United States
Department of
Agriculture

Forest Service

**Pacific
Northwest
Region**

November 1992

ENVIRONMENTAL ASSESSMENT & RIVER MANAGEMENT PLAN

Sycan Wild & Scenic River

Fremont National Forest
&
Winema National Forest

Environmental Assessment
SYCAN Wild & Scenic River

Bly Ranger District
Fremont National Forest
&
Chiloquin Ranger District
Winema National Forest

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DECISION NOTICE
&
FINDING OF NO SIGNIFICANT IMPACT

Forest Plan Amendment Number 5
Fremont National Forest

Forest Plan Amendment Number 4
Winema National Forest

Klamath County and Lake County, Oregon

BACKGROUND

In 1988, the Sycan River was designated by Congress as a Wild and Scenic River. Under the Wild and Scenic Rivers Act of 1968, the Forest Service was directed to preserve the freeflowing character of each designated river under its administration, protect the water quality, and develop a comprehensive management plan for protection and enhancement of the outstandingly remarkable values of the designated river and associated corridor. Currently, there is no management plan for the Sycan Wild and Scenic River. Therefore, a management plan is needed to comply with the Wild and Scenic Rivers Act, and to provide for the protection and enhancement of the outstandingly remarkable values of the Sycan River (geology, scenery, fisheries, and wildlife).

An environmental assessment has been completed which summarizes the interdisciplinary team analysis of management options for the Sycan Wild and Scenic River. Interested groups and individuals, and other federal, state, and local agencies were invited to comment on the analysis process. Comments from these persons, groups and agencies were obtained through mass mailings, newsletters, meetings, and a field review. Over 250 letters were sent out to interested members of the public, and newsletters were sent to over 200 interested groups and/or individuals on three different occasions. Public meetings were held, along with meetings with Klamath Tribe representatives, The Nature Conservancy, and the Oregon Department of Fish and Game, among others. On October 28, 1989, twenty-nine people attended a field review. As a result of public input and that of Forest Service specialists, eight issues were identified as significant to management of the Sycan W&S River:

Boundaries: What land will be included in the established river corridor boundary? Will the established boundary be congruent with geography and responsive to the outstandingly remarkable river values, yet not exceed an average of 320 acres per mile?

Grazing/Livestock Management: Will grazing continue to be allowed within the river corridor? If so, how will fish and wildlife habitat be protected from the potentially negative impacts of livestock grazing?

Timber: Will scheduled timber harvests be allowed within the river corridor? Will firewood gathering for commercial, home, and recreational use continue to be permitted within the river corridor?

Access and Road Management: Will visitor access to the river be maintained at the existing level? How will water chances along the river be managed, and how will sediment from these areas be prevented from impacting the river? How will the problem of off road vehicles being driven within the river channel be dealt with?

Cultural, Historic, and Traditional Use Cultural Values: How will these values be protected, yet also continue to be used to provide information to the public about previous occupation of the lands within the river corridor?

Fish and Wildlife: How will fish and wildlife values within the corridor be protected?

Botanical: How will threatened, endangered, proposed, and sensitive plant species be protected within the corridor? How will large meadows, as well as riparian and/or wetland habitat within the corridor be managed?

Recreation: How will recreational activities within the river corridor be managed to protect and enhance the scenic values of the river? What will be the affect of Wild and Scenic River designation on river use? How will the river corridor be managed to maintain its natural condition, and not encourage development? How will concerns about fire protection and sanitation at sites used by visitors be dealt with?

Location of the Wild & Scenic River

The designated Wild and Scenic portion of the Sycan River stretches 59 miles from the northeast quarter of section 5, township 34 south, range 17 east to Coyote Bucket at the Fremont National Forest boundary. The Sycan Wild and Scenic River is divided into three sections to be administered in the following classes:

(A) the 26.4-mile segment from the northeast quarter of section 5, township 34 south, range 17 east to the west section line of section 22, township 32 south, range 14 east, as a scenic river;

(B) the 8.6-mile segment from the west section line of section 22, township 32 south, range 14 east to the Fremont National Forest boundary in the southeast quarter of section 10, township 33 south, range 13 east, as a recreational river; and

(C) the 24-mile segment from the Fremont National Forest boundary in the southeast quarter of section 10, township 33 south, range 13 east, to Coyote Bucket at the Fremont National Forest boundary, as a scenic river.

The Forest Service has authority to administer and manage only those lands within the National Forest System. Private landowners whose land is within and/or adjacent to the Sycan Wild and Scenic River corridor are not required to abide by the Standards and Guidelines set forth in the Sycan Wild and Scenic River Management Plan. Private landowners may, however, voluntarily agree to manage their lands according to the direction provided by the Sycan Wild and Scenic Management Plan.

Decision

It is our decision to implement Alternative 3. This decision sets management direction for the river corridor and amends the Fremont and Winema Land and Resource Management Plans by: 1) adding the Sycan Wild and Scenic River Plan to Appendix 9 of the Fremont L&RMP; 2) incorporating the Sycan Wild and Scenic River Plan into the Winema L&RMP as per direction provided in the Chapter 1 of the Winema L&RMP; and 3)

establishing a detailed river corridor boundary for the Sycan Wild and Scenic River.

The Sycan Wild and Scenic River Management Plan will:

- Protect and enhance the values for which the river was designated;
- Insure water quality meets federal non-deg radation standards;
- Maintain a Visual Quality Objective of Retention and a Recreational Opportunity Spectrum of Semi-Primitive Motorized;
- Provide opportunities for livestock grazing when consistent with other resource values;
- Preserve and protect archeological values;
- Provide appropriate fire protection;
- Protect and/or improve riparian habitat;
- Prohibit scheduled timber harvesting, and firewood gathering except for recreational use.

Reasons for Decision

The primary benefits of these Management Activities are to maintain and enhance the Outstandingly Remarkable Values (scenery, geology, fisheries and wildlife) of the Sycan Wild and Scenic River. A secondary benefit is to allow continued public use and enjoyment of the River's recreational opportunities.

Alternative 3 was selected for the following reasons:

1. This alternative protects the outstandingly remarkable values, recognized in the establishment of the Sycan River, but does not provide extra protection and enhancement of the significant resource values, as do Alternatives 4 and 5.

2. This alternative continues the historic use of grazing, but recognizes that improvements of the riparian conditions are necessary. An improved riparian condition which meets the desired condition is expected to be achieved more quickly than under Alternatives 1 and 2.

3. This alternative continues to provide opportunities for the public to enjoy the beauty of the Sycan River through participating in dispersed activities such as hiking and camping. Emphasis is on minimum improvements for safety and sanitation, rather than on either greater development as in Alternatives 1, 2 and 4, or greater preservation as in Alternative 5.

4. This alternative does not schedule any timber harvest within the corridor, unlike Alternatives 1 and 2. Only firewood gathering for recreational purposes is allowed, compared to Alternative 2 which allows all types of firewood gathering, or Alternative 4 which allows only home-use or recreational firewood gathering.

5. This alternative does not require mineral withdrawal for the river corridor, as does Alternative 5.

6. This alternative requires no interpretation of resource values, as does Alternative 5.

7. This alternative protects and enhances fish and wildlife values, but does not give empha-sis to maintaining the high density of cavity nesters within the river corridor, and the bald eagle habitat called for in Alternatives 5 and 6.

8. This alternative provides for fire suppression activities, but does not emphasize protection of recreation improvements and dispersed recreation sites as do Alternatives 4 and 6.

9. This alternative continues to protect cultural, historic, and traditional use values.

10. This alternative restores and maintains all wetland riparian areas to a condition which enhances wetland and riparian dependent resource values.

Alternatives Not Selected

Five other alternatives were considered for management of the Sycan Wild and Scenic River. These were as follows:

1. The "No Action" alternative would have continued existing management of the river according to L&RMP goals and prescriptions, standards and guidelines.

2. Alternative 2 would have emphasized main taining and enhancing the outstandingly remarkable values of the Sycan W&S River, but would have called for greater development of the resources, including managing the corridor under the Recreation Opportunity Spectrum (ROS) designation of Roaded Natural, allowing for timber harvest and firewood gathering, and continued grazing with an emphasis on achieving the desired condition for grazing in twenty years. A Visual Quality Objective (VQO) of Retention would have been established.

3. Alternative 4, like Alternative 2, would have emphasized maintaining and enhancing the outstandingly remarkable river values and establishing an ROS designation of Roaded Natural and a VQO of Retention. Alternative 4 would not, however, have allowed for scheduled timber harvests, nor commercial firewood gathering. This alternative would also have called for emphasis on achieving the desired condition for grazing within ten years. Additionally, this alternative would have emphasized the "significant" recreation and cultural resource values, and interpretation of all resource values would have been provided.

4. Alternative 5 would have emphasized maintaining and enhancing the outstandingly remarkable river values, but would have also emphasized management on the side of preservation. An ROS designation of Semi-Primitive Nonmotorized would have been established, along with a VQO of Preservation. The river corridor would have been recommended for mineral withdrawal. No scheduled timber harvesting, and no collection of firewood other than for recreational purposes would have been allowed. Alternative 5 would have also emphasized the "significant" wildlife and cultural resource values.

5. Alternative 6 would have had the same emphasis as Alternative 3, except it would have given additional emphasis to maintaining the high density of cavity nesters within the river corridor, and the bald eagle habitat. Additionally, this alternative would have called for a fire management program that emphasized protection of recreation improvements and dispersed recreation sites.

Finding of No Significant Impact

Based on the analysis, it is our determination that this decision is not a major Federal action and will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. This determination was made based on the following:

1. On balance, this action would not have a significant adverse impact, and it is not a significant Federal action.

2. This action would not adversely affect public health and safety.

3. The action would not adversely affect any unique areas such as: wetlands, prime farmlands, or ecologically critical areas.

4. There are some irreversible commitment of minerals (i.e. rock for road construction and reconstruction) and irretrievable loss of timber volume due to not harvesting areas within the designated Sycan Wild and Scenic River corridor.

5. The planned activities would not adversely affect any scientific, cultural, or historical

resources. The protection measures for cultural resources sites described in the environmental assessment should ensure no adverse effects occurs to any sites from project activities.

6. The planned activities would not adversely affect any potential threatened, endangered, or sensitive species or any habitat determinedunder the Endangered Species Act of 1973 to be critical to a species listed as threatened or endangered.

7. This action would not violate any Federal, State or other laws and regulations or have an adverse effect on consumers, women, or civil rights.

8. These activities are in compliance with the Fremont National Forest Land and Resource Management Plan, the Winema National Forest Land and Resource Management Plan, and other higher level documents including The Pacific Northwest Region's Final Environmental Impact Statement for "Managing Competing and Unwanted Vegetation" and its mediated agreement.

IMPLEMENTATION

Implementation of this decision shall not occur within 7 days following publication of the legal notice of the decision in the Herald and News published in Klamath Falls, OR.

APPEAL RIGHTS

This decision is subject to appeal pursuant to 36 CFR 217. Any written Notice of Appeal of this decision must be fully consistent with 36 CFR 217.9 (Content of a Notice of Appeal) and must include the reasons for appeal. A written notice of appeal, in duplicate, must be filed with John L. Lowe, Regional Forester, P.O. Box 3623, Portland, Oregon 97208 within 45 days of the date legal notice of this decision appears in the Herald and News.

The Environmental Assessment, the River Management Plan and other associated documents are on file and available for public review at:

Fremont National Forest Headquarters
524 North G Street,
Lakeview, Oregon 97630
(503) 947-2151

Winema National Forest Headquarters
2819 Dahlia Street
Klamath Falls, Oregon 97601-7119
(503) 883-6714.

For further information contact: Sherman Radtke, Recreation Staff Officer, *Fremont National Forest,* or Richard Cleveland, Recreation Staff Officer, *Winema National Forest.*

Charles R Graham

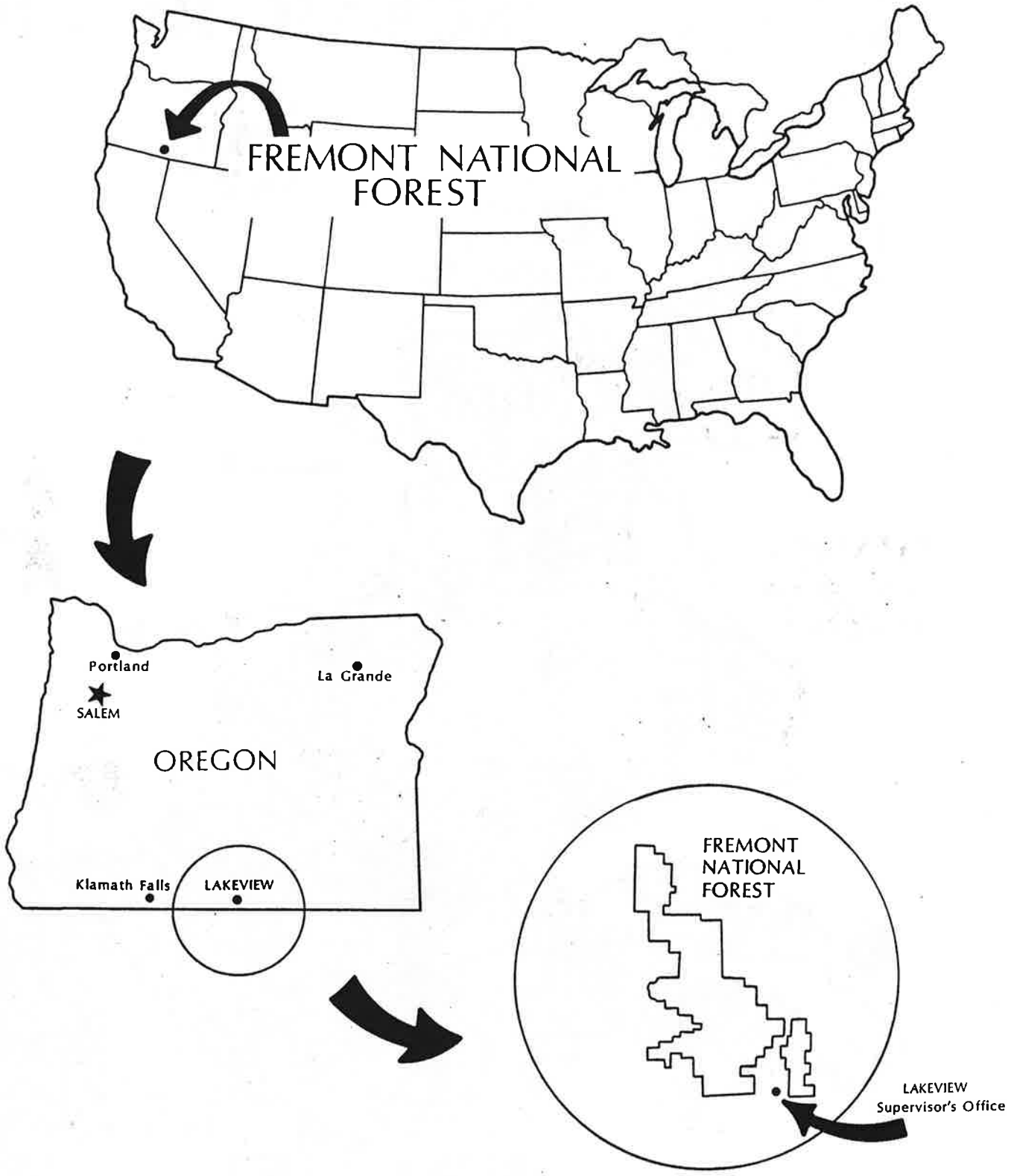
CHARLES R. GRAHAM
Forest Supervisor
Fremont National Forest

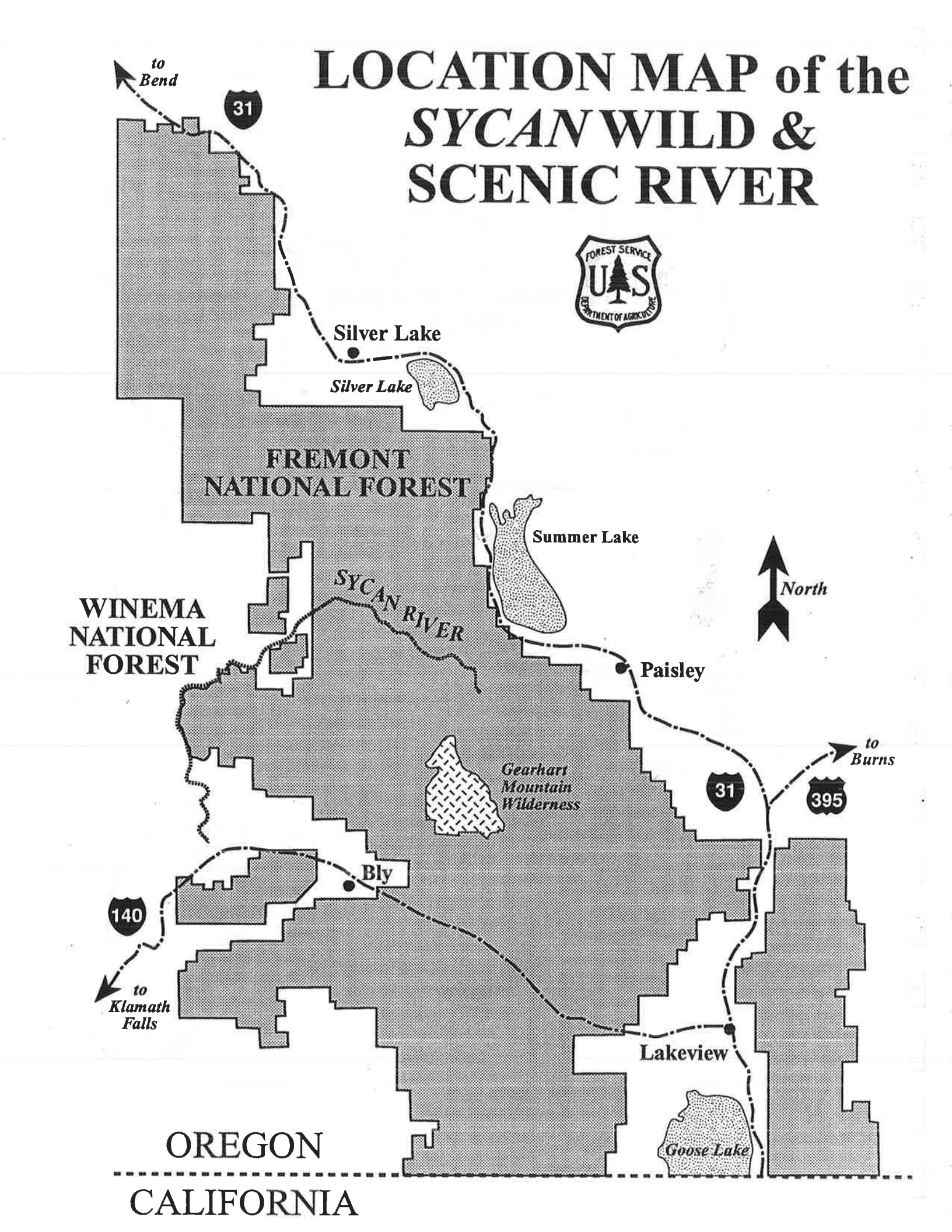
Nov 25, 1992
Date

Robert Castaneda

ROBERT CASTANEDA
Forest Supervisor
Winema National Forest

11/25/92
Date


FREMONT NATIONAL FOREST
Portland
SALEM
La Grande
OREGON
Klamath Falls
LAKEVIEW
FREMONT NATIONAL FOREST
LAKEVIEW
Supervisor's Office


LOCATION MAP of the SYCAN WILD & SCENIC RIVER
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SYCAN WILD & SCENIC RIVER

NATIONAL WILD AND SCENIC RIVERS SYSTEM

PURPOSE AND NEED

How this document is organized...

Information in this document is divided into three parts. Part 1 is the ***Environmental Assessment*** and includes five Chapters. Chapter I is the Introduction and includes the purpose and need, as well as the significant issues. Chapter II is the Existing Condition section. This section describes the existing management situation including river related values, land uses, and social/economic considerations. Chapter III identifies management goals and objectives, and is the Desired Condition for the river. Chapter IV is a Description of Alternatives considered for management of the river. Chapter V identifies the predicted Environmental Consequences of implementation of the alternatives considered. Chapter VI summarizes Public Involvement and Consultation With Others. Part 2 reflects the alternative selected by the Responsible Official and is the ***River Management Plan.*** Chapter I is Management Direction and Chapter II is the Monitoring Plan. Part 3 is *Appendix* material.

What the Environmental Assessment does...

The Environmental Assessment (EA) discloses the analysis done on the Sycan Wild and Scenic River by the Forest Interdisciplinary Team and the environmental effects of the alternatives. It analyzes the short term, long term, direct, indirect, and cumulative effects of the alternatives. It provides a basis for the responsible official to compare and select an alternative for management of the 59 miles of the Sycan River designated as a Wild and Scenic River. It also assures that all pertinent environmental information and analysis that was used in arriving at a decision for management of the river is available to interested citizens, public officials, and cooperating agencies.

The EA meets the legal requirements of NEPA and its development follows the direction of the National Environmental Policy Act of 1969 and the Council on Environmental Quality regulations pursuant to NEPA (40 CFR 1500-1508). For purposes of disclosure under NEPA, the EA and the accompanying River Management Plan are treated as combined documents.

The River Management Plan...

The alternative in the Environmental Assessment that is selected by the Forest Supervisor forms the basis for the River Management Plan. The River Management Plan is intended to preserve the resource values identified within the river corridor, as well as protect and/or enhance the values determined to be outstandingly remarkable.

The River Management Plan implements the goals and objectives for management of the river; it identifies the standards and guidelines that must be met if rivers values are to be preserved, the outstandingly remarkable values maintained and enhanced, and the Desired Condition achieved; and it identifies those items that must be monitored to insure that river values are being maintained and/or enhanced.

Appendix material...

Appendix material includes items that are of importance and/or significance in regards to the river, and its designation, but doesn't fit within the context of the Environmental Assessment and/or the River Management Plan. Appendix material includes such things as the Resource Assessment for the river, a copy of the W&SR's Act, etc...

THE PROPOSED ACTION

The proposed action is the development of a comprehensive river management plan for the Sycan River. Fifty-nine miles of the river were designated as a Wild and Scenic River in the Oregon Omnibus Wild and Scenic Rivers Act of 1988. This Act amended Section 3(a) of the Wild and Scenic Rivers Act (Public Law 90-542, 82 Stat. 907; enacted October 2, 1968) by adding 40 additional rivers to the Wild and Scenic Rivers system.

The river was designated as follows:

"**SYCAN, OREGON**.—The 59-mile segment from the northeast quarter of section 5, township 34 south, range 17 east to Coyote Bucket at the Fremont National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

(A) the 26.4-mile segment from the northeast quarter of section 5, township 34 south, range 17 east to the west section line of section 22, township 32 south, range 14 east, as a scenic river;

(B) the 8.6-mile segment from the west sec tion line of section 22, township 32 south, range 14 east to the Fremont National Forest boundary in the southeast quarter of section 10, township 33 south, range 13 east, as a recreational river; and

(C) the 24-mile segment from the Fremont National Forest boundary in the southeast quarter of section 10, township 33 south, range 13 east, to Coyote Bucket at the Fremont National Forest boundary, as a scenic river."

(A copy of the Wild and Scenic Rivers Act, and the Omnibus Oregon Wild and Scenic Rivers Act of 1988 is included in Appendix B.)

The decisions to be made include the following:

Methods to preserve the resource values associated with the river and the river ecosystem, and to protect and/or enhance those river and/or river related values determined to be outstandingly remarkable.

A determination of the detailed (final) boundary of the river corridor.

A determination of the ***desired condition*** for vegetation, including riparian; water; fish and wildlife habitat; proposed, endangered, threatened, and sensitive plant and animal species; scenic quality, recreation opportunities; cultural and historic; and river access.

PURPOSE AND NEED FOR ACTION

The Wild and Scenic Rivers (W&SR's) Act of 1968 states that it is "the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations". It further states that "for rivers designated on or after January 1, 1986, the Federal agency charged with the administration of each component on the Wild and Scenic Rivers System shall prepare a comprehensive management plan for such river segment to provide for the protection of river values." It continues on to state that "the plan shall address resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of this Act." And it states the "the plan shall be prepared, after consultation with State and local governments and the interested public within three full fiscal years after the date of designation."

The purpose of this Environmental Assessment and River Management Plan is to preserve the resource values associated with the river and the river ecosystem, including the free-flow character of the river, and to protect and enhance those values determined to be outstandingly remarkable.

When the Sycan River was added to the Wild and Scenic rivers system an interim boundary of 1/4 mile from either side of the river (measured from the ordinary high water mark) was established. Determining an actual, or detailed boundary that is responsive to the geography and the outstandingly

remarkable values is part of the process in the development of a river management plan. The detailed boundary can not encompass more than an average of 320 acres per mile of river. Management guidelines included in the Wild and Scenic Rivers Act apply to all lands within the river corridor (see Appendix B for a copy of the W&SR's Act).

Therefore an additional purpose of this Environmental Assessment and River Management Plan is to determine a detailed (final) boundary for the river corridor that provides for protection of the outstandingly remarkable river values.

SIGNIFICANT ISSUES

Issues were developed from public input (meetings, letters from the public, and a field review of the river that included the public), consultation with the Klamath Tribe, and from resource specialists on the Interdisciplinary Team. The issues identified are as follows:

BOUNDARIES

When the river was designated as a Wild and Scenic River an area 1/4 mile from either side of the river was designated as an interim corridor. Part of the development of a River Management Plan includes the establishment of a detailed boundary that is more congruent with the geography and responsive to the outstandingly remarkable values of the river, yet does not exceed an average of 320 acres per river mile.

GRAZING/LIVESTOCK MANAGEMENT

Livestock grazing has occurred along and within the general vicinity of the river since about 1860. Some portions of the river have been heavily impacted by grazing. Riparian vegetation, including shrub species such as willow, is in a deteriorated condition, especially in that portion of the river below the Sycan Marsh. Grazing has had a negative effect on fish and wildlife values, and may have negatively affected fish and wildlife habitat improvement projects within the river corridor.

Because grazing has occurred along and within the general vicinity of the river for many years, the owners of the livestock have come to depend on both the forage and the water that is available within the river corridor. Loss of this forage and water may cause an economic hardship on those that depend on it.

TIMBER

There is merchantable sawtimber located within the river corridor. However harvest of the timber could have a negative effect on scenic values, as well as the wildlife values found in the mature and overmature stands of ponderosa pine. Affects of timber harvest would be magnified in much of the river corridor because of the steep and rocky terrain that forms the canyon walls. If harvest were to occur within the river corridor, post timber sale activities such as brush disposal and tree planting activities could change the character of the river corridor from a natural appearing environment, to an environment that has a "managed" appearance.

Firewood has been gathered within the river corridor for many years. While the affects on scenic values are minimal, the harvest of snags within the river corridor reduces habitat for snag dependant bird species. The high density of cavity nesting bird species within the river corridor was noted in the Resource Assessment for the river.

ACCESS AND ROAD MANAGEMENT

Visitors and managers desire access to the river. Most visitors feel that the existing access points provide adequate access to the river.

Managers and resource specialist have both voiced concerns about the places along the river where water trucks fill up (called "water chances"). Sediment is added to the river from these areas, in addition to the water that is removed from the river.

Off road vehicle travel (both ATV's and 4 wheel drive vehicles) continues to be a problem in some areas. Vehicles are periodically observed driving both upstream and/or downstream within the river channel. This activity generally occurs below the Sycan Marsh.

Cultural, Historic, and Traditional Use Cultural Values

Numerous cultural sites exist within the river corridor. Additionally, some traditional use-cultural values may occur within the river corridor. Some historic sites may also occur within the river corridot. These sites need to be protected, yet the public has a strong desire to know and understand about previous occupation of lands within the river corridor

Fish and Wildlife

Proposed threatened, endangered, and sensitive fish and/or wildlife species may occupy the river and/or adjacent habitats. These species are afforded special protection under the law, and may have special protection and/or habitat needs. Other unique wildlife habitat needs, such as hiding and/or thermal cover for deer, and snags for birds may require special consideration if it is to be maintained or improved.

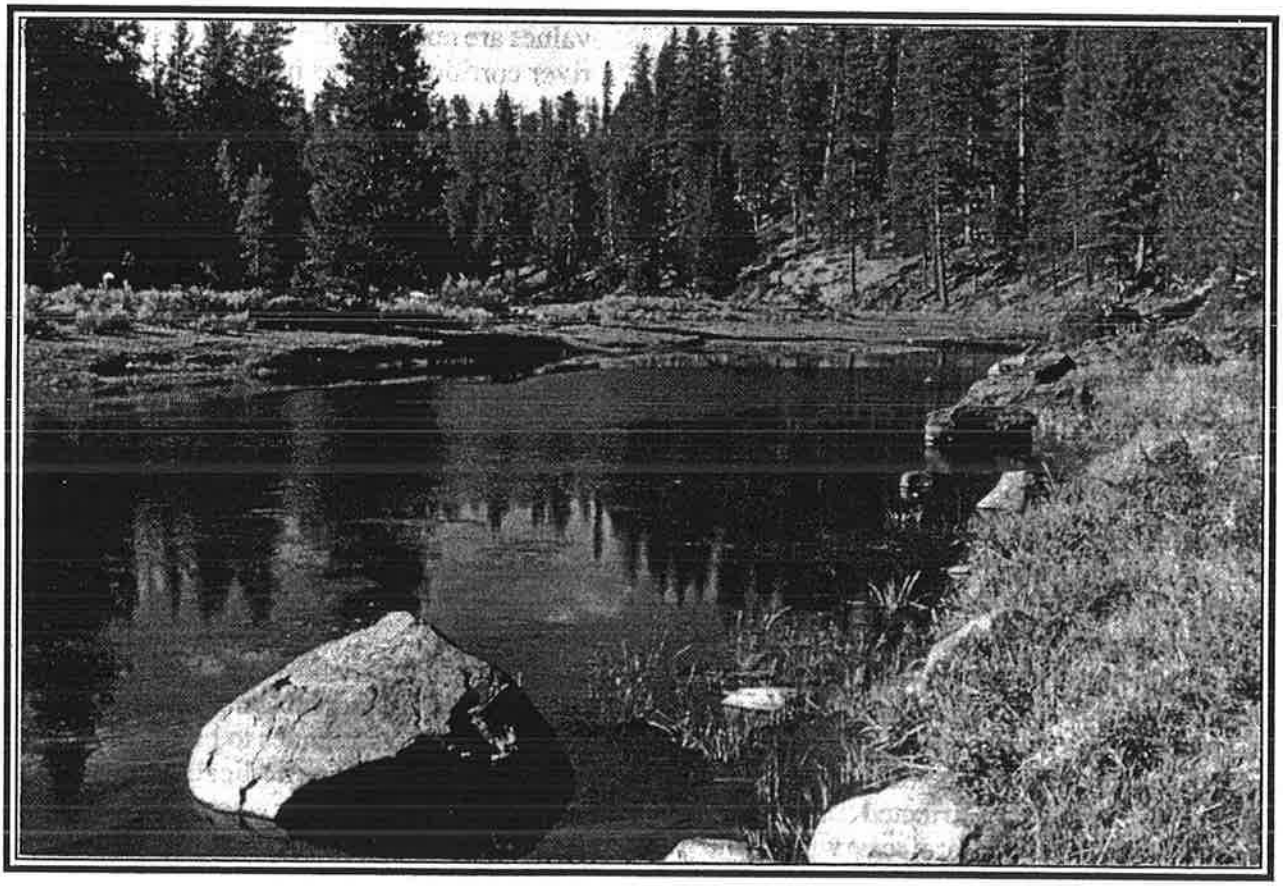
Botanical

Threatened, endangered, proposed, and sensitive plant species may occupy habitats within the river. Resource specialist have expressed particular concern about management of the large meadows in the upper reaches of the river, as well as wetland and/or riparian habitats along the river.

Recreation

The river was designated as a wild and scenic river largely because of it's scenic values. Any activities within the river corridor must maintain and protect these scenic values. Of particular concern are activities that have the potential to heavily impact the land (i.e. logging, mining, structural and/or non-structural range and/or wildlife improvement projects, fire and/or fire suppression activities).

Visitors and managers of the river have both asked questions concerning the affect of Wild and Scenic



Most visitors indicate a desire to maintain the Sycan River in a "natural " condition.

River designation on river use, including types of use and the experience visitors may expect. There are limited opportunities for rafting on this river, primarily because of the low water flows. At the time flows are sufficient for rafting, river access may be limited to only a few access points because of wet road conditions

Most visitors to the river indicated a desire to maintain the river in a "natural" condition, and not encourage development. Managers of the river have expressed some concerns about sanitation and fire protection at sites used by campers and picnickers.

ISSUES THAT WERE BROUGHT UP, BUT NOT RESOLVED OR ADDRESSED IN THIS DOCUMENT

Impacts to State Agencies

Oregon Division of Forestry has expressed concern that designation of the river could increase state protection requirements on private lands.

There is no evidence that use of private lands within the river corridor will significantly increase as a result of river designation.

Effect of Designation on Private Lands within the River Corridor

Some owners of private land within the river corridor have expressed a concern that designation of the river could cause increased trespass activity. They have also expressed concern that the designation may affect activities that they might want to conduct on their own land.

There is no evidence that designation of the river will increase trespass activity on private land. The remoteness of the area, combined with the low recreation use in the area makes increased trespass on private land unlikely.

Should the Sycan River be designated as a State Scenic Waterway?

The Oregon State Parks raised the issue if the river should also be considered for State Scenic Waterway designation. While State Scenic Waterway designation could affect local zoning and/or activities on private lands within the river corridor, it is an issue that goes beyond the scope of this planning effort. All the State Scenic Waterways that currently exist within the State were established as a result of voter initiatives. Information contained within this document, or gathered during the planning process, is available to individuals and/or organizations. This includes State agencies that may want to pursue such designation.

RELATIONSHIP TO FOREST PLANS

The Sycan River Environmental Assessment will cause an amendment to the Fremont's Land and Resource Management Plan (L&RMP; referred to as the Forest Plan), and the Winema's L&RMP. The Forest Plan provides direction for all resource management programs, practices, uses, and protection measures on the Fremont National Forest and the Winema National Forest. Since the Forest Plans' are already in effect, they will be amended to incorporate the Sycan River Management Plan, as well as any changes to the standards and guidelines.

Planning for National Forests has two levels. The first level is the Forest Plan, and is programatic in nature. This level provides forest-wide and management area-specific standards and guidelines. The River Management Plan, as an amendment to the Forest Plan, is in this category. The second level of planning is site-specific project planning. In this type of planning individual project plans are tiered to the Forest Plan and are designed to achieve the goals and objectives of the Forest Plan. Project plans analyze specific proposals via the NEPA process.

The Forest Supervisor is the responsible official for developing the Environmental Assessment and River Management Plan, and integrating this direction into the Forest Plan. The Environmental Assessment and River Management Plan provides the management goals and objectives, the desired condition, and the standards and guidelines for the Sycan W&SR, including the river corridor. It also establishes the final (detailed) boundaries for the river corridor. Second level, site specific NEPA analysis must be done for specific project plans

that implement the River Management Plan. Management activities outside the river corridor must also protect the river's Outstandingly Remarkable Values (i.e scenic values).

