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Idaho Falls District
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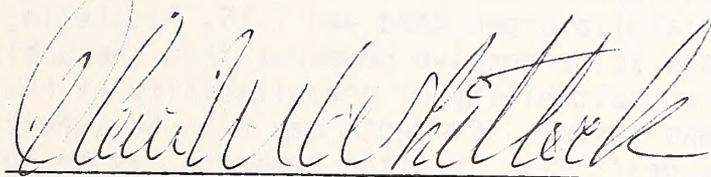
State of Idaho

Prepared by

DEPARTMENT OF INTERIOR

Bureau of Land Management

Idaho Falls and Burley Districts



BLM State Director

The Bureau of Land Management is proposing to the Secretary of the Interior that 67,908 acres be recommended as nonsuitable for wilderness designation and 66,200 acres as suitable for wilderness designation. These wilderness recommendations are based on an analysis of five wilderness study areas totaling 134,108 acres. This document describes the environmental consequences of the proposal and four alternatives.

The WSAs under consideration are the following:

- Hell's Half Acre (33-15)
- Hawley Mountain (32-3)
- Black Canyon (32-9)
- Cedar Butte (33-4)
- Petticoat Peak (28-1)

For further information contact Don Watson, EIS team leader, or O'dell Frandsen, district manager, Bureau of Land Management, 940 Lincoln Road, Idaho Falls, Idaho 83401. Telephone - Commercial (208) 529-1020

FTS 554-6378

Written comments should be submitted to the above address by June 6, 1983.

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Idaho Falls District
940 Lincoln Road
Idaho Falls, Idaho 83401

This document is the Draft Eastern Idaho Wilderness Environmental Impact Statement and Plan Amendment for five wilderness study areas (WSAs) in the Idaho Falls and Burley districts of the Bureau of Land Management (BLM). This document was prepared by a team of resource specialists and is based on information from the BLM and other sources including interested private organizations and individuals, and local, state and federal agencies. The BLM is reviewing the five WSAs in order to make recommendations whether they are suitable or unsuitable for inclusion in the National Wilderness Preservation System. The five WSAs include 134,108 acres of public land and are evaluated in this draft environmental impact statement.

Public hearings are scheduled at 7:30 p.m. May 4, 1983, Little Tree Inn, 888 North Holmes, Idaho Falls, Idaho and 7:30 p.m. May 5, 1983, at the Holiday Inn, Pocatello Creek Road and I-15, Pocatello, Idaho. The purpose of these hearings is to receive comments from the public regarding the recommendation on suitability or unsuitability of the WSAs for inclusion in the wilderness system. Comments may also be submitted concerning the adequacy of the draft EIS. Written comments may be submitted at any time before close of business on May 31, 1983. Written comments should be sent to:

Bureau of Land Management
Idaho Falls District Office
Attn: EIS Team Leader
940 Lincoln Road
Idaho Falls, Idaho 83401

Following the public review and comment period, a final environmental impact statement will be prepared considering the comments received through the review process. An abbreviated format may be used containing only documentation of public comments and responses, with an addendum section of changes made to the draft. It is suggested, therefore, that you keep your copy of the draft EIS for reference purposes.

Sincerely,

O'dell A. Frandsen
Idaho Falls District Manager

Nick James Bozakos
Burley District Manager

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SUMMARY

The Bureau of Land Management is reviewing wilderness study areas (WSAs) in the Idaho Falls and Burley districts in order to recommend them as either suitable or unsuitable for inclusion in the National Wilderness Preservation System. This document presents the analysis and conclusions reached to date through the prescribed wilderness study process.

The WSAs being analyzed are the following:

Name	District	Number	Acres
Hell's Half Acre	Idaho Falls	33-15	66,200
Hawley Mountain	Idaho Falls	32-3	15,510
Black Canyon	Idaho Falls	32-9	5,400
Cedar Butte	Idaho Falls	33-4	35,700
Petticoat Peak	Burley	28-1	11,298

The alternatives included in this EIS and plan amendment are summarized below.

Alternative A This alternative would recommend all of each of the five WSAs as suitable. A total of 134,108 acres of public land would be included.

Alternative B This partial wilderness alternative would recommend two WSAs as suitable: Hell's Half Acre and Cedar Butte, totaling 101,900 acres of public land. The other three WSAs would be recommended as unsuitable.

Alternative C This partial wilderness alternative was requested by interested citizens and would recommend two WSAs as suitable: Hell's Half Acre and Black Canyon, totaling 71,600 acres of public land. The other three WSAs would be recommended as unsuitable.

Alternative D This partial wilderness alternative is the BLM's preferred alternative. Hell's Half Acre is recommended as suitable and includes 66,200 acres of public land. The other four WSAs are recommended unsuitable.

Alternative E This is the no action/no wilderness alternative. All five WSAs would be recommended as unsuitable for wilderness designation and managed for other multiple uses according to existing management framework plan decisions.

The main issues identified during the scoping process are the following:

- (1) How much access by road exists in the areas and what is the need for roaded access?
- (2) What is the land ownership in the WSA? Is there the opportunity to manage inholdings as wilderness?

- (3) What would it cost to manage the WSAs as wilderness?
- (4) How much of Idaho's public land should be wilderness?

Based on the analysis to date, partial wilderness Alternative D is the Bureau's preferred alternative and proposed action. Major conclusions are the following:

- (1) All of the WSAs have outstanding wilderness characteristics.
- (2) Reasonable opportunities to reduce the boundaries of one or more WSAs for a partial wilderness alternative do not exist.
- (3) The public lands in the WSAs do not make a significant contribution to the local economy.
- (4) Beginning Jan. 1, 1984, mineral development would no longer be allowed in designated wilderness areas, subject to valid existing rights. No significant mineral values are known to exist in any of the WSAs, so this impact would be minimal.

ENVIRONMENTAL CONSEQUENCES

The following is a brief summary of impacts for each alternative.

Alternative A: Long-term protection for 134,108 acres; no off-road vehicles (ORVs) in five WSAs; no timber harvest on 2,520 acres; habitat improved for bighorn sheep, but not for mule deer; lose long-term opportunity for energy and mineral exploration and development.

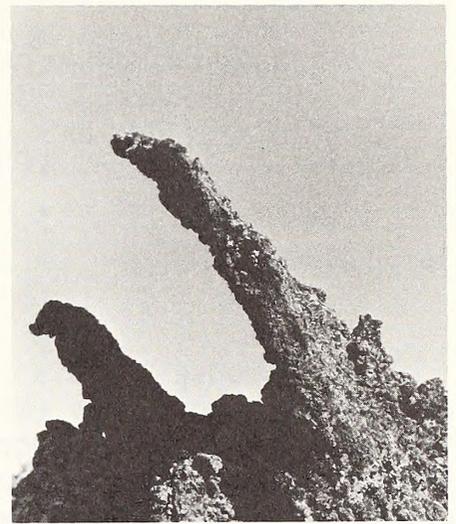
Alternative B: Long-term protection for 101,900 acres; no ORVs in two WSAs; habitat improved for mule deer, but not for bighorn sheep; lose long-term opportunity for energy and mineral exploration and development in two WSAs.

Alternative C: Long-term protection for 71,600 acres; no ORVs in 2 WSAs; habitat improved for bighorn sheep and mule deer; lose long-term opportunity for energy and mineral exploration and development in two WSAs.

Alternative D: Long-term protection for 66,200 acres; no ORVs in one WSA; habitat improved for mule deer, but not bighorn sheep; lose long-term opportunity for energy and mineral exploration and development in one WSA.

Alternative E: No long-term protection for 134,108 acres; habitat improved for mule deer, but not for bighorn sheep.

CHAPTER 1



Purpose and Need for Action

CHAPTER 1

PURPOSE AND NEED FOR ACTION

INTRODUCTION

The purpose of this analysis is twofold: to determine whether five wilderness study areas (WSAs) should be recommended to the Secretary of the Interior as best suited for wilderness designation and management or for other uses, and to amend the Bureau of Land Management's (BLM) land use plans to include the wilderness recommendation. The analysis includes an evaluation of the possible environmental, social and economic effects of designating all, none or part of the WSAs as wilderness. WSAs that are recommended for wilderness meet the BLM's wilderness study criteria (see Chapter 2 for explanation of criteria). The preferred alternative represents the BLM's preliminary wilderness recommendation for the five WSAs and is subject to change before the final EIS is published.

The Federal Land Policy and Management Act of 1976 requires that the Secretary of the Interior determine which public lands are suitable for wilderness and which are not, and report his recommendations to the President by Oct. 21, 1991. The President is to report his recommendations to Congress by Oct. 21, 1993. The BLM Idaho State Director's goal is to complete this EIS by Sept. 30, 1983.

PLANNING PROCESS

All five WSAs are in BLM planning units where a management framework plan (MFP), the BLM's land use plan, has been completed. However, these plans were done without considering wilderness management for any of the five WSAs. In order to incorporate wilderness decisions into the plan, an amendment must be made. The alternatives included in this EIS for all, none or partial wilderness, represent possible MFP amendments. These amendments will be completed after Congress decides which, if any, of the WSAs will be added to the wilderness system.

The following chart lists the MFPs and study areas included in this analysis.

District	MFP Name	WSA Name and Number	Acres
Idaho Falls	Big Desert	Hell's Half Acre 33-15	66,200
Idaho Falls	Little Lost-Birch Creek	Hawley Mountain 32-3	15,510
Idaho Falls	Little Lost-Birch Creek	Black Canyon 32-9	5,400
Idaho Falls	Big Desert	Cedar Butte 33-4	35,700
Burley	Pocatello	Petticoat Peak 28-1	11,298

This document contains the information needed to amend the plans, serves as an EIS, meets the requirements of the National Environmental Policy Act, and documents the wilderness study process and the rationale supporting the wilderness suitability recommendations for each of the five WSAs.

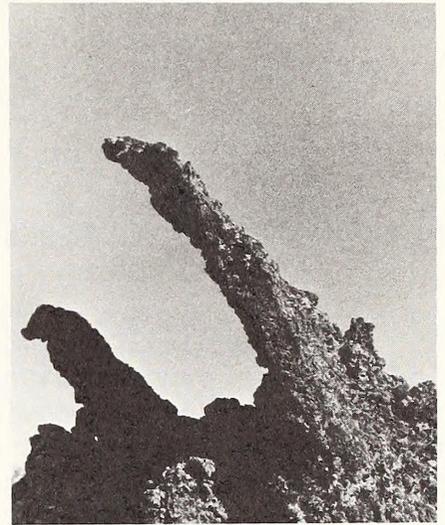
CONFORMANCE

Because wilderness recommendations are not part of the existing MFPs, they do not conform with multiple use decisions of the plans. When the final wilderness decisions are made by Congress, the plans will be amended.

LOCATION

The five WSAs are scattered throughout southeastern Idaho. The Petticoat Peak WSA is in the Burley District 1 mile northeast of Lava Hot Springs. The other four WSAs are in the Idaho Falls District. Hawley Mountain lies at the upper end of the Little Lost Valley, while Black Canyon is at the valley's lower end at the base of the Lemhi Mountains. Cedar Butte and Hell's Half Acre are located between Idaho Falls and Big Southern Butte. See Map 1 for WSA location.

CHAPTER 2



Planning Issues and Criteria

CHAPTER 2

PLANNING ISSUES AND CRITERIA

MAJOR ISSUES AND CONCERNS

In late January 1982, the BLM sent information letters to 450 individuals, organizations and government representatives interested in the BLM's wilderness review. These letters offered a chance for people to give the BLM their ideas on what concerns and issues should be addressed for the five WSAs. The news media also publicized throughout southeastern Idaho the opportunity for people to comment.

Thirty-eight people expressed their concerns and suggested issues to be considered. Several of the issues suggested are closely related to the criteria and standards in the BLM's wilderness study policy. They are listed in the following section (Planning Criteria) and analyzed in Chapter 5 for each WSA.

Based on other public comments, the BLM chose the following issues which are addressed throughout this document.

1. What type, condition and amount of road access does the area contain, and what is the need for roaded access?
2. What is the present land ownership in the WSA? What is the opportunity for acquisition of non-federal lands or the potential to manage inholdings as wilderness?
3. What would it cost to manage the WSA as wilderness?
4. How much of Idaho's public land should be wilderness? Some people believe more land should be preserved to offset lands being developed, while others feel that Idaho has enough or too much wilderness.

PLANNING CRITERIA

All BLM wilderness recommendations are based on the following planning criteria and quality standards.

Criterion No. 1: Evaluation of Wilderness Values

Consider the extent to which each of the following components contribute to the overall value of an area as wilderness.

1. **Mandatory Wilderness Characteristics:** The quality of an area's size, naturalness, and outstanding opportunities for solitude or primitive recreation.

2. Special Features: The presence or absence and quality of the optional wilderness characteristics, such as ecological, geological, or other features of scientific, educational, scenic or historical value.
3. Multiple Resource Benefits: The benefits to other multiple resource values and uses which only wilderness designation of the area can ensure.
4. Diversity in the National Wilderness Preservation System: Consider the extent to which wilderness designation of the area under study would contribute to expanding the diversity of National Wilderness Preservation System from the standpoint of each of the factors listed below.
 - a. Expanding the diversity of natural systems and features as represented by ecosystems and landforms.
 - b. Assessing the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers.
 - c. Balancing the geographic distribution of wilderness areas. The analysis considers federal and state lands designated as wilderness, areas officially recommended for wilderness, and other federal and state lands under wilderness study.

Criterion No. 2: Manageability

The area must be capable of being effectively managed to preserve its wilderness character.

Quality Standards for Analysis and Documentation

The following are the six quality standards for analysis and documentation that must be addressed in all wilderness EISs and wilderness study reports.

Standard 1 - Energy and Mineral Resource Values. Recommendations as to an area's suitability or unsuitability for wilderness designation will reflect a thorough consideration of any identified or potential energy and mineral resource values.

Standard 2 - Impacts on Other Resources. Consider the extent to which other resource values or uses of the area would be foregone or adversely affected as a result of wilderness designation.

Standard 3 - Impact of Nondesignation on Wilderness Values. Consider the alternative use of land under study if the area is not designated as wilderness, and the extent to which the wilderness values of the area would be foregone or adversely affected as a result of this use.

Standard 4 - Public Comment. The BLM's wilderness study process will consider comments received from all levels of interested and affected public sectors--local, state, regional and national. Wilderness recommendations will not be based on a vote-counting, majority rule system. The BLM will develop its recommendations by considering public comment in conjunction with a full analysis of the WSA's multiple resource and social-economic values and uses.

Standard 5 - Local and Regional Social-economic Effects. The BLM will give special attention to any significant social-economic effects, as identified through the wilderness study process, which wilderness designation of the area would have on local communities or surrounding regions.

Standard 6 - Consistency with Other Plans. The BLM will fully consider and document the extent to which the recommendation is consistent with officially approved and adopted resource-related plans of other federal agencies, and state and local governments, as required by BLM planning regulations.

CHAPTER 3

Alternatives



CHAPTER 3

ALTERNATIVES

INTRODUCTION

The alternatives analyzed in this draft EIS and plan amendment offer a range of land use choices from those favoring resource protection to those favoring resource production. The preferred alternative was selected based on the planning issues, wilderness criteria and standards, and the environmental analysis.

DEVELOPMENT OF ALTERNATIVES

Three alternatives must be considered: no wilderness, no action and all wilderness. The no action and no wilderness alternatives are combined because there is not a measurable difference between the possible impacts of either one. The partial wilderness alternatives considered offer a range of choices between all wilderness and no wilderness.

Adjusting boundaries and thereby reducing the size of any of the WSAs was not considered a reasonable method of establishing a partial alternative. Size adjustments would not significantly improve wilderness manageability, balance resource uses and reduce conflicts, or make the WSAs more suitable for wilderness.

Partial alternatives were selected by identifying one or more entire WSAs as possible wilderness and the rest for other uses. Several combinations are possible, but they were narrowed down by using public comment and the BLM's Wilderness Study Policy. The following alternatives were chosen and are analyzed in this statement.

TABLE 1

Wilderness Alternatives

Wilderness Study Area (WSA)	<u>Alternatives</u>				
	A	B	C	D	E
Hell's Half Acre	All	All	All	All	None
Hawley Mountain	All	None	None	None	None
Black Canyon	All	None	All	None	None
Cedar Butte	All	All	None	None	None
Petticoat Peak	All	None	None	None	None
Total Acres Possible for Wilderness Designation	134,108	101,900	71,600	66,200	-0-

OTHER ALTERNATIVES CONSIDERED

A representative of the Wilderness Society suggested an alternative that would combine adjacent Forest Service land with the Black Canyon WSA. This proposal is considered inappropriate. The Forest Service allocated adjacent lands to uses other than wilderness through the RARE II process and will not consider modifying that decision.

Another alternative was suggested by a representative of the Committee for Idaho's High Desert. In this proposal, Black Canyon, Hawley Mountain and Hell's Half Acre would be recommended as wilderness and the rest for other uses. Their reason for selecting these three areas for wilderness is that they could add a needed diversity in the National Wilderness Preservation System. Even though some areas could add diversity to the system, some could not. The question of diversity is analyzed for all these WSAs in Alternative A, all wilderness, and another alternative is not considered needed.

An energy and minerals alternative was suggested by a representative of Conoco Inc. They asked that this alternative emphasize the exploration, development and transportation of energy and other critical mineral resources. Alternative E, no wilderness, provides this analysis and is considered adequate to address their concerns.

PREFERRED ALTERNATIVE

The BLM identified Alternative D as the preferred alternative and the proposed action. Alternative D recommends the addition of Hell's Half

Acre, totaling 66,200 acres, as suitable for addition to the National Wilderness Preservation System. The planning issues, wilderness criteria and standards, and environmental consequences were used to select the preferred alternative. Chapter 5 discusses application of the criteria and standards for each WSA. Chapter 6 discusses the consequences of each alternative. This alternative includes the WSA that offers the best opportunity for management as wilderness over the long term and has the highest wilderness quality. Quality assessments are an evaluation of the wilderness values that an area could contribute to the National Wilderness Preservation System.

The Big Desert MFP would be amended to show a suitable recommendation for all of the Hell's Half Acre WSA. The Little Lost-Birch Creek MFP would be amended to show Black Canyon and Hawley Mountain as nonsuitable for wilderness designation. Similarly, the Big Desert MFP would be amended for Cedar Butte and the Pocatello MFP for Petticoat Peak.

Because the Black Canyon WSA contains important archaeological values, special management attention is needed. A cultural resource management plan will be developed to identify and prescribe management actions needed to preserve the archaeological values.

Hell's Half Acre (33-15)

All 66,200 acres of this WSA are recommended as suitable for wilderness designation. Wilderness designation would close the WSA to off-road vehicle use. Lands within designated wilderness are open for mineral leasing and mineral appropriation until Dec. 31, 1983. Beginning Jan. 1, 1984, only mineral claims that existed before that date may be developed. A total of 2,560 acres of State land and 160 acres of private land--inholdings in the WSA--may be acquired.

Hawley Mountain (32-3)

All of this 15,510-acre WSA is recommended as nonsuitable for wilderness designation and would be managed according to the Little Lost-Birch Creek MFP. A rest-rotation allotment management plan would be developed that would include all of the WSA area. No timber sales are planned, and the area would be closed to off-road vehicle use because of steep slopes.

Black Canyon (32-9)

All of this 5,400-acre WSA is recommended as nonsuitable for wilderness designation and would be managed according to the Little Lost-Birch Creek MFP. No range or other improvements are planned for the area.

Cedar Butte (33-4)

The 35,700-acre WSA is recommended as nonsuitable for wilderness designation and would be managed according to the Big Desert MFP. The WSA is largely inaccessible for grazing, and no range improvements are planned. About 97 percent of the WSA is under lease for oil and gas, and the remainder would be open to oil and gas and other mineral leasing. Building stone claims may be patented, and sales of lava building stone could occur.

Petticoat Peak (28-1)

All of the 11,298-acre WSA is recommended as nonsuitable for wilderness and would be managed according to the Pocatello MFP. No range improvements would occur and limited off-road vehicle use would continue. The Pocatello MFP calls for management of 2,675 acres of commercial timber in the WSA. About 6,420 MBF would be harvested. The area is already leased for oil and gas, and no other leasing or mineral sales are anticipated.

ALTERNATIVE A

This alternative recommends all five WSAs discussed in this plan amendment and EIS as suitable for wilderness designation. This "all wilderness" alternative recommends that a total of 134,108 acres be added to the National Wilderness Preservation System. The Little Lost-Birch Creek, Big Desert and Pocatello MFPs would be amended to provide for management of these five WSAs as wilderness provided that the President and Congress so act.

