plan over the next 10 years, the Samoa Dunes Recreation Area will change toward a more man-made environment within Visitor Management Zone III -- the area designated "open" to OHV use and where nearly all the proposed facility developments will be located. The overall impact on OHV enthusiasts will be beneficial. To surfers and fishermen it will be moderately beneficial and to visitors who prefer other recreational pursuits, the cumulative impact will be slightly negative because some of them may choose to recreate elsewhere. Providing a variety of high quality OHV opportunities at Samoa Dunes will help attract riders to this specific area, reducing the potential of off-site impacts such as trespassing or vegetative disturbance on private property north along the Samoa Peninsula. The cumulative impact on the biological resources and dune ecosystem within the 140 acre open riding area will be negative; within the 40 acre Endangered Plant Protection Area and 120 acre Wetland Protection Area (both areas closed to vehicle use) it will be positive and continue to improve. Management actions are identified in this plan to create new endangered plant habitat and intensify monitoring efforts of both plant and animal species.

Agencies and Organizations Consulted

U.S. Forest Service, Six Rivers National Forest
U.S. Fish and Wildlife Service
U.S. Coast Guard
CA Dept. of Parks and Recreation
CA Dept. of Fish and Game
CA Coastal Conservancy
CA Coastal Commission
Humboldt County Planning Dept.
City of Eureka Planning Dept.

Manila Community Services District
Table Bluff Reservation, Wiyot Tribe
Sierra Club North Group, Redwood Chapter
California Native Plant Society
Friends of the Dunes
The Nature Conservancy
Center for Natural Lands Management
Partners of Samoa Dunes
Surfrider's Foundation
Northcoast Recreation Coalition
Humboldt Buggy and ATV Club
Far West Motorcycle Club
Lost Coast 4X4 Club

FINDING OF NO SIGNIFICANT IMPACT / DECISION RECORD

Decision: It is my decision to implement the Proposed Action of the Final Samoa Dunes Visitor Services Plan located in the Arcata Resource Area in California. Mitigation measures and protective management actions outlined in the plan will be carried forward.

Finding of No Significant Impacts: Based on the analysis of potential environmental impacts contained in the environmental assessment, I have determined that impacts are not expected to be significant and an environmental impact statement is not required.

Rationale for Decision: The decision to implement the proposed action will not result in any undue or unnecessary environmental degradation and is in conformance with the 1992 Record of Decision, Arcata Resource Area Resource Management Plan and Environmental Impact Statement and 1995 Arcata Resource Area Resource Management Plan Amendment. The final plan is a result of revisions made to the draft plan and Environmental Assessment in response to public comments

Lynne Rowland
Arcata Area Manager

9-5-97
Date

Appendix B

Recreation Opportunity Spectrum Class Descriptions

Opportunity Class	Experience Opportunity	Setting Opportunity	Activity Opportunity*
Primitive	Opportunity for isolation from the sights and sounds of man, to feel a part of the natural environment, to have a high degree of challenge and risk, and to use outdoor skills.	Area is characterized by essentially unmodified natural environment of fairly large size. Concentration of users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. Only facilities essential for resource protection are used. No facilities for comfort or convenience of the user are provided. Spacing of groups is informal and dispersed to minimize contacts between groups. Motorized use within the area is not permitted.	Camping Hiking Climbing Enjoying Scenery or Natural Features Nature Study Photography Horseback Riding Sprinkling Hunting (big game, small game, upland birds, waterfowl) Ski Touring and Snowshoeing Swimming Diving (skin and scuba) Fishing Canoeing Sailing River Running (non-motorized craft)
Semi-Primitive Nonmotorized	Some opportunity for isolation from the sights and sounds of man, but not as important as for primitive opportunities. Opportunity to have a high degree of interaction with the natural environment, to have moderate challenge and risk, and to use outdoor skills.	Area is characterized by a predominantly unmodified natural environment of moderate to large size. Concentration of users is low, but there is often evidence of other area users. On-site controls and restrictions may be present, but are subtle. Facilities are provided for the protection of resource values and the safety of users only. Spacing of groups may be formalized to disperse use and limit contacts between groups. Motorized use is not permitted.	

* NOTE: This listing of activity opportunities is provided for illustrative purposes. It is not an all-inclusive list of activity opportunities on the public lands.

Recreation Opportunity Spectrum Class Descriptions

Opportunity Class	Experience Opportunity	Setting Opportunity	Activity Opportunity
Semi-Primitive Motorized	Some opportunity for isolation from the sights and sounds of man, but not as important as for primitive opportunities. Opportunity to have high degree of interaction with the natural environment, to have moderate challenge and risk, and to use outdoor skills. Explicit opportunity to use motorized equipment while in the area.	Area is characterized by a predominantly unmodified natural environment of moderate to large size. Concentration of users is low, but there is often evidence of other area users. On-site controls and restrictions may be present, but are subtle. Facilities are provided for the protection of resource values and safety of users only. Spacing of groups may be formalized to disperse use and limit contacts between groups. Motorized use is permitted.	Same as the above, plus the following: ORV Use (4-Wheel, Dune Buggy, Dirt Bike, Snowmobile) Power Boating
Roaded Natural	About equal opportunities for affiliation with other user groups and for isolation from sights and sounds of man. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities are not very important except in specific challenging activities. Practice of outdoor skills may be important. Opportunities for both motorized and nonmotorized recreation are present.	Area is characterized by a generally natural environment with moderate evidence of the sights and sounds of man. Resource modification and utilization practices are evident, but harmonize with the natural environment. Concentration of users is low to moderate with facilities sometimes provided for group activity. On-site controls and restrictions offer a sense of security. Rustic facilities are provided for user convenience as well as for safety and resource protection. Conventional motorized use is provided for in construction standards and design of facilities.	All activities listed previously, plus the following: Picnicking Pond Collecting Wood Gathering Auto Touring Downhill Skiing Snowplay Ice Skating Water Skiing & Other Water Sports Hang Gliding Interpretive Use Rustic Resorts & Organized Camps

* NOTE: This listing of activity opportunities is provided for illustrative purposes. It is not an all-inclusive list of activity opportunities.

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