Current management goals and objectives, and standards and guidelines for the Sycan River in the *existing* Land and Resource Management Plan(s) are as follows:

Fremont National Forest L&RMP

The Fremont National Forest Land and Resource Management Plan addresses the Sycan River in its Standards and Guidelines section for Management Area 11:

> *Goal:* To preserve The Scenic River characteristics of the rivers and corridors designated as Scenic Rivers . . .
>
> *Discussion:* This management area includes the sections of the Sycan River corridor included in the National Wild and Scenic Rivers System, under the Oregon Wild and Scenic Rivers Act.
>
> *Prescription:* The Scenic and Recreation River area designations will be managed to: (1) maintain or enhance the condition of the high quality scenery and the largely undeveloped character of its shoreline; (2) maintain or improve the quality of the water which enters the river; (3) improve the fish and wildlife habitat; (4) provide opportunities for river-oriented recreation which is consistent with its largely undeveloped nature and dependent on its free-flowing condition; and (5) utilize other resources and permit other activities which maintain or enhance the quality of the wildlife habitat, river fishery, scenic attraction, or recreation values.

Winema National Forest L&RMP

The Winema National Forest Land and Resource Management Plan also addresses the Sycan River:

> *Goal:* Management Area 5 emphasizes protection of selected rivers along with their immediate environments which possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values, in a free-flowing condition, for the benefit and enjoyment of present and future generations.
>
> The desired future condition is that the river remains free-flowing, and the values that qualified the river for inclusion in the National Wild and Scenic River System are protected. The outstandingly remarkable values are scenic, geologic, fisheries, and wildlife values for the Sycan River.

RELATIONSHIP TO OTHER GOVERNMENT PLANNING

In the process of developing the Management Plan for the Sycan River a number of state, and local plans were considered. These plans include the following:

- Oregon Department of Fish and Wildlife "Fish Management Plan"
- Oregon Outdoor Recreation Plan
- Oregon's Statewide Planning Goals
- Lake County Comprehensive Plan
- Klamath County Comprehensive Plan

Oregon Department of Fish & Wildlife "Fish Management Plan"

In July of 1981 the Oregon Fish and Wildlife Commission accepted the Oregon Department of Fish and Wildlife recommendation to continue to manage the Sycan River for wild trout. In November, 1981 a Fish Management Plan for the Sycan River was adopted by the Commission. The objectives of the plan were as follows:

1. Improve riparian habitat by working closely with land management agencies and landowners.

2. Improve summer low flows from Sycan Marsh to Torrent Spring.

3. Document species and size composition and catch data for the fish population.

A progress report in November, 1987 indicated that several projects were underway to improve riparian habitats; that it may not be possible to improve low summer flows; and that nothing

special had been done in regards to documenting species and size composition and catch data.

Oregon Outdoor Recreation Plan

The Statewide Comprehensive Outdoor Recreation Plan (1988-1993), prepared by the Parks and Recreation Division, includes a broad overview and analysis of the organization and function of the outdoor recreation system in Oregon. The system represents federal, state and local recreation agencies along with the private, nonprofit and commercial organizations who provide outdoor recreation resources, facilities and services for the public.

The Pacific Northwest Outdoor Recreation Survey (1986-1987), which included the states of Oregon, Washington and Idaho, divided the area into 18 regions. Oregon composed Regions 5-12. The Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP) recognizes these Regions. The Sycan W&SR is located in Regions 9 and 11. Many of the comparisons used in determining the significance of resource values in the Sycan River Resource Assessment were made within the boundaries of the SCORP region(s).

Oregon's Statewide Planning Goals

Oregon's Statewide Planning Goals constitute the framework for a statewide program of land-use planning. They are state policies on land use, resource management, economic development, and citizen involvement. The statewide goals are achieved through local comprehensive planning. State law requires that each county (and city) have a comprehensive plan, and the zoning and land division ordinances needed to put the plan into effect. These zoning and/or ordinances are the controlling documents for land use within the area covered by the plan. Note: these zoning and/or ordinances only apply to private, State, county, or city owned lands; they do not apply to Federal lands.

Oregon has 19 Statewide Planning Goals. Goal 5, entitled "Open Spaces, Scenic and Historic Areas, and Natural Resources", is intended "to conserve open space and protect natural and scenic resources". Item 3 of the goal is to "promote healthy and visually attractive environments in harmony with the natural landscape character. The location, quality and quantity of the following resources shall be inventoried: Potential and approved federal wild and scenic waterways."

County comprehensive planning reflects the statewide planning goals. Items pertinent to the river management planning process are as follows:

Lake County Comprehensive Plan (1980)

The County will support maintaining minimum stream flows for all beneficial uses. The County will coordinate planning decisions with local, State, and Federal agencies having water-quality management plans and programs.

Agriculture, grazing, forestry, parks and recreation uses shall be considered consistent with natural/scenic/open space values dependent on resource carrying capacities.

Klamath County Comprehensive Plan (1981)

The Klamath County Comprehensive Plan addresses special river designations, and indicates the following:

To preserve open space and protect natural and scenic resources in Klamath County, programs will be provided that:

1. Ensure open space.
2. Protect scenic and historic areas and natural resources for future generations.
3. Promote healthy and visually attractive envi ronments in harmony with the natural char acter of the landscape.

The plan further indicates that the location of the following resources shall be inventoried:

(Item 4) Fish and wildlife areas and habitats.

(Item 5) Outstanding scenic views and sites.

(Item 6) Water areas, wetlands, watersheds, and groundwater resources.

(Item 10) Potential wild and scenic water-

ways and state scenic waterways.

Where no conflicting uses for such resources have been identified, such resources shall be managed so as to preserve their original character. Where conflicting uses have been identified, the economic, social, environmental, and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal.

The Klamath County Comprehensive Plan does state that the policy of the County is that "at the time that rivers are studied for official designation as state scenic waterways or federal wild and free flowing rivers, the County and other State and Federal agencies shall cooperate in the study of rivers for inclusion in State or Federal designation and in the application of the Goal 5 rule." The rationale for this policy is as follows:

- To prevent irresponsible potential designations.
- To insure that studies are accurate.
- To insure that County policies are followed.

In the implementation of this policy the County will work with appropriate State and Federal study groups to evaluate all potential designations.

SUMMARY OF THE RESOURCE ASSESSMENT

The Wild and Scenic Rivers Act states that "each component of the national wild and scenic rivers system shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values." It further states that management plans should be "based on the special attributes of the area." The resource assessment process provided a method of documenting the determination of which river related features and values are "outstandingly remarkable". To qualify as an outstandingly remarkable river or river-related value, the value must be a unique, rare, or exemplary feature that is significant at a regional or national level. The determination of the significance of values involved professional judgement and interpretation, an interdisciplinary team approach, qualitative criteria, and consideration of unique attributes at a regional level. For the Sycan W&SR the regional area was Klamath and Lake counties; this is within SCORP regions 9 and 11.

In Janauary, 1991 a Resource Assessment of the Sycan River was completed. The "outstandingly remarkable" values are summarized as follows:

SCENIC... The river segment below the Sycan Marsh has a diversity of rockform, vegetation, and landform. The rugged basalt canyon just above the Coyote Bucket area, including the rimrock and the water sculptured boulders within the river itself are especially unique. The mature ponderosa pine within the river canyon provide a very pleasing visual diversity from adjacent areas. Above the Sycan Marsh the large meadows in the headwaters area are especially scenic. Wildflowers in the spring, and aspen turning color in the fall provide excellent viewing opportunities. The canyon areas in this upper segment are also very scenic. The Sycan Marsh provides a certain uniqueness because of its vastness and the panoramic views that it offers.

GEOLOGIC... The steep, narrow basalt canyon and the gigantic water sculptured boulders in the Coyote Bucket area are very unique geologic features. No other river within this geographic region contains water sculptured boulders of the magnitude (both size and number) of what occurs in the coyote bucket area.

FISHERIES... The diversity of fish species within the river is especially unique. This diversity of species includes several category 2 sensitive species. The river also provides an opportunity to restore and/or improve habitat for two threatened and endangered species.

WILDLIFE... The Sycan Marsh provides a unique area for wildlife. The diversity of species, which includes sensitive and a threatened species, and the wetland habitat are especially unique. Also noteworthy is that the Marsh has the highest concentration of nesting greater sandhill cranes in the United States.

A complete copy of the Resource Assessment can be found in Appendix A.

EXISTING CONDITION

This narrative describes the physical, biological, social and economic conditions that may be affected by proposed management activities within the Wild and Scenic River corridor. The descriptions are those that existed at the time of designation, and form the baseline for comparing alternatives and measuring changes.

OVERVIEW

The Sycan River watershed is located in south central Oregon, about 35 miles northeast of Klamath Falls and about 123 miles south of Bend. The river is located in both Klamath and Lake Counties. U.S. Highway 97 (a north/south route) is located about 33 miles west of the river. The total designated Wild and Scenic portion of the river is 59 miles long. The Sycan is a major tributary to the Sprague River system and drains about 367 square miles of watershed, ranging in elevation from 4640 feet above mean sea level at the National Forest boundary terminus point of designation, to 8190 feet on Yamsay Mountain where the Long Creek tributary originates. About half of the total watershed is private land and about half is National Forest lands administered by both the Fremont and Winema National Forests.

The Sycan River flows northwesterly from its headwaters for 24 miles to the Sycan Marsh. It then turns southwesterly and meanders through the Marsh for 8.6 miles. It continues in a general southwesterly direction for the next 20 miles and then turns to the south for the final 6.4 miles to the point of Wild and Scenic River designation termination at Coyote Bucket at the National Forest boundary.

River Segments

The Sycan Wild and Scenic River encompasses three major segments:

SEGMENT 1 - The Lower Sycan: A 26.4 mile segment extending from where the river exits the Sycan Marsh to the National Forest boundary at Coyote Bucket (from the NF boundary in the SW 1/4 of section 10, T.33S., R.13E., to where the river exits NF land in section 31, T.34S., R.12E.). This segment forms a portion of the boundary between the Fremont National Forest and the Winema National Forest. This segment is designated "scenic".

SEGMENT 2 - The Sycan Marsh: An 8.6 mile segment extending from where the river enters the marsh to where it exits the marsh (from the west section line of section 22, T.32S., R.14E., to the NF boundary in the SE 1/4 of section 10, T.33S., R.13E.). This segment is designated "recreation".

SEGMENT 3 - The upper Sycan: A 24 mile segment that extends from the headwaters to where the river enters the Sycan Marsh (from the SE 1/4 of section 5, T.34S., R.17E., to the west section line of section 22, T.32S., R.14E.). This segment is designated "scenic".

Access

Access to the Sycan River area is by County roads and/or National Forest system roads. Once within the Sycan River area there are several low standard roads that provide access into the river corridor. There are six major arterial and collector roads which cross the river in various locations via three single lane bridges, two fords, and one large culvert. Forest Road 28 parallels Segment 3 for several miles. Segment 3 is also crossed, approximately one mile upstream from the Sycan Marsh, by a major powerline corridor containing three 500 KV transmission lines.

The only developed trail within the river corridor is the Hanan Trail, which parallels the very upper reaches of the river for about 3 miles.

Ownership

The river corridor includes about 3,392 acres of private land, with the remaining 15,488 acres within the Fremont or Winema National Forest. Segment 2, the Sycan Marsh, is all in private

ownership. It is owned by The Nature Conservancy and is leased to the ZX Ranch (located at Paisley, Oregon) till the year 2020. There are several scattered small parcels of private land within Segment 1 of the river corridor.

Climate

The climate of the Sycan River area is characterized by warm, dry summer months and cold winters which can be severe. Precipitation in the area occurs primarily in the fall, winter, and early spring with the winter precipitation generally occurring as snow. There is very little precipitation during the summer months except for occasional showers associated with thunderstorm activity. The higher peaks in the watershed normally receive 30 to 45 inches of precipitation annually with the Sycan/Sprague valley receiving about 18 inches. Average precipitation in the watershed is approximately 4 to 5 inches each month during the winter, with only about 2 to 3 inches falling during the entire summer. Precipitation, combined with factors which influence snowmelt, are the climatic influences with the greatest effect upon the hydrology of the watershed. Summer daytime temperatures range from the mid-70's to the high 80's, with cool evenings and nights. Frost, or even snow, can occur at any time throughout the year. Winter temperatures are usually below freezing and can drop to well below 0 degrees Fahrenheit.

Landscape Character

The predominate vegetation within the river corridor is ponderosa pine, mixed conifer and lodgepole pine, however nearly all the major plant communities that occur on adjacent National Forest lands occur somewhere within the river corridor.

The Congressional Record, when speaking of the Sycan River, states that:

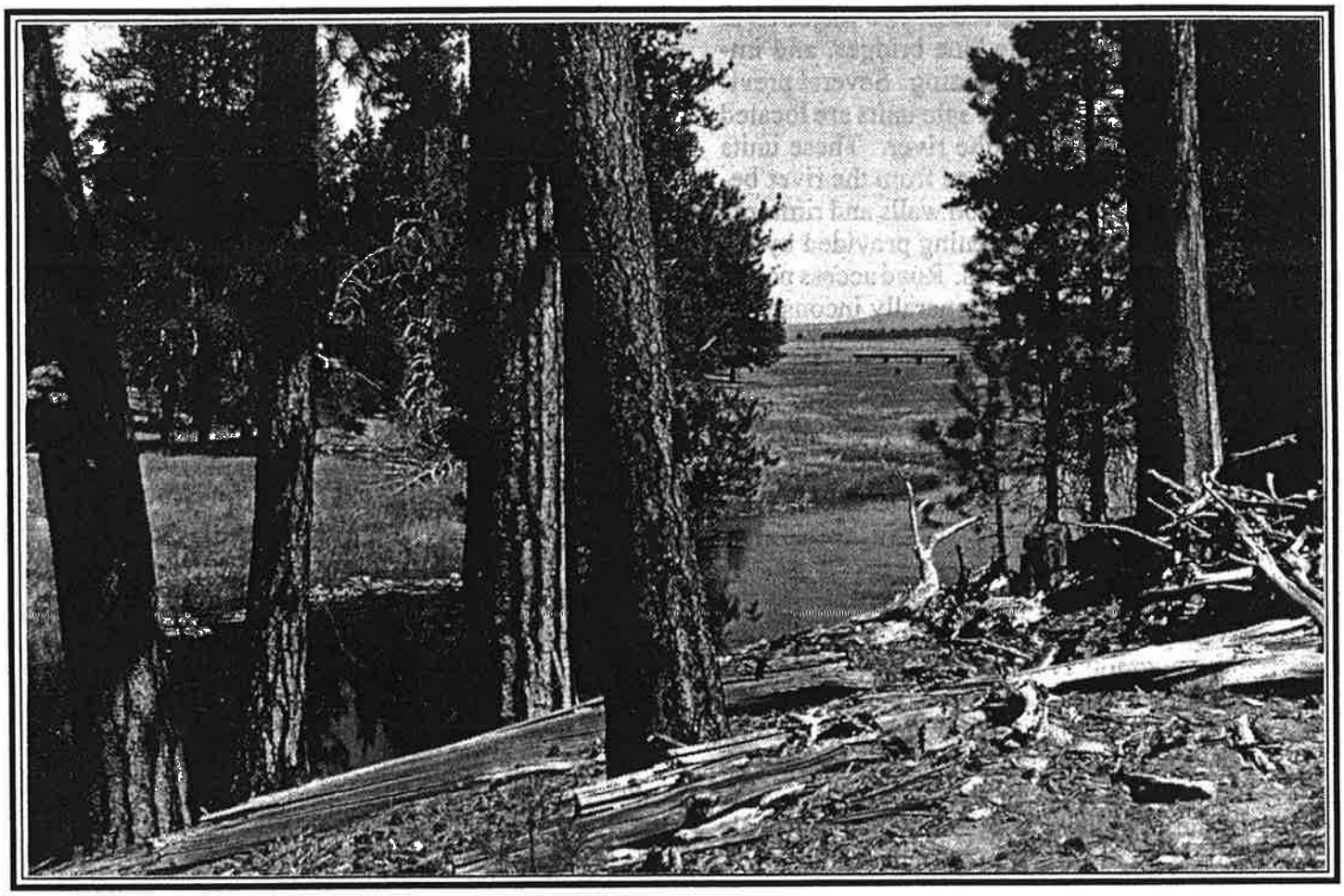
> "The most outstanding characteristic for the river is its distinctive scenery, which varies from a steep canyon to broad meadow. The Nationwide River Inventory also includes geology and wildlife. There is a diversity of rock form, vegetation, and landform. The vegetation is primarily coniferous with scattered old-growth ponderosa pine and lodgepole pine flats intermingled with water related riparian vegetation such as willows and other deciduous shrubs. Expanses of sagebrush and bitterbrush, in the dryer areas lends diversity. Of noteworthy significance is Sycan Marsh which includes several rare plant communities." *(From the Congressional Record—Senate October 7, 1988)*

The Sycan River originates in a meadow in a wide forested canyon between Bald Butte and Slide Mountain, on the west side of the south end of Winter Rim. Although the buttes and ridges can rise several hundred feet within one half mile on each side of the river for the first 7 to 8 miles, the flood plain of the river is often wide as the river flows through several mountain meadows. For the next 5 miles, between the Nixon Creek and Paradise Creek tributaries, the river becomes a larger cascading stream with a V-shaped cross section and a 2 to 4% stream gradient. The next 12 miles of the river alternates between a V, U, or widening box-shape cross section flowing in a narrow basaltic canyon. The terrain above the canyon is the sparsely forested, sage and rock covered Squaw Flat and Sycan Plain. The canyon itself is more densely forested with mature ponderosa pines. This section of the river has a 1 to 3% stream gradient with widening flood plains of 100 feet or more occurring in some parts of the canyon, particularly as the river nears Sycan Marsh.

Once the river enters the Marsh it displays wide meanders and poor channel definition. The river flows 8.6 miles through the Marsh. The Marsh, which is about 24,000 acres in size, is surrounded by forested slopes, buttes, and mountains. Because of man-made diversions and irrigation activities some of the Marsh has lost its appearance as a Marsh, and instead has an appearance of meadowland and/or pasture land.

Below the Marsh the first 6 to 7 miles of river flows through nearly level forested plains and rolling hills with about a 1% stream gradient. The grass/sedge flood plain varies from 50 to 150 feet wide, with conifers reaching the water's edge in some places. Nine and a half miles below the Marsh a near vertical 80 foot basalt wall occurs near Torrent Springs, but the stream gradient remains at 1% or less. Torrent Springs, located on the west side of the river, adds about 4 cubic feet of 48 degree F. water per second to the river. From Sycan Ford to about 2 miles above Coyote Bucket canyon, the stream again meanders through a 100

to 200 foot wide flood plains among scab rock flats and rolling forested hills. An exception to this is the large, privately owned, Teddy Powers meadow which is managed for livestock grazing. The predominate feature of the remaining 4 miles of the designated portion of the river is the Coyote Bucket canyon. The canyon again cuts through scab rock flats and has steep 100 foot high basalt walls with bitterbrush, mountain mahogany, and scattered mature ponderosa pines. This part of the stream has a V-shaped bedrock cross section and is strewn with huge water sculpted basalt boulders. The stream gradient in this area is up to 5%. As the river reaches the point of termination of Wild and Scenic River status (and the National Forest boundary), the canyon gives way to rolling farm fields and agricultural lands.



Looking NE up the Sycan River towards the Sycan Marsh

RESOURCE VALUES

SCENIC

The Sycan River and the river corridor are noted for their scenic values. Scenic values are identified as one of the Outstandingly Remarkable Values. The river corridor generally meets the Recreation Opportunity Spectrum definition of a "Semi-Primitive Nonmotorized River" in regards to scenic values. The characteristics of a "semi-primitive nonmotorized river" are: largely undisturbed natural environment; little evidence of human development; very few trailed access sites developed along the river; and primitive roads to access points on edge of corridor.

Scenic values within the river corridor are as follows:

The gigantic water sculptured boulders in the lower part of Segment 1 are the most noted scenic attraction, and are particularly unique within this geographic region. The rugged basalt canyon that occurs throughout much of this segment has equally notable scenic value.

Impacts to scenic values within Segment 1 include access into the river corridor by several low standard roads, two major river fords and two single lane bridges, and impacts from livestock grazing. Several previously harvested timber sale units are located within a 1/4 mile of the river. These units generally remain obscure from the river because of the steep canyon walls and rimrock, or because of the screening provided by the remaining timber stands. Road access points adjacent the river are generally inconspicuous. A residence adjacent to the river (between Torrent Springs and Merritt Creek) is highly visible from the river, but only within a limited area. The temporary/seasonal residence located at the down river edge of Teddy Powers Meadow is also visible from the river, but again only within a limited area.

Scenic values within the river corridor in the Sycan Marsh are typical of marsh areas within this geographic region. The large size of the Marsh provides for a certain uniqueness, but the landscape elements provide little variety. The railroad crossing the marsh, the ZX Ranch headquarters, and the prior dredging of the river have affected the natural scenic quality of the Marsh. The actual river channel is obscure to most visitors.

Upstream from the Sycan Marsh the river again enters a very scenic, deeply incised basalt canyon forested with mature and over mature ponderosa pines. The river flows through this canyon for approximately 16 miles until it reaches the vicinity of Rock Creek. At this point the scenery changes to one of upland meadows surrounded by forested slopes that are accentuated by copious displays of wildflowers and small groves of quaking aspen. A series of these meadows interspersed by stands of dense lodgepole pines continues on up to the point of origin of the Sycan River, which is a spring at the eastern end of another large mountain meadow.

Approximately one mile above the Marsh three 500 KV power lines cross the river. These lines and their supporting towers are highly visible for a short distance. Additionally three single lane bridges and one large culvert cross the river in this upper segment. These crossings do not detract significantly from scenic quality in the area where they occur.

Recreation

A wide variety of recreational activities occur within the river corridor. These include fishing, hiking, hunting, horseback riding, camping, picnicking, and floating/rafting during periods of high water. Opportunities for solitude are high.

There are numerous dispersed recreation sites along the river. The most popular of these is the Pikes Crossing dispersed site. This site is causing some health and safety concerns due to sanitation. A "one hole" toilet exists at the site, and is regularly maintained, however this single facility is inadequate for the use that occurs at the site. Additionally, a long standing water "chance" for water trucks occurs at the entrance to this site and has heavily impacted a short section of the riverbank. The dispersed site just below the bridge on Forest road 27 is another site that receives regular use. Other popular sites include the site just below Torrent Springs, the site near Sycan Ford (both sites in the lower segment of the river), and numerous sites in the upper reaches of the river where Forest Road 28 parallels the river.

Hunting within the river corridor is generally incidental to the hunting of the adjacent areas. Waterfowl hunting within the Marsh generally does not occur because of the restricted access..

Fishing quality below the Marsh is generally considered to be average, with the exception of that part of the river between where the river exits the Marsh and Torrent Springs. Fishing in that part of the river is very poor because of high water temperatures and low flows during late summer.

Fishing quality above the Marsh ranges from average to excellent.

Floating and/or rafting of the river is generally limited to a two or three week period in the spring when peak flows occur. There is no record of any floating of the river above the Marsh.

There is currently very little recreational use within the Marsh, primarily because of three reasons: 1) access is limited because of the private land, 2) the remoteness of the area, and 3) the mosquito problem, which is a very strong deterrent to most recreational use during the spring and early summer when hordes of these insects emerge from the Marsh in almost unbelievable numbers.

Recreational users of the river and/or river corridor are generally from within the local area (Bend, Klamath Falls, and Lakeview area).

The Recreation Opportunity Spectrum

The Recreation Opportunity Spectrum (ROS) concept is used as a framework for evaluating the environmental effects of the alternatives in Chapter VI. Forest Service recreation managers use the ROS to help describe the levels of development, social interaction, and management controls that are appropriate for different areas of the Forest. The principle behind the ROS concept is that different visitors participate in different recreational activities in different settings in order to realize certain experiences. For example, some visitors backpack into the wilderness to experience solitude, challenge, and self-reliance. Other visitors camp in campgrounds to have more comfort, security, and social interaction.

Descriptions of various opportunities have been standardized and divided into general categories. Indicators such as remoteness, other management activities present, on-site management modifications, visitor management controls, number of social encounters between groups, and visitor impacts were considered in developing these descriptions.

The Sycan River corridor generally fits the description for "Semi-Primitive Nonmotorized" in the Recreation Opportunity Spectrum, with the exception of that portion of the river that is within the Sycan Marsh - which fits the description for "Roaded Natural". The following description of a semi-primitive nonmotorized river corridor, and a roaded natural river corridor is from an unpublished working paper titled "Recreation Opportunity Spectrum for River Management".

Semi-Primitive Nonmotorized river corridor physical attributes are:

> A largely undisturbed natural environment; little evidence of human development; very few trailed access sites developed along the river; and primitive roads to access points on edge of corridor.

Semi-Primitive Nonmotorized river corridor social attributes are:

> Fairly high expectation of solitude and experiencing isolation from the sights and sounds of others; few contacts with other users at rapids and access points; little but some evidence of other users; self-reliance through application of outdoor skills in an environment that offers a moderate degree of challenge and risk; a sense of remoteness.

Semi-Primitive Nonmotorized river corridor managerial attributes are:

> Small party size (8-20) and limited boats per group; traditional nonmotorized craft consistent - motorized use prohibited; only a few, subtle on-site visitor management controls or regulations are apparent; minimal facility development primarily for resource protection; regulations for human waste disposal and camping practices required; and outfitter and guides are often used but customers experience a high to moderate degree of challenge and risk.

Roaded Natural river corridor physical attributes are:

> Alterations to the landscape are subtle. Natural characteristics remain dominant; moderate evidence of human development; developed access sites provided; roads parallel some portions of the river; few impoundments, diversions or channel modifications. Additionally there may be small nodes of rural and urban development (typically 1/4 mile or less in length).

Roaded Natural river corridor social attributes are:

> Moderate evidence of sights and sounds of others; moderate use occurs - contact with others is expected and occasionally continual, some chance for isolation; opportunities for challenge in a natural environment but less expectation of risk.

Roaded Natural river corridor managerial attributes are:

> A few on-site visitor management controls or regulations may be expected; rustic facilities for protection of the resource and to accommodate visitor use. Non-motorized and motorized water craft allowed; agricultural and forestry practices occasionally evident but subordinate; some development of private land noticeable; some auto and off-road vehicle use can be seen from the river; contacts with management personnel are more frequent

FISHERIES

The Sycan River has an excellent diversity of fish species. Because of the wide variation in each Segment in species diversity and habitat conditions, each Segment is discussed separately.

Segment 1

Fish species known to currently inhabit Segment 1 are rainbow trout (Salmo irideus), brook trout (Salvelinus fontinalis), brown trout (Salmo trutta), Pacific lamprey (Entosphenus tridentatus), Pit-Klamath brook lamprey (Lampetra lethaphaga), speckled dace (Rhinichthys osculus), chubs, and sculpins. In addition, the Klamath large-scale sucker (Catostomus snyderi), and redband trout (Onchorhynchus mykiss), federal category 2 sensitive species, have been found in this segment. There are also unconfirmed reports that historically this segment was also inhabited by the shortnose sucker (Chasmistes breviorstris) and the Lost River sucker (Catostomus luxatus), both endangered species on the federal list.

Species diversity is very high in this segment. Fisheries habitat within this section of the river is currently in a degraded condition due to past management practices. In addition, downstream dams and/or diversions in the Sprague river system have resulted in barriers to migration of the Lost River and Shortnose suckers, as well as the Klamath Largescale sucker.

Segment 2

Fish species that currently inhabit Segment 2 include the Pacific lamprey, the Pit-Klamath brook lamprey—a dwarfed, non-parasitic, land locked species endemic to the Pit River and the Klamath River systems, the speckled dace, the tui chub, brook trout, brown trout, rainbow trout and redband trout (a category 2 sensitive species).

Habitat in this segment has been altered by agricultural practices, including removal of a natural peat dam at the south end of the Marsh and the construction of dikes, irrigation ditches, and diversion dams for the purpose of draining and irrigating the marsh lands. These actions have contributed to migration barriers, loss of water storage capabilities, degraded habitat and increased stream temperatures.

Segment 3

Fish known to inhabit this segment are brook trout, rainbow and redband trout, and brown trout. In addition, bull trout are known to have been present at one time, although there has been no documented occurrence in the past several years. This species may still inhabit the upper reaches of this segment where water temperatures have not been affected or where displacement has not resulted from interspecific competition from introduced species such as brook trout and/or brown trout. Both redband trout and bull trout are category 2 sensitive species.

Water quality and habitat conditions in this segment are much better than the downstream segments, partly due to less cumulative watershed effects from grazing and timber management activities, and partly because of the river being more stable and resistant to adverse impacts. Streambank stability is generally good throughout the segment with areas of erosion and high sediment found only in the lower reaches. Stream temperatures have also been increased in the lower reaches of this segment due to widening of the stream channel and modification of riparian vegetation as a result of livestock grazing.

Wildlife

The river corridor provides habitat for a variety of wildlife species; mule deer, antelope, Rocky Mountain elk, black bear, mountain lion, bobcat, coyote, porcupine, gophers, etc... (Some 323 native species of birds, mammals, reptiles, amphibians and fish are known to occur on the Fremont National Forest, and 368 native species occur on the Winema National Forest).

Bald eagles have been observed within the river corridor immediately below the Sycan Marsh (The Klamath Basin is one of the largest bald eagle wintering areas in the continental U.S.). Additionally, the high density of cavity nesters that occurs within the stands of mature and overmature ponderosa pine is noteworthy.

The Sycan Marsh has a unique diversity of species and habitats. The Marsh has the highest concentration of nesting greater sandhill cranes in the United States. Bald eagles that nest adjacent the Marsh forage over the Marsh. Upland sandpipers and yellow rails (category 2 sensitive species) have both been observed in the Marsh. White face ibis have also been observed in the Marsh. The marsh contains ring-neck diving duck breeding habitat, which is very limited in Oregon. All of the species that exist in the marsh either occur, or have the potential to occur within the river corridor as it meanders through the Marsh. The Marsh also provides habitat for a small herd of antelope. Agricultural and grazing practices in the Marsh have contributed to changing the Marsh from its original wetland condition, to a condition that more resembles wet meadows and/or pasture land.

Cultural Resources

Numerous cultural sites (i.e. lithic scatters) have been identified within Segment 1, and potential exists for other sites to be identified. The Klamath Tribe has indicated that sacred sites (vision quest, cremation and healing sites) also exist within this segment.

Numerous cultural sites that date back to prehistoric times occur in and around the Sycan Marsh, however there are no known significant sites within the river corridor. The possibility does exist for the discovery of significant sites within the river corridor.

No significant cultural sites have been identified within Segment 3. The potential for sites to be found within this segment is moderate to high.

Historical Resources

An historic railroad grade crosses Segment 1 and Segment 2. A historic BIA guard station site occurs adjacent the river corridor in Segment 1 immediately below the Sycan Marsh. Little information is available on either site.

There are no features or sites within the river corridor that are on the National Register of Historic Places.

Traditional Use - Cultural Values

The entire river corridor is within the lands claimed by the Klamath Indians in the Treaty of 1864, and thus is part of the historic use area of the Tribe. Much of the river corridor. With the Termination Act of 1954 the Klamath Tribe retained non-exclusive hunting, fishing and trapping rights to an area that includes most of the river corridor.

The Teddy Powers Meadow area is a known historic use area of the Klamath Indians. A "cultural camp" has been conducted within and adjacent to Teddy Powers Meadow in past years to teach the younger members of the tribe historic and cultural traditions. The river is an important part of the activities.

The Sycan Marsh and the surrounding area has been occupied by humans for at least 10,000 years. In fact the very name "Sycan" is purportedly derived from "saiga keni", which is a Klamath Indian name for a level, grassy place. The Marsh is within the former Klamath Indian Reservation and appears to have been used by both the Yahuskin band of the (northern) Paiute and Upper Klamath Indians. The gathering of food items (i.e. wocus seed, roots, and bird eggs) may have been one of the primary uses of the area. This first recorded white inhabitants moved into the area shortly after the Treaty of 1864 between the U.S. and the Klamath Tribe. A few individual Klamaths continued to own portions of the Marsh as recently as 1954, however with the Klamath Termination Act of 1954 they began selling portions of it. Today the major portion of the Sycan Marsh that is within the river corridor is owned entirely by The Nature

Conservancy. However, the first mile of the river corridor below segment 1 is owned by the ZX Ranch. Tribal activities currently appear to be minimal or non-existent within the Marsh.

Geologic

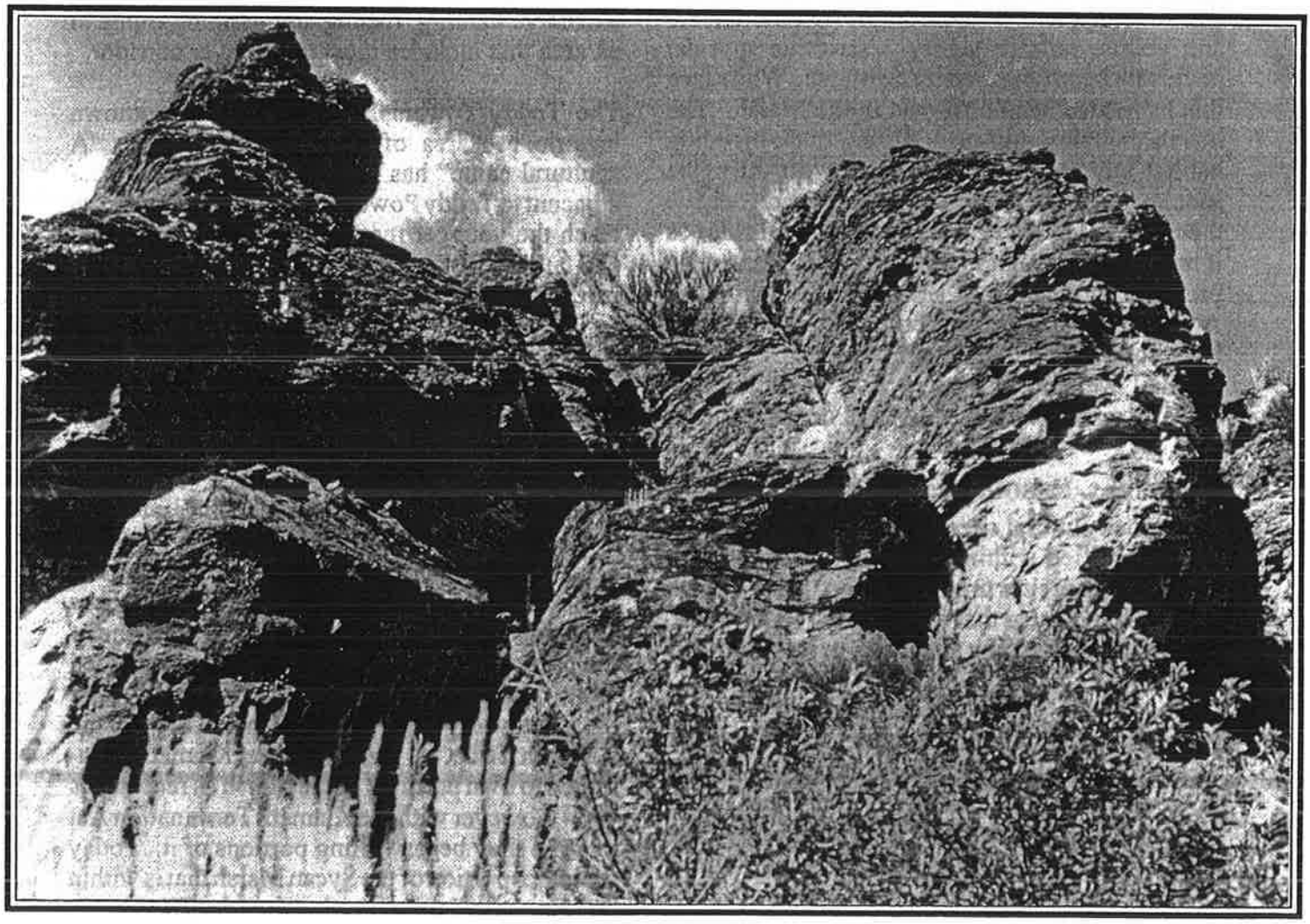
The huge water sculptured boulders located in the lower two miles of Segment 1, as well as the steep, narrow basalt canyon in the lower part of this segment are both unique geologic features. No other river within the geographic region contains water sculptured boulders of this magnitude (both size and number). Unique, though less spectacular, are the canyon areas and rock outcrops located throughout other parts of the river corridor.