Hell's Half Acre (33-15)

Alternative A would have the same effect on this WSA as the preferred alternative.

Hawley Mountain (32-3)

All of the 15,510-acre WSA would be recommended as suitable for wilderness designation, closing the area to off-road vehicle use. A total of 1,280 acres of State land may be acquired by exchange. All of the WSA has been leased for oil and gas. Lands within the WSA would be open to other mineral leasing and appropriation until Dec. 31, 1983. Beginning Jan. 1, 1984, only mineral claims that existed before that date may be developed.

Black Canyon (32-9)

All of the WSA's 5,400 acres would be recommended as suitable for wilderness designation. The area would be closed to off-road vehicle use. All of the area is leased or under application for oil and gas. The WSA would remain open to other mineral leasing and appropriation until Dec. 31, 1983. Beginning in Jan. 1, 1984, only mineral claims that existed before that date may be developed.

Cedar Butte (33-4)

All 35,700 acres of the WSA would be recommended as suitable for wilderness designation. The area would be closed to off-road vehicle use. No sales of lava building stone would be made. About 97 percent of the area has been leased for oil and gas and would remain open to other mineral leasing and appropriation until Dec. 31, 1983. Existing mining claims would either be declared invalid or valid.

Petticoat Peak (28-1)

This 11,298-acre WSA would be recommended as suitable for wilderness designation. The area would be closed to off-road vehicle use. The 2,675 acres of commercial timber and the old growth timber, at a total of 6,420 MBF would not be harvested. The area is already leased for oil and gas and would remain open to other mineral leasing and appropriation until Dec. 31, 1983. Beginning Jan. 1, 1984, only mineral claims that existed before that date may be developed.

ALTERNATIVE B

This partial wilderness alternative would recommend two WSAs as suitable for wilderness designation and three WSAs as nonsuitable. Cedar Butte and Hell's Half Acre would be recommended suitable for wilderness designation, while Hawley Mountain, Black Canyon and Petticoat Peak would be recommended nonsuitable and managed according to the Little Lost-Birch Creek and Pocatello MFPs. This alternative includes those WSAs that offer the best opportunity for management as wilderness over the long term. It includes WSAs that the BLM is reasonably certain can be managed to physically and logically eliminate nonconforming uses that could jeopardize or impair the areas' wilderness character. It excludes WSAs that have potential management problems that cannot be reasonably solved by adjusting boundaries.

Hell's Half Acre (33-15)
Hawley Mountain (32-3)
Black Canyon (32-9)
Petticoat Peak (28-1)

For the four WSAs listed above, this alternative would have the same effect as the preferred alternative, Alternative D.

Cedar Butte (33-4)

This alternative would have the same effect as Alternative A.

ALTERNATIVE C

This partial wilderness alternative was requested by interested citizens to analyze certain areas as wilderness that they consider to have high wilderness quality or outstanding supplemental values. The alternative would recommend two WSAs as suitable for wilderness designation and three WSAs as nonsuitable. Black Canyon and Hell's Half Acre would be recommended for wilderness designation, while Hawley Mountain, Cedar Butte and Petticoat Peak would be recommended nonsuitable and managed according to the Little Lost-Birch Creek, Big Desert and Pocatello MFPs, respectively. Under this alternative, 71,600 acres would be recommended for wilderness designation.

Black Canyon (32-9)

This alternative would have the same effect as Alternative A.

Hell's Half Acre (33-15)
Hawley Mountain (32-3)
Cedar Butte (33-4)
Petticoat Peak (28-1)

This alternative would have the same effect on the four WSAs listed above as the preferred alternative, Alternative D.

ALTERNATIVE E

This is the no action/no wilderness alternative. All five WSAs totaling 134,108 acres would be recommended as nonsuitable for wilderness designation and managed according to existing MFP decisions.

Hell's Half Acre (33-15)

The WSA currently receives very little or no grazing by livestock, and range improvements are not planned for the area. The area would

remain open to off-road vehicle use, but the inaccessible character of the land would continue to limit motorized vehicle use. Most of the area is leased for oil and gas, and would remain open to oil and gas and other mineral leasing or mineral appropriation.

Hawley Mountain (32-2)
Black Canyon (32-9)
Cedar Butte (33-4)
Petticoat Peak (28-1)

This alternative would have the same effects on these WSAs as the preferred alternative, Alternative D.

SELECTION OF THE PREFERRED ALTERNATIVE

The alternatives have been evaluated and the preferred alternative chosen based on the planning issues, wilderness study criteria and standards and the environmental consequences. The following summary describes how each WSA was selected as either wilderness or no wilderness to form the preferred alternative. This summary was developed from the material presented in Chapters 5 and 6.

Hell's Half Acre

The preferred alternative for the Hell's Half Acre WSA is all wilderness. Hell's Half Acre WSA is judged to possess the best wilderness values of any area within this study. Its large size and rugged volcanic landscape offer excellent solitude for those willing to venture into this harsh environment. Hiking, camping and caving among the pressure and flow ridges, kipukas and lava tubes of one of the youngest shield volcanos in the U.S., can be a challenging and rewarding experience. The uncommon and striking scenery enhances the area's wilderness value. The lava flow geology and ecology is of scientific and educational importance. The WSA's proximity to three major Idaho cities and ease of access make the area ideal for citizens and school children of eastern Idaho to visit. Hell's Half Acre is the second best example of 11 areas now under wilderness study that represent a young lava flow ecosystem.

State and private lands pose some concern for future management of the area as wilderness. These inholdings, if acquired through exchange, would supplement the wilderness values and remove the possibility of owner conflicts. Landowners, both State and private, have indicated a willingness to make an exchange. Overall, the WSA can be managed to preserve its wilderness values over the long term.

Exploration and development of geothermal and oil and gas would be curtailed by wilderness designation. However, the geologic structure of the WSA suggests that a low potential exists for these energy sources.

Lava building stone collection would not be permitted. However, adequate quantities of stone would be available at other sites in the Hell's Half Acre flow and the Snake River Plain to meet future demands.

This proposal offers what the BLM believes to be a quality addition to the National Wilderness Preservation System. Although some concerns exist with lava collection and energy mineral leases, no other area in this study has such excellent wilderness quality combined with so few resource conflicts.

Hawley Mountain

The preferred alternative for the Hawley Mountain WSA is no wilderness. The combination of the WSA's marginal wilderness quality and potential management difficulties, govern the no wilderness recommendation.

The quality of the WSA's natural appearance and opportunities for solitude and primitive recreation compares with other smaller designated wilderness areas. However, the WSA's wilderness character is of lesser quality than several of the larger, nearby Forest Service roadless lands and wilderness areas. The WSA's ecosystem can better be represented by the 35 other high quality areas either proposed or under study for wilderness. The WSA is close to Boise, but would not significantly expand primitive recreation and solitude opportunities nor help to balance geographic distribution of wilderness. Instead, it would tend to concentrate it.

The major concern for managing the WSA as wilderness is the ability to exclude motor vehicles. The area lacks natural barriers, and local sentiment toward vehicle restrictions has been and is expected to be extremely negative.

The no wilderness recommendation provides the greatest opportunity for wildlife habitat improvement, timber production and control of insect damage and mineral development. It allows wildlife habitat improvements which would benefit wintering mule deer herds. Insect killed timber may be harvested although removal is not currently economical. The mineral industry may conduct exploration activities without being hampered by restrictions placed in wilderness areas.

The Hawley Mountain WSA does not have the ability to contribute high quality wilderness values or needed diversity to the National Wilderness Preservation System.

Black Canyon

The preferred alternative for the Black Canyon WSA is no wilderness. The combination of the WSA's marginal wilderness quality and potential management difficulties, govern the no wilderness recommendation.

The quality of the WSA's natural appearance is somewhat diminished by the area's small size and vehicle trails in the major canyons. Few visitors could enjoy solitude because they would be concentrated in the area's two or three narrow canyons. The WSA's wilderness character is of lesser quality than larger, adjacent and nearby Forest Service roadless lands and wilderness areas. The WSA's ecosystem is already well represented in the wilderness system by other high quality areas. The WSA is close to Boise, but would not significantly expand primitive recreation and solitude opportunities nor help to balance geographic distribution of wilderness. Instead, it would tend to concentrate it.

The major concern for managing the WSA as wilderness is the ability to exclude motor vehicles. The area lacks natural barriers and local sentiment toward vehicle restrictions has been and is expected to be extremely negative.

The Black Canyon WSA contains exceptional archaeological values, high scenic quality and important habitat for a variety of birds. These values can be protected and preserved through management authorities other than wilderness. The archaeological values are of particular interest because some degradation has taken place at a few of the sites. Special management attention is needed to preserve these sites and the evidence of human occupation they contain. A cultural resource management plan will be developed to identify and prescribe actions that can be taken to arrest the damaging activities that are occurring.

The Black Canyon WSA does not have the ability to contribute high quality wilderness values or needed diversity to the National Wilderness Preservation System.

Cedar Butte

The preferred alternative for the Cedar Butte WSA is no wilderness. The WSA's marginal wilderness quality governs the no wilderness recommendation.

The quality of the WSA's natural appearance compares with other designated and proposed wilderness areas. Solitude is also comparable, but primitive recreation is considered to be of lesser quality. Natural features that would attract primitive recreationists are not as numerous nor as interesting in the Cedar Butte WSA as in other similar landscapes nearby. Craters of the Moon Wilderness and the Great Rift and Hell's Half Acre WSAs offer better primitive recreation opportunities. These other lava flow areas also offer better examples of the same desert ecosystem. The WSA is close to Boise, but would not significantly expand primitive recreation and solitude opportunities for this population center. Opportunities are already abundant. The WSA cannot help to balance geographic distribution of wilderness. Instead, it would tend to concentrate it.

The no wilderness recommendation provides the greatest opportunity for lava building stone collection. Collection would likely be localized over a small area in the northwestern corner of the WSA.

The Cedar Butte WSA does not have the ability to contribute high quality wilderness values or needed diversity to the National Wilderness Preservation System.

Petticoat Peak

The preferred alternative for the Petticoat Peak WSA is no wilderness. The combination of the WSA's marginal wilderness quality and potential management difficulties, govern the no wilderness recommendation.

The quality of the WSA's natural appearance and solitude are somewhat diminished by areas's small size, and number and frequency of vehicle trails. Primitive recreation is not outstanding. The WSA is close to Salt Lake City-Ogden, but would not significantly expand primitive recreation and solitude opportunities for those population centers. Few visitors are expected to be attracted to the area because it lacks outstanding primitive recreation. The WSA could provide better geographic distribution of wilderness areas by establishing one in southern Idaho and northern Utah, an area generally void of designated wilderness.

Although the WSA is classified as part of the Western Spruce-Fir Forest, there are no spruce trees in the area.

Major concerns for managing the area as wilderness include the physical ability to exclude motorized vehicles and the Fort Hall Indian Treaty of 1900. The treaty guarantees the Indians the right to cut timber and graze livestock herds without management controls on 3,200 acres of the WSA.

Present management authority can preserve and protect the area's important special features except on the 3,200-acre Indian Treaty lands.

The Petticoat Peak WSA does not have the ability to contribute high quality wilderness values or add diversity to the National Wilderness Preservation System.

RELATIONSHIP OF ALTERNATIVES TO NATIONAL ENVIRONMENTAL POLICY ACT GOALS

The alternatives (including the preferred alternative) considered in this plan amendment/EIS all achieve the requirements of the National Environmental Policy Act and other environmental laws and policies. Each alternative is designed to use practicable means to create and maintain conditions under which humans and nature can exist in productive harmony. In this context, there are no significant differences among the alternatives being considered.

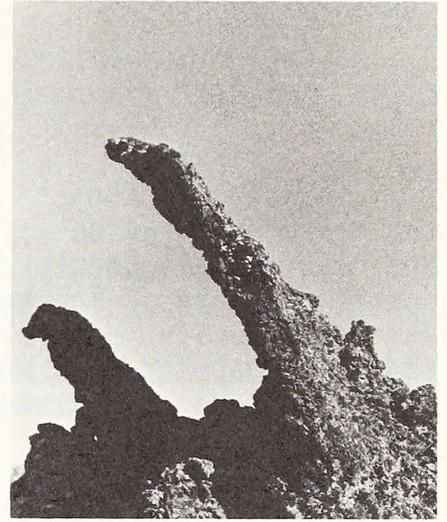
COMPARATIVE ANALYSIS OF IMPACTS

	Wilderness	Recreation	Forestry	Wildlife	Range	Energy and Minerals
ALTERNATIVE A						
<u>Wilderness</u> <u>5 WSAs</u>	Long-term preservation of 134,108 acres.	Off-road vehicles (ORVs) not permitted on 134,108 acres.	2,520 acres, containing MRF of timber, could not be managed as commercial forest.	Mule deer habitat not improved. Bighorn sheep habitat improved.	Use of vehicles may not be permitted for livestock operations.	Lose long-term opportunity to explore for and develop energy and mineral resources on 134,108 acres.
<u>No Wilderness</u> <u>None</u>						
ALTERNATIVE B						
<u>Wilderness</u> <u>2 WSAs</u>	Long-term preservation of 101,900 acres.	ORVs not permitted on 101,900 acres.	No Impact.	Bighorn sheep habitat not improve. Mule deer habitat improved.	No Impact.	Lose long-term opportunity to explore for and develop energy and mineral resources on 101,900 acres.
<u>No Wilderness</u> <u>3 WSAs</u>	No protection for 37,208 acres.			Mule deer habitat improved.		
ALTERNATIVE C						
<u>Wilderness</u> <u>2 WSAs</u>	Long-term preservation of 71,600 acres.	ORVs not permitted on 71,600 acres.	No Impact.	Bighorn sheep and mule deer habitat improved.	No Impact.	Lose long-term opportunity to explore for and develop energy and mineral resources on 71,600 acres.
<u>No Wilderness</u> <u>3 WSAs</u>	No protection for 62,508 acres.					
ALTERNATIVE D (Preferred)						
<u>Wilderness</u> <u>WSA</u>	Long-term preservation of 66,200 acres.	ORVs not permitted on 66,200 acres.	No Impact.	Bighorn sheep habitat not improved.	No Impact.	Lose long-term opportunity to explore for and develop energy and mineral resources on 66,200 acres.
<u>No Wilderness</u> <u>4 WSAs</u>	No protection for 67,908 acres.			Mule deer habitat improved.		
ALTERNATIVE E						
<u>Wilderness</u> <u>None</u>		No Impact.	No Impact.	Bighorn sheep habitat not improved.	No Impact.	No Impact
<u>No Wilderness</u> <u>5 WSAs</u>	No protection for 134,108 acres.			Mule deer habitat improved.		

(See Table 6, page 62, 63)

CHAPTER 4

Affected Environment



CHAPTER 4

AFFECTED ENVIRONMENT

The descriptions of the WSAs in this chapter are summaries of the resource characteristics and uses. (The locations of the WSAs are described in Chapter 1.) Emphasis is placed on those components contributing to or influenced by wilderness suitability decisions. Some descriptive material is included to help the reader visualize the WSA. Maps of each WSA are included at the end of this document. They show land status and the WSA boundaries.

Economic Setting

The primary economic outputs from public lands in southeastern Idaho are recreation and livestock grazing. Other outputs of much lesser importance are sand and gravel, phosphate, and wood products. Little information is available on the amount of recreation use that occurs in the five WSAs. However, it is estimated that all the value associated with that recreation use would represent less than 1 percent of the total income of the services and retail trade segments of the local economies. Recreation use of the WSAs is clearly not a significant portion of the local economies.

Livestock grazing on the five WSAs is very limited. Hell's Half Acre and Cedar Butte are not part of a grazing allotment and are not grazed by livestock. Very limited grazing occurs on the lower slopes of Hawley Mountain and Black Canyon. An estimated 1,573 AUMs (animal unit months) of grazing use is made on Petticoat Peak. Because domestic livestock grazing is extremely limited on these WSAs, they clearly are not a significant part of the local economies. Because there appears to be no significant impacts on population, personal income, employment and other demographic factors, these are not discussed.

Wilderness Attitudes

The intensity of feelings for wilderness varies widely from those people who mildly favor or oppose, to those who strongly favor or oppose further wilderness designations.

In a 1979 statewide survey of Idaho households (Card and Carlson 1979), respondents were asked whether they agreed or disagreed with the statement, "We have enough area legally designated as wilderness in Idaho." Of the 1,410 responses received, 67 percent agreed that there is enough legally designated wilderness in Idaho, 15 percent were neutral, and 18 percent disagreed with the statement. The regional opinions are almost exactly the same as those held statewide and are felt to be

representative of Idahoans living in the counties where the WSAs are located. (The national opinion is quite different. In a 1974 survey conducted by Cambridge Reports, 39 percent of the U.S. population felt there was already enough wilderness, while 37 percent indicated the need for more wilderness. The remaining 24 percent did not express a preference.)

Based on this information, it appears that in spite of polarity of opinion between those favoring or opposing additional wilderness designations, the majority does not favor additional wilderness areas.

Wilderness Values

The wilderness values of each WSA are described in Chapter 5, Criterion 1, Evaluation of Wilderness Values. This section discusses wilderness quality, benefits to other resources that wilderness offers, and wilderness system diversity for each of the five WSAs.

HELL'S HALF ACRE

The Hell's Half Acre WSA includes 66,200 acres of a 4,100-year-old lava flow. The flow resembles a flat moonscape that is interrupted by deep crevices, fissures, ridges, depressions and sparse vegetation. Vegetation type and density varies widely depending on where soils have accumulated. Pioneer plants such as lichens and mosses inhabit the barren lava surfaces, while more diverse plant communities have developed on the older lava and on kipukas. (Kipuka is the Hawaiian word for "window", meaning here, an island of older lava that has vegetated and been surrounded by a newer lava flow.) The kipukas and older lava flows contain dense stands of juniper trees and a wide variety of high desert shrubs, forbs and grasses.

Mule deer, antelope, coyotes and rabbits are the most frequently sighted mammals on Hell's Half Acre. Sage grouse and mourning doves inhabit the lava flows and kipukas and are hunted to a limited extent near the WSA's boundary. No threatened, endangered or sensitive animals or plants are known to occur in the area.

Recreation

Recreation use on the lava flow is low. Local scout groups and individuals explore the source vents, caves, craters and other lava features. Interpretive tours of the lava's edge are given to school groups near Twenty-Mile Rock. A limited amount of trailbike riding takes place in the WSA, even though the rugged lava surfaces prevent most off-road vehicle use.

Energy and Mineral Resources

Energy resources that are leasable in the Hell's Half Acre WSA include oil and gas and geothermal. The oil industry has leased all of the WSA for oil and gas but has not shown interest in exploration. Oil and gas potential is rated as low. Potential for geothermal energy sources is rated as low to medium. The geothermal industry has shown little interest in the WSA.

Lava building stone is the only locatable or salable mineral in the WSA. The area contains up to 70,000 tons of marketable basalt slabs. Some of the stone may be of an uncommon variety and could be identified as a locatable mineral.

The appendix contains a more detailed discussion of the WSA's geology and mineral resource occurrence.

HAWLEY MOUNTAIN

The Hawley Mountain WSA is a 15,510-acre area that includes Hawley Mountain and five other unnamed peaks. The area's physical character is steep and mountainous, with well-defined drainages fanning out in all directions toward the WSA's border. The higher peaks and ridges are dominated by rock cliffs and talus slopes. Douglas-fir and mountain mahogany blanket areas at the higher elevations. The lower slopes are covered with sagebrush, grasses and forbs. Perennial drainage bottoms support a semi-wet meadow community of grasses and sedges. Two plants from the U.S. Fish and Wildlife Service's sensitive species list are found in the WSA, the Lost River milkvetch and Lost River silene.

Recreation

Recreation use in the WSA is estimated to be low, although there are no recorded data. Some hunting for deer and antelope occurs during the short big game season. The little camping that takes place in the area is usually associated with hunting. A few visitors ride motorcycles or drive other off-road vehicles to the WSA's canyons and slopes that are accessible to motorized travel, usually for the purpose of sightseeing.

Forest Resources

Hawley Mountain WSA has 5,200 acres of forested land of which 2,724 acres are classified as commercial timber. Most of the trees are over-mature Douglas-fir with a few patches of aspen and Utah junipers. Spruce budworm and Douglas-fir bark beetle are infecting all stands of fir. The WSA contains about 30,000 MBF of timber, of which 10,500 MBF could be harvested, if economic conditions permitted.