Torrent Springs, the largest of several springs that add water to the river, is located about 9 miles below the Marsh. This spring is unique because of its roaring sound, the volume of water it adds to the river (about 4.5 to 5 cfs of 45 degree water), and the unique geologic setting in which it is located.

The Sycan Marsh overlays alluvium deposits which are bounded on the west by the Yamsay Butte shield volcano, and on the east by the Winter Rim fault block (which tilts to the west). A clay layer that occurs between 25 and 45 inches below the soil surface tends to maintain the "perched" water table of the Marsh, however the Marsh is probably the result of restricted water flow out of the basin, caused by the narrowness of the outlet and the naturally occurring peat dam that existed in the early part of this century.

Botanical Values

In the lower part of Segment 1, in the Coyote Bucket area Mimulus tricolor (three colored monkey flower), a threatened species in Oregon, is suspected to occur.



Within the river corridor in the Marsh typical wetland/marsh habitat occurs and is characterized by hydric soils, wetland hydrology and a predominance of hydrophytic (water loving) vegetation. Vegetative communities include water lily, tule/sedge, sedge/rush, tufted hairgrass, bluegrass and sagebrush type communities. Plant species in the marsh include tricolored monkeyflower (Mimulus tricolor) and little grape fern (Botrychim simplex), both of which are threatened species in Oregon. These species may occur within the river corridor.

The large, open meadows in the headwaters area of the river provide a significant amount of high quality wetland/riparian habitat. These areas have been grazed by cattle for many years, yet continue to remain in reasonably good condition. Some evidence of streamside/riverbank damage from grazing is present, but not excessive. Elk can also be seen grazing these meadows during the summer months. The interface (ecotone) between the lodgepole pine and the wet areas is being invaded by big sagebrush in some areas.

Soils

The soils found within the Sycan River watershed are developed from volcanic parent materials or from alluvium/lacustrian materials eroded from volcanic materials. Late Pleistocene glaciation of the highest peaks in the area (Gearhart Mountain, Yamsay Mountain, and Dead Horse Rim), and geologic erosional processes since that glaciation, have contributed sediment deposits to valley and depression areas including the Sycan Marsh within the Sycan River watershed. Much of the rest of the watershed is covered by pumiceous soil of ashy loamy sand to an average depth of 20 inches. Late volcanic eruptive events occurring approximately 6500 to 6900 years ago from Mount Mazama, located 60 to 80 air miles northwest of the Sycan drainage, are primarily responsible for these deposits. These pumiceous soils overlay heavier residual loam and clayey loam type soils developed from basalt. Another soil type covering a significant portion of the watershed is the shallow rocky loams to rocky clays of the "scabrock plains." The "scabrock plains" are believed to be exposed residual soils which are no longer covered by the wind blown pumiceous deposits found in most other upland areas within this region. These low productivity rocky flats were probably only sparsely protected by vegetation during pumice deposition events. The sparse vegetation probably trapped less wind blown pumice when it was deposited and/or allowed the pumice to be blown clear of these areas leaving the original rocky clays of the residual soils.

The pumice soils are very permeable and usually produce little runoff during periods of rainfall or snow melt. However, because of their low cohesion, these soils have a high potential for erosion when the protective vegetation is removed, or when compaction or roads generate concentrated runoff over these soils. The high clay content of the soils found on the "scabrock plains" have good cohesion, but are shallow, rocky, and less permeable, which can generate concentrated runoff during periods of rainfall or snowmelt leading to deposition of sediments in the river.

The sandy textured soils developed in pumice support lodgepole pine, white fir, and ponderosa pine forests. The "scabrock plains" are much less productive and support only sparse shrub-grass communities with some scattered western junipers, lodgepole and ponderosa pines. The lacustrian/alluvial soils found in meadows and marshes within the corridor support dense grass/sedge communities with willows along the stream margins. In areas where the water tables are falling, sagebrush and conifers are intruding into the meadows.

Water

Water Quality

Two criterion must be considered when evaluating the water quality of the Sycan River: (1) Oregon state water quality standards must be maintained, and (2) for a Federally designated Wild and Scenic River, a non-degradation standard applies.

In Oregon, state standards are specific for each river basin. The Klamath River Basin standards apply to the Sycan River. These standards are summarized as follows:

Dissolved oxygen: For streams containing salmonid fish populations, the season low is not to decrease below 90% of saturation for the temperature of the water, or below 95% for the season between spawning and fry stages. Dis-

solved oxygen must not be less than 6 mg/l for non-trout producing areas.

Temperature: For salmonid fish producing streams, no temperature increase is allowed from a discharge outside of an assigned mixing zone if stream temperatures are 58 degrees F. or greater. A maximum of 2 degrees F. of increase is allowed for stream temperatures of 56 degrees F. or less.

Turbidity: No increases of greater than 10% JTU turbidity units compared to a control point immediately upstream. Emergency and temporary permits may be allowed for short term violations.

pH: Oregon standards are 7.0-9.0.

Toxic wastes: May not exceed natural background levels. Oregon follows standards set by the EPA. Mine tailings, illegal toxic waste dumping, and wastes from illegal drug manufacturing can be problems.

Natural conditions: Where natural conditions do not meet minimum state standards, the natural conditions become the standard and the non-degradation policy applies.

Water Temperature

Much of the Sycan River occupies moderately sloped topography and has a wide meandering flood plain which is predominantly vegetated with grasses, sedges, and low shrubs. As a result, the river is slow moving and unshaded, and therefore, subject to high diurnal summer temperatures. Continuous stream temperature monitoring devices indicate that river temperatures can reach over 80 degrees F. in summer, with the 9.5 mile section between the Marsh and Torrent Springs having the highest temperatures. Torrent Springs adds about 4.5 to 5 cfs of 48 degree F. water to flows that can be less than 1 cfs, however reduced temperatures remain for only a short distance. Fish surveys taken in 1979-1980 show that trout found in the river below the Marsh are mostly located in the vicinity of Torrent Springs and in the Coyote Bucket canyon. High stream temperatures as well as low dissolved oxygen may account for the limited range of trout in the lower section of the river.

Trout kills have been noted in the Sycan Ford area. High temperatures or low dissolved oxygen in the early morning hours may have been the cause. In the Coyote Bucket area the large dark colored basalt rocks and bedrock stream bottoms may be a source of heat that elevates stream temperatures, which may be the cause of periodic fish kills in that area.

Dissolved Oxygen

One of the water quality parameters that is of concern in the Sycan River is dissolved oxygen. The critical section of stream for low dissolved oxygen is the 9.5 miles of river between the outlet of the Sycan Marsh and Torrent Springs. The summer low flows and high stream temperatures provide growing conditions for large amounts of filamentous algae and aquatic vascular plants. The algae and the three most common vascular plants, *Potamogeton natans, Elodea canadensis,* and *Myriophyllum exalbescens,* completely cover the bottom of the river, and most of the stream profile in parts of the lower segment of the River. Plants produce oxygen as a waste product of photosynthesis, supersaturating the water with oxygen during daylight hours, but depleting the water of oxygen during the night when they continue respiration without producing oxygen. Early morning readings taken every half hour at four locations (Sycan Ford, the National Forest boundary, FS Road #3239 above the Marsh, FS Road #27 below the Marsh) in the river on August 18, 1978 indicated that below the Marsh the river drops below the minimum standard for dissolved oxygen (6mg/l). On the morning of August 26, 1990 dissolved oxygen at FS Road 27 below the Marsh was 5 mg/l. Data from the other locations on the river indicate that dissolved oxygen generally exceeds state standards for salmonoid fish between Torrent Springs and the National Forest boundary, and above 90% saturation in the summer for all but 1 to 2 hours at FS Road #3239, upstream from the Marsh.

Another factor reducing dissolved oxygen is the entry of organic materials into the river from the Sycan Marsh. Organic materials in a stream are broken down by organisms which consume oxygen in the process, resulting in an overall decrease in stream dissolved oxygen. Suspected contributions are from natural boggy areas, wastes from livestock, and increases due to distribution and

return of irrigation water. The quantity of organic material and the increase compared to water above the Marsh has not been established.

pH

pH readings of between 8.5 and 9.0 on the Sycan River were recorded in the summer of 1990 (the readings were taken above the Marsh; between FS Road #3239, and the Forest boundary). Oregon State standards are set from 7.0 to 9.0. State standards are allowed to be exceeded if it is a result of naturally occurring conditions. Natural influences may be the cause of the high pH levels in this upper part of the river. More testing of the pH levels in the river is needed.

Sediment Loads and Turbidity

Other water quality concerns are stream turbidity and suspended sediment caused by soil compaction and disturbance of the soil surface where water runoff is concentrated. Forest roads, timber harvest, and livestock in riparian areas can be primary sources. Turbidity and sediment impacts fish by causing embeddedness and reducing available spawning gravels. The low gradient of much of the Sycan River makes it susceptible to high embeddedness.

Clarity

The clarity of the water within the river above the Marsh is good during periods of normal flow. Gravel and rocks on the bed of the stream may be seen to a depth of over 18 inches, and fish are often visible in pools that are over three feet deep. Clarity can be affected during periods of high water and from the milky color of snowmelt water in the spring. The water is normally colorless except in some of the deeper pools where it has a slight greenish tint. Within the Sycan Marsh the water clarity begins to diminish until by the time the water leaves the marsh it is a distinct brownish color. This is due to the decaying vegetable matter and peat within the marsh which stains the water with a tea-colored hue. This condition is most noticeable during low flows. Downstream from Torrent Spring the clarity of the water improves.

Sources of Pollution

The potential for pollution of this river comes primarily from three sources. The first source is the excrement of livestock within the stream as they drink from, or cross the stream. This can result in an increased amount of organic nitrates in the water which in turn can cause increased algae formation. The second source is the possibility of people dumping RV sewage holding tanks in or near the stream, or using the stream directly for waste elimination purposes. The placement of a camp in close proximity to the stream could result in this type pollution to the stream. The third potential source is the accidental or intentional dumping of toxic chemicals in or near the stream (i.e.. fuel spills, herbicide release, or dumping of chemicals used in illegal drug manufacturing). The river currently appears to be only slightly affected by livestock excretal materials. There is a high probability that the Giardia organism exist throughout the river.

Recreational Contact

Recreational contact with the Sycan River consists primarily of fishing in the river. Some minimal use is made of the river by people wading and floating on air mattresses or inner tubes. Rafting or canoeing does occur to a small extent in the early spring, primarily below the Marsh.

Water Quantity

For the period between 1973-1989, the average annual discharge, measured at the Oregon Department of Water Resources gauging station (located 7 miles downstream from the National Forest boundary) was 123,900 acre feet. Average flow rate for the period was 171 cubic feet per second (cfs), with extremes occurring on February 21 or 22, 1982 of 5550 cfs, and 3.0 cfs on Nov. 21, 1977. For the period of 1979-1989, mean monthly flow, the highest monthly flow on record, and the lowest monthly flow on record are given in Table 1. Also given is the Fremont National Forest Land Management Plan (1989) recommended monthly flows at the National Forest boundary (located 7 miles upstream from the gage). Flows at the gauging station cannot be directly compared to flows at the National Forest boundary, but are given as a reference because of the limited flow data that is available. All average monthly flows at the gauging station could be expected to exceed the flows measured at the National Forest boundary. This is because inflows into the river are greater than outflows between the Forest boundary and the

gauging station. There are at least three small pumping diversions for irrigation below the National Forest boundary, but this is more than made up by several springs which enter the river. Additionally, Snake Creek, which drains an additional 6% of land outside the Wild and Scenic River watershed, enters the river just upstream from the gauging station. Limited flow data taken at the National Forest boundary, which can be compared to the recommended flows at the gauging station, were 3.4 cfs on August 6, 1990, and 3.4 cfs again on August 14, 1990. This is for a very dry year and well below the recommended flows leaving the forest, but serves as an example of the low flows which can occur at this point in the river.

Summer flows can also be critical for the section of river between the Sycan Marsh and Torrent Springs (Table 2). Flows along this section of the river can be less than 1 cfs; well below the recommended flows identified in the Fremont L&RMP for the river at FS Road #27 (see footnote in Table 1 below). Merritt Creek, which enters the river at about the middle of this 9.5 mile stream section can add an additional flow of 1-2 cfs during some years.

On September 5, 1979 an attempt was made to estimate the amount of flow lost to irrigation within the Marsh (Table 2). Cumulative flow from the major tributaries entering the Marsh was 17.5 cfs. At the same time the flow exiting the Marsh was less than 1 cfs. While this does not take into account natural losses, or additional water that may be added from springs in the Marsh, it does indicate the impact of irrigation on summer flows below the Marsh. However, it should be noted that this statement is based on one day's measurements; no definite conclusions can be drawn, nor trends determined, without additional flow measurements.

Table 1. Sycan River flows at the Oregon Department of Water Resources gauging station at Drews Road, 3.1 miles north of Beatty for 1979 - 1989.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Mean Monthly Discharge	30	53	83	82	254	424	465	390	152	47	26	28
Recommended Flow*	20	30	40	50	50	70	70	70	50	30	20	20
Highest Monthly Flow	49	124	383	259	1114	811	867	996	549	115	45	43
Lowest Monthly Flow	16	21	27	33	37	79	80	66	29	12	6	9

** Recommended flows are from the Fremont National Forest Land and Resource Management plan (1989) for the river as is leaves National Forest lands seven miles above the station. The two points (the ODWR gauging station and the Fremont National Forest gauging point) are not completely comparable, since springs and Snake Creek add additional water to the river between the National forest boundary and the gage, but since data is limited at the National Forest boundary the two are given as reference. On August 6 & 14, 1990 the flow at the boundary was 3.4 cfs, well below the recommended value of 20 cfs for the month of August. It should be noted, however, that the recommended flows are preliminary estimates and were based on the best informaation availaale at the time the Plan was developed. Since the Plan has been implemented, additional analysis of the Sycan River has been undertaken and could cause the recommended flows to change.*

Table 2. Recommended flows and limited flow data for the Sycan River at Forest Service Road #27, just below the Sycan Marsh.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Recommended Flows*	10	15	15	50	50	70	70	70	30	10	5	5

1978	Recorded Flow
July 5	50.0
October 13	0.7

1979	Recorded Flow
May 30	75.0
June 29	10.0
August 31	0.8

1990	Recorded Flow
August 6	.7.0
August 14	1.0

** Recommended flows are preliminary estimates and were based on the best information available at the time the Plan was developed. Since the Plan has been implemented, additional analysis of the Sycan River has been undertaken and could cause the recommended flows to change.*

Late summer flows of less than 1 cfs leaving the Marsh are common and extend 9.5 miles downstream until Torrent Springs adds about 4 cfs to the river. At times, Merritt Creek, which enters the river about half way between the Marsh and Torrent Springs, can also add 1-2 cfs during low flows.

Table 3. Flow of tributaries entering the Sycan Marsh on September 5, 1979; note that less than 1 cfs of water left the Marsh.

TRIBUTARIES	FLOW (cfs)
Upper Sycan	5.0
Long Creek	11.3
Coyote Creek	1.2
	17.5
Sycan river exiting Marsh	<1.0

Air

Air quality within this high elevation region is excellent. Its location far from any population or industrial centers contribute to the quality of the air. Some short lived episodes of wood smoke pollution may occur at times due to slash burning or wildfires, but these are exceptions to the norm. Air movement is good throughout this region due to its high elevation and relatively open character. As a rule visibility is unhindered and there is no detectable refraction of light due to foreign particles in the air. The only foreseeable potential for air pollution within this area would be the previously mentioned possibility of wood smoke from a major wildfire or the intentional burning of slash left by logging operations. Both of these sources would be of a temporary nature.

The Land and Resource Management Plans for the Fremont National Forest and the Winema National Forests set forth guidelines for the maintenance of air quality. These guidelines set limitations on the amount and timing of prescribed burn ignitions within this area.

RESOURCE ACTIVITIES AND USES

Timber Harvest

Timber harvest has occurred throughout the Sycan River watershed for many years, and is expected to continue to occur. Harvest methods have included overstory removal, shelterwood, clear cuts, and various forms of uneven age management. Even though timber harvest has occurred throughout the watershed for many years, there has been very little harvest within the river corridor.

Timber harvest and the associated road management activities, can affect the overall condition of a watershed, and thus affect water quality and quantity. The total amount of a watershed impacted by timber harvesting and road building can increase the rate and quantity of runoff from rain and/or snowmelt. Stream morphology is established by the energy that a stream has available as a result of the stream gradient and quantity of water, and the amount of material available for

movement. Increased runoff and/or sediment production from roads, soil compaction and disturbance, and reduction of soil cover, can alter a stream's energy balance resulting in riparian and fish habitat destruction. The maximum percentage guideline of watershed allowed to be impacted by timber harvest is set for individual watersheds by National Forest managers. (Limits apply to sub-basins greater than 10,000 acres. Areas are no longer considered as contributors to watershed impacts when stocked with trees averaging greater than 6 feet in height or in sufficient numbers to provide 60% crown cover). The maximum percentage guidelines set by the Fremont National Forest for the Sycan River watershed is 35%. National Forest managers generally take into consideration the amount of timber harvest occurring on private lands within a watershed in assessing cumulative effects for the entire watershed. It is estimated that about 18 to 20 percent of the Sycan River watershed is currently impacted by timber harvest.

Table 4. Timber volumes within the 1/4 mile interim boundary.

Lower segment	Bly Ranger District:	1286 acres 12.97 MMBF (all species) Average volume/acre = 10.081 MBF
	Chiloquin Ranger District	2431 acres 23.22 MMBF (all species) Average volume/acre = 9.551 MBF
Middle segment	The Nature Convervancy	No timber present
Upper segment	Paisley Ranger District	3421 acres 30.84 MMBF (all species) Average volume/acre = 9.015 MBF

* *Acres shown are lands suitable for timber production.*
** *Volume estimates are from timber stand examination data and includes all species in all age groups; estimates do not necessarily reflect the volume that may be suitable for harvest.*

Insect and Disease

Disease incidence along the Sycan River pretty much mirrors disease activity in similar forest types throughout the Fremont National Forest. For example, on the drier sites, in the pine type, some Fomes annosus root rot problems may be present. In the mixed conifer type found on the upper reaches of the Sycan dwarf mistletoes, stem decays and root disease activity are likely to be scattered throughout and to be (or become) especially severe where partial cutting has occurred. The majority of mortality of true fir along the drainages is probably due to root disease (Fomes annosus root rot). These problems are likely to become progressively more severe as the seral tree species components of the type are replaced with climax tree species.

The aspens along the rivers probably have some incidence of root diseases, canker diseases, and stem decays. These are likely to be the most severe where frequent wounding, either from harvest activities or animal feeding, has occurred. The aspen clones are probably dwindling due to overshading by conifers, lack of disturbance events which create conditions necessary for successful establishment and growth, animal feeding on suckers, and trampling by livestock.

The potential for any of these diseases to have a significant effect of the proposed Wild and Scenic Rivers is fairly low, since most of these diseases are chronic, not epidemic.

The Sycan River corridor has a high percentage of late seral and climax stage ponderosa pine type stands. The advanced age of these stands, combined with drought stress over the last several year creates the potential for epidemic insect attacks. Stands that are overstocked have a much greater risk of incurring significant damage from future insect attack. In many cases, stand tending (thinning) to decrease stocking density and increase overall stand vigor, may be appropriate to increase insect (and disease) attack resistance, and in so doing, maintain the visual qualities of these stands over time. Left unmanaged, history indicates that epidemic insect attacks will occur in a cyclic fashion that will modify the characteristics presently found in the river corridor.

LIVESTOCK GRAZING

Livestock grazing has occurred within the Sycan River watershed since the 1860's. Grazing presently occurs throughout the watershed on National Forest lands, on private lands owned by Weyerhaeuser Company (grazing on these lands is done in cooperation with grazing on adjacent National Forest lands, and is authorized by special private land grazing permits administered by the Forest Service), and on other private lands, including the 24,000 acre Sycan Marsh which is owned by the Nature Conservancy.

Appendix C identifies current grazing allotments and permittee's.

The Land and Resource Management Plans for both the Fremont National Forest and the Winema National Forest are aimed at improving the condition of lands suitable for grazing, including those lands within the W&SR corridors. Three levels of range/livestock management intensities are identified - levels B, C and D (these are referred to as the Forest Range Environmental Study (FRES) Management Levels). The lands within the allotments included within the W&SR corridor are managed under a FRES Level C. This level, as defined in the Plans, is as follows:

FRES C - **Extensive Management of Environment and Livestock** - Management systems and techniques, including fencing and water developments, are applied as needed to obtain relatively uniform livestock distribution and plant use, and to maintain plant vigor. Management seeks full utilization of the animal unit months available for livestock grazing. No attempt is made to maximize livestock forage production by silvicultural practices such as seeding. On the Fremont National Forest, Management Level C will be the proper classification of allotments where an attempt is made (or planned) to realize benefits from the full productive potential of native vegetation occurring in the area. This would include all structural improvements of the allotment.

This management level identifies the maximum allowable use of forage on forest lands in satisfactory condition as 45%. On forest lands in less than satisfactory condition the maximum allowable use of forage is 35%. For shrub species the maximum allowable use on lands in satisfactory condition is 45%; and on lands in less than satisfactory condition it is 30%. For riparian areas in satisfactory condition the maximum allowable use for grass or grasslike species is 45%; for riparian areas in unsatisfactory condition it is 35%. For shrub species in riparian areas in satisfactory condition the maximum allowable use is 40%; for riparian areas in unsatisfactory condition it is 30%.

Winema's L&RMP indicates that "the demand for livestock grazing will be met only when it does not conflict with other uses".

The Fremont's L&RMP indicates its goal is *"To maintain or improve vegetative condition of rangelands through the use of available ... livestock management while providing for other resource uses"*. It is also a goal of the Fremont's L&RMP *"to restore and maintain all riparian areas in a condition which enhances riparian dependent resource values."*

Riparian areas

Protection of riparian areas from the impacts of grazing has been a concern for many years. The condition of the riparian areas within the river corridor is highly variable. The river corridor above Sycan Marsh is generally in satisfactory condition. The large meadow areas in the vicinity of the headwaters are currently in a satisfactory condition, however field note summaries from a 1990 stream survey crew report heavy vegetation use and stream bank trampling during the 1990 grazing season. The 8.6 mile section of the river

corridor within the Sycan Marsh is on privately owned land and has not been evaluated by the Forest Service. However it should be noted that the Nature Conservancy and the ZX Ranch are beginning the process of preparing a Coordinated Resource Management Plan for grazing within the entire Sycan Marsh. Riparian areas below the Sycan Marsh are considered to be in deteriorated condition. Grazing within this section of the corridor has caused widening of the channel and reduced shrub cover along the river to where shrub cover is nearly nonexistent. Some areas within this section of the river corridor have an improved grass-sedge response, but large shrubs, such as willows, show very little sign of recovery (as evidenced from photographs from stream surveys). Comments from March 1980 and 1990 stream survey notes describe shrub cover as receiving heavy use, occurring in very low densities, and being well below the natural shrub cover potential. All of the these impacts contribute to increased water temperatures during the summer months, and to a degradation of fish habitat.

The Fremont's L&RMP indicates that on riparian areas in less than satisfactory condition that "a measurable desired future riparian condition will be established based on existing and potential vegetative conditions. When the current riparian condition is less than that desired, objectives will include a schedule for improvement. The allotment management plans will identify management actions needed to meet riparian objectives within the specific time frame. Measurable objectives will be set for key parameters, such as shaded stream surface, streambank stability, and shrub cover".

Agriculture

The only agricultural use within the designated river segment corridor at the present time, or in the foreseeable future, is livestock grazing. Up until the 1960's the ZX Ranch, former owner of most of the Sycan Marsh, harvested natural grass hay on the Marsh.

Recreational Uses

The recreational use within the river corridor consists primarily of dispersed camping, hunting, fishing, bird watching, wildlife viewing, and hiking. Some canoeing and rafting occurs on portions of the designated river segments during the early spring and other periods of high water. The season of use runs from mid June to late October. Generally speaking, the entire river corridor receives only light use throughout most of the year. The period of heaviest use of the corridor, by far, occurs during the big game hunting seasons, from the first of August to the end of October. Moderate use also occurs during summer and fall holidays. Surveys indicate that most of the users of the corridor come from the surrounding local small towns as well as from Klamath Falls, Roseburg, Medford/Grants Pass, Coos Bay, and Northern California.

Minerals

There is no history of mineral exploitation within the designated river corridor. All National Forest lands associated with the corridor were acquired under Weeks Law Authority, and therefore not subject to mining laws. However, the lands are subject to leasing laws which are under the jurisdiction of the Forest Service. Based upon past exploration in the vicinity of the river, it is unlikely that significant mineral and energy deposits occur within the river corridor.

Energy and Utilization

There has been no development within the W&SR designated portions of the river for energy uses and/or purposes.

As previously referenced, three 500 KV power lines across the river about one mile above where the river enters the Marsh.

Military

The only military use within and/or above the designated corridor is where a air Military Training Route (MTR) bisects the Sycan River in the lower portion of Segment 1 near Teddy Powers Meadow. This route crosses the river at the point where the river bends to the south. The MTR is four nautical miles wide with flight elevation limits from 200 to 1500 feet above ground level. The route is controlled by Lemoore Naval Air Station, California, and is open to any military aircraft after they have received proper clearance for use of this airspace. The route is to be flown under "Visual Rules" which require a 3000 foot ceiling and 5 miles visibility.

Water Rights

The State of Oregon is in the process of adjudication of the Klamath River Basin. Water rights are a complex and controversial issue in the Sycan watershed. A large part of the watershed located west of the line between Range 13 and 14 East was former Indian reservation land established in 1864. Private individuals and/or companies, and the United States Government (U.S. Forest Service) now own the land. The latest litigation from the United States Ninth Circuit Court of Appeals (November 15, 1983) has established that: 1) the Klamath Indians have a water right to protect hunting and fishing on former reservation lands (date of priority is from time immemorial); 2) the present owners retain the water rights for irrigation that the Indians had established by the Klamath Indian Reservation Treaty of 1864 (date of priority is 1864 for the present owners); and 3) the Federal Government cannot convert former Indian water rights. However, the federal government does have a reserved right from the date of purchase.

Instream water rights may be claimed by the Klamath Indian tribe to protect their hunting and fishing rights. Quantification of instream rights by the Tribe would establish minimum flows in the river, with a date of priority preceding all other water rights. If minimum flows are established in the Sycan River below the Marsh, water quality and fish habitat will be improved.

The principle claimants in the upcoming adjudication, and their interests are listed below:

Private Land Owners - A preliminary survey by the Oregon Department of Water Resources (ODWR) accounted for water rights totaling 552 cfs for the irrigation of 22,250 acres in the Sycan Marsh area. Ranchers will want to retain water for irrigation of the Marsh.

The Nature Conservancy purchased most of the Sycan Marsh in 1980. Part of the purchase agreement with the ZX ranch included a lease back to the ranch until the year 2020. TNC's long term goal for the Marsh is to restore it to a wetland area, thus they have a very strong interest in the adjudication process. These water rights are included in the ODWR survey.

Klamath Tribe - The Klamath Tribe retained hunting and fishing rights to part of the Sycan River watershed in the 1954 Termination Act. The Tribe is expected to claim water rights for sufficient instream flows to protect their subsistence rights. The Tribe may also claim water rights to protect plant gathering (i.e. wocus), and other cultural and/or religious uses. It currently appears that the date of priority for Tribal water rights will predate all other claims.

United States Government - The Federal Government, under the provisions of the Organic Act, has reserved water rights on National Forest lands for the purposes of insuring favorable conditions of flow, a continuous supply of timber, and protection of the watershed. The Federal government also has reserved rights under the Multiple Use - Sustained Yield Act, the Wilderness Act, and the Wild and Scenic Rivers Act. Reserved water rights have the date of priority that the land was placed in reserve or the date of the Act. The Federal Government may also file for water rights on its unreserved lands for any uses occurring on National Forest lands. Other water rights which the Federal Government retains are those that may have been acquired when land was purchased and/or acquired through exchange.

Private timber companies - About one half of the watershed is under private timber management. They may have water rights received from previous land owners or established since they purchased the land.

Fire Management

The Bly and Paisley Ranger Districts of the Fremont National Forest, the Chiloquin Ranger District of the Winema National Forest, and the Oregon Department of Forestry (private land fires) are responsible for fire management and protection within the Sycan W&SR corridor. There is no history of large wildfires within this area. The area is classified as a Zone 2 Risk Assessment Area, with a .074 rate of fire occurrence per 1000 acres. There are no plans for prescribed burning within the corridor at this time by either Forest. The wildfire management policy calls for any appropriate suppression measures to be used in the event of a fire. These measures are designed to contain and extinguish a fire by any available means with the minimum amount of resource loss possible.

SOCIO-ECONOMIC OVERVIEW

The Sycan W&SR is isolated from all major urban centers, as well as being located a significant distance from any small, incorporated communities. Beatty, the closest incorporated community, is located about 6 miles south of the closest access point to the designated part of the river. The communities of Bly, Sprague River, Silver Lake and Paisley are located from 15 to 25 miles of the river. Larger communities such as Lakeview and Klamath Falls are located about 50 miles from the river.

The traditional, conservative, family-oriented social structure typical of rural areas predominates in the communities, and isolated residences and ranches, that are within the "sphere" of the communities referenced. The primary industries within the area are agriculture (including ranching) and timber. Other commerce is generated by recreation and tourism, manufacturing, retail trade, and government.

For a complete discussion on the socio-economic setting of the area surrounding the Sycan W&SR refer to the *FINAL ENVIRONMENTAL IMPACT STATEMENT* for the Winema National Forest Land and Resource Management Plan, and the *FINAL ENVIRONMENTAL IMPACT STATEMENT* for the Fremont National Forest Land and Resource Management Plan.

The Social Environment

Aspects of the social environment that relate to the wild and scenic river corridor include the quality of life, the quality of the environment, and the availability of a variety of recreational opportunities.

The quality of life and the quality of the environment are especially important to persons that live in Klamath and Lake counties. It is the attraction of the natural environment that offsets some of the "inconveniences" local residents must learn to live with (i.e. travel distances), and at the same time causes non-residents to visit the area.

No comprehensive study has been done on recreational use and/or needs of the Sycan River. Most people that use the river and the river corridor have indicated a desire that the character of the river remain as is.

County Comprehensive Plans

Because the Sycan W&SR is located in Lake County and Klamath County, certain policies, use designation, and zoning ordinances from the Comprehensive Plans of both counties pertain to private lands within the river corridor. Both counties have indicated that private lands within the river corridor are designated as "Forestry Use Zone: F-1". The purpose of this zone is "to provide for the orderly management and development of forest land for the sustained production of forest products and the development of compatible uses". Because of the designation of the Sycan River as a W&SR, a difference in interpretation of County Comprehensive Plan policy statements could affect uses within and/or adjacent to the river corridor (note: interpretation and/or enforcement of any County policy statement is up to the county involved).

Policy statements from the Klamath County Comprehensive Plan that could affect activities on private lands within the W&SR corridor are as follows:

POLICY: The County shall encourage protection of wooded areas along major streams and tributaries. If intensive farm or forestry operations are identified as conflicting uses, planning steps shall be taken in the conflict resolution to minimize any negative economic impacts to the farm or forestry operation while maintaining adequate resource protection.

POLICY: The County shall protect riparian areas.

Policy statements from the Lake County Comprehensive Plan that could affect activities on private lands within the W&SR corridor are as follows:

POLICY: That optimum multiple uses, e.g. timber production, harvest, and reforestation, watershed management, grazing, fish and wildlife, recreation, etc., of forest areas will be encouraged.

POLICY: That forest or grazing lands may include parks, natural areas, archaeological, geological, biological, or botanical sites, critical big game habitat or habitat for threatened or endangered species, or other areas of significant nature, providing such land is not generally removed from commercial timber production or grazing unless the consequences of such have been made known to the County.

POLICY: That before productive Forest designated land is classified for, or converted to other uses, it will be demonstrated that such alternative use is more beneficial to the County.

POLICY: Agriculture, grazing, forestry, parks, and recreation uses shall be considered consistent with natural/scenic/open space values dependent on resource carrying capacities.

POLICY: That fish and wildlife habitat will be protected to the extent practical.

POLICY: That the Oregon Department of Fish and Wildlife Fish and Wildlife Habitat Protection Plan for Lake County will be recognized as a guideline for Plan implementation.

POLICY: That the following concerns will be taken into account in protecting area visual attractiveness:

(a) Maintaining vegetative cover wherever practical.
(b) Using vegetation or other site obscuring methods of screening unsightly uses.
(c) Minimizing the number and size of signs.
(d) Siting developments to be compatible with surrounding area uses and to recognize the natural characteristics of the location.

POLICY: That the county will support maintaining minimum stream flows for all beneficial uses.

POLICY: That the County will consider the merits of proposals, and protect fish and wildlife habitat in Plan implementation decisions.

POLICY: That the County will coordinate planning decisions with local, State, and Federal agencies having water-quality management plans and programs.

POLICY: That planning decisions will recognize immediate and long-range effects on the quality of natural resources, and those uses which may likely have an adverse effect on resource quality may be prohibited.

POLICY: That water quality will be protected by preventing encroachment into or filling of natural drainways or waterways and by prohibiting unneeded development in floodways.

POLICY: That development or land use(s) resulting in channeling, altering, or filling streams will comply with State and Federal regulations.

DESIRED CONDITION

MANAGEMENT GOALS

The management goals for the Sycan W&SR must be consistent with the Wild and Scenic Rivers Act, and Forest Service guidelines for the management of federal lands in W&SR corridors. Once these requirements have been met, the goals for the river reflect the public's desire for management of the river. These goals lead to the desired condition of the river at the end of the planning period. They are realistic to achieve, they have at least some quantifiable parameters, and they are based on information gathered during the scoping phase of the planning process. They provide a destination towards which alternatives, management objectives, and standards and guidelines can be directed.

The management goals for the Sycan River are as follows:

Protect and enhance the Wild and Scenic River values (geology, scenery, wildlife and fisheries) for which the river was designated.

Achieve and maintain a free-flowing condition.

Maintain a visual quality objective of retention.

Minimize structural improvements and ensure that they blend with the natural setting.

Provide opportunities for livestock grazing when it is consistent with other resource values.

Insure that water quality meets Federal non-degradation standards.

Achieve the minimum instream flows needed to preserve the river ecosystem, and to maintain and/or enhance the fisheries value.

Preserve and protect archeological values according to current laws and regulations, and meet Klamath Tribe desires for management of these values to the extent possible.

Maintain and/or improve existing fish and wildlife values.

Provide for appropriate user access to meet the objectives of the Sycan Wild and Scenic River Plan.

Manage the river corridor to preserve the natural character of the area. User restrictions should be minimal and subtle; moderate opportunities for solitude should be present.

MANAGEMENT OBJECTIVES

The Management Objectives for the river take into consideration the following:

Requirements of the Wild and Scenic Rivers Act...

The W&SR's act requires that the free-flowing character of the river, and the outstandingly remarkable values be preserved, and that "they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

Further, Section 10 of the Act states that "each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system....." "In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archeological, and scientific features."

Forest Service guidelines for the management of federal lands in W&SR corridors...

Forest Service guidelines for the management of W&SR's must address the following items:

General principles for any land acquisition (not applicable to this River Management Plan as no acquisition is planned or anticipated);

The kinds and amounts of public use which the river area can sustain without impact to

the values for which it was designated;

And the specific management measures which will be used to implement the management objectives for each of the various river segments and protect esthetic values.

Forest Service guidelines are interpreted as stating a nondegradation and enhancement policy for all designated W&SR's. Each component will be managed to protect and enhance the values for which the river was designated, while providing for public recreation and resource uses which do not adversely impact or degrade those values.

Existing Forest(s) LMP management area goals, prescriptions, and standards and guidelines.

The existing Forest Plans have management prescriptions and accompanying standards and guidelines for each management area. These prescriptions, and standards and guidelines are designed to achieve the desired condition for the Forest.

Input received from the public during the public involvement and/or scoping phase of the river management planning process.

Input gathered during the scoping process identifies how the public wants to have the river managed.

The management objectives are intended to provide general guidance for management of the river, and are as follows:

General

A. Preserve the free-flowing nature of the river.

B. Insure that applicable laws and regulations, existing uses, private property and other rights receive appropriate consideration.

i.e. Private land
Appropriate existing uses (such as roads)
Existing range improvements
Existing water uses
Valid mineral and energy uses
County Comprehensive Planning
Native American rights

Scenic Values

A. Maintain river shoreline as primitive and largely undeveloped with no substantial evidence of human activity.

B. Establish minimum flows in the river that will preserve the river ecosystem and thereby perpetuate the scenic values.

C. Manage river corridor for a Visual Quality Objective (VQO) of retention.

D. Maintain natural appearance of the river corridor by designing facilities to blend with the natural setting.

Fish and wildlife habitat improvement projects and watershed improvement projects shall meet the VQO of retention. Structural habitat improvement projects shall use native or natural appearing materials, and meet the VQO of retention.

Structural and non-structural range improvements shall blend with the natural environment as much as practical and meet the VQO of retention. Construction and/or maintenance of barbed wire fences must consider impacts to scenic values.

Any new recreational development shall be out of view from the river by taking advantage of topographic and/or vegetative screening.

Any new trails shall be located and designed to be visually inconspicuous from the river.

Utility crossings will be limited to existing locations.

Recreation Values

A. Consider user safety in the management of river activities.

B. Minimize development within the river corridor.

C. River access points shall be limited to existing access points.

Fisheries and Wildlife Values

A. Maintain or enhance fish and wildlife habitat.

B. Give emphasis to proposed, endangered, threatened, and sensitive (PETS) species, and PETS species habitat, when species is known to occupy the habitat.

C. Maintain the designated portion of the river as an area to serve as a "genetic refuge" for native fish species.

D. Identify minimum instream flows needed to support fish populations, and work to achieve water appropriation consistent with identified needs.

E. Continue to gather information on fish and wildlife species that utilize the river corridor to insure that habitat is provided for species that occupied the river corridor at the time of W&SR designation.

Geologic Values

A. Minimize the impact of mineral activity within the river corridor.

Common variety mineral materials will not be removed from the river corridor.

Surface occupancy for leasable mineral (geothermal, oil and gas) activities will not be allowed.

Enforce provisions of the General Mining Law of 1872, as amended (36 CFR 228a; Surface Mining Regulations) to minimize impacts of locatable mineral activity.

B. Protect the unique rock formations that occur in the canyon portion of the river corridor.

Water Quality

A. Maintain water quality to meet Federal non-degradation standards.

B. Protect the major springs that occur within the river corridor.

C. Management practices shall be aimed at maintaining or improving streambank stability and riparian areas to reduce sediment getting into the river.

Cultural, Historic, and Traditional Use Values

A. Protect known cultural and/or historic resource sites within the river corridor.

B. Work with Klamath Tribe to identify and avoid conflict with traditional uses and/or traditional use areas within the river corridor.

Botanical Values

A. Maintain existing stands of late seral and climax stage ponderosa pine within the river corridor.

B. Restore and maintain all wetland/riparian areas to a condition which enhances wetland and riparian dependent resource values. Grazing of riparian areas will be according to the Fremont and Winema National Forest L&RMP, and shall reflect the Desired Condition for riparian vegetation within the river corridor.

C. Restore and/or re-establish a healthy native shrub component within the riparian ecosystems where shrubs have historically existed.

D. Give emphasis to PETS plant species, and protection of PETS species habitat.

THE DESIRED CONDITION FOR THE SYCAN RIVER IS AS FOLLOWS:

The Sycan River is a free-flowing river with management emphasis on maintaining and enhancing the values of scenic, geologic, fisheries, and wildlife in the segments where they are determined to be outstandingly remarkable. Visitors to the river have the opportunity to experience the outstanding scenic qualities of the area. Unique natural attractions such as the late seral and climax stage ponderosa pine scattered throughout the river canyon and fish and wildlife habitat values enhance the user's experience. Instream flows pro-

vide the sights and sounds of a river setting. Water quality meets Federal non-degradation standards. Management activities and/or improvements do not detract from the natural appearing landscape. A ROS setting of Semi-Primitive Motorized provides adequate access to the river, yet assures opportunities for solitude. Visitor restrictions are minimal and subtle.

The desired condition for specific items (i.e. vegetation) within the river corridor is as follows:

Desired Condition for Vegetation Within the River Corridor

Coniferous species - Ponderosa pine and mixed-conifer forest types

The impression a person gets when visiting the river corridor is that of being in a late seral or climax stage forest that shows few effects from management activities. Forested areas maintain a natural density of snags. Large ponderosa pine trees have an open and park-like appearance. Saplings and pole-size trees will often be evident and occur in clumps.

Coniferous species - Lodgepole pine

Lodgepole pine stands within the river corridor range from dense pole-like stands to open stands with trees up to 24 inches in diameter. Stands generally appear to be even age, with limited reproduction and may show evidence of insect and disease activity.

Deciduous species - Aspen

Several age classes of aspen provide scenic diversity within the river corridor. Management activities control fir and/or other conifer species encroachment into stands of aspen. Management of browsing pressure allows regeneration to occur. (Note: currently most of the aspen is decadent, with little regeneration. In 15 to 20 years the larger size classes of aspen will have suffered some decline, however in 40 years the current regeneration is moving into the larger size classes.)

Deciduous species - Cottonwood

Cottonwood stands show signs of vigor and appear to follow natural cycles of reproduction and mortality. In areas where cottonwoods occur there is a heavy layer of decaying natural material on the ground. Areas where cottonwoods occur will continue to attract visitors because of the recreation setting they provide.

Shrub species

Shrub species are present in forested and non-forested areas.

Dryland shrub species such as mountain mahogany, bitterbrush, a variety of sagebrush, chokecherry and serviceberry perpetuate naturally. They provide forage and habitat for a variety of wildlife species.

Shrub species associated with moist environments include a variety of willow species, red osier dogwood, and mountain alder.

Shrub species show vigorous growth; 70% of annual leaders remain intact after browsing.

Riparian Areas

The desired condition for the riparian vegetation along the Sycan River is designed to improve visual quality by increasing the diversity of sizes and types of native vegetation along the river, and by decreasing bare soil along the river bank. The desired condition will also contribute to watershed improvement and is the key to restoration of fisheries habitat. It does this by reducing sediment into the river, and by lowering the water temperature because of the increased shading of the stream. The desired condition of the riparian areas is typified by abundant mesic species and root systems that protect and stabilize the stream banks. Vegetation is well distributed within fluvial zones such as streambanks, active channel shelves, active floodplains, and overflow channels. Encroaching riparian vegetation provides stable undercut banks, overhanging vegetative cover, shade along the channel margins, and a narrowing channel. The vegetation that shades the stream results in lower water temperature extremes during summer months. The saturated zone is elevated and the subsurface storage of water is increased. There is reduced encroachment of meadow areas by shrub and coniferous species because of higher water tables.

The desired condition of the riparian areas has the following characteristics:

Native grasses, grasslike vegetation, sedges, and forbs are well established. They reproduce and provide overhanging cover on streambanks. Seedheads develop and cast seeds during normal years. Willow 6 feet or more in height occur in areas where willows have historically been established, or can be established.

No increase over natural levels of streambank degradation (existing at the time of designation as a Wild and Scenic River) is caused by, or perpetuated by livestock.

Where streambanks or channels are highly erodible, grazing would occur only where it would not have a destabilizing effect on the streambank.

The distinctive plants within the zone create a visual diversity that helps to identify the zone. Additionally, deciduous plants such as willows provide fine litter, such as falling leaves, which serve as a source of nutrients for the algae and the small invertebrates at the bottom of the food chain. Large debris, such as fallen trees, creates habitat for fish and other species, stabilizes the floodplain and provides nutrients as the debris decomposes. Shade from trees and shrubs helps to keep the stream temperatures lower, slows algae growth and influences the composition of the vegetation in the riparian zone.

Desired Condition for Scenery within the River Corridor

Scenery within the river corridor is natural appearing with little evidence of management activity. This is satisfied when a visual quality objective of Retention is met.

Scenic qualities include diversity of natural landscape elements such as rock form, landform, and vegetation. Vegetation is primarily coniferous with scattered late seral and climax stage ponderosa pine and lodgepole pine flats intermingled with water related riparian vegetation such as willows and other deciduous shrubs. Expanses of sagebrush, bitterbrush, and juniper in the dryer areas lend diversity. Rocks and boulders line the river, increasing in size and quantity at Coyote Bucket. Several springs seep from the lower reaches of the canyon walls to flow into the river. All of these things add variety to the scenery within the river corridor.

Wildflowers in the spring and early summer provide a mosaic of color. Aspen and other deciduous vegetation provides opportunities for viewing fall colors. Snags add unique characteristics to the landscape by providing a contrast in color and form.

Desired Condition for Recreation Activities on National Forest Lands within the River Corridor

Recreation activities within the river corridor are primarily related to scenic viewing, camping and/or picnicking, hunting, fishing, bird watching, nature study, and non-motorized boating. The river provides a pleasant viewing experience for visitors to the area. Riparian and/or water dependent vegetation provides scenic diversity and seasonal variations in vegetative color enhances the visitor's experience. Water flows in the river year around (except in drought years when some sections may naturally lack water), and gives visitor's to the area the feeling of being in a river environment.

The river shoreline is largely undisturbed and has a natural appearance. Roads and/or trails remain visually inconspicuous from the river. The existing utility corridor remains the only utility corridor crossing the river.

The river corridor maintains its natural character with little evidence of human development.

Access to the river remains limited and compliments the natural character of the area. Campers and picnickers enjoy moderate opportunities for solitude. People who hunt and fish find a natural appearing environment that enhances their pursuits. Fishermen/boaters/floaters of the river find relatively few conflicts between users. The float season is associated with peak flows and remains relatively short (two to four weeks).

In general, users experience a semi-primitive motorized setting, and opportunities for solitude and challenge in a natural environment are moderate to high. Because of the isolation of the area there may be periods of time when visitors to the area face a

moderate degree of challenge and risk.

Use levels

Use is generally highest during holiday periods, and lowest mid-week. The remoteness of the area, mosquitoes, ticks, limited access to the river, low flows, late season snow during some years, and fire restrictions during other years all affect actual use levels in any year.

Use levels within the corridor are within capacity for the river corridor and do not negatively impact the Wild and Scenic River values. A Limits of Acceptable Change (LAC) program is initiated if use levels increase above the river corridor's recreational use capacity.

Visitor Health and Safety

Visitor safety is considered in all management activities.

Adequate sanitary facilities exist at river access points; human waste does not enter the river.

Hazard trees are removed from areas immediately adjacent to river access points where visitors tend to concentrate.

Fences across the river are not a hazard to boaters and/or floaters of the river.

Desired Condition for Water Quality and Flow in the River

Flow

The river has a continuous year around free-flow throughout all segments. Water flows enhance the scenic value of the river by providing a "river experience" for visitors to the corridor. In the short term, annual spring peak flows continue to "flush" the system, removing beaver dams, woody debris and cleaning shorelines. However, changes caused by these peak flows are significantly reduced because of the improved conditions of riparian areas. The desired condition for the long term includes an aquatic system that has a good distribution of woody debris and/or log complexes that creates a variety of aquatic habitats (see desired condition for fisheries).

Water Quality

Water temperatures typify near natural conditions as riparian vegetation has recovered. Fish mortality because of high water temperature is minimal.

Turbidity and/or sediment loads are also near natural levels. Low standard roads within the river corridor that have contributed to increased sediment loads in the past are stabilized and/or revegetated, and all new projects within the watershed meet or exceed Forest Service Best Management Practices.

Human waste and/or "gray-water" does not enter the river or contribute to reduced water quality.

Desired Condition for Wildlife with the River Corridor

The river corridor above and below the Sycan Marsh is characterized by late seral or climax stage timber stands that provide abundant habitat for snag dependent species. Vegetative conditions detailed in the 'Desired Condition for Vegetation in the River Corridor' provide adequate cover for big game wildlife species. Abundant opportunities exist for viewing game and non-game species.

The juxtaposition of rock outcrops, cliffs and crevices, rimrock, and talus slopes to the riparian areas and water provides habitat for small mammals, including such species as bobcats, marmots, and bats.

The greater sandhill cranes that nest within the Marsh find adequate habitat to meet their needs. High quality waterfowl habitat includes nesting and breeding areas. This habitat also provides foraging areas for bald eagles.

Bird watching opportunities remain abundant throughout the length of the river corridor.

Desired Condition for Fisheries within the River Corridor

Riparian areas provide fish with suitable water quality, adequate food, and the necessary habitats for all stages of their life cycle including spawning, rearing and migration. Populations of wild trout are healthy and stable, and well distributed throughout the upper segment (above the Marsh).

Within the Marsh, the barriers to fish migration have been removed, and flow occurs throughout the river corridor yearlong. Below the Marsh flows occur yearlong and the river is populated by a diversity of fish species. Emphasis is given to the maintenance and/or enhancement of habitat for threatened, endangered, proposed, and sensitive species. This includes habitat for redband trout (*Oncorhyunchus mykiss*) above the Marsh, and habitat for the Lost River (*Deltistes luxatus*), shortnosed (*Chasmistes brevirostris)*, and the Klamath largescale *(Catostomus snyderi*) suckers below the Marsh.

No specific desired condition for woody debris, pool/riffle ratios, or bank-to-depth ratio within the Sycan Marsh has been established. These specific items will be addressed in the Management Plan that is being developed for the Sycan Marsh by the Nature Conservancy.

Desired Condition for Proposed, Threatened, Endangered & Sensitive Species within the River Corridor

The Endangered Species Act of 1973, as amended, and Forest Service Manual direction requires the "protection and enhancement" of Threatened and Endangered species habitat. The Forest Service is actively involved in compliance with these mandates, including coordination with the Oregon State Department of Fish and Wildlife and consultation with the U.S. Fish and Wildlife Service.

Site specific Biological Evaluations have been completed for all ground disturbing activities that could affect the Region 6 listed sensitive species and federally listed proposed, threatened and endangered plant and/or fish and wildlife species.

Studies have been completed on the habitat needs of the short-nosed sucker and the Lost River sucker, and management and/or protection measures modified to respond to needs identified in the studies.

Recovery plans have been implemented for all T&E species, and conservation strategies implemented for sensitive species.

Desired Condition for Access

Road access to the river averages about one access point per 5 miles of river. Roads are inconspicuous and generally well screened. River crossings are limited to existing crossings. There is no off road vehicle use on National Forest lands within the river corridor.

All the existing "water chances" are no longer used and have been rehabilitated.

The major access points into the river corridor are passenger car accessible. (Note: The river "fords" may not be suitable for passenger car crossing.)

ALTERNATIVES

The alternatives described in this Chapter reflect the requirements of the Wild and Scenic Rivers Act and Forest Service guidelines for the management of federal lands in Wild and Scenic River corridors. They are also responsive to the significant issues that have been identified, and the goals and objectives that have been established for management of the river. The significant issues, and the management goals and objectives were both developed with input from the public.

Six alternatives are identified and were evaluated by the Interdisciplinary Team, including the "no-action" alternative. The no-action alternative represents a continuation of the direction contained in the existing Land and Resource Management Plans (L&RMP) for the Fremont National Forest and the Winema National Forest. The foldout table displays a summary of the Alternatives.

Water flow, and items related to the water adjudication process that is underway for the Klamath Basin are not addressed in this document. The United States has challenged the state of Oregon's water adjudication statutes on constitutional grounds. This litigation is not resolved at this time and results of this challenge or any timetable for resolution cannot be predicated.

The Nature Conservancy, the owner of the Sycan Marsh, is in the initial phase of developing a Coordinated Resource Management Plan (CRMP) for the entire Marsh. The management goals and objectives, and the desired condition for the river and/or river corridor, as discussed in chapter III, will be taken into consideration as they develop the CRMP for the Marsh. References to grazing in the alternatives is aimed primarily at National Forest lands within the river corridor.

Owners of private lands within the river corridor will be encouraged to consider the management goals and objectives identified in this document and adopt them or similar goals and objectives for their lands.

ACTIONS COMMON TO ALL ALTERNATIVES

Some of the actions identified in the summary of the alternatives are common to more than one alternative. This is because they were favored by the public and/or the interdisciplinary team, were non-controversial, and represented a common sense approach to management of the river and/or river corridor. These actions are as follows:

Boundary of the River Corridor

The detailed (final) boundary is the same in all alternatives, except for the no action alternative. This boundary is responsive to the local geography, yet protects river values. In some places, such as the headwaters, this boundary extends beyond the interim 1/4 mile boundary. In other places, such as the Coyote Bucket area, the boundary is narrower. Through the Marsh the boundary remains at 1/4 mile either side of the river. Because of the difficulty in determining an average high water mark in the Marsh, and because the channel is reasonably narrow (30 feet, + or - a few feet), the 1/4 mile boundary is determined from the projected center line of the river.

In the development of the alternatives a variety of boundaries were evaluated. The result of this analysis was that there was no significant difference in any of the proposed detailed boundaries in regards to the effect on the river ecosystem, or the outstandingly remarkable values. The reason for this had to do with the topographic features, and that different scenarios for management activities were the critical factor in preserving the river values. The detailed (final) boundaries as shown on the foldout map will preserve the river values, including maintaining and/or enhancing the outstandingly remarkable values.

Scenic Values

Scenic values would be managed to meet a Visual Quality Objective (VQO) of retention in all alter-

natives, and for any management activity. This includes fish and wildlife habitat improvement projects, recreation improvements and/or structural facilities. Additionally, middleground and background areas that are visible from the river and/or riverside roads or trails would be managed for a VQO of partial retention.

A VQO of retention means that resource management activities are not visually evident to the viewer. Selective thinning, small group selection and/or partial cuts, and some shelterwood cuts are examples of timber harvest methods that could be used to meet a VQO of retention. Partial retention means that resource management activities must be visually subordinate to the landscape. Selective thinning, group selection and/or partial cuts, shelterwood, and some overstory removal are examples of timber harvest methods that could be used to meet a VQO of partial retention.

Cultural, Historic, and/or Traditional Use-Cultural Values

These values will continue to be protected under existing laws and regulations. The Klamath Tribe has indicated that sacred sites (vision quest, cremation, and healing sites) exist within the river corridor, however none have been specifically identified to date. If sacred sites are found within the river corridor, the Tribe will be consulted in the management and/or protection of these sites. All valid treaty rights and/or agreements with the Tribe will continue.

A very short segment of the recently abandoned Woods Line railroad occurs within the river corridor in the Sycan Marsh. This railroad has been proposed for a rails-to-trails project and, if it becomes reality, a separate management plan will be developed for it that is consistent with this plan.

Geologic and Minerals Values

Common variety (salable; i.e. sand, gravel, etc.) mineral materials will not be permitted to be developed or removed from the river corridor in any of the alternatives. Surface occupancy for leasable minerals (oil, gas, geothermal) will not be permitted in any of the alternatives. National Forest lands that have acquired land status are not open to mineral entry under the 1872 mining law, as amended. These lands, which include all the National Forest lands below the Sycan Marsh, will not be leased, or otherwise made available for mineral entry. On lands open to mineral entry, the provisions of the 1872 mining law, as amended, will be strictly enforced.

Fish and Wildlife Values

The river corridor will be managed to improve fish and wildlife habitat, with specific emphasis given to the restoration of riparian areas (refer to the desired condition for riparian in the vegetation section of the Management Goals and Objectives chapter). Fish and wildlife habitat improvement projects may be done, however any improvements will be required to use natural-appearing materials, and designed to blend into the natural landscape. Where proposed, Endangered, Threatened, or sensitive fish or wildlife species are known to exist, emphasis will be given to maintaining and/or enhancing that habitat.

Botanical Values

All alternatives call for the restoration and/or maintenance of wetland riparian areas to a condition which enhances wetland and riparian dependent resource values. Additionally, emphasis is to be given to proposed, endangered, threatened, or sensitive plant species habitat when the species is known to occupy the habitat.

Three sensitive plant species have been documented and confirmed in the lower segment (below the Marsh). These are fringed campion (*Silene nuda spp. insectivora*), Long-bearded mariposa lily (*Calochortus Longebartus var. longebarbatus*), and tri-colored monkeyflower (*Mimulus tricolor*). Tri-colored monkeyflower is also known to occur within the Sycan Marsh, although no confirmed locations within the river corridor have been identified. No sensitive species have been identified in the upper segment.

Grazing

Grazing would continue if consistent with resource values and achieving the desired condition for vegetation. However, some changes in use (reductions or non-use) may be required until the desired condition is reached. These changes vary by alternative. Any change in season of use and/or AUM's available would be implemented via the

appropriate Allotment Management Plan and in the term grazing permit.

Fire management

Fire suppression activities must consider long term scenic values in all alternatives. Use of heavy equipment must take into consideration immediate, short term, and long term impacts to river values, including scenic values. Use of heavy equipment will not be permitted within the canyon area immediately above Coyote Bucket, and should be minimal in other areas.

Prescribed fire, using low to moderate intensities, may be used to reduce hazardous fuel accumulations, or to meet other resource management objectives.

Road Management and Access

Road management activities, such as dust abatement, would not be permitted to use water from the river in any of the alternatives.

Vehicle use, including four-wheel drives and all-terrain vehicles will not be permitted off of designated roads. Designated roads are those shown on the Fremont National Forest visitor map, and the Winema National Forest visitor map.

The Alternatives are described as follows:

ALTERNATIVE 1

This alternative is the "no-action" alternative.

Regulations of the Council on Environmental Quality (CEQ) require that a no-action alternative be considered as part of the environmental analysis for any proposed action. Contrary to this, the Wild and Scenic Rivers Act requires the Federal agency charged with the administration of a designated Wild and Scenic River to prepare a comprehensive management plan that preserves and protects river values. For purposes of this analysis the no-action alternative would continue existing management of the river according to L&RMP goals and prescriptions, and standards and guidelines. It should be noted that the L&RMP's for the Fremont National Forest (Fremont), and the Winema National Forest (Winema) both call for the development of a river management plan (in the form of a river study and/or a river management guide).

In the Fremont's L&RMP, Wild and Scenic Rivers are included in Management Area 11; in the Winema's L&RMP they are in Management Area 5. While no difference between Federal lands and private lands are noted in this alternative, differences between Fremont National Forest lands and Winema National Forest lands are noted. That is because both Forest's have approved L&RMP's that call for differing management. The river provides the boundary between the two Forest throughout much of the area below the Sycan marsh.

In this alternative the river corridor boundary would extend 1/4 mile from the average high water mark on the Fremont; on the Winema the river corridor would include all the visual foreground area (see the foldout map).

Management of recreation values differs significantly between the Fremont and Winema. On the Fremont the river corridor would be managed for a Recreation Opportunity Setting (ROS) of Semi-Primitive Nonmotorized (which would allow only designated road access into the river corridor). The Winema would manage the river for a ROS of Roaded Natural (which would allow roads within the river corridor). Recreation development could occur on the Fremont to enhance the visitors' experience, to facilitate use, to protect resource values, and for the administration of the area. Recreation development on the Winema would only be done to manage the effects of recreation use.

Timber harvest would not occur on the Fremont; timber harvest could occur on the Winema in those areas above the canyon rim, assuming that a visual quality objective of retention is met. No commercial or home-use firewood gathering would be allowed within the river corridor.

Grazing would continue to occur on National Forest lands within the river corridor as long as L&RMP objectives are met. For the Fremont this means that utilization must be consistent with Tables 17 and 18 in the L&RMP. For the Winema this means that grazing could occur as long as there are no conflicts with other resource values. Emphasis would be placed on the enhancement of riparian areas throughout the river corridor.

No new roads would be built within the river corridor; existing roads would remain open. Commercial traffic could be restricted on weekends from mid-April through September on the Fremont.

ALTERNATIVE 2

This alternative would maintain the outstandingly remarkable values while allowing timber harvest and recreation development. The outstandingly remarkable values include scenic, geologic, and fisheries in the lower segment; wildlife and fisheries in the Marsh; and scenic and fisheries in the upper segment.

The river corridor would be managed for a ROS of Roaded Natural. Recreation development could occur within the river corridor, however emphasis would be on maintaining the natural characteristics of the area. Popular dispersed sites such as along the upper areas of the river, the Pikes crossing area, the area near Torrent Springs, and other similar areas would continue to see increased use. As use increases, and specific needs for recreation development are identified, project level activities would follow.

Scheduled timber harvest would occur within the river corridor. All methods of timber harvest, except clearcutting, could be used, however a visual quality objective of retention must be met. Commercial and/or home use firewood gathering would be allowed within the river corridor.

Grazing would continue to occur in the river corridor, however achieving the desired condition for vegetation (particularly riparian) in 20 years would be emphasized.

Additional roads could be constructed in the river corridor, however they must be located and be designed to remain visually inconspicuous from the river.

ALTERNATIVE 3

This alternative emphasizes maintaining and/or enhancement of the outstandingly remarkable values. These values include scenic, geologic, and fisheries in the lower segment; wildlife and fisheries in the Marsh; and scenic and fisheries in the upper segment.

The river corridor would be managed for a ROS of Semi-Primitive Motorized. Recreation development within the river corridor would be limited to trails and minor improvement of dispersed recreation sites, with improvements limited to basic sanitation and protection (i.e. fire rings) related items.

No scheduled timber harvest would occur within the river corridor. Some vegetative manipulation may be done on an irregular basis to preserve and/or enhance stand characteristics when necessary to accomplish management objectives such as bald eagle habitat improvement, provide for scenic vistas, or similar such items. Firewood gathering for recreational purposes, such as campfires, would be allowed within the river corridor.

Grazing would continue to occur in the river corridor, however achieving the desired condition for vegetation (particularly riparian) in 10 years would be emphasized.

Access would be limited to existing roads within the river corridor.

ALTERNATIVE 4

This alternative emphasizes maintaining and/or enhancing of the outstandingly remarkable values. These values include scenic, geologic, and fisheries in the lower segment; wildlife and fisheries in the Marsh; and scenic and fisheries in the upper segment. This alternative also emphasizes maintaining and/or enhancing of recreation and cultural values. Additionally, features such as geologic values, scenic values, archeological values, and other similar values would receive interpretation.

The river corridor would be managed for a ROS of Roaded Natural. Recreation development would occur within the river corridor, with emphasis on the development of facilities that encourage and enhance the visitors experience. This would include the following:

The area immediately below where Fremont road 3380 crosses the river, to just above where Rock Creek enters the river would be developed. This would include 10 sites located adjacent this 2½ mile stretch of river.

The Pikes Crossing area would be developed into a campground that would have at least 7 sites.

A boat launch facility, including a picnic area and toilet, would be developed near where forest road 27 crosses the river.

A day use picnic area, with a boat take out facility would be developed at Sycan ford (where forest road 4650 crosses the river).

A boat take out facility immediately below Teddy Powers meadow. This facility would include a toilet.

In addition to this, a horse/hiker trail would link the Coyote Bucket area to the Fremont NRT trail, via a trail along the river.

These projects would be built over a period of 20 years.

Interpretation of cultural and/or historic sites, significant geologic features, and wildlife values would be encouraged in this alternative.

No scheduled timber harvest would occur within the river corridor. Some vegetative manipulation may be done on an irregular basis to preserve and/or enhance stand characteristics when necessary to accomplish management objectives such as bald eagle habitat improvement, provide for scenic vistas, or similar such items. Commercial use firewood gathering would not be allowed within the river corridor; home use firewood gathering would be allowed within the river corridor.

Grazing would continue to occur in the river corridor, however achieving the desired condition for vegetation (particularly riparian) in 10 years would be emphasized.

Additional roads could be constructed in the river corridor, however they must be located and be designed to remain visually inconspicuous from the river.

Emphasis would be given to protection of recreation improvements and dispersed recreation sites from fire in this alternative.

ALTERNATIVE 5

This alternative emphasizes maintaining and/or enhancing of the outstandingly remarkable values. These values include scenic, geologic, and fisheries in the lower segment; wildlife and fisheries in the Marsh; and scenic and fisheries in the upper segment. This alternative also emphasizes maintaining and/or enhancing of wildlife and botanical values.

The river corridor would be managed for a ROS of Semi-Primitive Nonmotorized. Emphasis would be on providing opportunities for solitude with little evidence of human development. No recreation development would occur within the river corridor.

Primary access roads would be limited to a maximum of one access point per 10 miles of river (average over length of river segment). This would include the following roads:

Fremont National Forest ..... road 27
..... road 28
..... road 30
..... road 3380
..... road 3239
Winema National Forest ..... road 4650 *(Sycan Ford)*

The powerline road would remain within the river corridor, however, it would not be used as a visitor access route to the river.

Nongame wildlife species, particularly birds, would receive additional consideration in this alternative. Emphasis would be given to maintaining the high density of cavity nesters, and maintaining and/or improving bald eagle habitat.

No timber harvest or firewood gathering would occur within the river corridor for any reason. Livestock grazing would continue to occur in the river corridor; however, achieving the desired condition for vegetation (particularly riparian) in 10 years would be emphasized.

ALTERNATIVE 6

This alternative emphasizes maintaining and/or enhancing of the outstandingly remarkable values. These values include scenic, geologic, and fisheries in the lower segment; wildlife and fish-

eries in the Marsh; and scenic and fisheries in the upper segment. This alternative also emphasizes maintaining and/or enhancing of recreation and cultural values.

The river corridor would be managed for a ROS of Semi-Primitive Motorized. Recreation development within the river corridor would be limited to trails and minor improvement of dispersed recreation sites, with improvements limited to basic sanitation and protection (i.e. fire rings) related items.

Non-game wildlife species, particularly birds would receive additional consideration in this alternative. Emphasis would be given to maintaining the high density of cavity nesters, and to maintaining and/or improving bald eagle habitat.

No scheduled timber harvest would occur within the river corridor. Some vegetative manipulation may be done on an irregular basis to preserve and/or enhance stand characteristics when necessary to accomplish management objectives such as bald eagle habitat improvement, provide for scenic vistas, or similar such items. No firewood gathering would not be permitted within the river corridor.

Grazing would continue to occur in the river corridor, however achieving the desired condition for vegetation (particularly riparian) in 10 years would be emphasized.

Access would be limited to existing roads within the river corridor.

ENVIRONMENTAL CONSEQUENCES

This chapter discusses the environmental consequences (consequences) and the potential effects of implementation (effects) of each of the alternatives presented in Chapter IV. For purposes of evaluation, the chapter is divided into five sections: the consequences and effects as related to the issues; the consequences and effects as related to resource values and uses; the consequences and effects as related to social and/or political values and agenda's; cumulative effects of implementation, and the required disclosures on compliance with applicable national laws and executive orders.

The consequences and effects discussed in this chapter can be direct, indirect, or cumulative; and they can be immediate, short term, or long term. Immediate consequences and effects are those that occur between now and 5 years; short term are those between 5 years and 20 years; and long term are those more than 20 years.

A separate discussion on the consequences and effects as related to the outstandingly remarkable values is not given. The reason is that the outstandingly remarkable values are protected in all the alternatives, except the no action alternative.

Many of the consequences and effects of the no action alternative are discussed in Chapter 4 of the Final Environmental Impact Statement for the Fremont National Forest Land and Resource Management Plan; and in Chapter 4 of the Final Environmental Impact Statement for the Winema National Forest Land and Resource Management Plan.

ENVIRONMENTAL CONSEQUENCES & EFFECTS OF IMPLEMENTATION AS RELATED TO THE SIGNIFICANT ISSUES...

BOUNDARIES

Establishing a boundary that fits the local geography, and is responsive to the outstandingly remarkable values is the issue. Outstandingly remarkable values include scenic values, geologic values and fisheries values in the lower segment; fisheries and wildlife values in the Marsh; and scenic values and fisheries values in the upper segment.

Consequences & effects of the no-action alternative.

This alternative would result in a river corridor boundary of 1/4 mile on either side of the river, for a total of 18,880 acres within the river corridor. The boundary would consist of a series of point to point straight lines, with a series of bearings and distances between points. It is not based on natural features, or on semi-permanent man made features. This alternative would protect the outstandingly remarkable values, however the boundary is not responsive to local geography. If/when this boundary were surveyed and established on the ground, it would be a chance occurrence for the boundary to be anchored to identifiable features on the ground.

Consequences & effects of alternatives 2, 3, 4, 5 & 6

These alternatives share a common boundary. The boundary protects the outstandingly remarkable values and is responsive to local geography. The boundary includes 12,960 acres within the river corridor (an average of approximately 220 acres per river mile). The boundary would be anchored to identifiable features on the ground.

GRAZING/LIVESTOCK MANAGEMENT

Livestock grazing has occurred along the river, and within the river corridor since about 1860. Some portions of the river have been heavily impacted by livestock grazing, and riparian vegetation is in a deteriorated condition. One of the issues relating to grazing is the negative effect that grazing has had on fish and wildlife values.

The other issue has to do with the fact that owners of the livestock that graze within the general

vicinity of the river have come to depend on the forage and water the river provides. Loss of this forage and water could cause an economic hardship on those that depend on it.

The consequences and effects of grazing are identified only for the National Forest portions of the river corridor. This is because accurate figures for grazing of private lands within the river corridor are unavailable. Also, it should be noted that The Nature Conservancy, and the ZX Ranch (the leasee of the Sycan Marsh) are beginning the development of a Coordinated Resource Management Plan (CRMP) for the Marsh. This CRMP will address many of the items discussed in this plan, and will be aimed at improving the overall condition of the Marsh, including that portion within the river corridor.

Consequences & effects of the No-Action Alternative

In the approved Land and Resource Management Plans (L&RMP) there is a significant difference between the Fremont's L&RMP, and the Winema's L&RMP. Grazing would continue on the Fremont, however utilization must be consistent with Tables 17 and 18 in the Fremont's L&RMP. Emphasis would be on the enhancement of the riparian dependent resources (goal stated on page 50 of the L&RMP). On the Winema, grazing would continue as long as there were no conflicts with other resource values.