Wildlife

Hawley Mountain contains many habitat types which provide cover and food for a variety of wildlife species. The WSA contains about 2,000 acres of pronghorn antelope fawning habitat on the lower sagebrush-covered flats. Antelope migration routes follow the east and west flanks of the mountain, overlapping into the WSA. Some antelope winter on the area's east side. More than 200 mule deer winter throughout the area using mountain mahogany as the key forage species. Stands of mahogany are overmature and could be pruned and thinned to increase winter forage available to the growing deer population.

Range Resources

The Hawley Mountain WSA is a part of the Hawley Mountain livestock grazing allotment. One permittee is authorized 5,350 cattle AUMs throughout the entire allotment. The WSA has forage for about 400 of these AUMs.

About 9,500 acres are not grazed because of the rugged terrain and distance from water.

Energy and Minerals

All lands in the Hawley Mountain WSA are under lease or lease application for oil and gas. The WSA is rated as having low to medium potential for these energy sources. Industry has not proposed any oil and gas exploration operations in or near the WSA.

Claims for locatable minerals have not been made within the WSA. The area is rated as having low to medium potential for gold, silver, lead, zinc and copper.

Hawley Mountain is rated as having medium to high potential for salable sources of sand and gravel. Removal of these construction materials have not been proposed because other sources are adequate to handle current demand.

The appendix contains a more detailed discussion of the WSA's geology and mineral resource occurrence.

BLACK CANYON

The Black Canyon WSA is a 5,400-acre area located at the southern toe of the Lemhi Mountain Range. The WSA's landscape is characterized by rocky canyons, massive cliffs and thrust faults. The lower slopes and canyon bottoms contain sagebrush, forbs and grasses typical of this low

moisture, high desert environment. Patches of juniper trees are found throughout the area and small stands of Douglas-fir grow at the higher elevations.

Recreation

The major recreation activities that take place in the WSA are sightseeing and hunting. Upland game birds attract a few sportsmen to the area for a short period in the fall. Other visitors come to view the good scenery and cultural sites in the WSA. Most people who visit the area ride motorcycles or drive pickups on the vehicle trails in the WSA's Canyons. Hot Shot Cave and Jackknife Cave are two popular destination points.

Cultural Resources

Black Canyon WSA has 26 prehistoric archaeological sites. Another 39 prehistoric sites have been identified and need to be professionally recorded. Site types include rockshelters, surface lithic scatters, rock alignments (hunting blinds) and pictograph panels. Pictographs, or rock paintings, are a common archaeological feature in the WSA. They are found on rockshelter walls, smooth, exposed rock surfaces (panels) and on isolated boulders. Abstract, human figures, animals and geometric forms are typical.

Idaho State University Museum personnel excavated two rockshelters (Little Lost River Cave No. 1, 1954; Jackknife Cave, 1963). Projectile points, stone tools, animal bone and Fremont-style basket fragments were recovered. But, relic hunters had extensively disturbed both caves' cultural and geological deposits. Few conclusions could be made. Data did show seasonal occupation by prehistoric hunters over a time period of probably several thousand years. Jackknife cave basket fragments were radiocarbon dated between A.D. 1110 - 1790. This is not very old, but may represent northern-most example of Utah's Fremont culture (maize farmers and hunters).

Recreational and economic activities affect the WSA's cultural resource sites. Hunters, hikers, rock hounds and relic hunters visit the area, as well as livestock operators and geologists. Cave and rockshelter deposits have been dug up, surface sites have been collected and pictographs defaced (usually with spray paint, but one group was used for target practice and another boulder was dynamited). Other sites are in good condition. Improved site surveillance is needed. Road closures, test excavations, and detailed pictograph recordation are also recommended. Local amateur and professional archaeologists have expressed concern about site destruction in the WSA. They are also interested in the area's research potential (rock painting motif and distribution, settlement patterns, hunting practices and Fremont culture presence or absence).

Wildlife

The WSA's terrain provides excellent habitat for many types of birds. Chukars, Cooper's hawks, sharp-shinned hawks, kestrels, great horned owls and redtail hawks can all be found living or nesting in the canyons. Antelope, mule deer and sage grouse all winter in the area.

The area is a historic bighorn sheep range. The Idaho Department of Fish and Game is attempting to reestablish these animals in the Lemhi Mountains. It is possible that bighorn sheep will return to the Black Canyon WSA.

Range Resources

The Black Canyon WSA has parts of three different livestock grazing allotments within the borders. Three permittees have privileges for a total 308 AUMs. This small amount of grazing occurs along the southern and northeastern edges of the WSA.

Energy and Minerals

All lands in the Black Canyon WSA are under lease or lease application for oil and gas. The WSA is rated as having low to medium potential for these energy sources. Industry has not proposed any oil and gas exploration operations in or near the WSA.

Claims on locatable minerals have not been made within the WSA. The area is rated as having low to medium potential for gold, silver, lead, zinc and copper ores.

The southern 27 percent of the area is withdrawn from mineral entry. This action was taken to protect important cultural resources from possible mining activities. The withdrawal prevents claim staking, prospecting, exploration, development and patenting under the mining laws on 1,477 acres of the WSA.

The Black Canyon is rated as having a medium to high potential for salable sources of sand and gravel. These deposits lie in the lower foothills of the WSA.

The appendix contains a more detailed discussion of the WSA's geology and mineral resource occurrence.

CEDAR BUTTE

The Cedar Butte WSA is a 10,800-year-old lava flow that includes 35,700 acres of public land. The terrain is slightly undulating where

sparsely vegetated basalt rock dominates the landscape. Vegetation varies throughout the lava flow. More diverse and advanced plant communities exist in kipukas, older lava flows and surrounding rangelands where soil depth is greater. Where soils have accumulated, high desert sagebrush, grasses and forbs are abundant. Juniper trees are found scattered throughout the flow where soil and moisture conditions have allowed them to survive.

Several species of mammals live in the WSA, including numerous rodents. The larger animals more frequently seen are mule deer, antelope, coyotes and rabbits. Over 100 species of birds have been identified on the lava plains. Sage grouse and mourning doves are of particular interest and are hunted to a limited extent near the lava's edge. A variety of raptors are often seen circling above the flows.

Recreation

Very little recreation use occurs on the lava flows. Some bird hunting takes place near the edges of the flows where motorized access is possible. A limited amount of trailbike and snowmobile use is expected to occur within the WSA boundaries.

Energy and Minerals

Energy resources that are leasable in the Cedar Butte WSA include oil and gas and geothermal. The oil industry has leased nearly all of the lands within the WSA for oil and gas but has not shown interest in exploration. Oil and gas potential is rated as low. Potential for geothermal energy sources is rated as low to medium. The geothermal industry has not shown interest in the WSA.

Lava building stone is the only locatable or salable mineral in the WSA. Six claims have been filed on 454 acres of the WSA for building stone. Only 25 acres of the claim contain stone that is classified as locatable. Up to 15,000 tons of salable basalt slabs are estimated to be within the WSA.

The appendix contains a more detailed discussion of the WSA's geology and mineral resource occurrence.

PETTICOAT PEAK

The Petticoat Peak WSA lies within the Fish Creek Mountain Range just one mile northeast of Lava Hot Springs. Topography is steep and mountainous with Petticoat Peak being the highest point at over 8,000 feet. Many canyons and ridges radiate from the mountain peak. Dominant vegetation on the western slopes consist of junipers, mountain shrubs and

sagebrush. Thick stands of Douglas-fir intermingled with lodgepole and limber pine cover the WSA's east side. A wide variety of shrubs, forbs and grasses are found throughout, and aspen groves blanket moist sites in the area.

Recreation

Most recreation use in the WSA is associated with deer and grouse hunting in the fall by local residents. Over 800 hunter days were spent by sportsman during the 1982 season. Other activities include hiking, horseback riding, nature study and camping. Few people use the WSA for these activities because there is poor public access.

Motorized vehicle use has been restricted in the WSA. The Off-Road Vehicle Road Plan for the Pocatello Planning Unit designated the area as "limited" to off-road use. The limited classification restricts vehicles to existing routes only. Most recreational vehicle travel is by hunters during the fall hunting seasons. Some snowmobiling takes place but use is low because of the steep and rugged terrain.

Recreation use is expected to increase yearly because of the area's close proximity to the resort community of Lava Hot Springs. A new subdivision is planned near the community and should attract new residents who would use the WSA for recreation. Commercial use by outfitters for hunting, camping, sightseeing and horseback riding is also expected to grow.

Forest Resources

Sixty-seven percent or 7,589 acres of the WSA is covered with timber. Intensive timber management has been proposed in the Pocatello MFP on 2,520 acres of the forested lands within the eastern foothills of Petticoat Peak. Commercial timber species are Douglas-fir and lodgepole pine. These trees are infected with dwarf mistletoe and are susceptible to other damaging pests. Harvesting those trees would yield about 6,420 MBF.

Wildlife

The Petticoat Peak WSA provides excellent habitat for a variety of wildlife species. Good summer and winter range is available to mule deer and a critical winter range lies on the WSA's southwestern slopes. Forest grouse inhabit most of the area. Peregrine falcons, whooping cranes and bald eagles have been sighted and are on the endangered species list. Bobcat, Canada lynx and pigeon hawk, all identified as sensitive species, are also found in the area.

The WSA is a historic bighorn sheep range. The Idaho Department of Fish and Game has proposed to reestablish these animals in the area.

Range

The WSA includes portions of three livestock grazing allotments where 1,573 AUMs are authorized. Cattle and sheep use forage in two of the allotments and only sheep use the other. Few developments have been constructed to manage the livestock grazing, and new ones have not been planned for the near future.

Energy and Minerals

Energy resources that are leasable in the Petticoat Peak WSA include oil and gas and geothermal. Oil and gas leases cover the entire area but the companies that hold leases have not begun exploration activities. Oil and gas potential is rated as having low to medium potential. Potential for geothermal energy is also rated low to medium. Interest in exploring the WSA for geothermal fluids has not been shown by the energy industry.

The WSA is rated as having a low to medium potential for manganese, selenium and silica. These minerals are not known to occur in the area but are found in geologically similar lands nearby.

Salable minerals are rated as having medium to high potential in the WSA. Good sources of construction aggregate have been located and the Idaho Transportation Department has shown interest in using the material.

The appendix contains a more detailed discussion of the WSA's geology and mineral resource occurrence.



Hell's Half Acre

Clockwise from below:

1. Ferns grow in a protected crack in the lava. 2. Typical lava landscape with juniper in foreground. 3. Uplifted and cracked slab of pahoehoe, a type of ropey lava.





Hawley Mountain

Above: Hawley Mountain in the Little Lost River Valley, the Lost River Range in the distance. Below: Looking south from the Pass Creek Road towards Hawley Mountain.





Black Canyon

Clockwise from below:

1. Pictograph (see glossary) on cave wall.
2. Box Canyon, one of the canyons in the Black Canyon WSA.
3. Mountain mahogany is typical of the canyon vegetation.

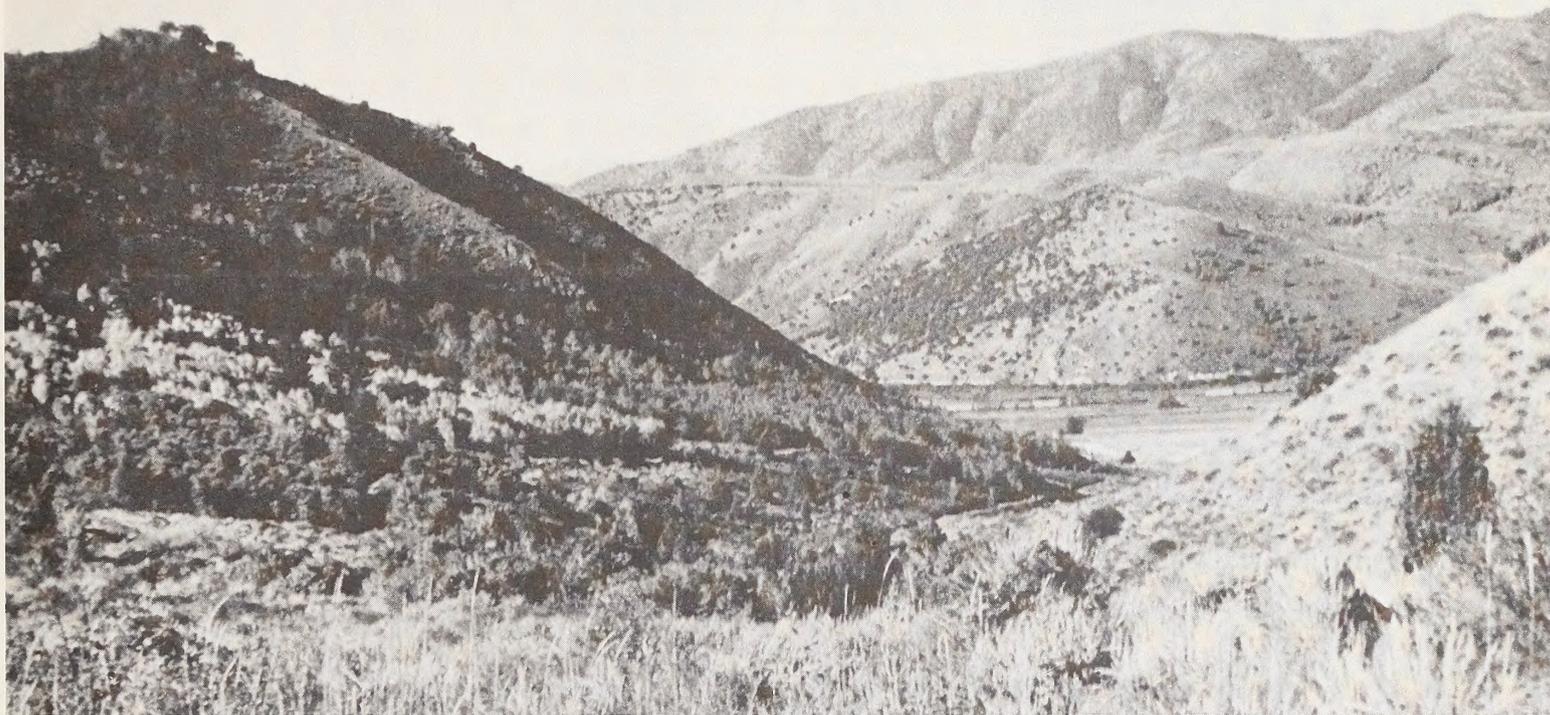




Cedar Butte

Above: Looking east across the WSA with Middle and East Buttes in the distance. Below: Cedar Butte WSA represents an older, more vegetated lava flow.



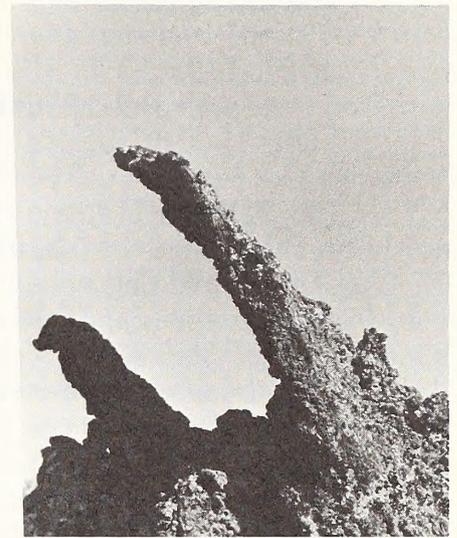


Petticoat Peak

Above: Hadley Canyon in the southwestern edge of the WSA looking down into the Portneuf River Valley. Below: In the southern edge of the WSA looking south.



CHAPTER 5



Wilderness Study Criteria and Standards

CHAPTER 5

WILDERNESS STUDY CRITERIA AND STANDARDS

The BLM's Wilderness Study Policy establishes two criteria and six quality standards to be used in BLM wilderness studies. These are listed in Chapter 2 and have been applied to each WSA. This chapter discusses the findings and conclusions reached after applying the criteria and standards to the WSAs. These conclusions form the foundation on which WSAs were chosen to be recommended suitable or unsuitable for wilderness.

Criterion 1 Evaluation of Wilderness Values

Wilderness Quality

Wilderness quality is evaluated by considering four things: naturalness; opportunities for solitude; opportunities for primitive recreation; and the presence of special features such as scenery, ecological, geological, educational or historic values. This analysis is based on the BLM's Wilderness Study Policy. Evaluations of wilderness quality by WSA follow.

Hell's Half Acre

Hell's Half Acre WSA is a series of overlying lava flows. The most recent flows date back 4,100 years. The WSA contains 66,200 acres of public land located 5 to 20 miles west of Idaho Falls. Inholdings consist of 2,560 acres of State land and 160 acres private land. The flows contain many lava features including a low shield volcano, lava tubes, collapse depressions, pressure ridges and kipukas. Elevation varies from 4,700 feet to 5,351 feet.

Impacts on the natural appearance of the WSA consist of 18 faintly visible vehicle trails and six small border dump sites. These impacts are minor and do not detract from the naturalness of this large area.

From the edges and higher points of Hell's Half Acre, a visitor can view cultivated land, rural traffic on farm roads and highways and the towns of Idaho Falls and Shelley. Farming occurs up to the area's lava borders along the north, south and southeast. The overall impact on naturalness of these influences is minor. Few areas either in the National Wilderness Preservation System or being studied for designation, compare with the high quality of naturalness in Hell's Half Acre.

The WSA offers outstanding opportunities for solitude because of its large size and rugged topography. A visitor can find a secluded spot and

easily avoid others in the area. The sharp relief in the lava provides adequate screening for reducing encounters with other visitors. The nearby farming activity and other human influences could detract from a feeling of solitude for some visitors. Others who venture into this rugged landscape, may find that the nearness of civilization heightens their awareness of being easily removed from human activity.

Hell's Half Acre offers outstanding recreational activities rarely found in this country. Volcanic forces have created lava tunnels which can be explored as well as a myriad of volcanic features that provide excellent subjects for photographers and geology buffs. Sightseeing is outstanding for botanical and zoological features. Snowshoeing and cross-country skiing offer physical and mental challenge to winter explorers. Similarly, for those willing to brave the rough portions of lava, hiking the area allows the visitor to discover its unique beauty. The many lava features offer travel destinations of interest to explorers and enhance the quality of each expedition into the lavas. Camping is another activity for the enthusiast willing to pack in water. The rugged terrain and harsh conditions provide a significant challenge to those who find this aspect of primitive recreation rewarding.

The scientific, educational and scenic values of this area are important. A large portion, 44,000 acres, has been designated a National Natural Landmark because of its unusual occurrence within the Snake River Plain. It includes excellent examples of pahoehoe lava features of geologic importance. The ecology of the lavas is a prime illustration of pioneering plant communities. The ferns in the deep cracks are a botanical anomaly. Prehistoric and historic sites of archeologic value are present.

Hawley Mountain

Hawley Mountain WSA is a steep, rugged unit including 15,510 acres of public land. There are 1,280 acres of State land inholdings. The WSA completely encompasses Hawley Mountain with elevation ranging from 6,000 feet to 9,752 feet.

Impacts on naturalness in the WSA consist of 14 vehicle trails totaling 13 miles, a small border dump, 2 miles of fence and a 480-acre crested wheatgrass seeding. Views outside the area include traffic on rural roads and nearby farming activities. All impacts have a minor affect on the overall natural appearance of the area.

The quality of naturalness in Hawley Mountain is good and compares with some of the smaller areas in the national wilderness system. However, the WSA's naturalness is of lesser quality than the nearby Forest Service areas of Borah Peak, Pioneer Mountains and Lemhi Mountains.

Within Hawley Mountain there exist outstanding opportunities for experiencing solitude. The rugged terrain and timber on the upper slopes provide excellent topographic and vegetative screening. Views of the Little Lost Valley from within the area enhance these feelings of

isolation. The valley is sparsely populated and human activities appear to be remote. Sufficient size and good screening would allow a visitor to find a secluded place and avoid others.

Solitude opportunities are judged to be of somewhat lesser quality than nearby national forest lands. This is because of the WSA's relative small size and nearness to human activity. Roadless areas in the adjacent national forests are much larger and are considerably more remote.

Hunting is an outstanding recreational activity within the WSA. Deer, antelope, elk and sage grouse can be hunted. Hiking, horseback riding, rock climbing, cross-country skiing and snowshoeing are other possible activities. The diversity of terrain and rugged landscape offer challenge and recreational attractions to visitors.

Other roadless areas in the nearby mountain ranges offer similar primitive opportunities but are more attractive to recreationists. They offer a greater challenge, numerous primitive recreation activities and generally more natural features that attract recreationists.