There are about 11,170 acres of Fremont land within the river corridor; about 7680 acres in the upper segment, and about 3490 acres in the lower segment. Estimates indicate that about 28% of the lower segment is suitable grazing land. In the upper segment the river corridor typifies range lands on the Forest, and is therefore estimated that 58% is suitable grazing land. Assuming a Forest average of 9.2 acres per AUM, there would be an estimated 590 AUM's available annually. With the current FRES Level C management intensity, full utilization of all the animal unit months of forage available is allowed.

This alternative initially appears to allow grazing to continue as it has for many years. However grazing on the Winema would continue only if there were no conflicts with other resource use. Because there are obvious and immediate conflicts with other resource use (i.e. riparian values), grazing would not be allowed within the river corridor.

The Winema has about 4318 acres within the river corridor. Estimates indicate that about 28% of the lower segment is suitable grazing land, thus about 1209 acres are suitable for grazing. Although the Winema has a Forest average of 15 acres per AUM, for consistency, and because the land appears similar to much of the Fremont, the Fremont's average of 9.2 acres per AUM was used in calculating the forage available. About 131 AUM's of forage is available in the lower segment. However, until the desired condition is reached, these AUM's are not available for grazing.

Because grazing would be permitted on the Fremont, and not on the Winema, additional fencing would be required to keep livestock from the Fremont from "drifting" onto the Winema. Estimates indicate that about 7 miles of fence would be needed. Typical barb wire fence construction in similar areas costs about $4,000 per mile; for a total cost of about $28,000.

This alternative would result in a slow improvement of range lands within the lower segment of the river corridor, including the riparian areas. It is estimated that vegetation, including the riparian areas, within the lower segment of the river corridor would begin to approach the desired condition in about 40 years, assuming control of livestock and utilization is consistent with what the L&RMP calls for. In the upper segment the desired condition is expected to be achieved in about 20 years, again assuming control of livestock and utilization consistent with what the L&RMP calls for.

Consequences & effects of Alternative 2

This alternative would allow grazing to continue, however emphasis would be on achieving the desired condition for vegetation in 20 years or less.

In the lower sycan it is assumed that if the desired condition for vegetation is to be achieved in 20 years, or less, a significant change, or temporary halt to grazing within the river corridor will be necessary. This alternative changes, rather than halts, the grazing pattern from the current use to a short period of early season use that utilizes about 30% of the available AUM's. This means that

about 32 AUM's of forage would be available on the Fremont, and about 39 AUM's of forage would be available on the Winema, for a total of 71 AUM's (3490 acres on the Fremont X's 28% suitable range = 977 acres, divided by 9.2 acres per AUM, X's 30% = 32 AUM's)(4318 acres on the Winema X's 28% suitable range = 1209 acres, divided by 9.2 acres per AUM, X's 30% = 39 AUM's). Reduced grazing pressure, combined with adequate time for regrowth and seed development should contribute to achieving the desired condition within 20 years.

Seven miles of fence would be needed on the Fremont to control livestock. This would cost an estimated $28,000.

In the upper Sycan the desired condition should be reached in 20 years, or less, assuming current management practices and emphasis continues (same as alternative 1). Willows and shrubs are well established in many areas along the river, and banks show only limited amounts of bare ground.

Once the desired condition for vegetation is achieved, grazing could be increased to a level that would allow the desired condition to be maintained.

Consequences & effects of Alternatives 3, 4, & 6

These alternatives will result in the river reaching the desired condition in as short a time period as possible. Grazing would not be permanently removed from the river corridor, however temporary restrictions on grazing would occur until the desired condition is reached. Emphasis would be on achieving the desired condition in 10 years or less. Favorable weather conditions, some level of minimum flow in the river, no serious flood damage, and control of grazing would all be necessary to reach the desired condition in 10 years or less.

In the lower segment, grazing would be removed from the corridor until the desired vegetative condition is achieved. This would result in a short term lose of about 106 AUM's of forage on the Fremont, and 131 AUM's of forage on the Winema.

Seven miles of fence would be needed on the Fremont to control livestock. This would cost an estimated $28,000.

In the upper segment the desired condition will be achieved in 10 years with only a limited amount of change. Livestock would not be allowed to congregate on riparian areas within the river corridor. Additionally, those pastures that have significant amounts of the river corridor in them would not be used during years they are scheduled for late season use. This would result in an estimated annual loss of 30 AUM's annually.

Consequences & effects of Alternative 5

This alternative would remove all grazing from the river corridor. A total of 704 AUM's on the Fremont, and 131 AUM's on the Winema would be lost.

This alternative would require about 59 miles of fence construction to keep livestock out of the river corridor. This would cost an estimated $236,000.

Note: while the River Management Plan identifies the need for changes and/or reductions in grazing use, the actual changes would be implemented via the appropriate Allotment Management Plan and in the Term Grazing Permit.

TIMBER

Timber harvest within the river corridor could have a negative effect on scenic values, as well as change the appearance of the river corridor from a natural appearing environment, to a "managed" environment. Additionally, firewood gathering within the river corridor would reduce the habitat available for snag dependent species. These are the timber related issues.

Consequences & effects of the No-Action Alternative

The no-action alternative would not allow timber harvest on the Fremont; timber harvest could occur in those portions of the Winema that are above the canyon rim, or otherwise not visible from the river. Estimates indicate that about 36% of those portions of the river corridor on the Winema would be available for timber harvest. This would amount to about 875 acres; and about 8.8 MMBF of timber. Assuming that about 5 percent of this volume would be available each decade, about 44 MBF would be harvested within the river corridor annually (or 440 MBF each

decade).

No firewood gathering would be allowed on the Fremont; the Winema L&RMP does not discuss firewood gathering within the river corridor. If firewood gathering is done on the Winema, it is anticipated that dead lodgepole adjacent to the roads within the river corridor would be harvested. If firewood activity is similar to other areas on the Forest, firewood would not be gathered more than about 300 feet from the roads. No estimates are available as to the amount of firewood expected to be harvested, although it is generally felt that the volumes would be low. The reason for this is the amount of firewood that is readily available in other areas that are closer to populated areas, and that is easier to get.

Consequences & effects of Alternative 2

Timber harvest would occur within the river corridor. About 1685 acres, with an estimated volume of 14.7 MMBF occurs on the Winema. About 4382 acres, with an estimated volume of 37.9 MMBF, occurs on the Fremont. Assuming that 5 percent of this volume would be available each decade, an annual harvest of about 263 MBF would occur within the river corridor (or 2.63 MMBF would be harvested per decade)

Firewood gathering would occur within the river corridor. This includes firewood for commercial use, personal use, and recreational use.

Consequences & effects of Alternatives 3, 4, & 6

No scheduled timber harvest would occur in these alternatives. Vegetative manipulation from activities such as bald eagle habitat improvement could result in incidental timber harvest volumes. Because these kinds of activities are currently unplanned, and would occur on an irregular basis, no timber harvest volumes are estimated. For all practical purposes, these alternatives would result in insignificant amounts of timber harvest volume.

Firewood for commercial use or personal use would not be gathered within the river corridor. Firewood for recreational use (i.e. campfires) would be gathered within the river corridor. It is estimated that only minor amounts of firewood would be gathered for recreation use, and that there would be no visible effects from such gathering.

Consequences & effects of Alternative 5

This alternative would result in no timber harvest, for any reason, within the river corridor.

Firewood for commercial use or personal use would not be gathered within the river corridor. Firewood for recreational use (i.e. campfires) would be gathered within the river corridor. It is estimated that only minor amounts of firewood would be gathered for recreational use, and that there would be no visible effects from such gathering.

Recreation

The effects of any management activity on scenic values within the river corridor; the affect of the W&SR designation on river use and the visitors experience; and the desire to maintain the river in a "natural" condition, while meeting needs for basic sanitation and fire protection were the issues related to recreation.

Scenic values would be protected in all the alternatives. A visual quality objective of Retention would be met in Alternatives 1, 2, 3, 4, and 6; a visual quality objective of Preservation would be met in Alternative 5. (Note: Even though all alternatives would met a visual quality objective of retention, Alternative 2, because of timber harvest and increased roading of the area, would leave visitors feeling that they were in a "managed" environment. This is because of the "sights and sounds" that accompany any logging and/or road construction or road use activities. In general, visual effects would include logging debris and slash, soil disturbance, and damage to vegetation. The visual effects from logging could be immediate, short term, or long term.)

The affect of Wild and Scenic river designation on river use and the visitors experience is difficult to predict. The opinion of some members of the ID Team is that river use and the visitors experience is probably more influenced by factors such as weather, water flows, grazing, and hunting opportunities than W&SR designation. Other ID Team members believe use is more influenced by people trying to escape heavy recreation use other places than any other factor. Some managers believe that having a "label" on the river will draw people to

the river, thus affecting use. Since designation of the river in 1988 there has been no significant increase in use. Since the notable effects of the drought during 1991, use seems to have actually declined, thus giving some validity to the opinion that use may be influenced more by other items than W&SR designation.

Consequences & effects of the No-Action Alternative

This alternative would allow new recreation facilities to be developed on both the Fremont and the Winema. Fire rings and toilets would be developed on the Winema to manage the effects of recreation use. These kinds of facilities would be developed on an "as needed" basis. No locations for such facilities have been determined at this time. Facilities could be provided on the Fremont to enhance the visitors experience and facilitate use, however none are currently planned for development, and it is very unlikely any would be planned within the next 10 years.

Consequences & effects of Alternatives 2, 3, & 6

Although these alternatives differ in regards to the ROS prescription for the corridor, the natural characteristics of the area would be maintained and recreation development would occur only where necessary to meet basic sanitation and fire protection needs.

The toilets that exists in the upper segment - the one at Pikes Crossing and the one just above where Rock Creek enters the river - would be replaced. This would contribute towards meeting existing and projected needs for minimum sanitation requirements within the river corridor. Fire rings added to these sites would help provide basic fire protection. Other popular sites may need similar facilities in the future.

Consequences & effects of Alternative 4

This alternative calls for the development of facilities that encourage use and enhance the users experience.

This alternative would result in a developed site capacity of 85 PAOT's (persons at one time) within the river corridor. Assuming the managed season for these sites would be from June 1 through October 15, a total of 11,645 PAOT's would be available.

Recreational use, particularly picnicking at the day use sites, is expected to increase slowly over the next 10 years. Use is not expected to exceed the desired condition use level of less than an average of 59 users per day throughout the length of the river.

Recreational use within the river corridor in the next 10 years is not anticipated to increase significantly as a result of the proposed trail.

Consequences & effects of Alternative 5

This Alternative emphasizes opportunities for solitude, with little evidence of human development.

No new recreation facilities would be constructed. Existing facilities, including toilets, in the area above Rock Creek and at Pikes Crossing would be removed. This would result in sanitation problems at these sites.

This alternative would not provide adequate sanitation and/or fire protection needs for the types of use consistent with a "scenic" and/or "recreation" designation.

Access & Road Management

Adequate access for visitors to the river, and the continued use of the water "chances" that occur along the river were the issues.

Use of the water chances that occur throughout the river corridor would not be permitted in any of the alternatives. The water chances at Pikes Crossing, and the site immediately north of the Fremont road 27 bridge would be rehabilitated immediately (assuming funding is available). Other water chance sites would be allowed to rehabilitate naturally.

Consequences & effects of the No-Action Alternative & Alternatives 3 & 6

These alternatives would limit access to existing roads.

Some visitors may have a difficult time in reaching the more isolated parts of the river, however access is adequate for most people.

Consequences & effects of Alternative 2 & 4

These alternatives would allow additional roads to be constructed in the river corridor, however they would be visually inconspicuous from the river.

The reason for additional road construction varies between alternatives. In Alternative 2, the additional roads would be needed for timber harvest. The sights and sounds of logging traffic would have a negative impact on visitors, and would detract from the natural character of the area. In Alternative 4 the additional road construction would be associated with recreation development. Visitors are generally tolerate to these kinds of roads.

No estimates on miles of road construction associated with timber harvest has been made. The additional roads associated with the proposed recreation development is estimated to be about 3 miles.

Consequences & effects of Alternative 5

Access would be restricted within the river corridor, however most users would still find access adequate. Some users, such as fisherman, would have to walk longer distances to access the river.

Roads not identified as a primary access routes would require drainage structures to avoid accelerated erosion. Increased law enforcement would be necessary to insure that only the designated roads are being used for access.

The powerline road would remain within the river corridor, however it would not provide visitor access to the river.

The area would be managed as a semi-primitive non-motorized area.

Cultural, Historic & Traditional Use Cultural Values

Numerous cultural sites exist within the river corridor. The issue is site protection and the Klamath Tribes desire to make site information available only on a "need-to-know" basis -vs- the publics desire to know and understand about previous occupation of these lands.

Consequences & effects of the No-Action Alternative, and Alternatives 2, 3, 5, & 6

Cultural and historic values would be protected under existing laws and regulations. Continued cooperation with the Klamath Tribe would be sought. No interpretation of cultural sites would occur.

Interpretation and/or a sign telling about the Woods Line railroad grade may occur at the point where the railroad grade crosses the river in the Sycan marsh.

Consequences & effects of Alternative 4

Interpretation of cultural and/or historic sites would occur as opportunities are identified. No specific sites or locations have been identified at this time.

Fish and Wildlife

Proposed, endangered, threatened, or sensitive fish and/or wildlife species are afforded special protection under the law and may have special protection and/or habitat needs. Other unique wildlife habitat needs may also require special consideration. This special protection, and the unique habitat needs is the issue.

Fish and wildlife habitat would be improved in all alternatives. Emphasis is given to maintaining and enhancing habitat of proposed, endangered, threatened, or sensitive fish species when species are known to occupy that habitat. Habitat needs will be determined on a site and/or species specific basis. The total river ecosystem will be evaluated when developing project proposals.

Botanical

This issue concerns the management of the large meadows in the upper reaches of the river, as well as riparian habitats along the river. Additionally is a concern for potential, endangered, threatened, and sensitive plant species that may occupy habitats within the river corridor.

Restoration and/or maintenance of wetlands and riparian habitats will occur under all alternatives. The rate of recovery will vary, depending on how long it takes to achieve the desired condition (refer to the discussion on grazing). Potential, Endangered, Threatened, and sensitive plant species will

receive special emphasis when species are known to occupy the habitat.

ENVIRONMENTAL CONSEQUENCES & EFFECTS OF IMPLEMENTATION AS RELATED TO RESOURCE VALUES & USES...

Scenic Values

Discussed in "issues" section.

Recreation Values

Recreation consequences and effects were partially discussed in the issues section. The consequences and effects discussed here have to do primarily with the Recreation Opportunity Spectrum (ROS).

Consequences & effects of the No-Action Alternative

This alternative would result in a Recreation Opportunity Spectrum (ROS) setting of Semi-Primitive Non-Motorized (SPNM) on the Fremont, and a ROS of Roaded Natural (RN) on the Winema.

On the Fremont, the ROS setting of SPNM would result in only designated road access remaining. Implementation of this alternative may be impractical if other parts of the no-action alternative are implemented (i.e. existing roads to remain open). Approximately 59 miles of Fremont roads within the river corridor would need to be closed.

On the Winema existing recreation activities within the river corridor would continue with a ROS setting of Roaded Natural. This ROS setting would also allow additional roading and/or recreation developments such as campgrounds, boat launch facilities, and trails.

Consequences & effects of Alternative 2, 4, & 6

The Roaded Natural ROS setting allows current recreational activities taking place within the river corridor to continue, as well as allowing additional roading and/or recreation developments such as campgrounds, boat launch facilities, picnic areas, and trails.

Consequences & effects of Alternative 3 & 6

Recreation activities currently taking place within the river corridor would continue, however new recreation development would be limited to improvements for basic sanitation and/or fire protection, and trails.

These alternatives best meet the publics desire for management of recreation activities within the river corridor.

Geologic Values

Geologic values would be protected in all alternatives.

Common variety (salable) minerals material would not be developed or removed from the river corridor. Surface occupancy for leasable material would not be permitted. Acquired lands would not be made available for mineral entry. On lands open to mineral entry the provisions of the 1872 mining law, as amended, would be strictly enforced.

Fisheries Values

Discussed in "issues" section.

Wildlife Values

Consequences & effects of Alternatives 1, 2, 3, & 4

Discussed in "issues" section.

Consequences & effect of Alternatives 5 & 6

These alternatives give additional consideration to non-game wildlife species, particularly birds. Maintaining the high density of cavity nesters and improvement of bald eagle habitat would be emphasized.

Maintaining the high density of cavity nesters would require large numbers of snags. Natural snag habitat would be supplemented by the creation of snags if declining populations become evident. This would result in live trees being killed by girdling, or other methods. Snags would not be created out of live aspen.

Opportunities to maintain and improve bald eagle habitat would be balanced against scenic values.

Only those areas typified by late seral or climax stage ponderosa pine, with a good snag component, will be selected for maintenance or improvement of bald eagle habitat. If areas are treated, stumps would be flush cut, and slash would be piled and burned (or otherwise removed). Snags would not be cut.

Cultural, Historic, & Traditional Use-Cultural

Discussed in "issues" section.

Botanical Values

Discussed in "issues" section.

Soils

It is unlikely that any of the alternatives would result in significant negative, long-term effects on the soil resource, mainly because of the low percentage of the area that would be affected at any one time, or cumulatively over time. Soil disturbances would be isolated, localized, and concentrated. Some disturbance would be acceptable in order to meet other management objectives (i.e. severe soil compaction in a campground or boat launch parking area). Current L&RMP Standards and Guidelines, combined with the application of Best Management Practices, would ensure that soil disturbances are minimal and localized.

Timber harvest and road construction has the greatest potential for producing negative soil effects. Alternative 1 would allow a limited amount of timber harvest above the canyon rim on the Winema. Impact to soil resources would be minimal. Alternative 2 would have the greatest impact on soils as it would allow scheduled timber harvest within the river corridor. The other alternatives do not call for any scheduled timber harvest.

Water

Water quality and flow was not identified as an issue. However it should be noted that having a minimum flow in the river is the key to the protection of fisheries values in the lower segment (fisheries was identified as an outstandingly remarkable value).

Gaining minimum flow in the river, particularly below the Marsh will not be resolved in this document. The current adjudication process that is underway for the Klamath basin is where this issue will be resolved. It is anticipated that this process may take several years to resolve the claims for water and to establish water rights.

None of the alternatives would result in a negative effect on existing water quantity or water quality. However the key point is which alternative(s) provide for the quickest and best recovery of those items that are essential to the health of the river ecosystem. Riparian values, which is the key item in recovery of the river ecosystem, were discussed in the "issues" section. Alternatives 3, 4, and 6 are all aimed at restoring the riparian ecosystem in 10 years. Alternative 5 would remove livestock grazing from the river corridor and riparian ecosystem recovery would probably occur just as rapidly as in alternatives 3, 4, and 6. Alternative 2 would result in the restoration of the riparian ecosystem in 20 years. The no-action alternative would restore the riparian ecosystem in 40 years.

ENVIRONMENTAL CONSEQUENCES & EFFECTS AS RELATED TO SOCIAL, POLITICAL, &/OR ECONOMIC VALUES...

The effects of the alternatives on local communities and economies were evaluated by five criteria. These criteria, with a brief description, are as follows:

The effect on timber supplies available to local mills. Because current issues having to do with timber harvest have reduced the supply of logs available to local mills, and stumpage has had a reciprocal increase in value, any management actions that reduce opportunities for timber harvest cause concern.

The effect on livestock and ranching operations. Any proposed changes in grazing practices within the river corridor could result in increased cost to ranchers and/or livestock operators. These costs could be in the form of additional range administration (i.e. riding), feed, and increased fence construction or maintenance.

The effect on tourism related travel. Increased recreational opportunities within the local area provide more for visitors to do. This could result

in visitors spending an extra day in the area, resulting in a positive effect on the local economy.

The effect on the quality of life and the quality of the environment. Natural scenic beauty, water and air that appear to be clean, opportunities to just "get away from it all", and other similar features add to the quality of life and the quality of the environment.

The effect on providing a variety of recreation opportunities. In the "drier" ecotypes east of the Cascade range, water based recreation has a unique value because of its limited availability. River environments provide pleasant settings and generally result in a better experience for visitors to the area.

REQUIRED DISCLOSURE ON COMPLIANCE WITH APPLICABLE NATIONAL LAWS & EXECUTIVE ORDERS...

All alternatives meet all applicable national laws and executive orders, with specific attention focused on the Wild and Scenic Rivers Act. Items specifically evaluated included cultural resources, water quality, visual quality objectives, air quality, and threatened, endangered, and sensitive plant and animal species. It is determined that none of the alternatives will have any significant adverse effects on these items.

Effects on Consumers, Civil Rights, Minority Groups, & Women

None of the alternatives single out or discriminate against any consumer group, minority group, women, or has any effect on civil rights. Some minor differences do exist between alternatives in regards to the affect upon the local economy. These have been discussed in the Social, Political, and/or Economic Values section.

Effects on Prime Farmland

No prime farmland occurs within the river corridor.

Effects on Rangeland & Forest Land

Rangeland and forestland exist within the river corridor. Timber harvest and livestock grazing could have an affect on National Forest lands within the river corridor. These effects are discussed in Chapter IV of the FEIS for the Fremont's L&RMP, and in Chapter 4 in the Winema's FEIS for the Winema's L&RMP.

Effects on Wetlands & Floodplains

Wetlands and floodplains exist within the river corridor, however none of the actions in any of the alternatives, either individually or cumulatively will have any significant or measurable negative effect on wetlands or floodplains. Changes in grazing practices aimed at achieving the desired condition for riparian areas should result in an improvement of wetlands within the river corridor.

Effects on Threatened & Endangered Species

All alternatives emphasize the improvement of threatened and endangered species habitat when a species is known to occupy the habitat.

Effects on Cultural Resources

All alternatives protect cultural resources under existing laws and regulations.

Effects on American Indian Rights

American Indian rights, including those covered by the American Indian Religious Freedom Act, would not be affected by any of the Alternatives. Existing treaty rights and or agreements with the Klamath tribe will continue in all alternatives.

Effects on Global Warming

None of the actions contained in any of the alternatives, either individually or cumulatively, would have any significant or measurable effect on global warming.

Effects on Air Quality

The use of prescribed fire could result in short term and/or long term effects of the type described on pages IV 164-168 in the Fremont FEIS and/or pages 4 6-9 in the Winema FEIS.

Effects on Irreversible & Irretrievable Commitments of Resources

For all alternatives, irreversible and irretrievable commitments of resources would not exceed those discussed in the Final Environmental Impact Statement(s) for the Fremont L&RMP, and the Winema L&RMP.

Short-term Uses verses Long-term Productivity

None of the short term uses identified in any of the alternatives will have any adverse effect on the long term productivity of the lands within the river corridor, or the river and/or the river ecosystem.

Forest Plan Compliance

Alternative 1, the no-action alternative is in compliance with the Fremont National Forest Final Environmental Impact Statement (FEIS) and the Land and Resource Management Plan, and the Winema National Forest Final Environmental Impact Statement (FEIS) and the Land and Resource Management Plan. Implementation of any other Alternative will require an amendment to the L&RMP's.

PUBLIC INVOLVEMENT

SUMMARY OF PUBLIC INVOLVEMENT

Public involvement was a integral part of the planning process for the Sycan river. Interested groups and individuals, and other federal, state, and local agencies were involved in public meetings, mailings, through newspaper articles, and by direct discussions.

Public involvement began in June, 1989 with the mailing of approximately 250 letters to announce the beginning of the planning process, and to determine the level of interest in the project. On September 27, 1989 a letter went out to all those persons and/or groups expressing any interest, and groups expected to have an interest. Issues were identified, additional responses solicited, and a field review of the river scheduled.

On October 28, 1989 twenty-nine people participated in the field review. The review included local residents, ranch owners, and ranch managers. Federal officials included Forest Service public information officers, the Bly District Ranger, a Forest Service fisheries biologist, and the Forest Service Wild and Scenic Rivers coordinator. State government was represented by forestry personnel, a fisheries biologist, chairman of the Governors' Watershed Enhancement Board, chairman of the Oregon State Soil and Water Commission, and one member of the State Board of Agriculture. County government officials present included Klamath and Lake County Commissioners and a Klamath County Planning Commission member. The field review also included members of the Klamath Country Flycasters Club.

Input from the field review was combined with previously expressed public and interdisciplinary team concerns to form the basis for the issues identified in this plan.

On October 10, 1989 the development of river management plans was discussed representatives from the Klamath County Planning Department.

The Klamath Tribe was also involved. A meeting between tribal representatives Gordon Bettles, Don Gentry, and Craig Bienz (Tribe biologist), and Forest Service representatives Ben Kizer (Wild and Scenic River Coordinator FNF) and John Kaiser (Forest Archaeologist FNF) was held on January 12, 1990 in Chiloquin, Oregon. Craig Bienz met again with Ben Kizer and Forest Supervisor Chuck Graham on August 6, 1992.

A program was presented to the Klamath Country Flycasters (34 persons attended this meeting), and to a Society of American Foresters chapter meeting (20 persons attended this meeting; most were from the Klamath Falls area). Offers were extended to several Lakeview and Klamath Falls service organizations to do programs on the river planning efforts that were underway, however only the Lakeview Lions Club responded.

The Nature Conservancy has been involved throughout the planning process. The Oregon Rivers Council has also been involved throughout the planning process.

Oregon Department of Fish and Wildlife was consulted, and provided input throughout the planning process. Input was received from the Klamath District office, as well as the Region 3 - Central Oregon office.

Newsletters were sent out to about 200 interested groups and/or individuals on February 1, 1990, June 1, 1990, and again on June 17, 1991. The purpose of the newsletters was to help keep people informed as the planning process continued.

Overall, interest in the Sycan river management planning process could be described as light.

Groups and/or Individuals that were involved, or received notification of the planning process included the following:

ORGANIZATIONS:

American Rivers - *Thomas J. Cassidy, Jr.*
Oregon Rivers Council - *Bob Doppelt; David Bales*
Northwest Rafters Association - *Al Ainsworth*
Oregon Natural Resources Council - *Andy Kerr; Wendell Wood*
Oregon Trout
Sierra Club, Oregon Chapter
Izaac Walton League
Native Plant Society
The Nature Conservancy - *Catherine McDonald; Linda Poole*
Klamath Audubon Society - *Katy Ardt*
Federation of Flyfishers, Oregon Council - *Keith Burkhart*
Trout Unlimited, Oregon Council - *Dave Nolte*
Klamath Country Fly Casters - *Tom Neal*
Trout Magazine - *Tom Pero*
Northwest Forestry Association - *Wayne Ludeman*
National Wildlife Federation - *Rick Brown*
Center for Urban Affairs and Policy Research - *H. Paul Friesema*
High Country River Rafters - *Larry Stuhl*
Wilderness Society - *Baynard Smith*
National Organization for River Sports - *John Garren*
Klamath River Compact Commission - *Nell Kuonon*
Sprague River Water Users Association - *Edwin Vieira*

OTHER AGENCIES AND/OR GOVERNMENTS:

Bureau of Land Management, Lakeview District - *Judy Nelson*
Oregon Department of Fish and Wildlife - *John Fortune; Steve Lewis; Ralph Opp*
Lake County Board of Commissioners - *Jeremiah O'Leary*
Lake County Planning Department - *Ray Simms*
Klamath County Board of Commissioners
Klamath County Planning Office - *Steve Oulman*
Oregon State Parks
Oregon Department of Forestry - *Bob Brown*
Oregon Department of Energy
Intertribal Fish Commission - *Larry Everson*
Klamath Indian Tribe - *Craig Bienz; Don Gentry; Gordon Bettles*

INDUSTRIAL:

Weyerhaeuser Company - *Kurt Muller; John Monfore;*
ZX Ranch - *Bob Debraga*
J Spear Ranch Co. - *Tom Shaw*
Harvey Ranch, Inc.
Whiskey Creek Ranch - *Bill and Nadine Gallagher*
Yamsay Ranch - *Dayton and Gerda Hyde*
Lakeview Lumber - *Mike Rice*
Fremont Sawmill - *Paul Harlan*
Goose Lake Lumber Company - *Jim Simpson*
Klamath County Farm Bureau - *Steve Kandra*

INDIVIDUALS:

Alan Withers
John Withers
Bob Elder
Orval Layton
John O'Leary
John Merwin
Sam Baldwin
Bill Ganong
Sarah Bunten
J.R. Cogar
Ron Cunningham
Vic Creed
Gino Zalunardo
Erwin Hafenstein
Dom Wright
Jerry Boucock
Marc Valens
George Burrell
Gary Anderson
Dan Applebaker
Art Lapsley
Paul Brattain
Tommy Dell Brattain
Ruth Brattain
Brenda and Gary Isham
Ed Murphy
Kelly Colahan
Ralph McAllister
Ora Temple
William & Jeremiah Barry
Marilyn Bacon
Frank Obenchain
Donald & Lillian Manning
George Burrell
Jerald Steward
Sally Bourgeois
Jeff Howard
Chuck Kelly
Ira Pradmore
Virginia Vernon
Con Fitzgerald
Carvil R. Maple
Bill Marlett
Jane Dixon
Don Zupan
Roger Enell
Charles P. VanEpps
William Pearcy
Ron Hicks
Kate Joost
Joseph A. DiBartolomeo
Donald L. Hummel
Lisa Garrett
Melvin R. Adams

This Environmental Assessment was conducted using an interdisciplinary team process. The Interdisciplinary Team was made up of the following persons:

Ben Kizer; Project Leader, Fremont National Forest
Marty Morrison; Range Conservationist, Fremont National Forest
Dave Wenzel; Soil Scientist, Fremont National Forest
Mike Miller; Landscape Architect, Fremont National Forest
Richard Woodward; Recreation and Lands, Fremont National Forest
Cleon Puetz; Forester & Forest Interdiscipinary Team Leader, Fremont National Forest
John Kaiser; Archeologist, Fremont National Forest
Anne Archie; Wildlife Biologist; Fremont National Forest
Lee Hillwig; Fisheries Biologist, Fremont National Forest
Scott Woltering; Fiseries Biologist, Fremont National Forest
Dave Vogler; Hydrologist, Fremont National Forest
Christina Lilienthal; Landscape Architect, Winema National Forest
Stan Jones; Hydrologist, Winema National Forest
Brent Frazier; Wildlife Biologist, Winema National Forest

In addition to the Interdisciplinary Team, the following persons on the Fremont National Forest provided input to the planning process:

Bly Ranger District, Fremont National Forest

Bob Brackett, District Ranger
Nancy Feakes, Resource Assistant
Linda Barker, Resource Assistant
Don Carpenter, Forester
Donna Gress, Forestry Technician
Bruce Nichols, Fire Management Officer

Paisley Ranger District, Fremont National Forest

Roger King, District Ranger
Mike Balboni, Resource Assistant
Cindy Grover, Range Conservationist
Sandra Overton, Forestry Technician
Dan Shoun, Supervisory Forestery Technician (fire & fuels)

Headquarters Office, Fremont National Forest

Ralph Roberts, Resource Staff Officer (retired)
Steve Egeline, Resource Staff Officer
Mike Schafer, Forest Silviculturalist
Sherman Radtke, Planning, Lands, & Recreation Staff Officer
Heather Todd, Recreation Planner
Stevie Ruda, Graphic Artist
Ron Thompson, Forest Engineer
Curt Allen, Supervisory Civil Engineer Technician
John Thompson, Supervisory Land Surveyer

In addition to the Interdisciplinary Team, the following persons on the Winema National Forest provided input to the planning process:

Chiloquin Ranger District, Winema National Forest

Gene Klingler, District Ranger
Dorothy Fleming, Resource Assistant
Catherine Jean, Botanist

Headquarters, Winema National Forest

Dick Cleveland, Resource and Fire
Ben Barnette, Archeologist
Jay Christensen, LMP Staff Officer
Jack Sheehan, Timber Staff Officer

MANAGEMENT PLAN

SYCAN WILD & SCENIC RIVER

NATIONAL WILD AND SCENIC RIVERS SYSTEM

MANAGEMENT DIRECTION

BACKGROUND

Under the 1988 Omnibus Oregon Wild and Scenic Rivers Act, a fifty-nine mile segment of the Sycan River was designated as Wild and Scenic. The Sycan was one of forty rivers added to the Wild and Scenic Rivers System within the State of Oregon. The Act requires Federal agencies to prepare a comprehensive management plan for each river under their administration.

The river management plan provides for protection and enhancement of resource values in the river corridor, and allows for public use and enjoyment of those resource values. The plan further provides the necessary direction for the river corridor and adjacent areas that affect the corridor. Management activities outside the Wild and Scenic River boundaries must protect the values for which the river was designated.

Because the Sycan Wild and Scenic River flows through both the Fremont and Winema National Forest, both of these forests have worked together to develop the Sycan Wild and Scenic River Management Plan. The Fremont National Forest was designated as the lead Forest for the river planning process; however, each Forest will be responsible for on-the-ground management of its portion of the management area (the river and river corridor).

Included in the Sycan W&S River Management Plan is a description of the desired condition for the river corridor, as well as standards and guidelines and possible management actions designed to achieve the desired condition for the river corridor. Additionally, a monitoring plan is provided to ensure effective and timely implementation of the river management plan.

OUTSTANDINGLY REMARKABLE RIVER VALUES

Outstandingly Remarkable Values (ORVs) are those values which cause a river to be designated by Congress as Wild and Scenic under the Wild and Scenic Rivers Act. These values are determined by comparing the resources of the river under study with the resources of other rivers in the region. Those values which are found to be unique, rare, or exemplary and are significant at a regional or national level are considered "outstandingly remarkable". For the Sycan W&S River, the regional area was Klamath and Lake Counties; this area is within SCORP regions 9 and 11.

The Outstandingly Remarkable Values for which the Sycan River was designated are:

SCENIC: The basalt canyon and water sculptured boulders, the vastness and panoramic view of the Sycan Marsh, and the diversity of vegetation are either unique or exemplary features in the region.

GEOLOGIC: The steep, narrow basalt canyon and the gigantic water sculptured boulders in the Coyote Bucket area are very unique geologic features.

FISHERIES: The diversity of fish species within the river, including several category 2 sensitive species is especially unique. The river also provides an opportunity to restore and/or improve habitat for two threatened and endangered species.

WILDLIFE: The diversity of species, including sensitive and threatened species, and wetland habitat of the Sycan Marsh are unique in the region. The Sycan Marsh also has the highest concentration of nesting greater sandhill cranes in the United States.

RELATIONSHIP OF THE PLAN TO THE FOREST L&RMP

National Forest planning is accomplished at the programmatic level and through individual project plans. Forest Land and Resource Management Plans (Forest L&RMPs), provide forest-wide and area-specific standards and guidelines, and are developed at the programmatic level of planning.

Forest L&RMPs are the result of extensive analysis of the outputs and effects of a range of alternatives which is documented in an accompanying Environmental Impact Statement (EIS). Public input is considered at several points throughout the analysis. The final Forest L&RMP is based on the alternative selected as the Preferred Alternative by the decision maker (generally the Forest Supervisor).

River management plans are also developed at the programmatic level and are tiered to the Forest L&RMP. Implementation of the standards and guidelines within a river management plan may call for amending the Forest L&RMP to which it was tiered. Implementation of the Sycan Wild and Scenic River Management Plan will require the amendment of both the Fremont and Winema L&RMPs in order to incorporate the new and revised standards and guidelines described in the River Management Plan.

Individual project plans are designed to achieve the goals and objectives of the programmatic level plans and are often tiered to a programmatic level plan. Site-specific NEPA analysis must be done for each individual project plan, however. For example, the management actions listed in the Sycan Wild and Scenic River Management Plan will be carried out through individual project plans which are tiered in a NEPA analysis to the River Management Plan.

MANAGEMENT ROLES OF OTHER AGENCIES

Successful implementation of the Sycan Wild and Scenic River Management Plan will require close coordination and cooperation between numerous federal, state and local government agencies. The primary roles and responsibilities of these management partners are outlined below. Specific plans and policies that may affect the designated corridor are described under the agency responsible for that plan or policy.

FEDERAL AGENCIES

Forest Service

The Fremont and Winema National Forests are responsible for managing and administering the National Forest System lands within the Sycan W&S River corridor. Each Forest will be responsible for on-the-ground management of its portion of the river corridor. Full implementation of the management plan will, however, require close coordination among the two Forests, Klamath and Lake Counties, the Klamath Tribe and several of the Oregon State agencies which have jurisdiction in the area.

Bly Ranger District on the Fremont, and Chiloquin Ranger District on the Winema will be the primary public contact for issues relating to the Wild and Scenic River management, including: safety, public information and education, special use permit compliance, resource protection, project planning and implementation, and monitoring of social and physical conditions on and along the river.

The Federal government does not have authority to regulate what happens on private land within or outside of the Wild and Scenic River. Land use controls on private lands are solely a matter of state and local county zoning.

The Wild and Scenic Rivers Act specifically prohibits the use of condemnation in the fee title purchase of lands if 50 percent or more of the land within the boundary is already in public ownership, as is the case with the Sycan Wild and Scenic River. The W&SR's Act does provide the Federal government with authority to purchase land from willing sellers, or enter into land exchanges or scenic easement agreements if deemed necessary to maintain the outstandingly remarkable values that resulted in the river's designation.

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service administers the Federal Endangered Species Act of 1973 (as amended). The Forest Service consults with that agency to obtain a biological opinion on appropriate courses of action when it is determined that a threatened or endangered species, or its critical habitat, may be affected by a proposed management action. Resulting decisions could mean that proposed action is modified or abandoned.

Army Corps of Engineers (COE)

A permit must be obtained from COE prior to initiating any activity which involves dredging, excavating and/or depositing of fill and dredged

material into a Federal Wild and Scenic River. COE and the Oregon Division of State Lands have a joint application for this permit. Specifically, COE is responsible for authorizing dredge and fill activities of less than 50 cubic yards.

State Agencies

Oregon Department of Fish & Wildlife (ODFW)

The Oregon Department of Fish and Wildlife is responsible for developing State programs and policies for management and protection of fish and wildlife resources, including habitat, and for regulating recreational and commercial harvesting of fish and game. ODFW is authorized to request instream water rights to protect fish and wildlife resources. Agency technicians and biologists provide technical assistance for riparian habitat production and maintenance, riverbed or riverbank alteration, water withdrawal, or any use of the water's surface.

The ODFW's Fish and Wildlife Commission is charged with management of the Sycan River for wild trout. Additionally, the Commission, in 1981, adopted a Fish Management Plan for the Sycan River which emphasized: 1) improvement of riparian habitat by working closely with land management agencies and landowners; 2) improvement of summer flows from Sycan Marsh to Torrent Spring; and 3) documentation of species and size composition and catch data for the fish population. A progress report in November, 1987, indicated that several projects were underway to improve riparian habitats; that it may not be possible to improve low summer flows; and that nothing special had been done in regards to documenting species and size composition and catch data.

Oregon Water Resources Department (WRD)

The WRD carries out the programs and policies of the Water Resources Commission (WRC). The Commission develops coordinated, integrated state water resources policy aimed at developing and preserving Oregon's water resources. The WRC is most directly involved in the protection of State Scenic Waterways. However, the WRC can also protect fish, wildlife, and recreation values on designated state and federal rivers through: a) establishment and maintenance of instream water rights and minimum perennial streamflows; b) water use policies in basin programs to guide evaluation of proposed developments; c) water use classifications; d) water right application review and permit conditioning; and e) water use regulation.

Oregon Department of Environmental Quality (DEQ)

The DEQ is responsible for protecting water quality in all "waters of the state", including those of Wild and Scenic Rivers and their tributaries. DEQ implements the Statewide Water Quality Management Plan, which establishes standards of water quality for each of WRD's eighteen river basins. Beneficial uses of rivers and streams that are to be protected by DEQ are: public, private, and industrial water supplies; irrigation; livestock watering; anadromous fish passage; salmonid rearing and spawning; resident fish and aquatic life; wildlife; hunting and fishing; boating; water contact recreation; and aesthetic quality. Dissolved oxygen is to be kept to the highest possible levels. Temperature, bacteria, dissolved chemical substances, and toxic materials are to be maintained at the lowest possible levels. DEQ also has standards and procedures for on-site sewage systems, issues permits for dredge and fill of wetlands, and maintains water quality monitoring stations throughout Oregon. DEQ has the ability to apply for in-stream water rights to protect and maintain water quality standards.

Oregon Division of State Lands

The Division of State Lands is the administrative arm of the State Land Board (the Board), composed of the Governor, Secretary of State, and State Treasurer. Under constitutional and statutory guidelines, the Board is, among other things, responsible for administering the Oregon Removal-Fill Law which protects State waterways from uncontrolled alteration. The law requires a permit for fill or removal of more than 50 cubic yards of material within the State's waterway. The permit-review process involves coordination with the natural resource and land use agencies from the local through the federal levels. As mentioned previously, the COE is responsible for authorizing a permit for fill or removal of less than 50 cubic yards of material within the State's waterway.

Local Governments

County Comprehensive Plans

The Sycan Wild and Scenic River flows through Lake and Klamath Counties. Private land within the river corridor is regulated and managed according to the policies set forth in either the Lake County Comprehensive Plan (1990) or the Klamath County Comprehensive Plan (1981), depending on which county the private land is in.

The Lake County Comprehensive Plan supports maintaining minimum stream flows for all beneficial uses. Additionally, agriculture, grazing, forestry, parks and recreation uses are considered consistent with natural/scenic/open space values dependent on resource carrying capacities.

The Klamath County Comprehensive Plan contains policies to preserve open space and protect natural and scenic resources in Klamath County. The plan further calls for inventories of the location of fish and wildlife areas and habitats; outstanding scenic views and sites; water areas, wetlands, watersheds, and groundwater sources; and potential wild and scenic waterways and state scenic waterways.

Other Groups & Organizations

The Nature Conservancy (TNC)

The Nature Conservancy is a private, non-profit organization whose primary function consists of the acquisition of land which it believes should be under management by a public agency. The land usually has some specific environmental or conservation value attached to it. TNC owns almost all of the approximately 24,000 acre Sycan Marsh, a part of which is within the boundary of the Sycan W&S River corridor. Currently, TNC is leasing its portion of the Marsh to the ZX Ranch until the year 2020. TNC is working with the ZX Ranch to develop a Coordinated Resource Management Plan for grazing within the entire Sycan Marsh. It is hoped that management of the Sycan Marsh within the river corridor will be consistent with the management direction provided by the Sycan Wild and Scenic River Management Plan.

The Klamath Tribe

The entire river corridor is within lands claimed by the Klamath Indians in the Treaty of 1864, and thus is part of the historic use area of the Tribe. With the Termination Act of 1954, the Klamath Tribe retained non-exclusive hunting, fishing and trapping rights to an area that includes most of the river corridor. The Klamath Tribe has also indicated that sacred sites exist within Segment 1 of the Sycan W&S River.

The Fremont and Winema National Forests recognize the Klamath Tribe as a sovereign government with rights similar to that of a state. This government to government relationship creates a unique partnership with the Tribe. The Forest Service has an obligation to consult, cooperate, and coordinate with the Klamath Tribe in making resource management decisions, including decisions concerning management of the Sycan Wild and Scenic River.

The Forest Service does not, however, relinquish or share responsibility for administrative or resource management decision-making with the Tribe. There is no authority through treaty, statute, or inherent sovereignty granted to the Tribe for co-management of resources on the two Forests. Given this, the Fremont and Winema National Forests do not recognize a co-management right either retained by or granted to the Klamath Tribe.

MANAGEMENT DIRECTION FOR THE SYCAN WILD & SCENIC RIVER

Introduction

This chapter provides the overall direction for management of the Sycan Wild and Scenic River. Management direction is given in the form of goals, desired conditions (both general and specific to the resource values), standards and guidelines, and management actions necessary to achieve the desired condition.

Note: Management goals, desired conditions, standards and guidelines, and management actions apply to the river and river corridor (henceforth, referred to as the river corridor), unless otherwise specifically noted. Standards and guidelines described in the Fremont and Winema L&RMPs, which incorporate State Best Management Practices, will be followed for management activities outside the river corridor, allowing for high quality water to enter the Sycan River System.

Management Goals

The management goals for the Sycan Wild and Scenic River must be consistent with the Wild and Scenic Rivers Act, and Forest Service guidelines for the management of federal lands in W&S River corridors. These goals lead to the desired condition for the river corridor. They are realistic to achieve, have at least some quantifiable parameters, and are based on information gathered during the scoping phase of the planning process.

The management goals for the Sycan River are as follows:

Protect and enhance the Wild and Scenic River values (geology, scenery, wildlife and fisheries) for which the river was designated.

Achieve and maintain a free-flowing condition.

Maintain a visual quality objective of retention.

Minimize structural improvements and ensure that they blend with the natural setting.

Provide opportunities for livestock grazing when it is consistent with other resource values.

Insure that water quality meets Federal nondegradation standards.

Achieve the minimum instream flows needed to preserve the river ecosystem, and to maintain and/or enhance the fisheries value.

Preserve and protect archeological values according to current laws and regulations, and meet Klamath Tribe desires for management of these values to the extent possible.

Maintain and/or improve existing fish and wildlife values.

Provide for appropriate user access to meet the objectives of the Sycan Wild and Scenic River Plan.

Manage the river corridor to preserve the natural character of the area. User restrictions, if needed, should be minimal and subtle; moderate opportunities for solitude should be present.

Desired Conditions & Standards & Guidelines

Desired Conditions describe the desired state of the resources within the river corridor. Management of the resources within the river corridor is intended to maintain or create the desired condition for the corridor in general, as well as for each of the resource values within the corridor.

The desired condition for the Sycan W&SR is consistent with the Forest Service guidelines for management of Federal lands within W&SR corridors, is responsive to the management goals and objectives established for the River, and reflects the public's desire for management of the River and River corridor. The desired condition for the river corridor in general and for the specific resource values (e.g., vegetation) is described below.

The statements that describe the desired condition are written in the present tense as though the river and river values already meet the condition(s) desired.
Standards and Guidelines (S&Gs) state the bounds or constraints within which all practices will be carried out in achieving the planned goals and objectives of the Sycan Wild and Scenic River Management Plan. The intent of the S&Gs is to help the manager stay within the constraints prescribed by law, as well as provide environmental safeguards for management activities.

Specific terminology used in the S&Gs identifies the type of direction and degree of compliance required. Correct interpretation of the terms is critical to understanding the intent of the direction. A Standard is signified by the use of the word "shall" or "should". The definitions for these words are as follows:

Shall: the action is mandatory in all cases.

Should: the action is required, unless justifiable reason exists for not taking action. This direction is intended to require a practice unless it entails unacceptable hardship or expense. Exceptions to "should" restrictions are expected to occur infrequently.

A Guideline is signified by the use of the word "may". The definition of this word is as follows:

May: the action is considered to be optional.

While the Forest Service has responsibility for protecting and enhancing the Wild and Scenic River values within the river corridor, it does not have authority to regulate management of private lands within or adjacent to the corridor. The Sycan W&S River corridor includes about 3,392 acres of private land: several scattered small parcels of private land within Segment 1 of the river; and the sections of the Sycan Marsh within Segment 2. The Sycan Marsh is owned by The Nature Conservancy and is leased to the ZX Ranch until the year 2020. Currently, TNC is working with the ZX Ranch to develop a Coordinated Resource Management Plan for grazing within the entire Sycan Marsh.

Because of the existence of this private land within the Sycan Wild and Scenic River corridor, the Forest Service policy will be to cooperate and coordinate with private landowners in order to encourage them to meet the Standards and Guidelines outlined in the Sycan Wild and Scenic River Management Plan. The Wild and Scenic Rivers Act also gives the Forest Service the option to purchase land from willing sellers, or enter into land exchanges or scenic easement agreements if necessary to protect and enhance the outstandingly remarkable river values.

Management Area-wide Desired Condition

The Sycan River is a free-flowing river with management emphasis on protecting and enhancing the values of scenery, geology, fisheries, and wildlife in the segments where they are determined to be outstandingly remarkable. Visitors to the river have the opportunity to experience the outstanding natural scenery of the area, including attractions such as the late seral and climax stage ponderosa pine scattered throughout the river canyon, and fish and wildlife habitat. Instream flows enhance the scenic value of the river by providing the sights and sounds of a free-flowing river to visitors to the river corridor. Water quality meets Federal non-degradation standards. Management activities and/or improvements do not detract from the natural appearing landscape. A ROS setting of Semi-Primitive Motorized provides adequate access to the river, yet assure opportunities for solitude. Visitor management is minimal and subtle.

Management Area-wide Standards & Guidelines

Representatives from the Winema and Fremont National Forests shall meet as needed to coordinate management activities. Such meetings shall occur no less than annually.

An analysis shall be conducted prior to implementation of any water resource project within the river corridor in order to determine if the project will cause direct and adverse effects on the values for which the river was designated (as per Section 7 of the Wild and Scenic Rivers Act).

Vegetation Management Desired Condition

Coniferous Species

Ponderosa pine and mixed-conifer forest types: The impression a person has when visiting the river corridor is that of being in a late seral or climax stage forest that shows few effects from management activities. Forested areas have a natural density of snags. Large ponderosa pine trees have an open and park-like appearance. Saplings and pole-size trees often are evident and occur in clumps.

Lodgepole pine: Lodgepole pine stands within the river corridor range from dense pole-like stands to open stands with trees up to 24 inches in diameter. The lodgepole pine stands may show evidence of insect and disease activity. Stands generally appear to be even aged, with limited reproduction.

Deciduous Species

Aspen: Several age classes of aspen provide scenic diversity within the river corridor. Management activities limit fir and/or other conifer species encroachment into stands of aspen. Management of browsing pressure allows regeneration to occur. (Note: currently some of the aspen is decadent, with little regeneration. In 15 to 20 years the larger size classes of aspen will have suffered some decline; however, in 40 years the current regeneration will be moving into the larger size classes.)

Cottonwood: Cottonwood stands show signs of vigor and appear to follow natural cycles of reproduction and mortality. In areas where cottonwoods occur there is a heavy layer of decaying natural

material on the ground. There are areas with cottonwoods that attract visitors because of the desirable recreation setting they provide.

Shrub Species

Shrub species are present in forested and non-forested areas.

Dryland shrub species such as mountain mahogany, bitterbrush, a variety of sagebrush, chokecherry and serviceberry perpetuate naturally. They provide forage and habitat for a variety of wildlife species.

Shrub species associated with moist environments include a variety of willow species, red osier dogwood, and mountain alder.

Vegetation Management Standards & Guidelines

The following specific S&Gs from the Fremont and Winema L&RMPs shall continue to be implemented:

No scheduled timber harvest shall occur within the river corridor. (Fremont L&RMP Standards and Guidelines for Management Area 11; Winema L&RMP Standards and Guidelines for Management Area 5.)

Salvage harvest of merchantable timber damaged severely by catastrophic fire or windthrow may be conducted only if the Outstandingly Remarkable Values (ORVs) are protected and enhanced. (Winema L&RMP Standards and Guidelines for Management Area 5.)

The following new S&Gs shall be implemented for vegetation management within the river corridor:

Some vegetative manipulation, including incidental timber harvest, may be done on an irregular basis to preserve and/or enhance stand characteristics when necessary to accomplish management objectives. Examples of acceptable reasons for incidental timber harvest include bald eagle habitat management, meeting desirable stand conditions or providing clearings for scenic vistas.

Any vegetative manipulation, including incidental timber harvest, shall protect and enhance the ORVs, and should result in only minor amounts of timber being removed from the river corridor.

Firewood gathering for commercial or home-use shall not be allowed within the river corridor. Only that firewood gathered in incidental amounts for use by visitors for campfires shall be allowed within the river corridor.

Vegetation seedlings may be planted if necessary to meet Wild and Scenic River objectives.

Stocking level control of conifer and deciduous species shall be consistent with Wild and Scenic River objectives.

Vegetation management should be utilized to provide a variety of successional stages within the river corridor.

Vegetation management shall allow for the perpetuation of aspen and cottonwood in their seral stage.

Shrub species shall show vigorous growth, with 70% of annual leaders remaining intact after browsing.

Riparian Area Desired Condition

There is a diversity of sizes and types of natural riparian vegetation along the Sycan W&S River, and a minimum of bare soil along the river bank. A healthy riparian area contributes to watershed improvement by reducing sediment in the river, and by lowering the water temperature through increased stream shading.

The riparian area is further characterized by abundant mesic species and root systems that protect and stabilize stream banks. Vegetation is well-distributed within fluvial zones such as streambanks, active channel shelves, active floodplains, and overflow channels. Encroaching riparian vegetation provides stable undercut banks, overhanging vegetative cover, shade along the channel margins, and a narrowing channel. The vegetation that shades the stream results in lower water temperature extremes during summer months. The saturated zone is elevated and the subsurface storage of

water is increased. There is reduced encroachment of meadow areas by shrub and coniferous species because of higher water tables.

The desired condition of the riparian areas has the following characteristics:

> Native grasses, grasslike vegetation, sedges, and forbs are well established. They reproduce and provide overhanging cover on streambanks. Seedheads develop and cast seeds during normal years. Willow 6 feet or more in height occur in areas where willows have historically been established, or can be established.
>
> The distinctive plants within the zone create a visual diversity that helps to identify the zone. Additionally, deciduous plants such as willows provide fine litter, such as falling leaves, which serve as a source of nutrients for the algae and the small invertebrates at the bottom of the food chain. Large debris, such as fallen trees, create habitat for fish and other species, stabilize the floodplain and provide nutrients as the debris decomposes. Shade from trees and shrubs helps to keep the stream temperatures lower, slow stream algae growth and influence the composition of the vegetation in the riparian zone.

Riparian Area Standards and Guidelines

The following sections of the Winema L&RMP's Forest-Wide Standards and Guidelines for Soil and Water shall continue to be implemented:

> Riparian Ecosystems (Streams, Stream-side Areas, Floodplains and Wetlands) (pp. 4-74 to 4-75)
>
> All S&Gs under the section entitled "Stream-side Areas and Floodplains" shall be met, with the exception of #12-15 which states: "intensity of harvest treatment and spatial distribution of cutting units shall ensure that hydrologic conditions are maintained and improved". This statement does not apply to the river corridor, as there is to be no scheduled timber harvesting within the corridor. (p. 4-75)

The following specific S&Gs from the Fremont and Winema L&RMP shall continue to apply to the river corridor:

> ***Management Area-wide Standards and Guidelines (from the Fremont L&RMP Standards and Guidelines for Management Area 15):***
>
> *Site-specific prescriptions shall be required for all project activities that affect aquatic/riparian systems (Forest Service Manual 2526, R6 Supplement #42).*
>
> *In cases of unresolved conflict, soil, fish, water, and wildlife shall receive preferential consideration.*
>
> *Watershed, wildlife, and fisheries habitat rehabilitation and improvements shall be required to meet goals for aquatic/riparian systems.*
>
> *Nonforested riparian zones shall be managed to increase the presence of late seral or climax vegetative community types.*
>
> *Fencing of aquatic/riparian systems may be required when other means cannot meet management area goals.*
>
> ***Perennial Streams and Water Bodies (from the Fremont L&RMP Standards and Guidelines for Management Area 15):***
>
> *Vegetation management activities within the river corridor riparian area shall be directed toward providing or meeting the following conditions or characteristics:*
>
> - *diversity in conifer and deciduous tree species;*
> - *diversity in age classes;*
> - *an abundance of deciduous shrubs and trees;*
> - *high (composite) canopy closure - shade to stream;*
>
> *Fire management of the riparian area calls for the following:*

- *Machine constructed fire lines should not be constructed in riparian areas during fire suppression activities. Perpendicular crossings, with subsequent rehabilitation, are permitted, but discouraged if alternatives exist.*

- *Use of prescribed fire shall be limited to:*

  Burning of activity fuels located in the upland portion of the river corridor riparian area.

  Burning of natural fuels for the purpose of enhancing riparian dependent values.

Fish and wildlife management requires that, as a minimum, instream fisheries habitat improvement shall be coordinated with range, watershed, recreation, and the Oregon Department of Fish and Wildlife (ODF&W).

Specific riparian objectives designed to meet a variety of resource needs shall be developed by an interdisciplinary team on a livestock allotment basis.

Seeps and Springs:

Management shall be directed toward providing or meeting the following conditions or characteristics in the riparian portion:

- *an abundance of deciduous trees or shrubs;*

- *an abundance of standing dead trees;*

- *an abundance of conifer trees greater than 10 inches d.b.h.; and good water flow and quality.*

The following new S&Gs shall be implemented for vegetation management within the river corridor:

Vegetation management within the river corridor riparian area shall be directed toward providing or meeting the following conditions or characteristics:

- *strive to retain at least 1.5 snags of 10 to 20 inches d.b.h. and 1 snag greater than 20 inches d.b.h. per acre and at least 2 down logs per acre of 12 inch diameter on the small end and 25 feet in length with the bark and sapwood intact. However, in cases of conflict between snag requirements and stream shade requirements, the decision shall be biased toward stream shade requirements.*

- *a high amount (as per Fisheries Management S&Gs) of large woody debris in the stream channel and upper and lower banks, for stream channel and bank stability and structural fish habitat.*

Livestock grazing in the river corridor shall be managed so that it does not exceed the following use level for the forage component:

- *Where streambanks or channels are highly erodible, grazing would occur only where it would not have destabilizing effect on the streambank.*

- *All other riparian areas will be managed under the Forest Range Environmental Study (FRES) Management Level C as described in the Fremont L&RMP Standards and Guidelines for Management Area 15.*

No increase over natural levels of streambank degradation (existing at the time of Wild and Scenic designation) shall be caused by, or perpetuated by, livestock.

Scenic Resources Desired Condition

Scenery within the river corridor is natural appearing with little evidence of management activity. This desired condition is satisfied through management for a Visual Quality Objective (VQO) of foreground Retention. Additionally, middleground and background areas that are visible from the river and/or riverside roads or trails are managed for a VQO of Partial Retention.

Scenic qualities include diversity of natural landscape elements such as rockform, landform, and vegetation. Vegetation is primarily coniferous with late seral and climax stage ponderosa pine

scattered and in clumps, and lodgepole pine flats intermingled with water related riparian vegetation such as willows and other deciduous shrubs. Expanses of sagebrush, bitterbrush, and juniper in the drier areas lend diversity. Rocks and boulders continue to line the river, increasing in size and quantity in the Coyote Bucket area. Several springs continue to seep from the lower reaches of the canyon walls to flow into the river. All of these natural elements add visual diversity to the scenery within the river corridor.

Wildflowers in the spring and early summer provide a mosaic of color. Aspen and other deciduous vegetation provide opportunities for viewing fall colors.

Snags (in the density described in the Riparian Area S&Gs, and Wildlife S&Gs), add unique characteristics to the landscape by providing a contrast in color, form, and texture.

Scenic Resources Standards and Guidelines

General

The following specific S&Gs from the Fremont and Winema L&RMPs shall continue to be implemented:

> Natural qualities of the river corridor shall be retained by meeting a VQO of foreground Retention as viewed from the river and/or a riverside road or trail. (Fremont L&RMP Standards and Guidelines for Management Area 11; Winema L&RMP Standards and Guidelines for Management Area 5.)
>
> Inventories of visual quality shall be maintained or updated; existing visual condition and desired condition, as a minimum, shall be mapped. (Winema L&RMP Forest-Wide Standards and Guidelines for Scenic Resources.)

The following new S&Gs shall be implemented for management of the scenic resources:

> A middleground and background VQO of Partial Retention as viewed from the river and/or a riverside road or trail shall be met.
>
> Natural scenic diversity shall be maintained by minimizing management actions that reduce diversity of landform, rockform and vegetation.

Best Management Practices implemented for other management projects shall be developed to meet or exceed the designated VQOs. These VQOs shall meet the standards described in USDA Handbook #462 ("National Forest Landscape Management", Volume 2, Chapter 1, Visual Management System).

When a catastrophic pest outbreak occurs, an assessment shall be done prior to taking action to suppress the outbreak. The assessment shall be done: 1) to determine which Wild and Scenic River values within the river corridor, as well as which values outside the river corridor, might be affected by the outbreak; and 2) to select the most appropriate method to suppress the outbreak considering these values.

Integrated Pest Management (IPM) strategies should be utilized to prevent unacceptable insect and disease damage in the river corridors. For operational consideration, manual, mechanical and silvicultural methods should also be emphasized.

Temporary departures from VQO shall be allowed when necessary in areas highly susceptible to insect and disease epidemics in order to protect forest health and long-term scenic values.

Beaver dams shall be allowed to remain a part of scenic and ecological conditions unless they become a threat to facilities or private property.

Foreground Retention Area:

The following new S&Gs shall be implemented for management of scenic resources within the viewshed of the Sycan W&S River managed as foreground Retention:

> All new stumps shall be cut flush to the ground. Visible new ground disturbances should be reshaped and vegetation reestablished with a native ground cover.

Existing late seral and climax stage trees shall be maintained as per the Fisheries' S&Gs.

Maintenance of all native tree, shrub, grass, and riparian vegetation communities shall be emphasized.

All new developments and facilities such as roads, trails, bridges, revetments, weirs, fences, utilities, buildings, etc. shall meet the Retention VQO in design and appearance.

Standing dead trees or snags of all sizes and species shall be left for visual, wildlife, and ecological reasons in the density described under S&Gs for Riparian Area and for Wildlife. Standing dead trees or snags may be removed if considered a hazard (as described under Recreation Management S&Gs).

Prescribed burning in natural mosaic patterns shall be allowed within the river corridor as a tool for landscape management as per Riparian Area and Fire Management S&Gs. Visual evidence of prescribed burns or wildfire burns should be accepted as part of the natural character of the river corridor.

Middleground & Background Partial Retention Area

The following new S&Gs shall be implemented for management of scenic resources within the viewshed of the Sycan W&S River managed as middleground or background Partial Retention:

Timber harvest shall be allowed in middleground and background visual zones that are not within the river corridor itself. Only uneven-aged management practices shall be allowed in these zones, however.

All developments and facilities shall meet the VQO of Partial Retention in their design and appearance as viewed from the river and adjacent roads and trails within the river corridor.

The middleground viewing zone shall be managed to provide for the long-term maintenance of trees approximately 30 inches in diameter. A supply of smaller diameter trees shall also be maintained in order to perpetuate the existence of the large diameter trees in these zones.

Recreation Management Desired Condition

Recreation activities within the river corridor are primarily related to viewing the scenery, camping and/or picnicking, hunting, fishing, bird watching, nature study, and non-motorized boating. The river provides a pleasant viewing experience for visitors to the area. Riparian and/or water dependent vegetation provide scenic diversity and seasonal variations in vegetative color to enhance the visitor's experience. Water flows in the river year around (except in drought years when some sections may naturally lack water) and give visitors to the area the feeling of being in a river environment.

The river shoreline is largely undisturbed and has a natural appearance. Roads and/or trails remain visually inconspicuous from the river. The existing power line remains the only utility corridor crossing the river.

A Recreation Opportunity Spectrum setting of Semi-Primitive Motorized (as defined in the Sycan W&S River Environmental Assessment, and in the Glossary), is met. In general, users experience a semi-primitive motorized setting, and opportunities for solitude and challenge in a natural environment are moderate to high. Because of the isolation of the area there may be periods of time when visitors to the area face a moderate degree of challenge and risk.

Trail and road access to the river remain limited. Campers and picnickers enjoy moderate opportunities for solitude. People who hunt and fish find a natural appearing environment that enhances their pursuits. Fishermen/boaters/floaters of the river find relatively few conflicts between users. The float season continues to be associated with peak flows and remains relatively short (two to four weeks).

Recreation activities remain limited in the Sycan Marsh because of ongoing ranching operations and the associated cattle grazing. Access to the Marsh for recreation users also remains very limited.

Use Levels

Use will be generally highest during holiday periods, and lowest mid-week. The remoteness of the

area, mosquitoes, ticks, limited road and trail access to the river, low flows, late season snow during some years, and fire restrictions during other years all will continue to affect actual use levels in any given year.

Use levels within the corridor are within capacity for the river corridor and do not negatively impact the Wild and Scenic River values. A Limits of Acceptable Change (LAC) program is initiated if use levels increase above the river corridor's recreational use capacity.

Visitor Health and Safety

Visitors to the river corridor are able to enjoy a safe recreational experience and are provided adequate information regarding safe behaviors.

Adequate sanitary facilities exist at river access points, and human waste does not enter the river.

Hazard trees are removed from areas immediately adjacent to river access points where visitors tend to concentrate.

Fences that cross the river are not a hazard to boaters and/or floaters of the river.

Recreation Management Standards & Guidelines

The following new S&Gs shall be implemented for recreation management within the river corridor:

The river corridor shall be managed to provide a Semi-primitive Motorized recreation setting.

Recreation development within the river corridor shall be limited to trails and dispersed recreation sites, with improvements only for basic sanitation and protection related items.

Visitor constructed improvements shall be removed unless under special use permit.

Visitor health and safety shall be considered in all administrative and management activities that take place within the river corridor.

Existing river crossings, including bridges, shall be appropriately maintained and, if necessary, reconstructed to meet the intended use. Reconstruction shall not impede the free-flowing nature of the river, however (refer to General Standards and Guidelines).

River fords should be signed to discourage crossings by motor vehicles.

Any toilet facilities placed within the river corridor shall be at least 200 feet from the high water mark of the river and/or any tributaries entering the river.

Wire fences shall not be allowed to cross the river where they could be a hazard to boaters. Fences that cross the river should be designed to be removed with ease.

Hazard trees should be removed from any area immediately adjacent to river access points. An access point is defined as the intersection of a trail or road with the river. A hazard tree is defined as a standing tree that has no visible green needles or leaves, or a tree that shows obvious effects of damage so that a prudent person would deem it to be unsafe. The area immediately adjacent to a river access point is defined as that area within 200 feet of the area regularly used by the majority of the visitors using the access point.

Water Quality & Flow Desired Condition

Flow

The river has a continuous year around free-flow throughout all segments. Water flows enhance the scenic value of the river by providing a "river experience" for visitors to the corridor.

In the short term, annual spring peak flows continue to "flush" the system. This moves sediment through the system, cleans the pools, and maintains a healthy channel morphology. Changes caused by peak flows are significantly reduced because of the improved conditions of riparian areas. The desired condition for the long-term includes an aquatic system that has a good distribution of woody debris and/or log complexes that create a variety of aquatic habitats (see desired condition for fisheries).

Water Quality

Water temperatures typify near natural conditions as riparian vegetation has recovered. Fish mortal-

ity from high water temperature is minimal.

Turbidity and/or sediment loads is also near natural levels. Low standard roads within the river corridor that have contributed to increased sediment loads in the past are stabilized and/or revegetated, and all new projects within the watershed meet or exceed Forest Service Best Management Practices.

Human waste and/or "gray-water" does not enter the river or contribute to reduced water quality.

Water Quality and Flow Standards & Guidelines

The Fremont L&RMP Forest-wide Standards and Guidelines for Watershed Management and the Winema L&RMP Forest-wide Standards and Guidelines for Soil and Water shall continue to be implemented.

The following specific S&Gs from the Fremont and Winema L&RMPs shall continue to be implemented:

Best Management Practices (BMPs) shall be implemented for every project that occurs within the Sycan Watershed. (Winema L&RMP Forest-Wide Standards and Guidelines for Water Quality.)

BMPs for all activities, including grazing, shall, as a minimum, reflect those items discussed in the Pacific Northwest Region publication entitled, "General Water Quality Best Management Practices" (November 1988). (Winema L&RMP Forest-Wide Standards and Guidelines for Water Quality.)

The following new S&Gs shall be implemented:

BMPs shall insure that Federal non-degradation standards are met within the river corridor.

The impact of project activities immediately adjacent to the river corridor on Wild and Scenic River values should be considered prior to implementation of these projects, and an assessment should be done as to the effects of these projects on protection and enhancement of these values.

Wildlife Desired Condition

The river corridor above and below the Sycan Marsh is characterized by late seral and/or climax stage timber stands that provide abundant habitat for snag dependent species. Vegetative conditions detailed in the "Desired Conditions for Vegetation within the River Corridor" provide adequate cover for big game wildlife species. Abundant opportunities exist for viewing game and non-game species.

The juxtaposition of rock outcrops, cliffs and crevices, rimrock, and talus slopes to the riparian areas and water provide habitat for small mammals, including such species as bobcats, marmots, and bats.

The greater sandhill cranes that nest within the Marsh find adequate habitat to meet their needs. High quality waterfowl habitat includes nesting and breeding areas. This habitat also provides foraging areas for bald eagles.

Bird watching opportunities remain abundant throughout the length of the river corridor.

Wildlife Standards & Guidelines

There shall be continued implementation of the S&Gs found in the following sections of the Fremont L&RMPs's Forest-Wide Standards and Guidelines for Fish and Wildlife Management and of the Winema L&RMP's Forest-Wide Standards and Guidelines for Fish, Wildlife and Sensitive Plants:

Fremont L&RMP:
- Aspen Stands (p. FP 103)
- Raptors (p. FP 106-108)

Winema L&RMP:
- Raptors and Colonial Nesting Birds (p. 4-48)
- Cliffs, Caves, and Talus Habitat (p. 4-52)
- Hardwood Habitat (p. 4-52)
- Meadows (p. 4-52)
- Miscellaneous Wildlife Sites (p. 4-52 and 4-53)

Additionally, the following specific S&Gs from the Fremont and Winema L&RMPs shall continue to be implemented:

Dead and defective trees shall be maintained to carry at least 100% of the potential population of cavity-dependent species except where

safety concerns (hazard trees in developed and dispersed campsites) dictate a lower level of habitat. (Fremont L&RMP Forest-Wide Standards for Fish and Wildlife Management.)

Snags and leave trees should be retained in the same species composition of the stand impacted by management activities. Where dead trees are not available for present numbers of snags, green trees shall be retained and made into snags to meet the desired level for that area. These green trees should be of low value, cull, limby or deformed. If such trees are not available, then higher value trees should be made into snags to meet the desired level. (Fremont L&RMP Forest-Wide Standards for Fish and Wildlife Management.)

The number of dead trees needed for habitat, as well as green replacement trees for wildlife habitat through the rotation, shall be retained as shown in the supplements to the Tables 24-26 referenced on pages FP 104-105 of the Fremont L&RMP. The number of dead and live trees are those present at the completion of the project and retained through a full rotation. (Fremont L&RMP Forest-Wide Standards for Fish and Wildlife Management.)

Special big game habitats such as mineral licks or fawning cover should be protected. (Fremont L&RMP Forest-Wide Standards for Fish and Wildlife Management.)

Special elk habitats such as mineral licks, calving areas and elk wallows should be protected. (Fremont L&RMP Forest-Wide Standards for Fish and Wildlife Management.)

Beaver dams should be protected and encouraged where their construction would benefit riparian area objectives. (Fremont L&RMP Forest-Wide Standards for Fish and Wildlife Management.)