The WSA contains important habitat for a variety of wildlife. Pronghorn antelope use the southwestern portion as a migration route and the northern and western portions as fawning grounds. The lower slopes have been identified as sage grouse nesting and brood-rearing areas along with mule deer winter range. Views to the west of the proposed Borah Peak wilderness provide striking vistas from Hawley Mountain's summit. This is also true of the view of the Lemhi Range and jagged Diamond Peak to the east.

This area is also of archaeological importance. Hunting blinds, surface lithic scatters and rock shelters are located throughout the area.

Black Canyon

Black Canyon WSA includes steep foothills and rocky cliffs of the southwestern toe slope of the Lemhi Mountains. Several deep canyons cut through the WSA; elevations change quickly from 5,100 feet in the southwest to 8,000 feet in the northwest. The 5,400 acres of public land lie between the Birch Creek and Little Lost valleys.

Impacts on naturalness in the WSA consist of five vehicle trails totaling 4 miles, 1 mile of fence and a gray steel door covering a dynamited cave. Views outside the area include traffic on rural roads, farming activities and facilities on the Idaho Nuclear Engineering Laboratory site. Views are distant and not imposing. All impacts have a minor affect on the overall natural appearance of the area.

The overall natural quality of the Black Canyon WSA is good and compares with some of the smaller areas in the wilderness system. However, the WSA's naturalness is of lesser quality than the nearby Forest Service areas of Borah Peak, Pioneer Mountains and Lemhi Mountains.

Extensive topographic variation combined with some vegetative screening make opportunities for solitude outstanding. The deep, winding canyons, caves and rock formations offer places where a visitor could find a secluded place and avoid the sights of others. Views outside the area would have little influence on a visitor's chances for solitude. Visitation would have to be limited to a few people in this small area to maintain quality opportunities. Overall, solitude opportunities are of lesser quality than nearby national forest lands. This is because of the WSA's relative small size and nearness to human activity. Roadless areas in the adjacent forests are much larger and are considerably more remote.

Primitive recreation opportunities include rock climbing, hiking, wildlife viewing and spelunking. The many rock formations, caves and bird life are natural features that provide a good recreational attraction to visitors. These opportunities are of lesser quality than those found in the nearby roadless areas of the national forests. These larger areas offer a greater variety of activities in a similar setting and are more attractive to the majority of wilderness recreationists.

The WSA's landscape is dominated by vertical-walled canyons, caves and other rock formations of geologic interest. These formations are picturesque and provide important habitat for golden eagles, kestrels, great horned owls, hawks and falcons. The caves and rock formations have also been used for shelters and hunting blinds by prehistoric inhabitants, as long as 10,000 years ago. Pictographs and other signs can be found throughout the area. Additionally, the WSA is a historic bighorn sheep range where reintroduction has been proposed.

Cedar Butte

Cedar Butte WSA is a series of overlying lava flows. The most recent flows date back 10,800 years. The WSA, consisting of 35,700 acres of public land, lies just south of Atomic City near Big Southern Butte. There are 640 acres of State land inholdings. Volcanic features include collapsed depressions, lava tubes, a source vent and kipukas. Elevation varies from 4,600 feet to 5,235 feet, illustrating its generally flat topography.

Impacts on the natural appearance of the WSA consist of four vehicle trails totaling 4 miles in length, two small rock dumps, an 80-acre building stone collection site and a 6,100-acre crested wheatgrass seeding. The seeding was broadcast from the air and now grows in the scattered soil pockets of the flow. Although this grass species is exotic, the average visitor would not consider it unnatural. Outside influences include some views of traffic on nearby rural roads, agricultural activities and an infrequently traveled railroad line. All impacts to the natural character of the WSA are minor. The naturalness of Cedar Butte compares favorably with other designated wilderness both in Idaho and throughout the country.

The WSA offers outstanding opportunities for solitude because of its large size and rugged topography. The area's open and generally flat

landscape with little vegetative cover does not provide screening that would separate visitors. However, the large size, numerous depressions and swells in the lava beds and expected low use would offer solitude. Other than the occasional passing of a train to the northeast, external influences are non-existent.

The rugged nature of the WSA offers outstanding opportunities for various recreational activities in an uncommon environment. Collapsed lava tubes, fissures and craters provide excellent exploratory possibilities for hikers, photographers and geologists. Camping on the lava flow constitutes another unusual yet rewarding recreational activity for the enthusiast willing to pack water. Similarly, snowshoeing and cross-country skiing could provide risk and challenge for the winter recreationist. The primitive recreation opportunities of Cedar Butte are of lesser quality than those found in other lava areas designated or under study for wilderness. The nearby Craters of the Moon Wilderness and Great Rift WSA contain natural features that are considered to be more attractive to the primitive recreationist.

This lava landscape has scientific and educational significance. It is one of the older exposed lava flows, dating back about 10,800 years. The lava beds are an example of pahoehoe lava features of geologic importance. Ecological relationships are illustrated by the pioneering plants and other characteristics of developing plant communities.

Petticoat Peak

Petticoat Peak WSA is in the Fish Creek Mountain Range. The WSA lies just east of the Portneuf River and 1 mile northeast of Lava Hot Springs. Topography is rough and mountainous with elevations ranging from 5,500 feet on the southwestern portion of the WSA to 8,033 feet on top of Petticoat Peak. The 11,298-acre WSA is entirely public land and lies within Bannock and Caribou counties.

Impacts on the natural appearance are located along the boundaries and at the ends of roads and vehicle trails in the WSA. They include vehicle trails, drift fences, livestock reservoirs, corrals and firewood cutting areas. Five dead-end roads enter the area, and vehicle travel on these routes would likely decrease a visitor's perception of the natural appearance. Outside influences include views of agricultural activity and the town of Lava Hot Springs. Overall, the naturalness of the WSA compares with some of the small designated wilderness areas in the east, but is of lesser quality than those in the west.

Within Petticoat Peak there exists outstanding opportunities for solitude. The steep topography, numerous canyons and variety of tall vegetation screen visitors from each other. Outside influences are of minor significance and are further decreased by the WSA's landscape character. Solitude opportunities are of lesser quality than nearby national forest roadless areas because of vehicle travel on the dead-end roads, nearness to a major railroad line and other human activity.

The wilderness inventory listed a variety of recreation opportunities for the WSA but none as outstanding.

Special features of the WSA include large timber and lodgepole pine, high scenic value and important wildlife habitat. Wildlife species that occupy the area include peregrine falcons, whooping cranes and bald eagles, all on the endangered species list, and bobcat, Canada lynx and pigeon hawk, all on the sensitive species list. A portion of the WSA is critical winter range for mule deer. The area is also historic range for bighorn sheep and has been identified as a reintroduction area by the Idaho Department of Fish and Game.

Multiple Resource Benefits

This analysis factor is used to evaluate what benefits to other resources would be ensured only through wilderness designation.

Mining and the possible impacts that may occur to scenic, watershed, geologic and ecologic values, could be curtailed, if an area becomes wilderness. Without wilderness designation, existing management authority would offer few options to protect these values. However, mining activities now pose no serious threat to any of the WSAs. All five WSAs appear to have limited potential for developing mineral resources.

Other management actions within current laws, authority and regulations could ensure the protection of resource values.

Diversity in the National Wilderness Preservation System

Ecosystem Diversity

Ecosystem diversity was evaluated using the Bailey-Kuchler system, Potential Natural Vegetation of the United States. This system is the same one used by the U.S. Forest Service to evaluate possible forest areas during their wilderness studies. Refer to Map 3.

A summary of areas designated, proposed and under study for wilderness is presented in Table 2. The table shows the number of areas and acres represented both in Idaho and nationwide.

Solitude or Primitive Recreation Opportunities Near Major Population Centers

Two standard metropolitan statistical areas, Boise and Salt Lake City and vicinity, qualify as major population centers. They are within 5 hours driving of the five WSAs. Table 3 summarizes opportunities for

TABLE 2
Ecosystem Representation

WSA	Province # and Name	Potential Natural Vegetation # and Name	Idaho Representation			National Representation		
			#Areas/Acres Wilderness		Designated	#Areas/Acres Wilderness		Designated
			Proposed	Under Study		Proposed	Under Study	
Hell's Half Acre	3130 Intermountain Sagebrush	39 Desert Vegetation Largely Absent	1/43,243	0/0	11/632,177	1/43,243	0/0	12/865,355
Hawley Mountain	M3110 Rocky Mountain Forest	49 Sagebrush Steppe	0/0	2/96,747	9/172,720	1/32,350	4/213,772	32/294,026
Black Canyon	3130 Intermountain Sagebrush	49 Sagebrush Steppe	0/0	0/0	34/733,494	2/34,545	3/357,400	144/4,303,105
Cedar Butte	3130 Intermountain Sagebrush	39 Desert Vegetation Largely Absent	1/43,243	0/0	11/632,177	1/43,243	0/0	12/865,355
Petticoat Peak	3130 Intermountain Sagebrush	14 Western Spruce Fir Forest	0/0	0/0	1/11,298	0/0	1/26,294	1/11,298

solitude or primitive recreation available within a 5-hour drive of each population center. Areas considered were those designated, proposed and under study for wilderness. Map 5 shows locations of the cities and areas.

TABLE 3

Solitude or Primitive Recreation Opportunities
Near Population Centers

Population Center	Wilderness Areas					
	Designated		Proposed		Under Study	
	Areas	Million Acres	Areas	Million Acres	Areas	Million Acres
Boise	8	3.3	12	.8	142	4.4
*Salt Lake City and vicinity	4	.5	24	1.8	99	3.0

*Salt Lake City and vicinity includes cities of Provo, Orem and Ogden.

Boise has eight wilderness areas totaling 3.3 million acres within a day's drive. Potential areas that could be added to the wilderness system could increase the available acreage by 150 percent. Salt Lake City and vicinity, with more than five times the population of Boise, has .5 million acres that can be reached within a day's drive. There is a potential to increase that acreage by 1,000 percent.

Locally, the population centers are Idaho Falls, Blackfoot and Pocatello. Several of the designated and potential wilderness areas available to Boise and Salt Lake City and vicinity can also be reached within a day's drive of these local centers.

Geographic Distribution

Map 4 shows the location of designated and potential wilderness in Idaho and the surrounding region. Statewide, the designated wilderness is located in northern and central Idaho. The southern part of the State has only Craters of the Moon Wilderness.

In the region surrounding Idaho, the designated wilderness areas are concentrated in the Sierra Nevada Mountain Range in California, the Cascade Mountain Range in Oregon and Washington and in the Rocky Mountains of Montana, Wyoming and Colorado. There are very few wilderness areas in Nevada, Utah, southeast Oregon and southern Idaho.

Criterion 2 Wilderness Manageability

The purpose of this criterion is to show whether a WSA can be managed in a manner that will maintain an area's wilderness character over the long term.

Hell's Half Acre

The Hell's Half Acre WSA could be managed over the long term to preserve its wilderness character.

Acquisition of the State lands in four sections totaling 2,560 acres would eliminate possible conflicts with providing access and would maintain the area's wilderness character. The Idaho Department of Lands favors a land exchange if the WSA becomes wilderness.

The private landowner of the 160-acre parcel near the WSA's northeastern border would be provided access under wilderness management. Possible development of the parcel is not expected to conflict with management of the WSA. The landowner has indicated a willingness to exchange this parcel with other federal lands if the WSA becomes wilderness.

Hawley Mountain

The Hawley Mountain WSA would be difficult to manage over the long term to preserve its wilderness character. There are 14 vehicle access points and trails into the area which extend up to 2 miles. Adjusting the boundary to eliminate the vehicle trails would decrease the WSA's size by more than half. Attempting to close the trails would be difficult because natural barriers are lacking and local sentiment towards vehicle restrictions has been and is expected to be extremely negative.

Acquiring the 1,280 acres of State land would be necessary to maintain the integrity of the area. One State section (640 acres) includes part of the Hawley Mountain complex. The other section (640 acres) is part of the southwestern tip of the area. Acquisition of the State lands would eliminate possible conflicts with providing access and would maintain the area's wilderness character. The Idaho Department of Lands said they favor an exchange of lands if the WSA becomes wilderness.

Black Canyon

The Black Canyon WSA would be difficult to manage over the long term to preserve its wilderness character. There are five vehicle access

points and trails into the area which extend up to 2 miles. One heavily used trail nearly reaches the Forest Service boundary on the area's north border. A boundary adjustment to eliminate these trails would decrease the size of the WSA to less than the required 5,000 acres. Attempting to close the trails would be difficult because natural barriers are lacking and local sentiment towards vehicle restrictions has been and is expected to be extremely negative.

If the WSA became wilderness, management efforts would have to focus on maintaining a low number of visitors. The area is too small to offer solitude for many people at one time, and use would be concentrated in the area's two narrow canyons.

Cedar Butte

The Cedar Butte WSA could be managed over the long term to preserve its wilderness character. The only management concern is the 454-acre mining claim for lava building stone. If the claim or part of it is classified as valid then the stone may be mined and the land patented. Management of this claim area to maintain its wilderness character would then be impossible. However, development of the claim would not affect wilderness management of the rest of the WSA.

Acquisition of the State lands in one section (640 acres) would eliminate possible conflicts with providing access and maintaining the area's wilderness character. Idaho Department of Lands said they favor an exchange of lands if the WSA becomes wilderness.

Petticoat Peak

The Petticoat Peak WSA would be difficult to manage over the long term to preserve its wilderness character. There are 11 vehicle access points into the area. Trails total 11 miles and extend up to 2 miles into the WSA's interior. Closing these vehicle trails would be difficult because natural barriers are lacking and local sentiment toward vehicle restrictions has been and is expected to be extremely negative.

Preservation of the wilderness values on 3,200 acres in the northern portion of the WSA would also be difficult if not impossible. This part of the area falls under the Fort Hall Indian Treaty of 1900. It gives the Fort Hall Indians the right to cut timber and pasture livestock. The treaty states that: "So long as any of the lands ceded, granted and relinquished under this treaty remain part of the public domain, Indians belonging to the above mentioned tribes, and living on the reduced reservation, shall have the right, without any charge therefore to cut timber for their own use, but not for sale, and to pasture their livestock on said public lands, and to hunt theron and fish in the streams thereof." These possible activities by the Indians could not be managed to prevent degradation of the wilderness character in the WSA's scenic and most natural appearing northern part.

QUALITY STANDARDS

Standard No. 1, Energy and Mineral Resource Values

Table 4 summarizes the energy and mineral potential for the five WSAs. The potential is rated by BLM geologists as high, medium or low. Definitions for the rating can be found in the Appendix. A more complete description of the energy and mineral resources is found in Chapter 4, Affected Environment.

Standard No. 2, Impacts on Other Resources

Chapter 6, Environmental Consequences, discusses impacts on other resources. They are also summarized in Table 5 at the end of this chapter and in Table 6 in Chapter 6.

Standard No. 3, Impacts of Nondesignation on Wilderness Values

Tables 5 and 6 summarize the impacts associated with wilderness designation or nondesignation of the WSAs. A more detailed discussion of these impacts can be found in Chapter 6, Environmental Consequences.

TABLE 4

Energy and Mineral Potential

<u>WSA</u>	<u>Energy</u>	<u>Locatable</u>	<u>Salable</u>
Hell's Half Acre	Low for oil and gas. Low to medium for geothermal.	Low to medium for lava building stone.	Medium to high for for lava building stone.
Hawley Mountain	Medium for oil and gas.	Low to medium for gold, silver, lead, zinc and copper.	Medium for sand and gravel.
Black Canyon	Medium for oil and gas.	Medium for gold, sil- ver, lead, zinc and copper.	High to medium for sand and gravel.
Cedar Butte	Low for oil and gas. Medium for geothermal.	Medium to high for lava building stone.	High for lava building stone.
Petticoat Peak	Low to medium for oil and gas. Low to medium for geothermal.	Low to medium for man- ganese, selenium and silica.	High to medium for quartzite aggregate.

Standard No. 4, Public Comment

Public comment has been used throughout the wilderness review of the five WSAs. Interested individuals and groups have influenced decisions in

the wilderness inventory, issue identification and the formation of alternatives. Formal hearings and a review period will follow publication of this document and provide an opportunity for additional comments. These comments will be considered before the final wilderness recommendations are made and the final EIS published. A summary of general public comments is listed in Table 5.

Standard No. 5, Local Social and Economic Effects

Social and economic effects of designating or not designating the five WSAs wilderness would be insignificant. Only minor changes or inconveniences in off-road vehicle use and livestock grazing would occur.

Standard No. 6, Consistency With Other Plans

The Federal Land Policy and Management Act requires that BLM plans be as consistent as possible with State and local plans. The following is a summary of how wilderness designation of the WSAs would or would not conflict with other land use plans.

Federal Agencies

Wilderness designation of any of the WSAs would not conflict with federal agency land use plans.

State of Idaho

Hell's Half Acre, Hawley Mountain and Cedar Butte WSAs contain State lands. Wilderness designation of these areas would be acceptable to the Idaho Department of Lands if an exchange of State lands could be worked out.

City and County Plans

No specific conflict with wilderness designation of the five WSAs has been identified in any city or county plan. Generally, wilderness would be consistent with the recreation goals and open space policies of most counties involved.

Indian Tribes

Designation of Petticoat Peak would not be consistent with the rights provided the Fort Hall Indians in their treaty with the U.S. Government.

State, local and federal agencies will be asked to comment on this document and wilderness recommendations to identify any inconsistencies that may be proposed. These inconsistencies will be documented in the final EIS.

TABLE 5

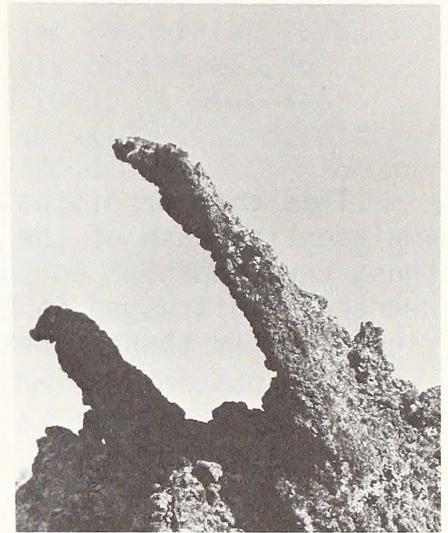
Evaluation of Wilderness Study Criteria and Standards

	HELL'S HALF ACRE	HAWLEY MOUNTAIN
<u>WILDERNESS VALUES</u>		
Quality of Naturalness and Outstanding Solitude and Primitive Recreation	Some faint vehicle tracks and scattered lava building stone collection sites. High natural quality in a large area. Excellent solitude and primitive recreation. Myriad of volcanic features of interest in recreationists.	Vehicle trails, small border dump, fences and crested wheatgrass seedings have minor effect on natural appearance. Good screening for solitude and some primitive recreation opportunities. Lesser quality than nearby USFS roadless and wilderness areas.
Special Features	44,000-acre National Natural Landmark. Geologic, ecologic and archaeologic importance.	Wildlife habitat, scenic and archaeological values.
Multiple Resource Benefits	No significant benefits.	No significant benefits.
Diversity in National Wilderness Preservation System	Ecosystem 3130-39. One designated, none proposed and 12 under study. WSA is one of the best examples within one day's drive of Boise and Salt Lake. Few wilderness areas in southern Idaho.	Ecosystem M3110-49. One designated, four proposed and 32 under study. Within one day's drive of Boise. Near concentrated wilderness in central Idaho.
<u>MANAGEABILITY</u>		
	Effective management enhanced by natural barriers. Large size permits dispersal of visitors. Acquisition of State and private lands would enhance manageability.	Effective management difficult because lacks natural barriers to vehicle use.
<u>QUALITY STANDARDS</u>		
Energy and Minerals	Low for oil and gas. Low to medium for geothermal. Low to medium for lava building stone.	Medium for oil and gas. Low to medium for locatable minerals. Medium for sand and gravel.
Impacts on Other Resources	Trail bike use prohibited. No collection of lava building stone. Limited period for oil and gas, geothermal, and mineral exploration and development.	Vehicle use prohibited. Livestock operator may be inconvenienced by vehicle restriction. Limited period of oil and gas, geothermal, and mineral exploration and development.
Impacts on Wilderness Non-designation	Lava collection would continue to degrade wilderness values.	Vehicle use would continue to degrade wilderness values.
Public Comments	Comments received during inventory, issue identification and alternative formulation. People who support wilderness emphasize WSA's outstanding wilderness quality and closeness to population centers. People who oppose designation emphasize conflicts with motorbike use and mineral activities. Some people feel the WSA does not need protecting and Idaho has enough wilderness.	Comments received during inventory, issue identification and alternative formulation. Some people would support wilderness if WSA were added to USFS lands. Others believe it's needed to add diversity to wilderness system. People who oppose designation emphasize conflicts with livestock grazing, timber development and mineral activities, and do not want more wilderness in Idaho.
Socioeconomic Impacts	No significant impacts.	No significant impacts.
Consistency With Other Plans	No conflicts.	No conflicts.

BLACK CANYON	CEDAR BUTTE	PETTICOAT PEAK
Vehicle trails have a moderate effect on natural appearance. Good screening for solitude and variety of recreation opportunities for a small number of visitors. Small WSA is of lesser quality than adjacent USFS roadless and nearby wilderness areas.	Some faint vehicle tracks and a lava building stone collection site. High natural quality in a large area. Good solitude and some primitive recreation opportunities.	Vehicle trails, drift fence, livestock reservoirs, corrals and firewood cutting areas have a moderate effect on natural appearance. Good screening for solitude and less than outstanding primitive recreation. WSA is a lesser quality than nearby USFS wilderness and roadless lands.
Geologic and scenic values. Important habitat for birds. Extensive archaeological sites and values. Historic range for bighorn sheep.	Geologic and ecologic importance.	Large limber and lodge pole pine. Wildlife habitat for endangered and sensitive species. Critical winter range for mule deer. Historic range for bighorn sheep.
No significant benefits.	No significant benefits.	No significant benefits.
Ecosystem 3130-49. Two designated, 3 proposed and 144 under study. Within one day's of Boise near concentrated wilderness in central Idaho.	Ecosystem 3130-39. One designated, none proposed and 12 under study. Within one day's drive of Boise and Salt Lake City. Few wilderness areas in southern Idaho.	Ecosystem 3130-14. None designated, one proposed and one under study. Within one day's drive of Salt Lake City. Few wilderness areas in southern Idaho.
Effective management difficult because WSA lacks natural barriers to vehicle use. Small size and narrow confining canyons limits ability to disperse visitors.	Effective management enhanced by natural barriers. Large size permits dispersal of visitors. 454-acre mining claim could not be managed for wilderness if developed and patented. Acquisition of State lands would enhance manageability.	Effective management difficult because WSA lacks natural barriers to vehicle use. Poor ability to protect wilderness values because of numerous access points. Indian treaty guarantees timber cutting and livestock grazing on 3,200 acres which are incompatible with wilderness.
Medium for oil and gas. Medium for locatable minerals. High to medium for sand and gravel.	Low for oil and gas. Medium for geothermal. Medium to high for lava building stone.	Low to medium for oil and gas and geothermal. Low to medium for locatable minerals. Medium to high for quartzite aggregate.
Vehicle use prohibited. Increased protection of archaeological sites and bird habitat. Bighorn sheep habitat improved. Limited period of oil and gas, geothermal, and mineral exploration and development.	Off-road vehicle use prohibited. No collection of lava building stone. Limited period of oil and gas, geothermal, and mineral exploration and development.	Vehicle use prohibited. No timber harvest. Bighorn sheep habitat improved. Livestock operators may be inconvenienced by vehicle restriction. Limited period for oil and gas, geothermal, and mineral exploration and development.
Vehicle use would continue to degrade wilderness values. Ease of access would continue to make archaeological sites more vulnerable to vandalism.	Lava collection would continue to degrade wilderness values.	Timber harvest and vehicle use would continue to degrade wilderness values.
Comments received during inventory, issue identification and alternative formulation. Some people support wilderness because of WSA's archaeological values, nesting habitat for birds and scenic quality. People who oppose designation emphasize the WSA's low wilderness quality and do not want more wilderness in Idaho.	Comments received during inventory issue, identification and alternative formulation. Little opposition or support for wilderness.	Comments received during inventory, issue identification and alternative formulation. Some people would support wilderness if WSA were added to USFS lands. Others believe it is needed to add diversity to wilderness system. People who oppose designation emphasize conflicts with livestock grazing, vehicle use, timber development and mineral activities, and do not want more wilderness in Idaho.
No significant impacts.	No significant impacts.	No significant impacts.
No conflicts.	No conflicts.	Wilderness designation of 3,200 acres in northern part of WSA not consistent with Fort Hall Indian Treaty.

CHAPTER 6

Environmental Consequences



CHAPTER 6

ENVIRONMENTAL CONSEQUENCES

This chapter discusses the environmental consequences or impacts of implementing each of the five alternatives outlined in Chapter 3. Only those environmental components that would be changed to a measurable degree are discussed in this chapter. If an alternative would not significantly change present conditions, it is not discussed.

ALTERNATIVE D

Under this preferred alternative, the Hell's Half Acre WSA would be recommended as suitable for wilderness designation. If Congress chooses to follow this recommendation, 66,200 acres of public land would be designated wilderness and added to the National Wilderness Preservation System. A wilderness management plan would be prepared for Hell's Half Acre consistent with the BLM's Wilderness Management Policy. The plan would address costs of managing the areas. The remaining four WSAs, Hawley Mountain, Black Canyon, Cedar Butte and Petticoat Peak, would be managed under the current land use plans.

Hell's Half Acre

Including the Hell's Half Acre WSA in the wilderness system would protect, preserve and enhance the wilderness values of this 4,100-year-old lava flow. The area's natural appearance and wild character would remain unchanged. Opportunities for people seeking solitude or primitive recreation activities in a lava flow setting would be maintained and enhanced. Wilderness designation would further preserve the 44,000-acre National Natural Landmark contained within the WSA.

The occasional use of the area by trail bike riders and snowmobilers would not be allowed with wilderness designation. The WSA currently receives little off-road vehicle use because of its rugged and generally inaccessible topography.

Lava building stone, totaling about 70,000 tons, would not be collected and sold from 65,700 acres of the WSA. The loss of this source of stone would not significantly affect the building stone industry because 30,000 tons would still be available at other locations in the Hell's Half Acre lava flow and other flows in the Snake River Plain.

Wilderness designation would cause the mineral industry to lose the long-term opportunity to explore for and develop energy resources. The overall impact of this action would be minor because of the marginal potential the area offers for locating and economically removing oil and gas or geothermal resources.

If designated, lands within the WSA would be closed to claim staking, prospecting, exploration, development and patenting under the mining laws. However, development work, extraction and patenting would be allowed to continue on valid claims located on or before Dec. 31, 1983. A mineral withdrawal would not cause significant impact because no valuable minerals are known to exist in the WSA.

Hawley Mountain

A no wilderness decision for the WSA would mean the loss of long-term protection of 15,510 acres of public land. However, it is likely that most of the WSA would retain its natural character, at least in the short term.

Primitive recreation activities and solitude could still be pursued in the area, but vehicle use may lower the quality for some recreationists.

A low to medium potential exists for oil and gas and other energy and mineral exploration and development activities. Impacts such as access roads, excavation sites, pipelines and storage facilities are possible and could affect the natural values of the WSA.

The existing land use plan does not further specify any activities that would impair wilderness values if the WSA were not designated.

Black Canyon

A no wilderness decision for the WSA would mean the loss of long-term protection for 5,400 acres of public land. Vehicle travel would continue within the accessible canyons of the area. This use may lower the quality of solitude and primitive recreation activities for some recreationists. Relatively easy vehicle access into the WSA has increased the frequency of vandalism and degradation of important archaeological sites, even though they are protected under three federal preservation and protection laws.

A medium potential exists for oil and gas and other energy and mineral exploration and development activities. Impacts such as access roads, excavation sites, pipelines and storage facilities are possible and could affect the natural values of the WSA.

The existing land use plan does not specify any further activities that would impair wilderness values if the WSA were not designated.

Cedar Butte

A no wilderness decision for the WSA would mean the loss of protection for 35,700 acres of public land. However, it is likely that

most of the WSA would retain its natural character, at least in the short term.

The WSA contains mining claims totaling 454 acres. These claims are for lava building stone and are located near the western edge of the area. If the WSA is not designated wilderness, removal of the stone is likely. Construction of access roads, driving heavy transport vehicles over the brittle lava, and removal of the thin surface lava plates would cause some impact to the WSA's natural appearance. These mining activities would also degrade the geologic values within the young lava flows where the claims are located.

The existing land use plan does not specify any further activities that would impair wilderness values if the WSA were not designated.

Petticoat Peak

A no wilderness decision for the WSA would mean the loss of protection for 11,298 acres of public land. It would eliminate the opportunity to preserve one of two possible ecosystems classified as Western Spruce-Fir Forest in the Intermountain Sagebrush Province. However, field studies have shown that spruce trees are not located within the WSA boundaries.

The Pocatello Management Framework Plan calls for managing the area for timber production and dispersed recreation uses. Off-road vehicle use would be allowed under the plan but restricted to existing routes. Primitive recreation activities and solitude could still be pursued by recreationists, but the regular use of vehicles may lower the quality of the experience. Commercial timber values on 2,675 acres would be managed to promote a healthy and productive forest. Many trees in the area are infected with dwarf mistletoe and are susceptible to other damaging pests. Harvesting 6,420 MBF of timber would slow the further spread of diseases and salvage the trees for use as wood products. Impacts from the logging operation would include access roads, skid trails and stumps which would degrade the natural values of the WSA. New roads may also lower the quality of primitive recreation activities and solitude.

The potential exists for exploration of locatable and leaseable minerals. Impacts such as access roads, pipelines and storage facilities are possible and could affect the natural values of the WSA.

The existing land use plan does not specify any further activities that would impair wilderness values if the WSA were not designated.

ALTERNATIVE A

All five WSAs would be recommended as suitable for wilderness designation under this alternative. If Congress chooses this alternative, five WSAs would be designated wilderness and 134,108 acres of public land would be added to the national wilderness system. A wilderness management

plan would be prepared for the five WSAs consistent with the BLM's Wilderness Management Policy. Costs of managing the areas would be addressed in the plan.

Hell's Half Acre

This alternative would have the same effects for the WSA as Alternative D (preferred alternative).

Hawley Mountain

Including the Hawley Mountain WSA in the wilderness system would protect, preserve and enhance the wilderness values of 15,510 acres of public land. The area's natural appearance and wild character would remain unchanged. Opportunities for people seeking solitude or primitive recreation activities would be maintained and enhanced.

Recreational uses requiring motorized vehicles such as snowmobiling, motorcycle riding and other off-road traveling would no longer be allowed with designation. Vehicle trail closures would restrict some hunter access and require sportsmen to travel by foot or horseback.

A rancher who leases part of the WSA for livestock grazing uses about 6 miles of vehicle trails for his operation. Vehicle trails are used for salting and surveillance of livestock. If the WSA is designated wilderness, the rancher may have to salt and check herds by horseback rather than vehicle, unless occasional use of motorized vehicles were prescribed in the wilderness management plan. In general, the BLM's Wilderness Management Policy allows most livestock operations to proceed in the same manner before and after designation. However, maintenance of existing improvements, construction of new projects and specific use of vehicles must be part of an approved allotment management plan. These actions must also be in keeping with maintaining the area's wilderness character.

Some low elevation mountain mahogany thickets have become overgrown and do not provide all the winter forage for mule deer that they could if mechanically treated. Wilderness designation would prohibit large-scale mountain mahogany pruning to improve deer habitat in this historic winter range.

The potential for discovering economically recoverable amounts of oil and gas is rated low to medium by BLM geologists. Wilderness designation would cause the mineral industry to lose the long-term opportunity to explore for and develop oil and gas deposits.

If designated, lands within the WSA would be closed to claim staking, prospecting, exploration, development and patenting under the mining laws. However, development work, extraction and patenting would be allowed to continue on valid claims located on or before Dec. 31, 1983.

Black Canyon

Including the Black Canyon WSA in the National Wilderness Preservation System would protect, preserve and enhance the wilderness values of 5,400 acres of public land. The area's natural appearance and wild character would remain unchanged. Opportunities for people seeking solitude or primitive recreation activities would be maintained and enhanced.

Motorized vehicle use would no longer be allowed in the area. This would restrict some hunter access and require sportsmen to travel by foot or horseback. Vehicle restrictions may decrease the incidence of vandalism and degradation of archaeological sites in the area. Most recorded sites are located close to vehicle trails. Designation could help protect sites by making them inaccessible by road and less convenient to casual collectors. The natural appearance would also be enhanced by vehicle restrictions because vehicle trails would revegetate and become less apparent.

The WSA is historic bighorn sheep range, and the Idaho Department of Fish and Game has plans to reintroduce these animals in the area. Designation of the area would maintain wildlife habitat in its present condition and result in vehicle trail closures. The successful reestablishment of bighorn sheep would be more likely without vehicle disturbance.

The potential for discovering economically recoverable amounts of oil and gas is rated low to medium by BLM geologists. One hundred percent of the WSA is under oil and gas leases. Wilderness designation would cause the mineral industry to lose the long-term opportunity to explore for and develop oil and gas deposits.

If designated, lands within the WSA would be closed to claim staking, prospecting, exploration, development and patenting under the mining laws. However, development work, extraction and patenting would be allowed to continue on valid claims located on or before Dec. 31, 1983.

Cedar Butte

Including the Cedar Butte WSA in the wilderness system would protect, preserve and enhance the wilderness values of 35,700 acres of public land. The area's natural appearance and wild character would remain unchanged. Opportunities for people seeking solitude or primitive recreation activities would be maintained and enhanced.

Although the WSA is seldom used by off-road vehicle enthusiasts, the area would be closed to motorized travel with wilderness designation. The WSA's rugged and generally inaccessible topography has been a limiting factor to all motorized use in the past.

Lava building stone, up to 15,000 tons, would not be collected from 429 acres of the WSA. The loss of this source of stone would not

significantly affect the building stone industry because 30,000 tons would still be available at other locations in the Snake River Plain.

Even if the WSA were designated, over 1,000 tons of locatable building stone could be mined from about 25 acres and result in a conflict with wilderness and a degradation of the natural values. However, the BLM may condition access and mining operation methods to minimize the impact on the wilderness resource.

Wilderness designation would cause the mineral industry to lose the long-term opportunity to explore for and develop energy resources. The overall impact of this action would be minor because of the marginal potential the area offers for locating and economically removing oil and gas or geothermal resources.

If designated, lands within the WSA would be closed to claim staking, prospecting, exploration, development and patenting under the mining laws. However, development work, extraction and patenting would be allowed to continue on valid claims located on or before Dec. 31, 1983. A mineral withdrawal would not cause a significant impact because no valuable minerals are known to exist in the WSA.

Petticoat Peak

Including the Petticoat Peak WSA in the national wilderness system would protect, preserve and enhance the wilderness values of 11,298 acres of public land. The area's natural appearance and wild character would remain unchanged. Opportunities for people seeking solitude or primitive recreation activities would be maintained and enhanced.

Motorized vehicle use would no longer be allowed within the area. This would restrict some hunter access and require sportsmen to travel by foot or horseback.

Ranchers lease the WSA for livestock grazing and use about 10 miles of vehicle trails for their operations. Vehicle trails are used for salting and surveillance of livestock. If the WSA were designated wilderness, the ranchers may have to salt and check herds by horseback rather than by vehicle, unless occasional use of motorized vehicles were prescribed in the wilderness management plan. In general, the BLM's Wilderness Management Policy allows most livestock operations to proceed in the same manner before and after designation. However, maintenance of existing improvements, construction of new projects and specific use of vehicles must be in keeping with maintaining the area's wilderness character.

Harvest of about 2,675 acres of commercial and old growth timber totaling 6,420 MBF would be lost with wilderness designation. However, unfavorable economics restricts any immediate development of the timber resource. In the long run, all potential yield would be lost.

The WSA is historic bighorn sheep range, and the Idaho Department of Fish and Game has plans to reintroduce these animals in the area. Designation of the area would maintain wildlife habitat in its present condition and result in vehicle trail closures. The successful reestablishment of bighorn sheep would be more likely without vehicle disturbance.

The potential for discovering economically recoverable amounts of oil and gas is rated low to medium by BLM geologists. Geothermal resource potential is rated low. One hundred percent of the WSA is under oil and gas leases. Wilderness designation would cause the mineral industry to lose the long-term opportunity to explore for and develop any deposits that may exist.

If designated, lands within the WSA would be closed to claim staking, prospecting, exploration, development and patenting under the mining laws. However, development work, extraction and patenting would be allowed to continue on valid claims located on or before Dec. 31, 1983.

ALTERNATIVE B

Hell's Half Acre and Cedar Butte WSAs would be recommended as suitable for wilderness designation under this alternative. If Congress chooses this alternative, two WSAs would be designated wilderness, and 101,900 acres of public land would be added to the national wilderness system. A wilderness management plan would be prepared for Hell's Half Acre and Cedar Butte consistent with the BLM's Wilderness Management Policy. The plan would address costs of managing the areas. The remaining three WSAs, Hawley Mountain, Black Canyon and Petticoat Peak, would be managed under the current land use plans.

Hell's Half Acre
Hawley Mountain
Black Canyon
Petticoat Peak

This alternative would have the same effects on these four WSAs as Alternative D (preferred alternative).

Cedar Butte

This alternative would have the same effects on Cedar Butte as Alternative A.

ALTERNATIVE C

Hell's Half Acre and Black Canyon would be recommended for wilderness designation. If Congress chooses this alternative, two WSAs would be designated wilderness, and 71,600 acres of public land would be added to the National Wilderness Preservation System. A wilderness management plan would be prepared for Hell's Half Acre and Black Canyon consistent with the BLM's Wilderness Management Policy. Costs of managing the areas would be addressed in the plan. The remaining three WSAs, Cedar Butte, Hawley Mountain and Petticoat Peak, would be managed under the current land use plans.

Hell's Half Acre
Hawley Mountain
Cedar Butte
Petticoat Peak

This alternative would have the same effects on these four WSAs as Alternative D (preferred alternative).

Black Canyon

This alternative would have the same effects on Black Canyon as Alternative A.

ALTERNATIVE E

None of the WSAs would be recommended for wilderness designation. If Congress chooses this alternative, no public land would be added to the wilderness system. All five WSAs would be managed under the current land use plans. This alternative would allow the greatest opportunity for mineral and energy exploration and development.

Hell's Half Acre

A no wilderness decision for this WSA would mean the loss of long-term protection of 66,200 acres of public land. However, it is likely that most of the WSA would retain its natural character, at least in the short term.

The WSA would remain open to motorized vehicle use. The occasional travel within the WSA by trail bikers and snowmobilers would have a minor effect on the WSA's wilderness values. Use has been slight in the past because of the area's rugged topography and is not expected to increase to any appreciable degree.

TABLE 6

Summary of Impacts

WSA	Wilderness Values	Motorized Recreation	Forestry	Wildlife Habitat	Range Management	Energy and Minerals
<u>Hell's Half Acre</u> All Wilderness	Preservation of 66,200-acre lava flow and outstanding values wilderness values. Highest legal protection of 44,000-acre National Natural Landmark.	Off-road vehicle (ORV) use not permitted on 66,200 acres. Minor impact because present use is low.	No Impact	No Impact	No Impact	Lava building stone collection not permitted. Lose long-term opportunity to explore for and develop energy and mineral resources.
No Wilderness	No legal protection of wilderness values and National Natural Landmark through designation; little change expected in near future.	Limited ORV use would continue.	No Impact	No Impact	No Impact	No Impact
<u>Hawley Mountain</u> All Wilderness	Preservation of wilderness values on 15,510 acres of public land.	ORV use not permitted on 15,510 acres. Some impact to hunters and sightseers.	No Impact	Mountain mahogany stands would not be treated to improve wildlife habitat. Habitat would remain below potential for wintering mule deer.	Use of vehicles may not be permitted for livestock salting and monitoring. Possible inconvenience to operator.	Lose long-term opportunity to explore for and develop energy and mineral resources.
No Wilderness	No legal protection of wilderness values through designation; little change expected in near future.	ORV use would continue.	No Impact	Mountain mahogany thinning would improve wintering mule deer habitat.	No Impact.	No Impact
<u>Black Canyon</u> All Wilderness	Preservation of wilderness values on 5,400 of public land. Highest legal protection of archaeological values.	ORV use not permitted 5,400 acres. Some impact to hunters and sightseers.	No Impact	Bighorn sheep habitat improved. Successful reintroduction more likely.	No Impact	Lose term-long opportunity to explore for and develop energy and mineral resources.
No wilderness	No legal protection of wilderness values through designation; archaeological values not protected further by wilderness management.	ORV use would continue.	No Impact	No improvement in bighorn sheep habitat.	No Impact	No Impact

TABLE 6 (continued)

<p><u>Cedar Butte</u> All Wilderness</p>	<p>Preservation of 35,700 acre lava flow and wilderness values. Lava building stone mining on 25 acres could degrade natural appearance of WSA.</p>	<p>ORV use not permitted on 35,700 acres. Minor impact because present use is low.</p>	<p>No Impact</p>	<p>No Impact</p>	<p>No Impact</p>	<p>Lava building stone collection not permitted on 35,675 acres. Lose long-term opportunity to explore for and develop energy and mineral resources.</p>
<p>No Wilderness</p>	<p>No legal protection of wilderness values through designation; little change expected in near future. Impacts from lava building stone mining could degrade natural values.</p>	<p>Limited ORV use would continue.</p>	<p>No Impact</p>	<p>No Impact</p>	<p>No Impact</p>	<p>No Impact</p>
<p><u>Petticoat Peak</u> All Wilderness</p>	<p>Preservation of wilderness values on 11,298 acres of public land.</p>	<p>ORV use not permitted on 11,298 acres. Some impact to hunters and sightseers.</p>	<p>2,520 acres could not be managed as commercial forest. 2,160 MBF of timber would not be cut.</p>	<p>Bighorn sheep habitat improved. Successful reintroduction more likely.</p>	<p>Use of vehicles may not be permitted for livestock salting and monitoring. Possible inconvenience to operator.</p>	<p>Lose long-term opportunity to explore for and develop energy and mineral resources.</p>
<p>No Wilderness</p>	<p>No legal protection of wilderness values through designation. Impacts from timber harvest could degrade natural values.</p>	<p>ORV use would continue.</p>	<p>3,520 acres managed for timber production and control of insects and disease. 2,160 MBF of timber may be harvested.</p>	<p>No improvement in bighorn sheep habitat.</p>	<p>No Impact</p>	<p>No Impacts</p>

The existing land use plan does not specify any further activities that would impair wilderness values if the WSA were not designated.