At the Forest level, fish and wildlife habitat shall be managed to maintain viable populations of all existing native and desired non-native plant and animal species. Distribution of habitat shall provide for species viability and maintenance of populations throughout their existing range of the Forest. (Winema L&RMP Forest-Wide Standards and Guidelines for Fish, Wildlife, and Sensitive Plants.)

The following new Standards shall be implemented for wildlife management within the river corridor.:

The primary emphasis for mule deer habitat management within the river corridor shall be on fawning and fawn rearing.

Cliffs, caves and/or talus habitats in forested stands should be protected by management of the shade provided by nearby trees. At least 80% of the potential natural shade should be retained through use of buffer strips, leave trees, or other methods.

Fisheries Desired Condition

Riparian areas provide fish with suitable water quality, adequate food, and the necessary habitats for all stages of their life cycle including spawning, rearing and migration. Populations of wild trout are healthy and stable, and well distributed throughout the upper segment (above the Marsh). Within the Marsh, the barriers to fish migration have been removed, and flow occurs throughout the river corridor yearlong. Flows below the Marsh occur yearlong and the river is populated by a diversity of fish species. Emphasis is given to the maintenance and/or enhancement of habitat for threatened, endangered, proposed, and sensitive species. This includes habitat for the redband trout (Oncorhynchus mykiss) above the Marsh, and habitat for the Lost River (Deltistes luxatus), short-nosed (Chasmistes brevirostris), and the Klamath largescale (Catostomus snyderi) suckers below the Marsh.

No specific desired condition for woody debris, pool/riffle ratios, or a bank-to-depth ratio has been established for the Sycan Marsh. These specific items will be addressed in the Coordinated Resource Management Plan that is being developed for the entire Sycan Marsh.

Fisheries Standards & Guidelines

Standards and Guidelines in this section are designed to meet the long-term desired condition for fisheries. (Long-term is defined as more than 20 years; short term is 5 to 20 years; and immediate is from the present to 5 years.)

Note: The desired conditions and Standards and Guidelines are meant to describe important ecosys-

tem conditions and factors that can lead to good fish habitat. However, it should be recognized that although the desired condition and Standards and Guidelines described for fisheries relate specifically to the channel and floodplain, watersheds are systems in which upslope/channel and upstream/downstream linkages are important in the protection and restoration of these ecosystems.

The following new S&Gs shall be implemented for fisheries management within the river corridor:

The Lower Sycan (Segment 3 as defined in the Environmental Assessment):

A late seral/climax stage conifer tree density of 15 trees per 100 feet of stream reach should be equally distributed within 100 feet on either side of the stream channel.

There should be a large log density within the stream channel of 25 per mile of channel. A large log is defined as one which is at least 50 feet long and 20 inches in diameter.

There should be a 40% surface area of pool habitat type.

There should be a stream channel bankfull width to depth ratio of 10:1 or less.

The Upper Sycan (Segment 1 as defined in the Environmental Assessment):

Water temperatures:

3rd order streams or lower should have temperatures of 55 degrees F or less.

4th order streams or higher should have temperatures of 58 degrees F or less.

Stream canopy closure:

Perennial streams (class I, II, and III) should have 80% shade cover of the stream surface area, or 100% of site potential.

Late seral/climax stage conifer trees within 100 feet of stream channel:

Class I, II, and III streams should have 15 trees per 100 feet of stream reach that are equally distributed.

Class IV streams should have 10 trees per 100 feet of stream reach that are equally distributed.

Woody debris in stream channel:

Lodgepole pine and aspen stands should have 20 pieces per 1000 feet of stream channel with the pieces having a minimum diameter of 12 inches and at least 35 feet in length.

Pine and pine associated stands should have: (1) 10 pieces per 1000 feet of stream channel with the pieces having a minimum diameter of 20 inches and at least 35 feet in length; and (2) 10 pieces per 1000 feet of stream channel with the pieces having a minimum diameter of 12 inches and at least 35 feet in length.

Pool Habitat:

If the stream gradient is 1 1/2% or less then 50% or more of the stream should be pool habitat.

If the stream gradient is 1 1/2% to 3% then 40% or more of the stream surface area should be pool habitat.

If the stream gradient is greater than 3% then 30% or more of the stream surface area should be pool habitat.

Bankfull width-to-depth ratio:

Unconstrained valley floors should have a ratio of 10 to 1, or less.

Constrained valley floors should have a ratio of 7 to 1, or less.

Proposed, Endangered, Threatened, or Sensitive Species Desired Condition

Recovery plans and conservation strategies have not been completed, with the exception of a bald eagle recovery plan. When plans and strategies are completed, a specific desired condition for PETS species, as well as Standards and Guidelines to

meet the desired condition, will be developed.

Until a specific desired condition can be established, a general desired condition for PETS species may be described with the following characteristics:

- Viable populations of PETS species; and
- Habitat quantity and quality of PETS spe cies is maintained or increased.

Proposed, Endangered, Threatened, or Sensitive Species Standards & Guidelines

The following sections of the Fremont L&RMP Forest-wide Standards and Guidelines for Fish and Wildlife Management and of the Winema L&RMP Forest-wide Standards and Guidelines for Fish, Wildlife and Sensitive Plants shall continue to be implemented:

> Threatened, Endangered, Sensitive Species (Fremont L&RMP, pp. FP 108-109)
> Endangered, Threatened or Sensitive Species (Winema L&RMP, p. 4-47)

Transportation System Desired Condition

Roads are inconspicuous and generally well-screened. River crossings are limited to existing crossings. There is no off-road vehicle use within the river corridor.

All existing "water chances" are rehabilitated as necessary.

The major access points into the river corridor are passenger car accessible. The river "fords" may not be suitable for passenger car crossing.

Transportation System Standards & Guidelines

The following new S&Gs shall be implemented for management of the transportation system within the river corridor:

> A road management plan shall be developed in cooperation with other interested parties.
>
> No new permanent roads shall be built within the river corridor. Existing roads shall be managed as per the road management plan.
>
> Temporary, low standard roads may be constructed for the purpose of furthering wildlife, fisheries, vegetative health or recreation objectives. However, at this time there is no foreseeable need for such construction.
>
> Road access to the river should continue to average about one access point per 5 miles of river.
>
> Road management activities, such as dust abatement, shall not use water from the river.

Fire Management Desired Condition

No unnatural fuel loading exists within the river corridor.

Fire Management Standards & Guidelines

The following specific S&Gs from the Fremont and Winema L&RMPs shall continue to be implemented:

> Fire suppression tactics such as confinement and containment shall be used during periods of low to moderate fire danger. (Winema L&RMP Standards and Guidelines for Management Area 5.)
>
> Fuel treatment methods which minimize the use of heavy equipment shall be favored. (Winema L&RMP Standards and Guidelines for Management Area 5.)
>
> Also see "Riparian Area S&Gs" section for additional fire management direction.

The following new S&Gs shall be implemented for fire management within the river corridor:

> Prescribed fire, using low to moderate fire intensities, should be used to maintain preferred vegetative communities, to reduce hazardous fuel accumulations, and/or to meet other management area objectives when such activities and objectives protect and/or enhance the outstandingly remarkable river values. Burning prescriptions shall also allow for protection and/or enhancement of the outstandingly remarkable values.

During wildfires, preference shall be given to those suppression methods and strategies that are cost-effective and limit the area burned, and that have the least effect on, or can enhance, the outstandingly remarkable river values.

During high or extreme wildfire danger, aggressive attack using all appropriate methods to minimize resource damage should be carried out so long as the methods protect the outstandingly remarkable river values, or the affected area can be rehabilitated to achieve the desired condition within one recreational year following the fire.

A prescribed fire plan that covers the river corridor shall be approved before using prescribed fire in the Wild and Scenic River corridor.

Naturally caused ignitions may be allowed to burn if they meet conditions in an approved prescribed burn plan, if funds and necessary staffing are available, and if approved as required by direction in Forest Service Manual 5140.

No management activity shall be allowed to increase fuel loadings above that level which occurs naturally in the river corridor. Pre-existing unnatural fuel loadings should be scheduled for either prescribed fire or other non-site disturbing treatment methods.

Management Actions

Management actions are distinct actions designed to resolve major issues and help attain the desired condition for the Sycan Wild and Scenic River. The management intent is that these actions be implemented as soon as the necessary funding can be secured through the agency's budgeting process.

Vegetation Management

Underburning of older aspen stands shall stimulate coppice regeneration.

Riparian Area Management

Develop Allotment Management Plans for riparian areas.

Reintroduce woody riparian vegetation at suitable locations.

Reduce General Road Density:

Annually identify roads which will not be used in the succeeding 10 years for harvest activities, obliterate or effectively close these roads, and plant obliterated roads using native species.

Water Quality and Flow

Actively defend any adjudicated Federal reserved water rights.

Establish Best Management Practices for grazing within the river corridor, and include these BMPs in the permittee's Allotment Management Plan. BMPs for all other project activities should be included within the implementation and/or project plan.

Cooperate, as appropriate, with The Nature Conservancy in the Coordinated Resource Management Planning process for the Sycan Marsh.

Treat all existing and new gully erosion within the river corridor that is adding accelerated levels of sediment to the river.

Recreation Management

The Pikes Crossing bridge has been the site of several accidents during the last 10 years. This bridge, and the approaches to the bridge should be evaluated to determine the safety of the facility. Reconstruction and realignment of the road approaches to the bridge may be necessary to meet safety concerns.

Any unauthorized constructed improvements discovered within the river corridor shall be removed as soon as possible.

Wildlife Management

Examine timber stands for opportunities for cultural treatment to move stands more rapidly toward the desired condition.

Make green trees into snags as necessary to provide habitat at the 100% of biological potential level for cavity dependent species.

Fisheries Management

Reduce Sediment Delivery:

Provide watershed, stream, and reach Best Management Practices (BMPs). Monitor and document implementation and effectiveness of BMPs.

Fish Habitat and Riparian Area Management Restoration:

Develop a fish habitat and riparian vegetation restoration plan that uses stream survey data to establish areas where fish habitat, stream shading and bank stability are deficient. Use the plan to map and prioritize future planting and fish habitat improvements. Develop management strategies that insure the establishment, growth, and succession of riparian vegetation.

Fishery Management and Trout Stocking:

Encourage the re-establishment of native game and nongame fish throughout their historic range.

Encourage the ODFW to prepare a fishery management plan for the Sycan River Watershed.

Prohibit Rainbow trout stocking in the Sycan River Watershed.

Water Quantity:

Water rights should be allocated for threatened, endangered and sensitive fish species and stream channel maintenance flows.

Proposed, Endangered, Threatened or Sensitive Species

Cooperate with the National Fish and Wildlife Department to prepare recovery plans for the PETS species within the river corridor. Develop conservation strategies for PETS species within the river corridor.

Transportation System

Develop a road management plan in cooperation with other interested parties.

Rehabilitate existing water chances where necessary.

To reduce the negative impact of sediment on water quality within the river corridor:

Identify and reduce road-caused sediment sources within the river corridor. Upgrade all unimproved roads in riparian areas that must be retained for management purposes. Identify specific existing problem areas and implement measures to prevent further erosion. This will be an ongoing process wherein each year at least 10% of the roads in the basin will be treated.

To relocate or upgrade existing roads in river corridor and prohibit establishment of new permanent roads in river corridor:

Establish a road relocation priority list for fish habitat and riparian restoration. Plant roads that were obliterated for relocation purposes with native plant species. Prohibit establishment of new parallel roads in streamside areas, and minimize stream and riparian area crossings.

Range Management

Livestock Management in Riparian Areas:

Review Allotment Operating Plans or Allotment Management Plans for compliance with the DCs, goals, and S&Gs of the Sycan W&S River Management Plan.

Livestock access to streams should be restricted or prohibited in order to protect trees and shrubs. Partial or full exclosure shall be provided in identified grazing/browsing problem areas. Exclosures shall be used to monitor the progress of vegetation establishment and recovery.

All livestock allotments in the river corridor shall be a high Forest priority for preparation of Allotment Management Plans.

Perform stream surveys to determine existing level of streambank degradation.

MONITORING PLAN

Monitoring will provide the public and Forest officials with information on the progress and results of implementing the Sycan Wild and Scenic River Management Plan. Activities will be compared with the River Plan direction and the actual effects resulting from these activities will be compared to the predicted effects. Where activities are congruent with direction, and effects are congruent with expectations, the determination will be documented and implementation will continue. Where activities and effects are not congruent with direction and expectations, further evaluation will occur and appropriate action will be taken to correct inadequacies or to modify the River Plan where necessary.

The overall objective of this river monitoring plan is to determine if programs and projects are maintaining and/or enhancing the Outstandingly Remarkable Values (ORVs) of the river. In the Fremont's L&RMP, Table 32, "Summary of Monitoring and Evaluation Program" (p. FP 214) the monitoring objective for Wild and Scenic Rivers is stated as: maintenance of current attributes of the classified rivers. This statement serves to ensure protection of the ORVs found in the designated portions of the Sycan River. Many other monitoring objectives listed in both the Fremont's and the Winema's L&RMP monitoring plan address many of the same issues and prescribed activities that are the basis of the River Plan. Where monitoring objectives in these L&RMPs are not specific enough to ensure that activities prescribed are maintaining and/or enhancing this river's ORVs, additional monitoring objectives were developed in this plan. These objectives are listed below. The combination of this monitoring plan and the Fremont's and Winema's L&RMP monitoring plans will effectively evaluate implementation of the Sycan Wild and Scenic River Plan.

GENERAL OBJECTIVES FOR MONITORING

Based on FSM 1922.71 (3), monitor to ensure that:

1. Management of the Sycan Wild and Scenic River complies with all applicable laws and regulations.

2. Cumulative effects of project implementation do not exceed standards and thresholds stated in the River Plan.

3. Planned mitigation actions are implemented and maintained as designed.

4. Local, state, and federal air, water, noise, and other legal requirements are met.

L&RMP OBJECTIVES FOR MONITORING AS RELATED TO SPECIFIC SECTIONS OF THE RIVER PLAN

Implement monitoring objectives described in the Fremont National Forest and Winema National Forest L&RMP Monitoring Plan (Chapter V and Chapter 5, respectively). Specific objectives to be implemented are those related to the following elements within the Sycan Wild and Scenic River corridor:

- Vegetation
- Riparian Areas
- Scenery
- Recreation
- Water Quality and Flow
- Wildlife
- Fisheries
- Threatened and Endangered Species
- Access
- Fire/Prescribed Fire

ADDITIONAL OBJECTIVES FOR MONITORING WITHIN THE SYCAN WILD & SCENIC RIVER CORRIDOR

The following objectives are in addition to those listed in the Fremont's and Winema's L&RMP. The objectives are described using a question and answer format.

Vegetation Management

Action or Effect: forest and vegetation health

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   Condition of timber and vegetation in corridor.

2. Where is the data to be collected from?

   Annual aerial detection flights specific to Sycan Wild and Scenic River corridor.

3. Who is expected to collect the data?

   Supervisor's Office: Timber management

4. How is the data to be collected?

   Data will be collected via a review of the yearly aerial insect and disease mapping specific to the Sycan Wild and Scenic River corridor, and by visual inspections of maps and photos.

5. How frequently is data to be collected?

   Annually.

6. When is the data to be reported?

   Annually.

7. Why is the data collected?

   To monitor the condition of the vegetation and timber resources in the corridor to provide management information on possible treatment. To prevent the characteristics of the corridor from being lost to insect or disease attack.

Riparian Area Management

Action or Effect: riparian area health

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   Vegetative composition and condition from within and outside riparian area exclosures.

2. Where is the data to be collected from?

   Riparian areas within the Sycan Wild and Scenic River corridor.

3. Who is expected to collect the data?

   Supervisor's Office: Watershed/Range staff.

4. How is the data to be collected?

   Exclosures will be used to monitor the progress of vegetation establishment and recovery within the river corridor.

5. How frequently is data to be collected?

   Annually.

6. When is the data to be reported?

   Every five years.

7. Why is the data collected?

   To monitor the condition of riparian area health within the Sycan Wild and Scenic River corridor.

Scenic Resources

Action or Effect: maintenance of scenic resources

Data Needs:

1. What data is expected to be collected in the Fiscal year?

Photographic records of compliance and non-compliance with Scenic Resources S&Gs within the Sycan W&S River corridor. Non-compliance of activities with S&Gs shall be reported to the Recreation staff officer and necessary actions taken to bring the activities into compliance, or to eliminate them.

2. Where is the data to be collected from?

   Within the viewshed of the Sycan Wild and Scenic River.

3. Who is expected to collect the data?

   Forest Landscape Architect or other similarly qualified staff person.

4. How is the data to be collected?

   Data will be collected through photography and written observations of the scenic resources within the Sycan W&S River viewshed.

5. How frequently is data to be collected?

   A minimum of one time per year.

6. When is the data to be reported?

   Annually.

7. Why is the data collected?

   To monitor the condition of the scenic resources within the Sycan Wild and Scenic River viewshed and to determine whether or not scenic outstandingly remarkable values are being protected and enhanced.

Recreation Management

Action or Effect: visitor safety

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   Visitor safety conditions at river access points.

2. Where is the data to be collected from?

   Access points along the Sycan Wild and Scenic River. Access points are defined as those points at which a road or trail intersects with the river.

3. Who is expected to collect the data?

   Recreation staff and/or other Forest Service employees whose work activities occur in the vicinity of the river access points.

4. How is the data to be collected?

   Visual inspections at river access points.

5. How frequently is data to be collected?

   On a continuing basis.

6. When is the data to be reported?

   Annually.

7. Why is the data collected?

   To ensure the safety of visitors to the river corridor. Hazard trees within a distance of 200 feet from access points will be removed, and any other safety hazards shall be eliminated.

Water Quality and Flow

Action or Effect: ensure protection of water quality and free-flowing conditions

Data Needs: Refer to: The Fremont National Forest's "Wild and Scenic River Water Monitoring Plan: The North Fork of the Sprague River and the Sycan River". (Appendix D)

Wildlife Management

Action or Effect: monitoring of projects for compliance with S&Gs; and carrying out habitat inventories

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   1) Monitoring: *Pre- and post-project survey of the Standards:*

   Standards will be monitored for at least one of the following types of projects: timber sales, cattle allotments, road construction and maintenance, wildlife habitat improvements, watershed restoration, recreation, and prescribed fire management.

   Minimum standards to be monitored for each project (pre- and post-) are:

   Big Game Habitat Effectiveness/Habitat Suitability: for any activity that alters vegetative composition, road density, water distribution, or livestock grazing.

   Biological Potential: for any activity that affects snag densities.

   Condition and structure of aspen stands: for any activity that affects aspen stands.

   2) Habitat inventory:

   Data on the condition of big game ranges.

   Pre- and post-project snag densities.

   Stand exam data on condition and structure of aspen stands.

2. Where is the data to be collected from?

   Sycan Watershed.

3. Who is expected to collect the data?

   Ideally, data will be collected by the Staff Officer or District Ranger.

4. How is the data to be collected?

   1) Monitoring: *site monitoring.*

   2) Habitat inventory:

   Big game ranges: a combination of walk through exams, paced transects, and formal stand exams will be used. Additionally, the interagency mule deer model will be used to compare pre- and post-project habitat suitability/habitat effectiveness.

   Snag density: paced transects and formal stand exams will be used to determine snag densities and, in turn, determine biological potential percentages.

   Aspen stands: stand exam data will be used.

5. How frequently is data to be collected?

   1) Monitoring: *at least one project annually.*

   2) Habitat inventory:

   Big game ranges: every 5 years.

   Snag density: annually.

   Aspen stands: every 5 years.

6. When is the data to be reported?

   1) Monitoring: *annually.*

   2) Habitat inventory:

   Big game ranges: every 5 years.

   Snag density: annually.

   Aspen stands: every 5 years.

7. *Why is the data collected?*

   1) Monitoring: *to ensure standards are being met for wildlife.*

   2) Habitat inventory:

Big game range: collect information to be used to determine silvicultural condition for modeling.

Snag density: to determine biological potential percentages.

Aspen stands: to determine condition and structure of aspen stands.

Fisheries Management

Action or Effect: monitoring of projects for compliance with S&Gs; and performing habitat inventories

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   1) Monitoring: *Pre- and post-project survey of the Standards:*

   Standards will be monitored for at least one of the following types of projects: timber sales, cattle allotments, road construction and maintenance, fish habitat improvements, watershed restoration, and recreation.

   Minimum standards to be monitored for each project (pre- and post-) are:

   Water Quality/Quantity: water temperature for any activity which alters streamside vegetation.

   Channel Morphology: large woody debris (LWD) for any activity affecting LWD composition.

   Floodplain/Riparian Vegetation Management: (1) vegetation composition and condition; (2) LWD in the floodplain for projects within or adjacent to floodplains; and (3) meadow ecosystems for projects in or adjacent to meadows.

   2) Habitat inventory

2. Where is the data to be collected from?

   1) Monitoring: *Sycan River Watershed.*

   2) Habitat inventory: *a) all fish-bearing streams in Sycan River Watershed; and b) perennial, non-fish-bearing streams which represent other upper watershed streams.*

3. Who is expected to collect the data?

   Ideally, data will be collected by the Staff Officer or District Ranger.

4. How is the data to be collected?

   1) Monitoring: *site monitoring.*

   2) Habitat inventory:

   Hankin and Reeves (1988) methodology and the Region 6 Stream Inventory and ODFW Aquatic Inventory parameters will both be used.

5. How frequently is data to be collected?

   1) Monitoring: at least one project annually.

   2) Habitat inventory:

   Surveys of all fish-bearing streams shall occur at 5 year intervals.

   Surveys of the perennial, non-fish-bearing streams shall occur at 10 year intervals.

6. When is the data to be reported?

   1) Monitoring:

   Water Quality/Quantity: annually.

   Channel Morphology: next planning period.

   Floodplain/Riparian Vegetation Management: every two years.

   2) Habitat inventory: *every five years.*

7. Why is the data collected?

   1) Monitoring: *to ensure standards are being met for fisheries.*

   2) Habitat inventory:

   Fish-bearing streams: to collect habitat data.

   Non-fish-bearing streams: some perennial, non-fish-bearing streams supply water of varying quantity and quality to fish-bearing streams. Because of this, these streams will represent other upper watershed streams to determine riparian area conditions and composition and provide a baseline for trends over time.

PROPOSED, THREATENED, ENDANGERED &SENSITIVE SPECIES

Action or Effect: ensure S&Gs for PETS species are carried out

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   1) Bald eagle: Record number of young present in nests, and the number of occupied suitable habitat areas.

   2) Sensitive species: Sensitive species densities will be determined and monitored.

2. Where is the data to be collected from?

   Sycan Wild and Scenic River corridor.

3. Who is expected to collect the data?

   1) Bald eagle: The Oregon Cooperative Wildlife Research Unit will collect the data. The information will be reviewed by the Forest fish and wildlife Staff Officer. Bald eagle management areas will be evaluated for suitability by the District Ranger.

   2) Sensitive species: Assessments of habitat protection will be conducted for all sensitive species by the District Ranger. Sensitive species densities will be determined and monitored by the Forest fish and wildlife Staff Officer.

4. How is the data to be collected?

   1) Bald eagle: number of young and number of occupied suitable habitat area shall be monitored annually and this information shall be reviewed annually.

   2) Sensitive species: assessments of habitat protection will be done annually.

5. How frequently is data to be collected?

   1) Bald eagle: bald eagle management areas will be evaluated for suitability every 2 years.

   2) Sensitive species: densities will be determined and monitored every 5 years.

6. When is the data to be reported?

   1) Bald eagle: nest/roost use and success is to be reported annually. Habitat management monitoring is to be reported every two years.

   2) Sensitive species: annually.

7. Why is the data collected?

   To ensure minimum standards for protection of bald eagle and sensitive species habitat and populations are met.

TRANSPORTATION MANAGEMENT

Action or Effect: ensure adequate access to river corridor and monitor condition of water chances

Data Needs:

1. What data is expected to be collected in the Fiscal year?

Information concerning maintenance of passenger car-accessible access to the river, and information concerning the condition water chances.

2. Where is the data to be collected from?

   Sycan Wild and Scenic River corridor.

3. Who is expected to collect the data?

   Forest Service personnel from the Winema and Fremont National Forests.

4. How is the data to be collected?

   Visual inspections

5. How frequently is data to be collected?

   On a continuing basis.

6. When is the data to be reported?

   Annually.

7. Why is the data collected?

   To assure adequate access to river corridor for passenger cars, and to assure that water chances are rehabilitated and meet the desired condition.

Fire Management

Action or Effect: fuel survey

Data Needs:

1. What data is expected to be collected in the Fiscal year?

   A fuel survey is to be done.

2. Where is the data to be collected from?

   Within the Sycan Wild and Scenic River corridor.

3. Who is expected to collect the data?

   District personnel.

4. How is the data to be collected?

   The most appropriate methods will be used to carry out a fuel survey. The survey will note areas that have greater than natural fuel loadings.

5. How frequently is data to be collected?

   The fuel survey shall be conducted every 5 years.

6. When is the data to be reported?

   Every two years

7. Why is the data collected?

   The fuel surveys are to be carried out to determine fuel loading within the Sycan Wild and Scenic River corridor. If the area surveyed is found to be large enough that efficient fuel treatment can be undertaken, and if funding is available, then treatment of these areas will be scheduled. Prescribed fire may be utilized for vegetation manipulation if it is in compliance with the Managing Competing and Unwanted Vegetation Final Environmental Impact Statement (USDA Forest Service, 1988)

GLOSSARY

NATIONAL
WILD AND SCENIC
RIVERS SYSTEM

GLOSSARY

Many of the definitions in this glossary are referenced to the following sources. The sources are identified by a number in parentheses following the definition. This number corresponds to the list below. Some other terms will be referenced to Forest Service Manuals (FSM), Forest Service Handbooks (FSH), or other sources which are too numerous to list. Finally, many other definitions are not referenced, but are those in general use on the Forest.

SOURCE LIST

(1) DEIS for Standards and Guidelines, 1981.
(2) Regional Guide for the Pacific Northwest Region, 1984.
(3) SAF Dictionary of Forestry Terms, 1971.
(4) The Random House College Dictionary, Revised Edition, 1975.
(5) Webster's New International Dictionary, 1957.
(6) Wildland Planning Glossary, 1976.
(7) Webster's Third New International Dictionary, 1981.
(8) Wildlife Habitats in Managed Forests, The Blue Mountains of Oregon and Washington, 1979.
(9) A Glossary of Terms Used in Range Management.
(10) Forest Service Manual.

Access - Usually refers to a road or trail route over which a public agency claims a right-of-way for public use; a way of approach.(4)

Acquired lands - Lands added to the National Forest system by purchase, transfer, or donation under authority of the Weeks Law or related acts. Also, lands obtained by the Forest Service by exchange for other acquired lands.

Activity - An action, measure or treatment undertaken that directly or indirectly produces, enhances, or maintains forest and rangeland outputs, or achieves administrative or environmental quality objectives (FSM 1309, Management Information Handbook). An activity can generate multiple outputs.(2)

Age class - An interval, usually 10 to 20 years, into which the age ranges of vegetation are divided for classification or use.(3)

Allotment - See Range allotment.

Alternative - One of several policies, plans, or projects proposed for decision making. (2, FSM 1905)

Animal Unit Month (AUM) - The amount of forage required by one mature (1,000 lb.) cow or its equivalent for one month (based upon average forage consumption of 26 lbs. dry matter per day).(6)

Animal Month is one month's use and occupancy of the range by one animal. For grazing fee purposes, it is a month's use and occupancy of range by one weaned or adult cow with or without calf, bull, steer, heifer, horse, burro, or mule, or 5 sheep or goats. Forage consumption by other animals is converted to AUM's from animal months by the following factors:

mature cow	=	*1.0*	*AUM*
mature sheep	=	*.2*	*AUM*
one horse	=	*1.2*	*AUM's*
cow/calf	=	*1.32*	*AUM*
ewe/lamb	=	*.3*	*AUM*

Aquatic ecosystems - Stream channels, lakes, marshes or ponds, and the plant and animal communities they support.

Background - In visual management terminology, refers to the visible terrain beyond the foreground and middleground where individual trees are not visible, but are blended into the total fabric of the stand. Also a portion of a view beyond three to five miles from the observer, and as far as the eye can detect objects.(6)

Best Management Practices (BMP) - A practice or combination of practices that is the most effective and practical means (including technological, economic, and institutional considerations) of preventing or reducing negative environmental impacts that may result from resource management activities. For example, Best Management Practices are used to reduce the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

Big game - Large mammals hunted for sport. On the Fremont National Forest these include animals such as deer, elk, antelope, and bear.(8)

Big game summer range - A range, usually at higher elevation, used by deer and elk during the summer. Summer ranges are usually much more extensive than winter ranges.(8)

Big game winter range - A range, usually at lower elevation, used by migratory deer and elk during the winter months; usually more clearly defined and smaller than summer ranges.(8)

Biological control - A method to control insect populations or tree diseases through the use of applied technology. Also used in noxious plant control.(3)

Browse - Twigs, leaves, and young shoots of trees and shrubs on which animals feed; in particular, those shrubs which are used by big game animals for food.(6)

Canopy - The more-or-less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth.(3)

Cavity - The hollow excavated in trees by birds or other natural phenomena; used for roosting and reproduction by many birds and mammals.(2)

Characteristic landscape - In reference to the USDA Forest Service visual management system; the overall impression created by a landscape's unique combination of visual features (land, vegetation, water, structures), as seen in terms of form, line, color and texture; synonymous with "visual landscape character."(6)

Climax - The culminating stage in plant succession for a given site where the vegetation has reached a highly stable condition.(6)

Closure - An administrative order restricting either location, timing, or type of use in a specific area.

Common varieties - Nonmineralized sand, gravel, stone, etc. (See Mineral materials.)

Community stability - A community's capacity to handle change without major hardships or disruptions to component groups or institutions. Measurement of community stability requires identification of the type and rate of proposed change and an assessment of the community's capacity to accommodate that level of change.(FSH 1909.17)

Cost effectiveness - Achieving specified outputs or objectives under given conditions for the least cost.(6)

Cost efficiency - The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values, but are achieved at specified levels in the least costly manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and internal rate-of-return may be appropriate.(2)

Cover/forage ratio - The mixture of cover and forage areas on a unit of land, expressed as a ratio. The optimum cover/forage mix for deer on summer range is 60:40.

Cubic foot (CF) - The amount of timber equivalent to a piece of wood one foot by one foot by one foot.(3)

Cultural resource - The remains of sites, structures, or objects used by humans in the past—historic or prehistoric.(2)

Cumulative effects or impacts - Cumulative effect or impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR 1508.7 - these regulations use effects and impacts synonymously.)

Developed recreation - Recreation that requires facilities that, in turn, result in concentrated use of an area. Examples of developed recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.(2)

Developed recreation site - Relatively small, distinctly defined areas where facilities are provided for concentrated public use; e.g., campgrounds, picnic areas, swimming areas, and downhill ski areas.(6)

Dispersed recreation - A general term referring to recreation use outside developed recreation sites; this includes activities such as scenic driving, hiking, backpacking, hunting, fishing, snowmobiling, horseback riding, cross-country skiing, and recreation in primitive environments.(2)

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.(2)

Ecosystem - An interacting system of organisms considered together with their environment; for example, marsh, watershed, and lake ecosystems.(2)

Effects - Environmental changes resulting from a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in this DEIS are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social, or healthy effects, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial.(40 CFR 1508.8, 2)

Endangered species - Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.(6)

Environmental Analysis - A comprehensive evaluation of alternative actions and their predictable short- and long-term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions.(2)

Environmental Assessment - The concise public document required by the regulations for implementing the procedural requirements of the National Environmental Policy Act.(40 CFR 1508.9, 2)

Environmental Impact Statement (EIS) - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major federal actions under Section 102 of the National Environmental Policy Act (NEPA), and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.(6)

Fawn rearing habitat - Areas used regularly by female deer for fawn raising; optimum fawning habitat includes low shrubs or small trees under an overstory of about 50% closure, usually located on slopes of less than 15 percent where vegetation is succulent and plentiful in June; and water is available within 183 meters.(8)

Fisheries habitats - Streams, lakes, and reservoirs that support fish populations.

Flood plain - The lowland and relatively flat area adjoining inland waters, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.(2)

Forage - All browse and nonwoody plants that are available to livestock or game animals and used for grazing or harvested for feeding.(6)

Ford - A place where a river or other body of water is shallow enough to cross by wading.

Foreground - A term used in visual management to describe the portions of a view between the observer and up to 1/4 to 1/2 mile distant.(6)

Forest-Range Environmental Study (FRES) levels - Various range management intensities developed to reflect the degree of range utilization. FRES levels measure the amount of native forage available to livestock for consumption under these different intensities. Developed in a Forest Service report entitled "The Nation's Range Resources—A Forest-Range Environmental Study," Forest Resources Report No. 19.

Fuels - Combustible wildland vegetative materials. While usually applied to above-ground living and dead surface vegetation, this definition also includes roots and organic soils such as peat.(FSM 5150.5)

Game species - Any species of wildlife or fish for which seasons and bag limits have been prescribed and which are normally harvested by hunters, trappers, and fishermen under state or federal laws, codes, and regulations.(6)

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.(2)

Grass/forb - An early forest successional stage where grasses and forbs are the dominant vegetation.

Growing season - That part of the year when temperature and moisture are favorable for vegetation growth.

Guideline - An indication or outline of policy or conduct; i.e., any issuance that assists in determining the course of direction to be taken in any planned action to accomplish a specific objective.(2)

Habitat - The place where a plant or animal naturally or normally lives or grows.NE2E(2)

Habitat diversity - The distribution and abundance of different plant and animal communities and species within a specific area.

Headwaters - The upper tributaries of a river.(4)

Hiding cover - Vegetation that will hide 90 percent of a deer from the view of a human at a

distance of 200 feet or less. The distance at which the animal is essentially hidden is called a "sight distance."

Historic site - Site associated with the history, tradition, or cultural heritage of national, state, or local interest, and of enough significance to merit preservation or restoration.NE2E(6)
(7)

ID Team - See Interdisciplinary team.

Impacts - See Effects.

Indicator species - See Management indicator species.

Instream flows - A prescribed level (or levels) of streamflow, usually expressed as a stipulation in a permit authorizing a dam or water diversion, for the purpose of meeting National Forest System management objectives.

Integrated pest management - A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated population on various resource values, alternative regulation tactics and strategies, and benefit/cost estimates of those alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system, and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides.(2)

Intensive grazing management - Grazing management that controls distribution of cattle and duration of use on the range, usually by fences, so parts of the range are rested during the growing season. (See also Quality extensive management; Quality intensive management.)

Interdisciplinary Team (ID Team) - A group of individuals with different training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem.(6)

Interpretive services - Visitor information services designed to present educational and recreational values to Forest visitors to enhance their understanding, appreciation, and enjoyment of the Forest.

Irretrievable - Applies to losses of production, harvest, or commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.NE2E(2)

Irreversible - Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.(2)

Issue - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process. (See also Public issue.)(2)
RATA7

Lakeview Federal Sustained Yield Unit - An administratively designated portion of the Fremont National Forest, designed to maintain the stability of the communities of Lakeview and Paisley.

Leasable minerals - Coal, gas, oil, phosphate, sodium, potassium, oil shale, sulphur, geothermal steam. Also includes other minerals on acquired National Forest Lands.(6)

Locatable minerals - Those hardrock minerals which can be obtained by filing a claim on Public Domain or National Forest System lands reserved from the Public Domain. In general, the locatable minerals are those hardrock minerals which are mined and processed for the recovery of metals, but may also include certain nonmetallic minerals and uncommon varieties of mineral materials.NE2E(6)

Management area - Tracts of land grouped into one category having a particular management emphasis. Management areas are made up of different analysis areas.(See also Analysis area.)