Cedar Butte
Hawley Mountain
Black Canyon
Petticoat Peak

This alternative would have the same effects on these four WSAs as Alternative D (preferred alternative).

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

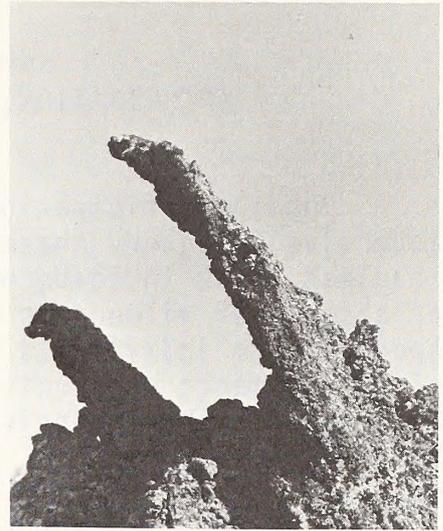
If a WSA is not designated wilderness, all present, short-term uses would continue. Off-road vehicle use, mining and mineral leasing activities, and removal of construction and building materials could reduce the wilderness values over the long term.

If an area is designated wilderness, it would ensure the long-term productivity of ecosystems and would maintain or enhance present wilderness values. Motorized vehicles could no longer be used except where prescribed by an area's wilderness management plan. New mineral and energy sources would not be available for location and development after Dec. 31, 1983.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

Activities such as mining, mineral leasing, material sales and logging could create an irreversible commitment of the wilderness resource in part or all of a WSA, if not designated. Wilderness designation would not create an irretrievable or irreversible commitment of resources within a WSA. It would restrict or stop development activities to maintain an area's natural condition. If in the future, Congress decides resources in a wilderness need to be developed in the national interest, they can modify the law to allow it.

CHAPTER 7



Coordination, Consistency and Public Participation

CHAPTER 7

COORDINATION, CONSISTENCY and PUBLIC PARTICIPATION

Public participation began early in 1980 when the BLM was in the intensive inventory phase of the wilderness review process in Idaho. The roadless areas in Idaho were examined in detail to determine the presence or absence of wilderness characteristics. The BLM received 3,200 responses from individuals and organizations statewide. About 15 percent of the comments were unit-specific. The public participation effort is described in the Intensive Wilderness Inventory Final Decision of Nov. 13, 1980.

A notice of intent to prepare a plan amendment and EIS was published in the Federal Register on Oct. 16, 1981. The BLM conducted an issue identification and scoping process early in 1982 which included newsletters, media coverage, and both formal and informal meetings with individuals, groups and local government agencies. In late January 1982, more than 450 information letters were mailed. These letters offered a chance for people to give their ideas on issues or concerns that should be addressed for the six WSAs; 38 persons responded with their concerns and suggested issues to be considered. In April 1982, the BLM mailed another information letter which listed the identified issues, explained the need for choosing alternatives, and offered the chance to suggest alternatives for the BLM to analyze. Few comments were received. A citizens group, a representative of the Wilderness Society, a representative of the Committee for Idaho's High Desert, and Conoco Inc. suggested alternatives for the plan amendment and EIS.

All of the alternatives appear to be consistent with existing, officially approved and adopted resource-related plans of local governments and other federal agencies.

The public will continue to be involved in the suitability determination for these six WSAs and related plan amendments.

AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM THE EIS WILL BE SENT

Elected Federal Officials

Senator James McClure
Senator Steve Symms
Representative George Hansen

Elected State Officials

Governor John V. Evans
State Senators and Representatives

Federal Agencies

Forest Service
Soil Conservation Service
Agricultural Stabilization and Conservation Service
Fish and Wildlife Service
Department of Energy
National Park Service
Geological Survey
Army Corps of Engineers
Environmental Protection Agency
Advisory Council on Historic Preservation
Federal Energy Regulatory Commission
Bureau of Indian Affairs

State of Idaho Agencies

Department of Lands
Department of Fish and Game
Department of Parks and Recreation
Transportation Department, Division of Highways
Department of Water Resources
State Clearinghouse
Idaho Historical Society
Department of Agriculture
Soil Conservation Commission
Bureau of Mines and Geology
Department of Health and Welfare

County Commissioners

Bannock County
Caribou County
Bingham County
Butte County
Bonneville County

Planning and Zoning Commissions

Bannock County
Caribou County
Bingham County
Butte County
Bonneville County

City Mayors

Arco
Blackfoot
Idaho Falls
Pocatello
Lava Hot Springs

Organizations

AEC Sportsmen's Club
American Mining Congress
American Wilderness Alliance
Bonneville Sportsmen's Association
Citizen's Environmental Council

Committee for Idaho's High Desert
Cottonwood Grazing Association
Earth First
Federation of Western Outdoor Clubs
Gold Diggers Club
Greater Snake River Land Use Congress
Idaho Association of Counties
Idaho Cattlemen's Association
Idaho Environmental Council
Idaho Falls Alpine Club
Idaho Falls Conservation League
Idaho Falls Gem and Minerals Society
Idaho Mining Association
Idaho Motorcycle Club
Idaho Nuclear Sportsmen's Club
Idaho Trail Machine Association
Idaho Wildlife Federation
Independent Petroleum Association of America
Institute for High Desert Studies
Isaak Walton League
King Creek Grazing Association
Lava Hot Springs Foundation
League of Women Voters
Magic Valley Gem Club
Natural Resources Defense Council
North Canyon Grazing Association
Northwest Mining Association
Outdoors Unlimited
Pocatello Trail Machine Association
Portneuf Valley Audubon Society
Rocky Mountain Oil and Gas Association
Sierra Club
Skyline Ridge Riders
Snake River Audubon Society
Southeast Idaho Rod and Gun Club
Southeast Idaho Snowmobile Association
Snowmobile Club
Tri-County Cattlemen's Association
Wilderness Society
Wool Growers Association

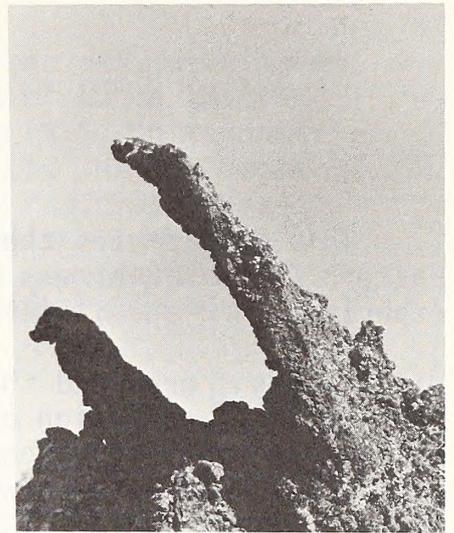
Idaho Falls District Advisory Council
Burley District Advisory Council
Idaho Falls District Grazing Advisory Board
Bureley District Grazing Advisory Board

Other Individuals

(Approximately 200 on mailing list)

CHAPTER 8

List of Preparers



CHAPTER 8

LIST OF PREPARERS

This list states the responsibilities of persons involved in the Eastern Idaho Wilderness EIS and Plan Amendment and summarizes their experience and qualifications.

William Boggs prepared the material on the Petticoat Peak WSA. He has been outdoor recreation planner in the Burley District since 1978 and holds a degree in Environmental Resources from California State University at Sacramento. He also worked 5 years for the U.S. Forest Service.

John Butz was the primary author, writing several sections of the document and contributing to all of the sections. He started with the BLM in 1974 in Carson City, Nevada, and has worked in the Salem, Oregon District, in the Oregon State Office as Program Analyst, Idaho State Office, and in the Idaho Falls District as an outdoor recreation planner since 1977. He holds a degree in forest recreation management from Oregon State University.

Paul Card wrote the section on social conditions. He joined the BLM as a sociologist in 1979 after 2 years in the Executive Office of the Governor (Idaho). Earlier, during 5 years with the Idaho Transportation Department, Card supervised the production of EISs. He received a B.A. in sociology and math from Eastern Washington State College. He attended graduate school at University of Idaho.

Tim Carroll prepared the geology and mineral resources sections in the EIS. Carroll joined the BLM in 1974 as a minerals specialist, and has been the District Geologist in Idaho Falls for over 3 years. He has a B.S. in geology from the University of Missouri.

Julia Corbett edited all parts of the document and designed the graphics. She received a B.A. from Indiana University in magazine photojournalism and environmental studies. Before coming to the Idaho Falls District as writer-editor in 1980, Corbett worked as a naturalist-writer for the National Park Service in Washington state and as a freelance writer-photographer.

Richard D. Hill prepared the cultural resources portion. He has a B.A. in anthropology from Indiana University and is a candidate for an M.A. in anthropology from Idaho State University. Hill has been with the BLM 6 years and helped prepare the Little Lost-Birch Creek Grazing and Big Desert EISs.

Tom Lopez wrote the section on the affected environment. He started with the BLM in the Salmon District in 1978, worked in the Shoshone District, and has been in the Idaho Falls District as a range technician since 1980. He holds a degree in natural resources from the University of Michigan.

Taka Nukaya and Eileen Winder typed this document.

Don Watson served as team leader, prepared some sections and contributed to all of the sections. Watson has prepared sections of three grazing EISs and a powerline EIS. He has a B.S. in botany, an M.S. in taxonomy and range management, and an M.A. in resource economics. Watson began with the BLM in 1962 in Bakersfield, California, as a range conservationist and has served as area manager, realty specialist, and state office lands specialist and planning coordinator. He now heads up the planning and environmental assistance staff in the Idaho Falls District.

APPENDIX

Mineral Resource Development Potential Ratings

High Potential - High potential is assigned to mineral producing areas and adjacent areas within the same mineral province and/or with similar geologic characteristics. This rating is also assigned to non-producing areas from which minerals could be extracted economically at the present time.

Medium Potential - Medium potential is assigned to areas of past mineral production that shows evidence of subeconomic mineral reserves. Other areas with medium potential are those not known to contain mineral reserves but with geological characteristics favorable enough to generate serious interest in exploration from the mineral industry.

Low Potential - Low potential is assigned to areas without geological characteristics favorable for the occurrence of mineral resources.

The rest of the appendix discusses in depth the mineral resources for each WSA, including the geologic setting and mineral resource occurrence.

HELL'S HALF ACRE

Geologic Setting

The study area is in the Snake River Plain physiographic province. This plain is a trough filled with Tertiary rhyolite overlain by Quaternary basalt. The volcanic sequence is 10,000 to 20,000 (or more) feet thick and is interbedded with alluvial sediments.

Except for only 520 acres on Pleistocene Snake River Basalt flows, the Hell's Half Acre WSA is within the Holocene Hell's Half Acre basalt flow. This Holocene flow is age-dated at about 4,100 years. Relatively little topsoil has had a chance to form within the WSA.

Mineral Resource Occurrence

Leasable Minerals

The WSA has a low potential for the development of oil and gas. Although the study area is not far from the Overthrust Belt Oil and Gas Province, the oil industry has not indicated a serious interest in exploring for oil and gas in that part of the Snake River Plain.

As of July 1982, virtually all lands in the study area were under lease for oil and gas. Except for one vibrosis survey conducted in 1974 just west of the WSA, industry has not proposed any oil and gas exploration operations in or near the WSA.

The WSA has a low to medium potential for the development of geothermal resources. Along the margins of the eastern Snake River Plain are over 50 thermal wells and springs with surface temperatures from 20°C to over 50°C. The most reliable geochemical analyses of these fluids indicate subsurface temperatures less than 100°C, far too low for electrical generation. A low temperature geothermal reservoir with fluids suitable for direct uses occurs just east of Hell's Half Acre WSA. It is likely that high temperatures occur within the WSA at depth, but the presence of geothermal fluids is not known, and interest in the WSA has not been shown by the geothermal industry.

Locatable Minerals

The Hell's Half Acre WSA has a low to medium potential for the development of locatable deposits of lava building stones. The Holocene basalt flows of the Snake River Plain consist primarily of multiple pahoehoe basalt units. Cooling of the molten lava sheets caused them to fracture into polygonal plates 1 to 4 or more inches thick and several inches to a few feet across.

This decorative rock is marketed as building stone veneer in many western states. The marketable lava slabs are most commonly 2 to 4 inches thick, but more rare deposits of 1- to 2-inch-thick plates also occur. These thin plates are an uncommon variety of building stone locatable under the U.S. mining laws. They bring a higher price at the marketplace and cover more surface area per ton than do common varieties of decorative lava rock.

Although uncommon varieties of lava building stone occur within the WSA, such deposits have not been identified.

Salable Minerals

The WSA has a medium to high potential for the development of common varieties of slab pahoehoe basalt building stone deposits. Past and current production from the Hell's Half Acre lava flow has demonstrated local and regional markets for the rock.

Deposits of basalt slabs occur throughout the Hell's Half Acre flow. As of August 1982, an estimated 6,000 tons of lava rock had been sold from common use and commercial sale areas south of the Hell's Half Acre WSA. Unauthorized removal of rock from the lava flow has also taken place over the past few decades. The removal of up to 1,000 tons from the WSA has been reported. One site on the northeast fringe of the WSA 11 miles west of Idaho Falls had received particular interest. Up to 70,000 tons of marketable basalt slabs occur within the Hell's Half Acre WSA. These estimates are based on surveys of the basalt flow conducted in July 1980 and July 1981.

Hauling and access costs, and fluctuations in the housing industry are the main factors that determine the economic potential of lava rock reserves.

HAWLEY MOUNTAIN

Geologic Setting

The study area is in the Lost River Range of the Northern Rocky Mountain physiographic province. This fault block mountain range consists primarily of folded and faulted Paleozoic strata in a region of the Northern Rockies resembling the Basin and Range province (long, narrow ranges separated by broad, intermontane valleys).

The Hawley Mountain WSA has a fairly complex geology because the strata is steeply dipping, and many formations are exposed at the surface. Also, the folding and faulting is well pronounced, and a great variety of Cenozoic sediments have been deposited.

Mineral Resource Occurrence

Leasable Minerals

The WSA has a low to medium potential for development of oil and gas. The study area may have geological characteristics favorable for the

occurrence of stratigraphic or structural traps of oil and gas. As of July 1982, all lands in the study area were under lease or lease application for oil and gas. This is due to the proximity of the Rocky Mountain Overthrust Belt Oil and Gas Province. The Idaho-Wyoming-Utah portion of this province, within which are producing oil and gas fields, is about 90 miles east-southeast of the study area.

While the oil-bearing strata within this producing portion of the Belt are Mesozoic in age, only the sequence of Paleozoic sedimentary formations within the WSA has any oil and gas potential. Mesozoic strata that may have formed within the WSA have long since been removed by erosion. In addition, the intrusion of the Cenozoic Idaho Batholith west of the study area may have destroyed reservoirs that could have formed in the older, Paleozoic rocks.

Industry has not proposed any oil and gas exploration operations in or near the WSA.

Locatable Minerals

The study area has a low to medium potential for gold, silver, lead, zinc and copper ores. These minerals were mined from the nearby Hamilton-Dome mining district, which occupies the southwestern slope of the southern Lemhi Range just east of Hawley Mountain. From 1880 to the mid-1950s, about 130,000 tons of these ores were mined from the district's several prospects and mines. The mineralization occurs primarily as replacement deposits along fault and breccia zones within Ordovician to Precambrian quartzite and dolomite masses. Some mineralization also occurs in limestones of Permian to Carboniferous age. Within the WSA are zones of faulting and brecciation along these same formations, both on the surface and at depth, but no ore bodies have yet been discovered.

Within 20 miles of the WSA, limestones of Permian to Carboniferous age were sampled in 1963 and 1965. The samples contained 85 to 90 percent calcium carbonate and about 5 percent magnesium carbonate. Significant limestone deposits of equivalent age and type lie within the study areas.

As of July 1982, there is no evidence of prospecting or mining claim locations within the study area.

Salable Minerals

The WSA has a medium to high potential for sand and gravel deposits, although the quality and quantity are unknown. Cenozoic deposits in the WSA contain undetermined quantities of sand and gravel.

These deposits are also sources of mineral materials suitable for various construction purposes. No extraction operations have been proposed, mainly because of the availability of the materials from more favorably located sources, the cost of developing new sites, and the lack of sufficient demand.

The brecciated limestone deposits of the Hawley Mountain WSA could serve as an additional source of aggregate materials.

BLACK CANYON

Geologic Setting

The study area is in the Lemhi Range of the Northern Rocky Mountain physiographic province. This fault block mountain range consists primarily of folded and faulted Paleozoic strata in a region of the Northern Rockies resembling the Basin and Range province (long, narrow ranges separated by broad, intermontane valleys).

Mineral Resource Occurrence

Leasable Minerals

The WSA has a low to medium potential for the development of oil and gas. The study area may have geological characteristics favorable for the occurrence of stratigraphic or structural traps of oil and gas. As of July 1982, all lands in the study area were under lease or lease application for oil and gas. This is due to the proximity of the Rocky Mountain Overthrust Belt Oil and Gas Province. The Idaho-Wyoming-Utah portion of this province, within which are producing oil and gas fields, is about 65 miles east-southeast of the study area.

While the oil-bearing strata within this producing portion of the Belt are Mesozoic in age, only the sequence of Paleozoic sedimentary formations within the WSA has any oil and gas potential. Mesozoic strata that may have formed within the WSA have long since been removed by erosion. In addition, the intrusion of the Cenozoic Idaho Batholith west of the study areas may have destroyed reservoirs that could have formed in the older, Paleozoic rocks.

No oil and gas exploration operations in or near the WSA have yet been proposed by industry.

Locatable Minerals

The WSA has a low to medium potential for gold, silver, lead, zinc and copper ores. These minerals were mined from the nearby Hamilton-Dome mining district which occupies the southwestern slope of the southern Lemhi Range just north of the Black Canyon WSA. From 1880 to the mid-1950s, about 130,000 tons of these minerals were mined from the district's several prospects and mines. The mineralization occurs primarily as replacement deposits along fault and breccia zones within Ordovician to Precambrian quartzite and dolomite masses. Some mineralization also occurs in limestones of Permian to Carboniferous age. Within the WSA are zones of faulting along these same formations, both on the surface and at depth, but no ore bodies have yet been discovered.

Within 20 miles of the WSA, limestones of Permian to Carboniferous age were sampled in 1963 and 1965. The samples contained 85 to 90 percent calcium carbonate and about 5 percent magnesium carbonate. Significant limestone deposits of equivalent age and type lie within the study area.

As of July 1982, there was no evidence of prospecting or mining claim locations within the study area.

Salable Minerals

The WSA has a medium to high potential for sand and gravel deposits, although the quality and quantity are unknown. These deposits lie in the mountain foothills of the WSA in alluvial fans.

Although a couple of test pits were dug in alluvial fan deposits near the northeastern boundary of the WSA, no extraction operations have been proposed, mainly because of the availability of the material from more favorably located sources, the cost of developing new sites, and the lack of sufficient demand.

CEDAR BUTTE

Geologic Setting

The study area is in the Snake River Plain physiographic province, a trough filled with Tertiary rhyolite overlain by Quaternary basalt. The volcanic sequence is 10,000 to 20,000 (or more) feet thick and is interbedded with alluvial sediments.

Except for only 540 acres on Pleistocene Snake River Basalt flows, the Cedar Butte WSA is within the Holocene Cerro Grande basalt flow. This Holocene flow is age-dated at about 10,780 years.

Mineral Resource Occurrence

Leasable Minerals

The WSA has a low potential for the development of oil and gas. Although the study area is not far from the Overthrust Belt Oil and Gas Province, the oil industry has not indicated a serious interest in exploring for oil and gas in that part of the Snake River Plain.

As of July 1982, about 92 percent of the lands in the study area were under lease for oil and gas. Except for one vibroseis survey conducted in 1974 just east of the WSA, no oil and gas exploration operations in or near the WSA have been proposed by industry.

The WSA has a low to medium potential for the development of geothermal resources. Along the margins of the eastern Snake River Plain are over 50 thermal wells and springs with surface temperatures from 20°C to over 50°C. The most reliable geochemical analyses of these fluids indicate subsurface temperatures less than 100°C, far too low for electrical generation. A low temperature geothermal reservoir with fluids suitable for direct uses occurs 20 miles east of the Cedar Butte WSA. It is likely that high temperatures occur within the WSA at depth, but the presence of geothermal fluids is not known, and interest in the WSA has not been shown by the geothermal industry.

Locatable Minerals

The Holocene basalt flows of the Snake River Plain consist primarily of multiple pahoehoe basalt units. Cooling of the molten lava sheets caused them to fracture into polygonal plates 1 to 4 or more inches thick and several inches to a few feet across. This decorative rock is marketed as building stone veneer throughout many western states.

The marketable lava slabs are most commonly 2 to 4 inches thick, but rare deposits of 1- to 2-inch-thick plates also occur. These thin plates are an uncommon variety of building stone locatable under the U.S. mining laws. They bring a higher price at the marketplace and cover more surface area per ton than do common varieties of decorative lava rock.

The Cedar Butte WSA has medium to high potential for the development of locatable platy basalt 6 miles southwest of Atomic City. Six building stone place mining claims (Blackfoot #1 - #6) were located in 1979 by Distinctive Lava Stone, Inc., of Bend, Oregon. Although the claims cover 454 acres of the Cerro Grande basalt flow, the locatable variety of lava slabs occurs on only about 25 acres. Reserves of these thin plates are estimated in the thousands of tons. Distinctive Lava Stone has removed only about 10 tons of rock from their claims so far and has no plans to step up their operations in the near future.

Salable Minerals

The WSA has a medium to high potential for the development of slab pahoehoe basalt building stone deposits. Past production from the Cerro Grande lava flow has demonstrated local and regional markets for the rock. Within the Cedar Butte WSA, public sales of lava rock were made from March 1977 to March 1980 from community pit I-13075 in lot 1, NE1/4SE1/4 Section 1, T. 1 S., R. 30 E. From 100 to 200 tons have been removed.

Up to 15,000 tons of marketable basalt slabs (common variety) occur within the WSA. These estimates are based on surveys of the basalt flow conducted in July 1980 and July 1981.

Hauling and access costs and fluctuations in the housing industry are the main factors that determine the economic potential of lava rock reserves.

PETTICOAT PEAK

Geologic Setting

The Petticoat Peak WSA lies within the Basin and Range physiographic province. This area is composed of volcanic and sedimentary rocks with normal, reverse and graben-horst type faults that resulted when Laramide compressional stresses began to relax and tensional stresses developed Basin and Range type topography. Volcanic ash and conglomerate of the Tertiary Salt Lake formation overly the Paleozoic limestone, dolomite, shale and quartzite strata. Igneous rocks consist of a basalt flow of Pliocene age interbedded with the Salt Lake Formation.

Mineral Resource Occurrence

Leasable Minerals

Fourteen oil and gas leases cover the entire WSA. There has been no exploration or development by the lessees. The study area may have geological characteristics favorable for the occurrence of stratigraphic or structural traps of oil and gas. It is only 10 miles west of the Overthrust Belt Oil and Gas Province's Idaho-Wyoming-Utah region within which are producing oil and gas fields. However, the oil industry has not indicated a serious interest in exploring the vicinity of the WSA. Therefore, the study area has a low to medium potential for the development of oil and gas.

The Minerals Management Service indicated that T. 9 S., R. 38 E. is prospectively valuable for geothermal resources. A well in Section 21, NE1/4SE1/4SE1/4, shows a recorded temperature of 45°C which is far too low for electrical generation. The WSA has a low to medium potential for the development of geothermal resources particularly for non-electrical

purposes. It is likely that high temperatures occur within the WSA at depth, but the presence of geothermal fluids is not known and interest in the WSA has not been shown by the geothermal industry.

Locatable Minerals

There is no indication of active mining, prospecting or mining claims within the WSA. The Vanza Mine located in Section 27, T. 9 S., R. 38 E. was a manganese producer in the 1930s and 1950s but is now inactive. Although a strategic mineral, there is no production of manganese in the United States, and all demands are met by imports or government reserves. Other locatable minerals in the vicinity of the WSA may include high purity silica ($SiAl_2$) and selenium.

The study area has a low to medium potential for the development of manganese, selenium and silica. These minerals are not known to occur within the WSA but do occur in geologically similar lands nearby.

Salable Minerals

The Idaho Transportation Department has a material site right-of-way in Section 33, T. 8 S., R. 38 E. Outcrops of the Swan Peak Formation in Section 13, T. 9 S., R. 38 E. have been identified as potential sources of road base material.

The study area has a medium to high potential for the development of mineral materials. A material site right-of-way within the WSA indicates serious interest in such deposits. The Paleozoic Swan Peak Formation is a potentially good source of quartzite aggregate.

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GLOSSARY

Allotment: An area of land where one or more individuals graze livestock. An allotment may consist of several pastures.

Allotment Management Plan: A detailed plan for intensively managing and improving a specific grazing allotment.

Animal Unit Month (AUM): A standardized unit of measurement of the amount of forage necessary for the complete subsistence of one animal unit (one cow or one horse or five sheep, all over six months old) for one month.

Bailey-Kuchler System: A classification system that divides the United States into ecosystems based on climate, vegetation, soils and landform.

Basalt: Any fine-grained, dark-colored, igneous rock of volcanic origin.

Ecosystem: A complex, self-sustaining, natural system which includes living and non-living components of the environment and the interactions that bind them together. Its functioning involves the circulation of matter and energy between organisms and their environment.

Endangered Species: An animal or plant whose prospects of survival and reproduction are in immediate jeopardy. Endangered species is further defined by the Endangered Species Act of 1973.

Federal Land Policy and Management Act (FLPMA): Public Law 94-579, October 21, 1976, referred to by the Bureau of Land Management as its "Organic Act," which provides most of the BLM's legislated authority, direction, policy and basic guidance.

Kipuka: An island of older lava that has vegetated and been surrounded by a newer lava flow.

Leasable Minerals: Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium and sodium minerals, oil, and gas. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lithic Scatters: Stone, tool-making waste chips and flakes randomly distributed over an open land surface. Scatters are important for scientific studies of an area's prehistoric use, settlement patterns and population density.

Locatable Minerals: Minerals or materials subject to disposal and development through the Mining Law of 1872 (as amended). Generally includes metallic minerals such as gold and silver and other materials not subject to lease or sale (some bentonites, limestone, talc, some zeolites, etc.). Whether or not a particular mineral deposit is locatable depends on such factors as quality, quantity, mineability, demand and marketability.

Management Framework Plan (MFP): A planning decision document that establishes land use allocations, multiple use guidelines, and management objectives for a given planning area. It is the BLM's land use plan. An MFP is prepared in three steps: (1) resource recommendations, (2) impact analysis and alternative development, and (3) decision making.

Management Framework Plan Amendment: An official change to a management framework plan that is initiated by the need to consider monitoring, new data, new or revised policy, a change in circumstances, or an applicant's proposed action that could significantly affect a portion of the approved plan.

Mineral Patent: The title for the surface and mineral estate within a valid mining claim located under the 1872 mining law.

Naturalness: Refers to an area which "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" (from Section 2(c), Wilderness Act).

Outstanding: Standing out among others of its kind; conspicuous; prominent; or, superior to others of its kind; distinguished; excellent.

Pictographs: Geometric human and animal figures painted on rock surfaces, such as caves, rockshelters, and on boulders. Pictographs were painted by people associated with prehistoric and historic non-literate cultures.

Planning Unit: A portion of a resource area for which inventories and land use plans are developed.

Primitive and Unconfined Recreation: Nonmotorized and undeveloped types of outdoor recreational activities.

Public Land: Historically, the public domain administered by the BLM for the purpose of providing such things as forage, wood products and minerals for public users. Additional uses of these public lands have been developed and are now recognized including wildlife habitat, wilderness, watershed protection, open space, recreation opportunities, protection of cultural resources, and other purposes.

Salable Minerals: A group of mineral materials including, but not limited to, petrified wood and common varieties of sand, stone, gravel, pumice, cinders and clay on public lands. These minerals may be disposed of through a contract of sale or a free use permit authorized by the Materials Act of 1947 as amended by PL-167 and PL-87-713.

Sensitive Species: Species whose populations or ranges are so limited that any reductions in numbers, habitat availability, or habitat condition could result in their being placed on the endangered list.

Site (Archaeological): A physical location where primitive and historic human activities or events occurred and evidence remains that can be used to document human history.

Solitude: The state of being alone or remote from habitations; isolation. A lonely, unfrequented, or secluded place.

Standard Metropolitan Statistical Area (SMSA): A county that contains at least one city of 50,000 inhabitants or more plus as many adjacent counties as are metropolitan in character and are socially integrated with that central city or cities.

Suitability: As used in the Wilderness Act and in the Federal Land Policy and Management Act, refers to a recommendation by the Secretary of Interior or the Secretary of Agriculture that certain federal lands satisfy the definition of wilderness in the Wilderness Act and have been found appropriate for designation as wilderness on the basis of an analysis of the existing and potential uses of the land.

Threatened Species: Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. It is further defined by the Endangered Species Act of 1973.

Wilderness Recommendation: A recommendation to Congress by the Bureau of Land Management, the Secretary of Interior, or the President, with respect to an area's suitability or nonsuitability for preservation as wilderness.

Wilderness Review: The entire process of wilderness inventory, study, and reporting phases of the wilderness program of the Bureau of Land Management.

Wilderness Values: The amenities and benefits connected with areas having large size, naturalness, and outstanding opportunities for solitude or primitive recreation.

Wilderness Study Area: A parcel of public land that through the BLM's wilderness inventory process has been found to possess the basic wilderness characteristics of being at least 5,000 acres in size, being primarily natural, and having outstanding opportunities for solitude or primitive and unconfined types of recreation.

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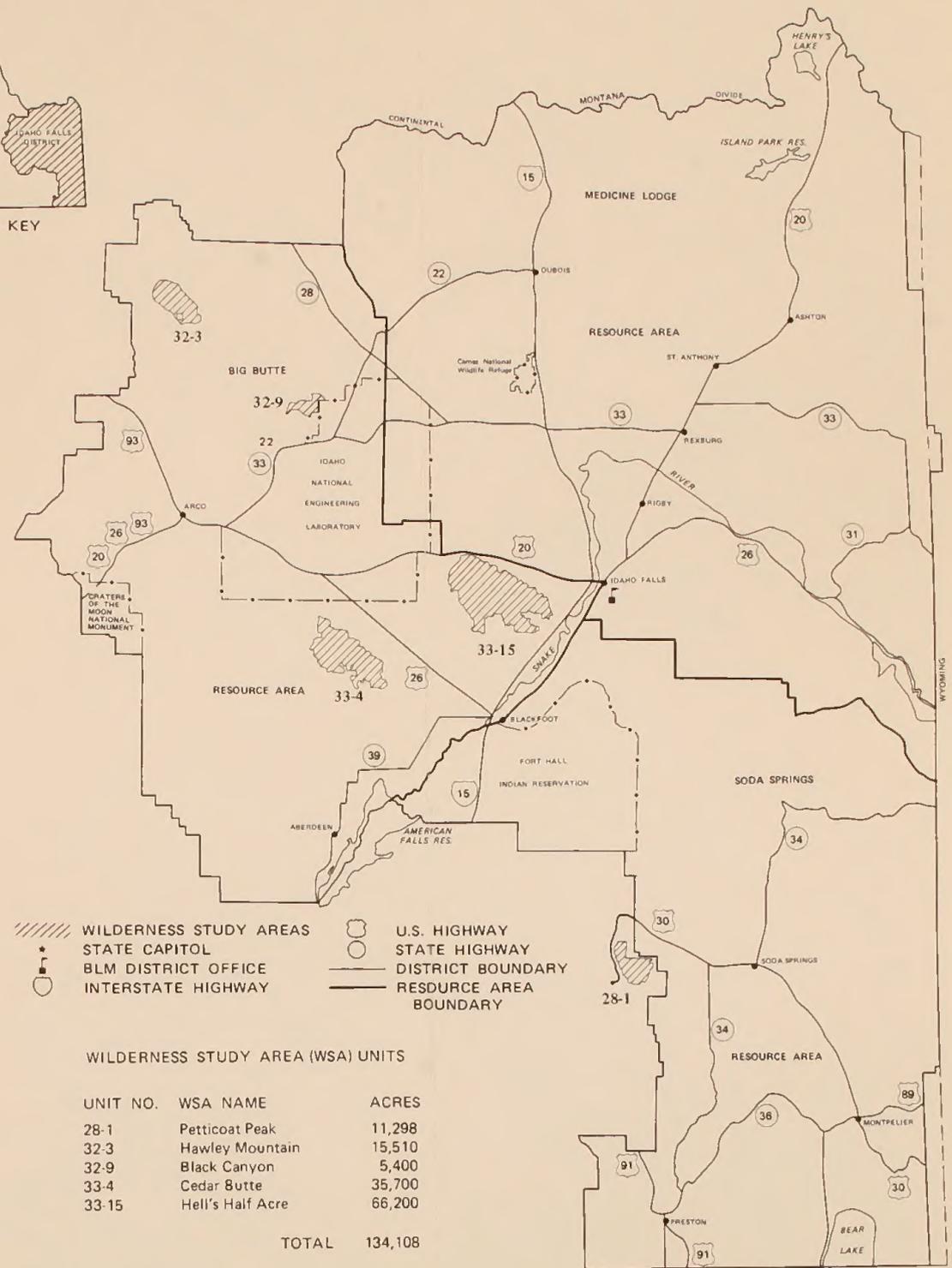
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EASTERN IDAHO GENERAL LOCATION MAP



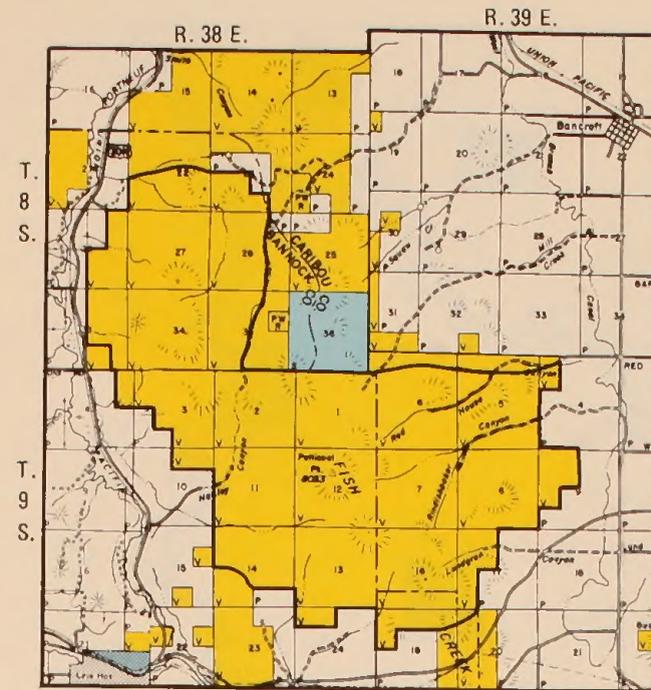
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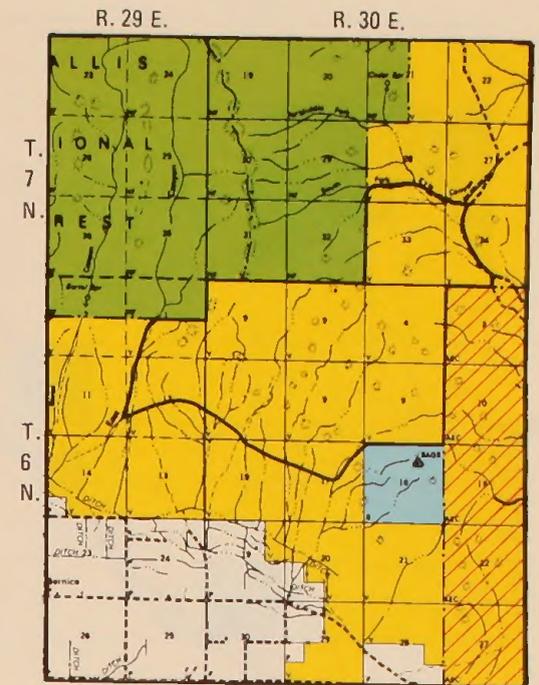
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- STATE CAPITOL
- BLM DISTRICT OFFICE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- DISTRICT BOUNDARY
- RESOURCE AREA BOUNDARY

WILDERNESS STUDY AREA (WSA) UNITS

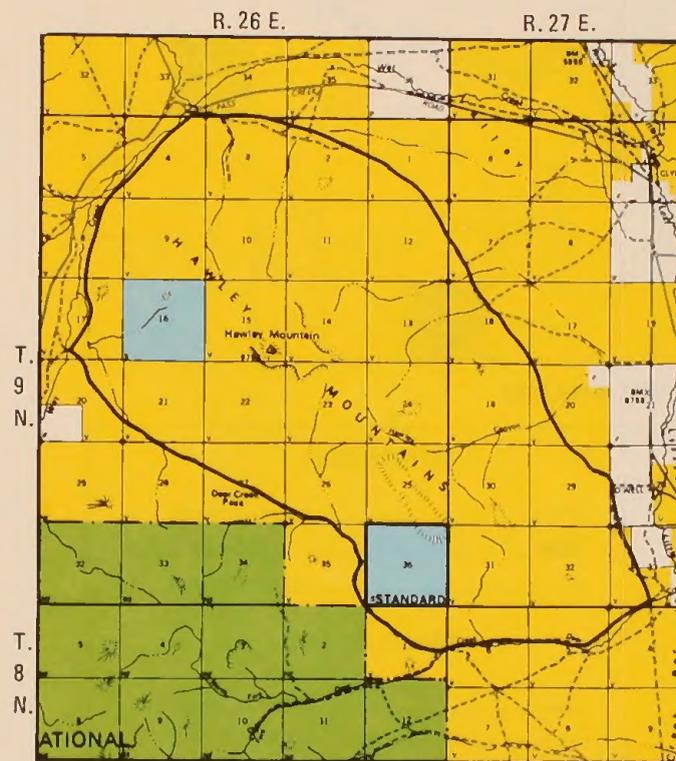
UNIT NO.	WSA NAME	ACRES
28-1	Petticoat Peak	11,298
32-3	Hawley Mountain	15,510
32-9	Black Canyon	5,400
33-4	Cedar Butte	35,700
33-15	Hell's Half Acre	66,200
TOTAL		134,108



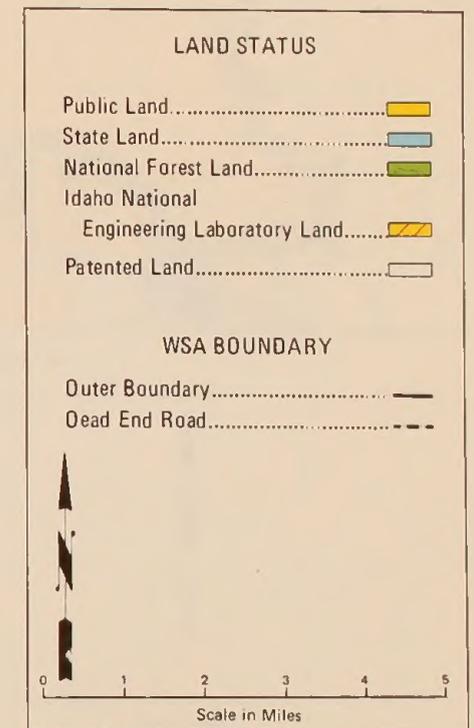
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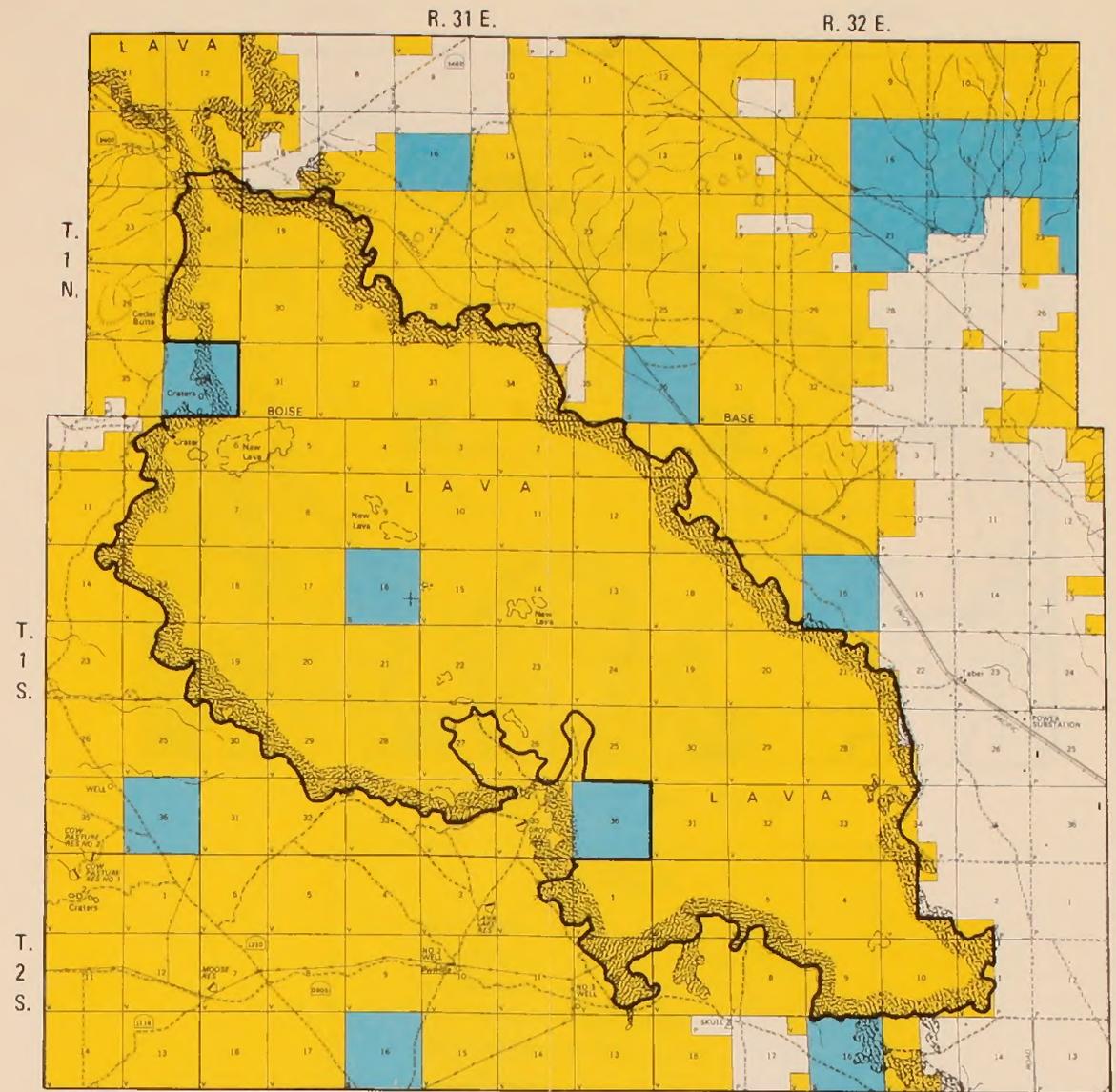


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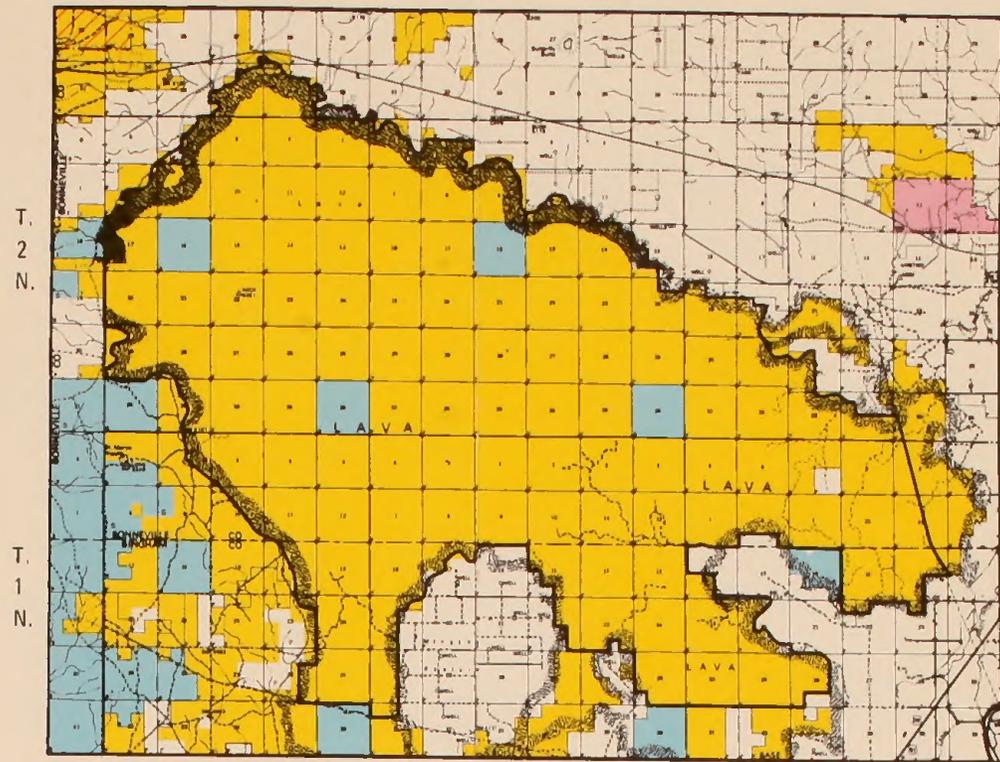
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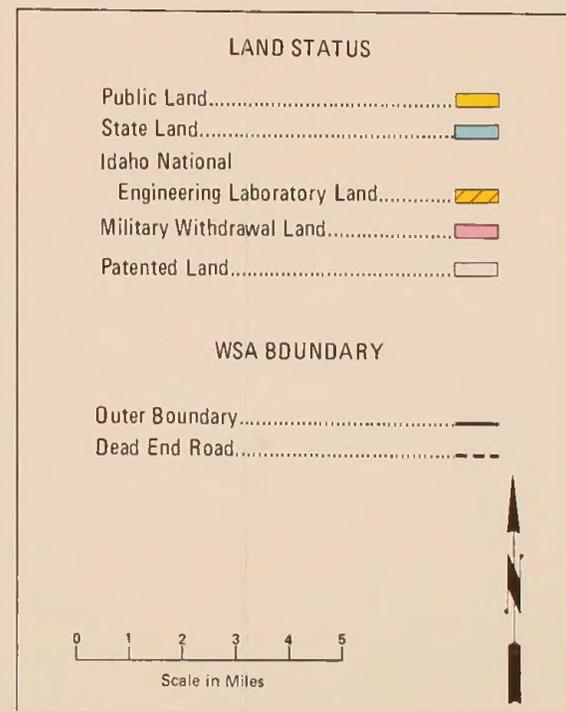


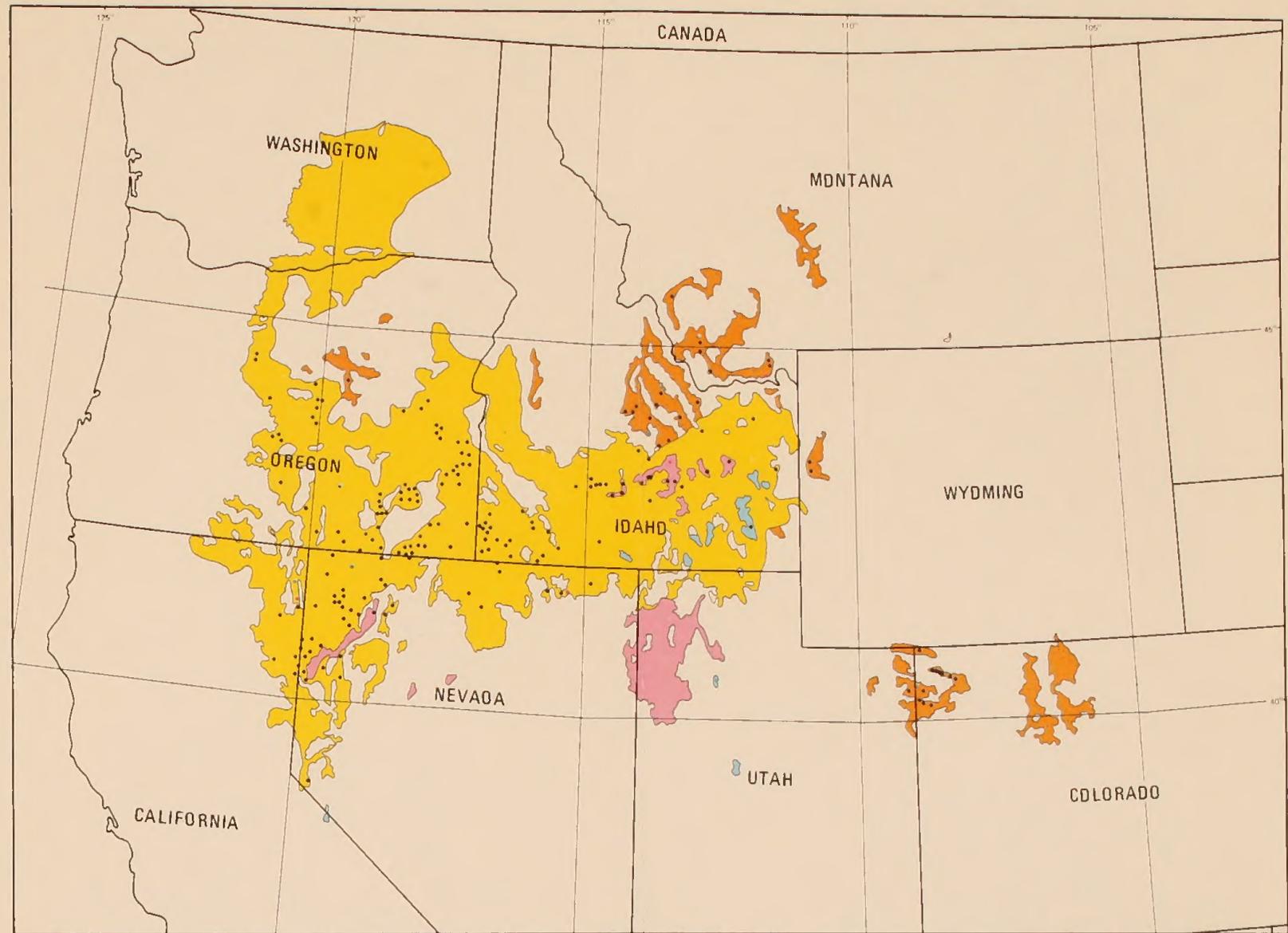
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HELL'S HALF ACRE WSA 33 - 15

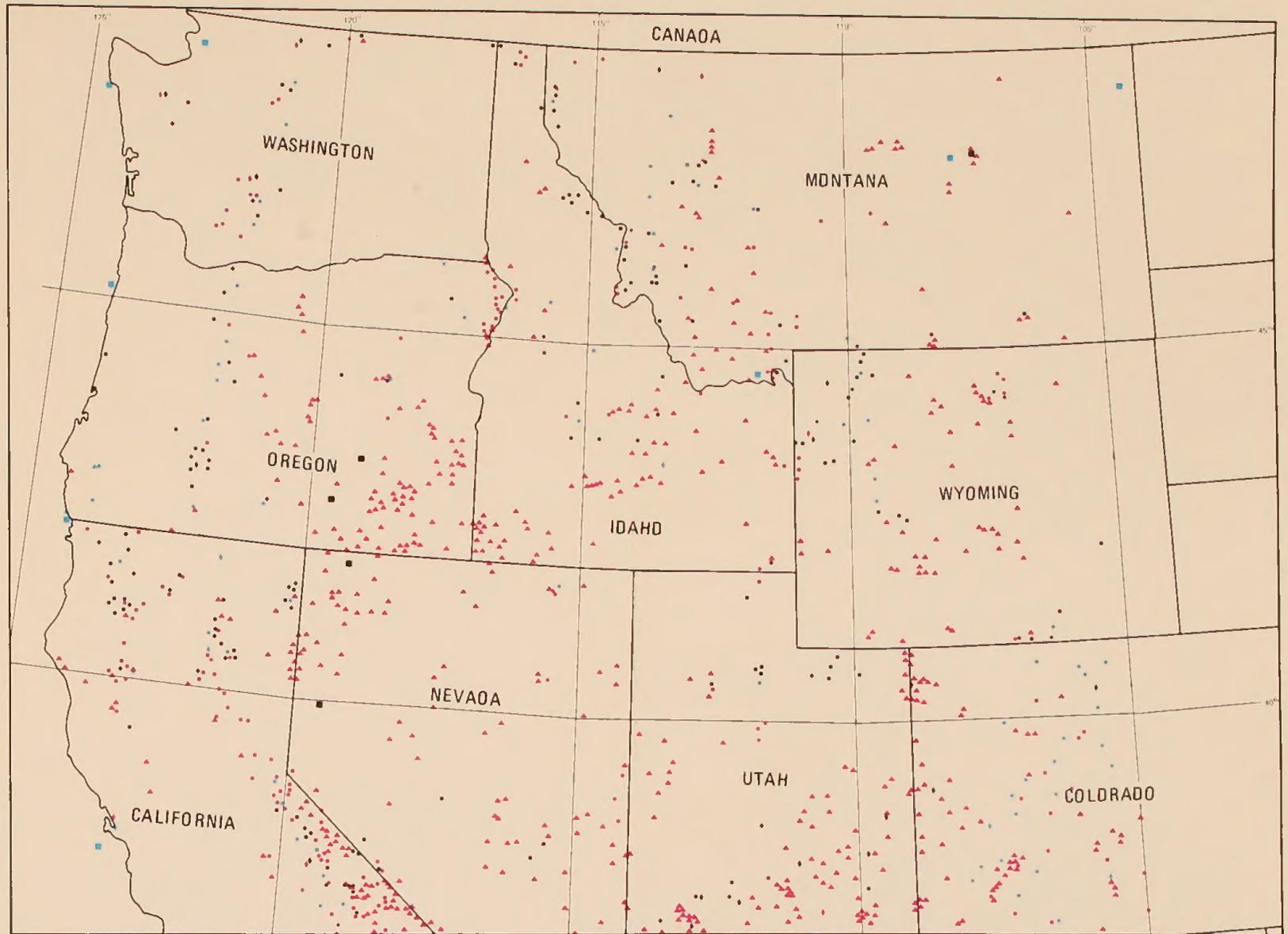




MAP 3
ECOSYSTEMS

- 3130-14 Intermountain Sagebrush Province - Western Spruce - Fir Forest
- 3130-39 Intermountain Sagebrush Province - Desert: Vegetation largely absent
- 3130-49 Intermountain Sagebrush Province - Sagebrush Steppe
- M3110-49 Rocky Mountain Forest Province - Sagebrush Steppe

- DESIGNATED WILDERNESS
- PROPOSED
- UNDER STUDY

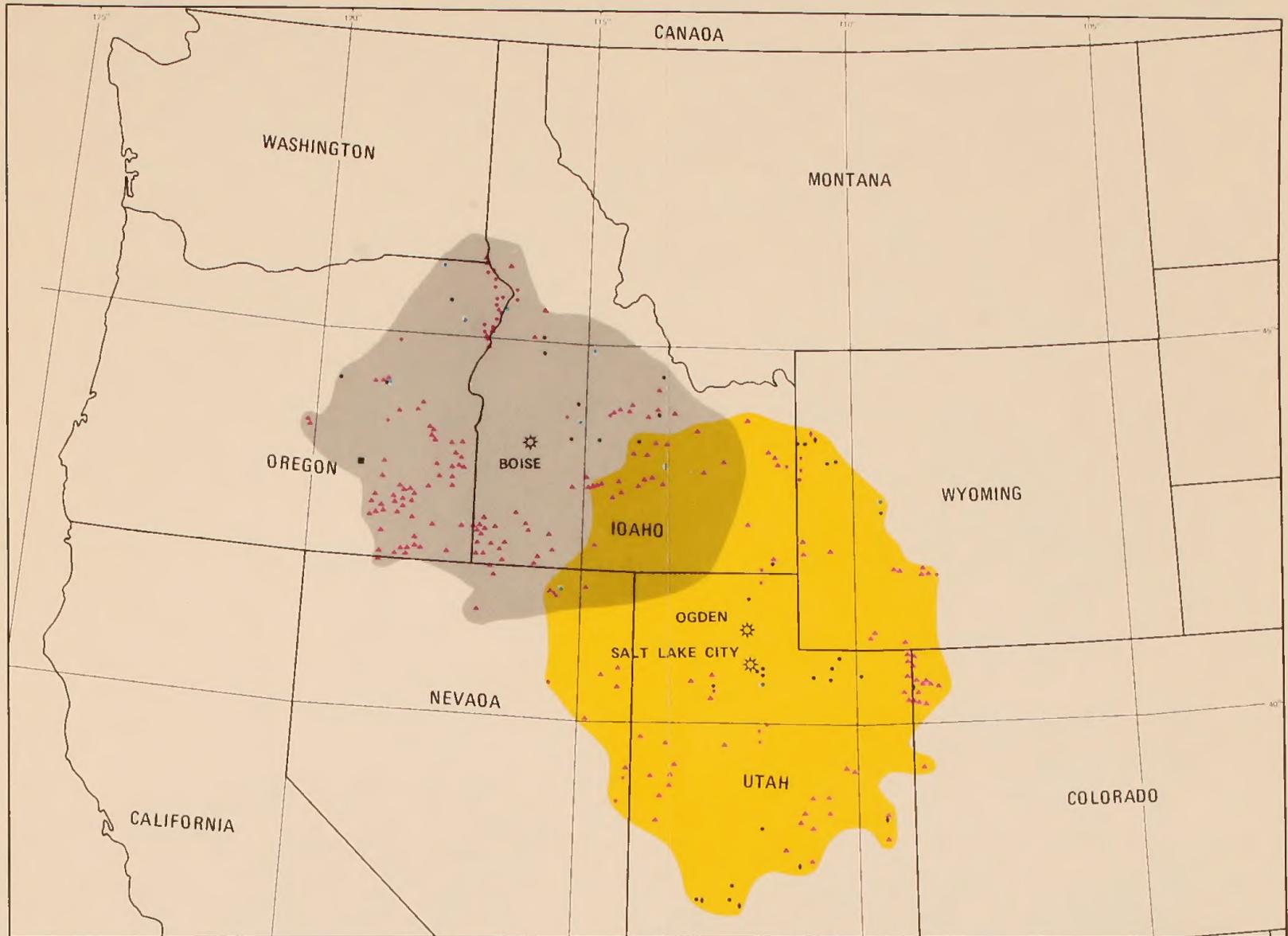


MAP 4

GEOGRAPHIC DISTRIBUTION

- USFS DESIGNATED WILDERNESS
- USFS PROPOSED
- USFS FURTHER STUDY
- ▲ BLM DESIGNATED WILDERNESS
- NONE BLM PROPOSED
- ▲ BLM WSA
- ◆ NPS DESIGNATED WILDERNESS
- NPS PROPOSED
- NPS FURTHER STUDY
- FWS DESIGNATED WILDERNESS
- FWS PROPOSED

SCALE 1:7,500,000



MAP 5

SMSA

- USFS DESIGNATED WILDERNESS
- USFS PROPOSED
- USFS FURTHER STUDY
- NONE BLM DESIGNATED WILDERNESS
- NONE BLM PROPOSED
- ▲ BLM WSA

- BOISE
- SALT LAKE CITY / OGDEN

- NPS DESIGNATED WILDERNESS
- NPS PROPOSED
- NONE NPS FURTHER STUDY

- NONE FWS DESIGNATED WILDERNESS
- FWS PROPOSED

SCALE 1:7,500,000

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