Management practice - A specific activity, measure, course of action, or treatment.NE2E(2)

Middleground - A term used in visual management to describe the portions of a view extending from the foreground zone out to 3 to 5 miles from the observer.(6)

Mineral entry - The filing of a mining claim upon public domain or related land to obtain the right to any minerals it may contain.(6)

Mineral entry withdrawal - The exclusion of mining locations and mineral development work on areas required for administrative sites by the Forest Service and other areas highly valued by the public.(6)

Mineral materials - Deposits such as sand, stone, gravel, and clay.(6)

Mineral soil - Weathered rock materials usually containing less than 20 percent organic matter.(6)

Minimum streamflows - A specified level of flow through a channel that must be maintained by the users of streams for biological, physical, or other purposes.

Mining claim - A portion of the public lands which a miner, for mining purposes, takes and holds in accordance with mining laws.(6)

Modification - See Visual quality objective.

Monitoring and evaluation - The periodic evaluation of Forest Plan management practices on a sample basis to determine how well objectives have been met.

National Environmental Policy Act (NEPA) of 1969 - An Act to declare a National policy which will encourage productive and enjoyable harmony between humankind and the environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, to enrich the understanding of the ecological systems and natural resources important to the Nation, and to establish a Council on Environmental Quality. (The Principal Laws Relating to Forest Service Activities, Agriculture Handbook No. 453, USDA, Forest Service, 359 pp.)

National Forest Land and Resource Management Plan - A Plan which ". . . shall provide for multiple use and sustained yield of goods and services from the National Forest System in a way that maximizes long-term net public benefits in an environmentally sound manner."(36 CFR 219.1[a])

No Action Alternative (Alt. A) - This alternative is the "No Action" alternative required by the National Environmental Policy Act. It analyzes the effects of continuing management under direction established by the Fremont National Forest's 1979 Timber Resource Management Plan, using updated timber resource inventories and yield tables. Acres formerly allocated to old growth and stream-side management are replaced by Management Requirement plots in Alternative A, as mandated by the National Forest Management Act of 1976.

No Surface Occupancy - A clause used in mineral leases to prevent activities in sensitive areas. Sometimes results in closure of an area and sometimes has little impact if directional drilling can tap resources underlying restricted area.

Nongame species - Animal species which are not hunted, fished, or trapped.

Noxious weeds - Undesirable plant species that are unwholesome to the range or to animals.NE2E(6)(7)

Objective - A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.(36 CFR 219.3)

Off-road vehicle (ORV) - Vehicles such as motorcycles, all-terrain vehicles, four-wheel drive vehicles, and snowmobiles.(2)

Open to entry - With respect to minerals management, lands available to occupy under the mining laws.

Opportunity - A statement of general actions, measures, or treatments that addresses a public issue or management concern in a favorable way.

Overgrazing - Continued overuse (year after year) creating a deteriorated range.

Overgrazed Range - A range that has deteriorated and may still be deteriorating from its productive potential due to overgrazing.

Overuse (overutilization) - Utilizing an excessive amount of the current year's growth which, if continued, will result in overgrazing and range deterioration.

Partial retention - See Visual quality objective.

Perennial stream - A stream that flows year round.

Permittee - Any person or business formally allowed to graze livestock on the land of another person or business (e.g.; on state or federal land).(3)

Policy - A definite course or method of action selected by a governmental agency, institution, group, or individual from among alternatives and, in the light of given conditions, to guide and usually determine present and future decisions. A specified decision or set of decisions designed to carry out such a chosen course of action.(6)

Prehistoric site - An area which contains important evidence and remains of the life and activities of early societies which did not record their history.

Prescribed fire - A wildland fire burning under specified conditions which will accomplish certain planned objectives. The fire may result from either planned or unplanned ignitions. Proposals for use of unplanned ignitions for this purpose must be approved by the Regional Forester.NE2E(2)

Preservation - A visual quality objective that allows only for ecological changes.NE2E(2)

Public issue - A subject or question of widespread public interest relating to management of the National Forest System.(2)

Public participation - Meetings, conferences, seminars, workshops, tours, written comments, responses to survey questionnaires, and similar activities designed and held to obtain comments from the public about Forest Service planning.(2)

Range - Land producing native forage for animal consumption, and lands that are revegetated naturally or artificially to provide forage that is managed like native vegetation.NE2E(6)

Range allotment - An area designated for use of a prescribed number and kind of livestock under one management plan.(6)

Range management - The art and science of planning and directing range utilization so as to secure sustained maximum production of livestock, milk, and/or cut forage, consistent with other uses and conserving natural resources.(3)

Raptors - Predatory birds, such as falcons, hawks, eagles, or owls.

Record of Decision - A document separate from but associated with an Environmental Impact Statement which states the decision, identifies all alter-

natives, specifying which were environmentally preferable, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not.(40 CFR 1505.2)

Recreation Opportunity Spectrum (ROS) - A framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences have been arranged along a continuum or spectrum divided into seven classes: Primitive, Semiprimitive Nonmotorized, Semiprimitive Motorized, Roaded Modified, Roaded Natural, Rural, Urban.

Rehabilitation - Action taken to restore, protect, or enhance site productivity, water quality, or other resource values over a period of time.

Resource - Anything which is beneficial or useful - be it animal, vegetable, mineral, a location, a labor force, a view, an experience, etc. Resources, in the context of land use planning, thus vary from such commodities as timber and minerals to such amenities as scenery, scenic view points, or recreation opportunities.(6)

Responsible official - The Forest Service employee who has been delegated the authority to carry out a specific planning action.

Retention - See Visual quality objective.

Riparian - Pertaining to areas of land directly influenced by water. Riparian areas usually have visible vegetative or physical characteristics reflecting this water influence. Stream sides, lake borders, or marshes are typical riparian areas.(3)

Riparian Area - Geographically delineated areas, with distinctive resource values and characteristics, that are comprised of aquatic and riparian ecosystems.

Riparian ecosystem - A transition between the aquatic ecosystem, and the adjacent upland terrestrial ecosystem. Identified by soil characteristics and distinctive vegetation communities that require free or unbound water.

Roaded modified (RM) - A classification of the Recreation Opportunity Spectrum that characterizes a predominately altered environment, allowing for noticeable to strongly-evident management activity.

Roaded natural (RN) - A classification of the Recreation Opportunity Spectrum that characterizes a predominately natural environment with evidence of moderate permanent alterations and resource utilization. Evidence of the sights and sounds of people is moderate, but in harmony with the natural environment. Opportunities exist for both social interaction and moderate isolation from the sights and sounds of people.(2)

Rural - A Recreation Opportunity Spectrum classification for areas characterized by a substantially modified natural environment. Sights and sounds of people are evident. Renewable resource modification and utilization practices enhance specific recreation activities or provide soil and vegetative cover protection.

Salvage cuttings - Intermediate cuttings made to remove trees that are dead or in imminent danger of being killed by injurious agents.(10)

Satisfactory Range Condition - On suitable range, forage condition is at least fair, with stable trend, and allotment is not classified PC (basic resource damage) or PD (other resource damage).

Scenic areas - Places of outstanding or matchless beauty which require special management to preserve these qualities. They may be established under 36 CFR 294.1 whenever lands possessing outstanding or unique natural beauty warrant this classification.(6)

Scenic River Areas - See Wild and scenic river.

Scheduled timber harvests - Volumes and acres programmed for harvest which are within the allowable sale quantity. This does not include salvage and sanitation harvesting.

Scoping process - A part of the National Environmental Policy Act (NEPA) process; early and open activities used to determine the scope and signifi-

cance of the issues, and the range of actions, alternatives, and impacts to be considered in an Environmental Impact Statement.(40 CFR 1501.7)

Sediment - Earth material transported, suspended, or deposited by water.(6)

Seedlings and saplings - Live trees less than five inches in diameter at breast height. (See also Size class.)(3)

Semiprimitive motorized (SPM) - A classification of the Recreation Opportunity Spectrum, characterized by a predominantly unmodified natural environment in a location that provides good to moderate isolation from sights and sounds of people, except for those facilities/travel routes sufficient to support motorized recreational travel opportunities which present at least moderate challenge, risk, and a high degree of skill testing.(2)

Semiprimitive nonmotorized (SPNM) - A classification of the Recreation Opportunity Spectrum,characterized by a predominately unmodified natural environment of a size and location that provides a good to moderate opportunity for isolation from sights and sounds of people. The area is large enough to permit overnight foot travel within the area, and presents opportunity for interaction with the natural environment with moderate challenge, risk, and use of a high degree of outdoor skills.(2)

Sensitive species - Plant or animal species which are susceptible or vulnerable to activity impacts or habitat alterations. Those species that have appeared in the Federal Register as proposed for classification or are under consideration for official listing as endangered or threatened species, that are on an official State list, or that are recognized by the Regional Forester as needing special management to prevent placement on Federal or State lists.(2)

Seral - A biotic community which is a developmental, transitory stage in an ecologic succession.(6)

Size class - For the purposes of Forest planning, size class refers to the intervals of tree stem diameter used for classification of timber in the Forest Plan data base.

seedling/sapling	=	less than 5" diameter
pole/sapling or pole timber	=	5" to 9" diameter
sawtimber	=	greater than 9" diameter

Snag - A standing dead tree.

Socio-economic - Pertaining to, or signifying the combination or interaction of social and economic factors.(2)

Soil - The portion of the earth's surface consisting of disintegrated rock and humus.(7)

Special Use Permit - A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose.

Stand (tree stand, timber stand) - An aggregation of trees or other vegetation occupying a specific area and sufficiently uniform in species composition, age arrangement, and condition as to be distinguishable from the forest or other vegetation or land cover on adjoining areas.(2)

Stand diversity - Any attribute that makes one timber stand biologically or physically different from other stands. This difference can be measured by, but not limited to: different age classes; species; densities; or non-tree floristic composition.

Standards and Guidelines - Principles specifying conditions or levels of environmental quality to be achieved.

Stream class - Classification of streams based on the present and foreseeable uses made of the water, and the potential effects of on-site changes on downstream uses. Four classes are defined:

Class I - Perennial or intermittent streams that: provide a source of water for domestic use; are used by large numbers of fish for spawning, rearing or migration; and/or are major tributaries to other Class I streams.

Class II - Perennial or intermittent streams that: are used by moderate though significant numbers of fish for spawning, rearing or migration; and/or may be tributaries to Class I streams or other Class II streams.

Class III - All other perennial streams not meeting higher class criteria.

Class IV - All other intermittent streams not meeting higher class criteria.(FMS 2526)

Streamflow - The flow of water, generally with its suspended load, down a well-defined water course. (6)

Successional stage - A stage or recognizable condition of a plant community that occurs during its development from bare ground to climax; for example, coniferous forests in the Blue Mountains progress through six recognized stages: grass-forb; shrub-seedling; pole-sapling timber; young timber; mature timber; old-growth timber.(2)

Suppression - The process of extinguishing or confining fire.(2)

The Nature Conservancy (TNC) - A private organization whose primary function consists of the acquisition of land which The Nature Conservancy believes should be under management by a public agency. The land usually has some specific environmental or conservation value attached to it; such as a piece of land which fits one of the ecological niches identified as needing to be included in the Research Natural Area program, or has some unique values for wildlife management.

Thermal cover - Cover used by animals to ameliorate effects of weather; for deer, a stand of coniferous trees 5 feet or taller with an average crown closure of 75 percent or more, or a pole-size or larger stand with 60 percent or more closure.

Threatened species - Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future. (See also Endangered species.)(2)

Tiering - Refers to the coverage of general matters in broader environmental impact statements (such as National program or policy statements) with subsequent narrower statements or environmental analyses (such as Regional or Basin-wide program statements, or ultimately, site-specific statements) incorporating, by reference, the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.(40 CFR 1508.28)

Turbidity - The quantification of suspended particulates or opacity in water.
(7)

Unsatisfactory Range Condition - Allotment does not meet criteria for satisfactory condition. (See Satisfactory Range condition.)

Utility corridor - A strip of land, up to approximately 600 feet in width, designated for the transportation of people, energy, commodities, and communications by: railroad, state highway, electrical power transmission (66 KV and above), and/or oil, gas, and coal slurry pipelines 10 inches in diameter and larger; and telecommunication cable and electronic sites for interstate use.(1)

Vegetative management - Activities designed primarily to promote the health of the crop forest cover for multiple-use purposes.

Visual quality objective (VQO) - Categories of acceptable landscape alteration measured in degrees of deviation from the natural-appearing landscape.

Preservation (P) - Ecological changes only.

Retention (R) - Management activities should not be evident to the casual Forest visitor.

Partial Retention (PR) - Management activities remain visually subordinate to the characteristic landscape.

Modification (M) - Management activities may dominate the characteristic landscape but must, at the same time, follow naturally established form, line, color, and texture. It

should appear as a natural occurrence when viewed in foreground or middleground.

Maximum Modification (MM) - Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.

Enhancement - A short-term management alternative which is done with the express purpose of increasing positive visual variety where little variety now exists.(2)

Visual resource - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.(2)

Water chance - Places along a river where water trucks fill up.

Water rights - Rights to divert and use water or to use it in place.

Water yield - The measured output of the Forest's streams.(6)

Watershed - The entire land area that contributes water to a drainage system or stream.NE2E(6)

Wetlands - Areas that are inundated by surface or ground water often enough to support, and usually do support, primarily plants and animals that require saturated or seasonally saturated soil conditions for growth and reproduction.(6)

Wild and Scenic river - Those rivers or sections of rivers designated as such by congressional action under the 1968 Wild and Scenic Rivers Act, as supplemented and amended, or those sections of rivers designated as wild, scenic, or recreational by an act of the legislature of the state or states through which they flow. Wild and scenic rivers may be classified and administered under one or more of the following categories:

1)Wild River Areas - Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.

2)Scenic River Areas - Those rivers or sections of rivers that are free of impoundments, with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

3)Recreational River Areas - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.(2,6)

APPENDICES

SYCAN WILD & SCENIC RIVER

NATIONAL WILD AND SCENIC RIVERS SYSTEM

APPENDIX A

RESOURCE ASSESSMENT

SYCAN RIVER

(A NATIONAL WILD AND SCENIC RIVER)

January, 1991

USDA - FOREST SERVICE

FREMONT NATIONAL FOREST

WINEMA NATIONAL FOREST

RESOURCE ASSESSMENT

SYCAN RIVER

(A NATIONAL WILD AND SCENIC RIVER)

January, 1991

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FNF - Fremont National Forest
WNF - Winema National Forest

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EXECUTIVE SUMMARY

As a result of the Omnibus Oregon Wild and Scenic River Act of 1988 a 59 mile segment of the Sycan River was designated as a National Wild and Scenic River. A 26.4 mile segment that extends from the Coyote Bucket area to the Sycan Marsh was classified as "*scenic*"; a 8.6 mile segment thru the Sycan Marsh was classified as "*recreation*"; and a 24 mile segment from the Sycan Marsh to the headwaters was classified as "*scenic*". Under the Wild and Scenic Rivers Act the Forest Service is required to prepare a comprehensive management plan to provide protection of river values. This Resource Assessment has been prepared to validate the outstandingly remarkable values identified by Congress, to identify other outstandingly remarkable values not identified in the legislative process, and to identify other values and attributes that may have significance but do not meet the criteria for an outstandingly remarkable value. This resource assessment will serve as the foundation of the river management plan and will provide the basis for interim management until completion of the river management plan. As required by the Wild and Scenic Rivers Act, the river must be maintained in no less a condition than at time of designation, and those values that are determined to be outstandingly remarkable must be maintained and/or enhanced.

This Resource Assessment has been prepared with input from the interested public and from resource specialists. A draft Resource Assessment was completed in February, 1990, and, because of the substance of the comments received, a revised draft Resource Assessment was completed in May, 1990.

Final results of this Resource Assessment indicate that the outstandingly remarkable values of the Sycan River are as shown in the attached "SUMMARY OF RESOURCE VALUES" for the Sycan River.

SUMMARY OF RESOURCE VALUES

SYCAN RIVER

	Segment 1	Segment 2	Segment 3
SCENIC	Outstandingly Remarkable		Outstandingly Remarkable
RECREATION			
GEOLOGIC	Outstandingly Remarkable		
FISHERIES	Outstandingly Remarkable	Outstandingly Remarkable	Outstandingly Remarkable
WILDLIFE		Outstandingly Remarkable	
CULTURAL			
HISTORIC			
TRADITIONAL USE, CULTURAL			
BOTANICAL			

INTRODUCTION

The Wild and Scenic Rivers Act was enacted by Congress in 1968 and was specifically intended to preserve the free-flowing condition of selected rivers, including "their immediate environments" which "possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural, or other selected values". The Omnibus Oregon Wild and Scenic Rivers Act of 1988 added 40 additional rivers to the national Wild and Scenic Rivers system. The Sycan River was one of the rivers added.

For a river to be designated as a Wild and Scenic River two requirements must be met: first, the river must be free-flowing; and secondly, at least one "*outstandingly remarkable*" value must exist. The outstandingly remarkable values which caused it to be included in the W&SR system can generally be found in the Congressional Record relating to the Act.

Under the Wild and Scenic Rivers Act a river may be classified as Wild, Scenic or Recreation. "*Wild*" classification is intended for those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America. "*Scenic*" classification is for those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. "*Recreational*" rivers are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Discussion of Values

The Wild and Scenic Rivers Act states that, "Each component of the national wild and scenic rivers system shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values." It further states that management plans should be "based on the special attributes of the area". The resource assessment process is a method of evaluating the values (attributes) within and adjacent the river corridor. The Resource Assessment will serve as the foundation of the River Management Plan, including the determination of boundaries. The Resource Assessment documents the determination of which river related features and values are "outstandingly remarkable" and contribute substantially to the river setting and/or functioning of the river ecosystem. To qualify as an outstandingly remarkable river or river-related value, the value must be a unique, rare, or exemplary feature that is significant at a regional or national level. The determination of the significance of val-

ues is a matter of informed professional judgement and interpretation, and includes the following steps:

- Use of an interdisciplinary team approach.

- Use of qualitative criteria in the determination of "outstandingly remarkable".

- Consideration of unique attributes and degree of rarity at a regional and/or national level. The regional area for this evaluation consist of Klamath and Lake counties. (see Appendix 1).

- Assessment of values must be river related; i.e. values must contribute or owe their existence to the functioning of the river system and its immediate environs.

- Verification of values by other experts in the subject area.

Values to be considered

The Wild and Scenic Rivers Act also states that it is "the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values....." receive protection "for the benefit and enjoyment of present and future generations." For the Sycan River the values to be considered include the following:

SCENIC

RECREATION

GEOLOGIC

FISHERIES

WILDLIFE

CULTURAL

HISTORIC

TRADITIONAL USE-CULTURAL

BOTANICAL

THE "FORMAT"

The following format will be used to discuss the identified values:

Value (i.e. Scenic, Recreation, etc...)

Criteria for "Outstandingly Remarkable" rating

The criteria represents a guideline to evaluate each identified value and make a determination if the value is outstandingly remarkable.

The criteria were developed by the Interagency Wild and Scenic Rivers Team and has been adopted as policy by Region 6, USDA Forest Service.

Evaluation of Present Situation

This consists of a narrative discussion of the values within the river segment. This discussion has to do with river and river-related values, and may go beyond the 1/4 mile interim boundary.

Findings

This section identifies if the value is outstandingly remarkable, and discusses the the rationale for the determination. Significant values that do not meet the outstandingly remarkable criteria may also be identified in this section.

Value Summary

This section is a brief overall summary of the river when more than one river segment has been identified.

SYCAN RIVER RESOURCE ASSESSMENT

The Omnibus Oregon Wild and Scenic Rivers Act of 1988 included 59 miles of the Sycan River in the national Wild and Scenic Rivers system. The river was designated as follows:

Segment 1: The lower Sycan - a 26.4 mile segment extending from where the river exits the Sycan Marsh to the National Forest boundary at Coyote Bucket (from the National Forest boundary in the SW 1/4 of section 10, T. 33 S., R. 13 E. to where the river exits National Forest land in section 31, T. 34 S., R. 12 E.). This segment forms the boundary between the Fremont National Forest and the Winema National Forests.

This segment is designated as *Scenic*.

Segment 2: The Sycan Marsh - a 8.6 mile segment extending from where the river enters the marsh to where it exits the marsh (from the west section line of section 22, T. 32 S., R. 14 E., to the National Forest boundary in the SE 1/4 of section 10, T. 33 S., R. 13 E.).

This segment is designated as *Recreation*.

Segment 3: The upper Sycan - a 24 mile segment that extends from the headwaters to where the river enters the marsh (from the NE 1/4 of section 5, T. 34 S., R. 17 E., to the west section line of sec. 22, T. 32 S., R. 14 E.).

This segment is designated as *Scenic*.

For a map of the Sycan River see *Appendix 2*.

The Congressional Record, when speaking of the Sycan River, states the following:

> *"The most outstanding characteristic for the river is its distinctive scenery, which varies from a steep canyon to broad meadow. The Nationwide Rivers Inventory also includes geology and wildlife. There is a diversity of rockform, vegetation, and landform. The vegetation is primarily coniferous with scattered old-growth ponderosa pine and lodgepole pine flats intermingled with water related riparian vegetation such as willows and other deciduous shrubs. Expanses of sagebrush and bitterbrush, in the dryer areas lends diversity. Of note-*

worthy significance is Sycan Marsh which includes several rare plant communities. Recreational, geological and cultural resources are also additional values associated with the river corridor. "

(from the Congressional Record - Senate October 7, 1988)

EVALUATION OF VALUES

SCENIC
Criteria for "Outstandingly Remarkable" Rating

The landscape elements of landform, vegetation, water, color and related factors result in notable or exemplary visual features and/or attractions. When analyzing scenic values, additional factors such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segments.

Evaluation of the Present Situation

SEGMENT 1 (lower Sycan)

The distinctive scenic quality includes a diversity of rockform, vegetation and landform. The vegetation is primarily coniferous with scattered overmature ponderosa pine and lodgepole pine flats, intermingled with water related riparian vegetation such as willows and other deciduous shrubs. Expanses of sagebrush and bitterbrush in the dryer areas lend diversity.

The rugged basalt canyon that occurs throughout much of this segment is of notable scenic value, especially the gigantic water sculptured boulders in the lower part of this segment.

Evidence of human activity includes access into the river corridor by several low standard roads, two primary river fords and two narrow bridges. Several previously harvested timber sale units are located within 1/4 mile of the river. These units generally remain obscure from the river because of the steep canyon walls and rimrock, or because of the screening provided by the remaining timber stands. Road access points adjacent to the river are generally inconspicuous. The residence adjacent to the river (between Torrent Springs and Merritt Creek) is highly visible from the river, but only within a limited area. The temporary/seasonal residence located at the downriver edge of Teddy Powers Meadow is also visible from the river, but again confined to limited area. Effects of livestock grazing has periodically changed vegetative diversity. This has resulted in some negative

effect on visual quality in areas where more emphasis on livestock management is needed. Livestock grazing in other areas has increased vegetative diversity, particularly in regards to the white and yellow wildflowers.

In general, evidence of human and/or management activity remains subordinate to the natural appearance of the river corridor.

Findings

This segment of the river has *"Outstandingly Remarkable"* scenic values.

This determination is based on the scenic value of the river canyon, the diversity of vegetation, and the gigantic water sculptured boulders. The mature and over mature ponderosa pine and rimrock add visual diversity. Intrusions into the river canyon are minimal and have little effect on overall visual quality.

SEGMENT 2 (Sycan Marsh)

The scenic quality of the river as it flows through the Marsh is typical of similar marsh areas within this geographic region. The immenseness of the Marsh provides for a certain uniqueness, but the landscape elements provide little variety. The railroad crossing the marsh, the ZX ranch headquarters, and the prior dredging of the river have affected the natural scenic quality of the Marsh. The actual river channel is obscure to most visitors.

Findings

This segment has low to moderate diversity of landscape elements, and is significantly impacted by the railroad crossing it's midsection. However the Marsh does have a certain uniqueness because of it's vastness and the panoramic views that are available. Because of this it is determined to have *significant*, but not outstandingly remarkable scenic value.

SEGMENT 3 (upper Sycan)

The upper portion of this segment consists of large meadows surrounded by lodgepole pine, with interspersed aspen. In the spring, the budding aspen and the wildflowers, contrasted with the lodgepole pine, creates a very scenic environment. In the fall, when the aspen begins to turn color, the meadows and aspen again create colorful and scenic views.

The basalt canyon in the lower part of this segment, especially in the areas where the mature and over mature ponderosa pine occurs, is also very scenic.

In the lower part of this segment three 500 KV powerlines cross the river corridor. These tend to dominate the landscape in the area where they occur, thus affecting scenic quality. Additionally three bridges cross the river in this segment. These bridges do not detract significantly from scenic quality in the areas where they occur.

Findings

This segment of the river has *"Outstandingly Remarkable"* scenic values.

This determination is based on the scenic values associated with the large meadows surrounded by lodgepole pine, the interspersed aspen, and the seasonal changes in color resulting from vegetation budding out, blooming and/or changing color. The rock outcrops and scattered mature and over mature ponderosa pine add to the scenic diversity.

The 500 KV powerlines are a significant impact to scenic quality in the immediate area where they are located. However there is little overall effect on scenic quality once away from the immediate area of the powerlines. Other intrusions into the river corridor have little effect on overall scenic quality of the area.

SCENIC VALUE SUMMARY

Segments 1 and 3 of the Sycan River have *"Outstandingly Remarkable"* scenic values. Scenic values for Segment 2 are of significance, however the lack of diversity of landscape elements, combined with the impact of the railroad crossing the midsection of the Marsh prevent an outstandingly remarkable rating. This determination confirms the Congressional Record, which states that "The most outstanding characteristic for the river is its distinctive scenery, which varies from a steep canyon to broad meadow".

RECREATION

Criteria for "Outstandingly Remarkable" Rating

Recreation opportunities are, or have the potential to be, unique enough to attract visitors from outside of the geographic region. Visitors would be willing to travel long distances to use the river resources for recreational purposes. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, photography, hiking, fishing, hunting and boating.

Interpretive opportunities may be exceptional and attract or have the potential to attract visitors from outside the geographic region.

The river may provide or have the potential to provide settings for national or regional usage or competitive events.

Evaluation of Present Situation

SEGMENT 1 (lower Sycan)

Recreation opportunities in this segment include fishing, hiking, hunting, horseback riding (primarily on the west side of the river), camping and picnicking, and floating/rafting during periods of high water. Opportunities for solitude are high. Use of this segment is primarily by local residents (Bend, Klamath Falls and Lakeview area).
It should be noted that the recreation opportunities associated with the river are generally not well known to people outside the local area.

Fishing quality is generally considered average, with the upper part of the segment being very poor because of high water temperature and low flows during the late summer. The lower two miles of this segment receives light fishing pressure because of the difficulty of access. Hunting within the river corridor is generally incidental to hunting of the adjacent areas. Hiking, camping and picnicking opportunities are numerous, but use is low. Floating/rafting of the river is generally limited to a two to three week period in the spring when peak flows occur. Accurate figures on rafting use are unavailable, however use is thought to be low with little indication of any significant increase or decrease in use. The lower two miles of this segment are generally too turbulent for rafting. Livestock grazing
has periodically changed the recreation "environment". This has, on occasion, had a negative influence on the recreation users experience.

Findings

A diversity of recreational activities are available within the river corridor. The uniqueness of this diversity is of significance within this geographic region, however users are primarily from the local area, thus the segment does not meet the criteria for an outstandingly remarkable rating.

SEGMENT 2 (Sycan Marsh)

The Marsh is private land, owned by The Nature Conservancy, but leased to the ZX Ranch until the year 2020. There is currently very little recreational use within the Marsh, primarily because of three reasons: 1) access is limited because of the private land, 2) the remoteness of the area, and 3) the mosquito problem, which is a very strong deterrent to most recreational use.

The Nature Conservancy and ZX Ranch are currently working on the development of a management plan for the Marsh, which may address items such as public access. However currently The Nature Conservancy is very sensitive to the lease by ZX Ranch, and has not encouraged public access. The remoteness of the area and the mosquito problem are unlikely to change.

Findings

Recreational values within this segment are not significant within the geographic region. This determination is based on the segment not being readily available for use by the general public, the remoteness of the area, and an abundance of mosquito's that deters most recreational use.

SEGMENT 3 (upper Sycan)

Numerous dispersed sites throughout this segment attract users from the time fishing season begins in the spring to when hunting season ends in the fall. Users are primarily from the local area, except during hunting season when users come from all over the state, and occasionally from out of state as well (primarily California). Opportunities for solitude in this segment are high, even with the use that does occur.

The Pikes Crossing dispersed site is probably the most popular site. Use of this site is causing some health and safety concerns due to sanitation problems. Additionally, a long standing water "chance" for water trucks occurs at the entrance to this site and has heavily impacted a short section of the riverbank.

Findings

Any opportunity for river related recreation use within this geographic region is unique, thus this segment of the river does have significant recreational value. In general, users of this segment are from within the geographic area (Klamath and Lake Counties). The exception to this is during a short period of time in the fall (a one to two week period) that is associated with fall hunting seasons.

An outstandingly remarkable rating was not given because of the short period of time users from outside the geographic region occupy the area, and because river related use is secondary to hunting pursuits.

RECREATION VALUE SUMMARY

Segments 1 and 3 of the Sycan River have significant recreational value. This determination confirms the Congressional Record, which states that

Findings

This segment of the river has *"Outstandingly Remarkable"* fisheries value.

This determination is based on the presence and/or potential of sensitive species, and the diversity of species that occurs within the river. (Reference comment in Segment 1 "findings" regarding redband trout.)

SEGMENT 3 (upper Sycan)

Although little information is available concerning fish populations in this area, brook trout (*Salvelinus fontinalus*), rainbow or redband trout (*Oncorhynchus mykiss*), and brown trout (*Salmo trutta*) are known to inhabit this segment of the river. In addition, bull trout (*Salvelinus confluentus*) are known to have been present at one time. This species may still inhabit the upper reaches of this segment where water temperatures have not been affected by management practices or where displacement has not resulted from interspecific competition from introduced species including brook and brown trout. The redband and bull trout are both category 2 sensitive species.

Water quality and habitat conditions in this segment are much better than the downstream segments, partly due to less cumulative watershed effects from grazing and timber management activities, and partly because of the river being more stable and resistant to adverse impacts. Removal of large woody material from the stream channel has resulted in a loss of pool habitat and large woody cover structures. Streambank stability is generally good throughout the segment with areas of erosion and high sediment found only in the lower reaches. Stream temperatures have also been increased in the lower reaches of this segment due to widening of the stream channel and modification of riparian vegetation as a result of livestock grazing.

Findings

This segment of the river has *"Outstandingly Remarkable"* fisheries value.

This determination is based on the quality of the habitat and the potential for bull trout (an R-6 sensitive species). (Reference comment in segment 1 "findings" regarding the redband trout.)

FISHERIES VALUE SUMMARY

The fisheries value of the Sycan River is determined to be "Outstandingly Remarkable" in segments 1, 2 and 3.

This determination is based on the diversity of species that exist within the river, and the presence of several R-6 sensitive species. The river also provides an opportunity to restore and/or improve habitat for two threatened and endangered species.

The Congressional Record did not make mention of fisheries.

WILDLIFE

Wildlife values shall be judged on the relative merits of either wildlife populations or habitat; or a combination of these conditions.

Criteria for "Outstandingly Remarkable" Rating

Populations

The river or area within the river corridor contains nationally or regionally important populations of indigenous wildlife species. Of particular significance are species considered to be unique, or populations of Federally listed threatened and endangered wildlife species and/or Region 6 sensitive species. Diversity of species should also be a consideration in the determination of outstandingly remarkable.

Habitat

The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for Federally listed threatened and endangered or Region 6 sensitive species. Contiguous habitat conditions are such that the biological needs of the species are met. Habitat diversity should also be a consideration in the determination of outstandingly remarkable.

Evaluation of the Present Situation

SEGMENT 1 (lower Sycan)

Within the areas where mature and over mature ponderosa pine occurs, and particularly within the steep canyon areas, there is a high density of

snags. This has resulted in a high population of cavity nesters that is unique to undeveloped and/or unlogged areas.

Isolated sitings of Bald eagles have been observed in this segment. The Klamath Basin, in general, is one of the largest bald eagle wintering areas in the continental U.S., however significant numbers
of eagles have not been observed along the Sycan river.

Other wildlife species are typical of those that occur throughout the Fremont National Forest and the Winema National Forest, and include such species as mule deer, antelope, coyote, porcupine, gophers, etc... (Some 323 native species of birds, mammals, reptiles, amphibians and fish are known to occur on the Fremont National Forest, and 368 native species occur on the Winema National Forest. Birds are the most numerous species, and mammals the second most numerous. Exactly which of these species occurs within the river corridors is not known.)

Findings

This segment of the river has *significant* wildlife values.

This determination is based on the Bald eagle sitings, and the high populations of cavity nesters that occur within the mature stands of ponderosa pine within the river canyons.

Bald eagles are reasonably common throughout the Klamath Basin, and the occasional occurance of them within the river corridor is not considered sufficient to determine that wildlife values are outstandingly remarkable.

SEGMENT 2 (Sycan Marsh)

The Sycan marsh, including the river corridor thru the Marsh, has some outstanding wildlife values that are unique wherever they occur. The Marsh has the highest concentration of nesting greater sandhill cranes in the United States. Bald eagles that nest adjacent the Marsh forage over the Marsh. Upland sandpipers and yellow rails (category II sensitive species) have both been observed in the Marsh. White face ibis have also been observed in the Marsh. The Marsh contains ring-neck diving duck breeding habitat, which is very limited in Oregon. All of the species that exist in the Marsh either occur, or have the potential to occur within the river corridor.

Findings

This segment of the river has "Outstandingly Remarkable" wildlife values.

This determination is based on the presence of a threatened species (northern bald eagle), a category II sensitive species (yellow rails), the diversity of species that occurs within the river corridor, and the wetland habitat.

SEGMENT 3 (upper Sycan)

The upper portion of this segment includes summer range for both deer and elk. The lower portion provides summer and transition range for deer. Other species include a variety of those found on the Fremont National Forest (see comment in segment 1 regarding the variety of species that occurs on the Forest).

Findings

Wildlife values within this segment are of *significance*, but do not meet the criteria for *outstandingly remarkable*. This determination is based on the deer and elk summer habitat within the river corridor, and the occasional foraging in the lower part of the segment by bald eagles.

WILDLIFE VALUE SUMMARY

The Sycan River has *"Outstandingly Remarkable"* wildlife values in segment 2. This determination is based on the diversity of species that occurs within the river corridor, the presence of a sensitive species and a threatened species, and the wetland habitat.

Wildlife values are of *significance* in segments 1 and 3, but are are not determined to be *outstandingly remarkable*.

This determination confirms the Congressional Record which, when speaking of outstandingly remarkable values, states that *"the Nationwide Rivers Inventory also includes...wildlife."*

CULTURAL

Criteria for "Outstandingly Remarkable" Rating

The river or area within the river corridor contains a site(s) where there is evidence of occupation or use by native Americans. Sites must have unusual characteristics or exceptional human interest value(s). Sites may have national or regional importance for interpreting prehistory; may be rare and represent an area where a culture or cultural period was first identified and described; may have been used concurrently by two or more cultural groups; or may have been used by cultural groups for rare or

sacred purposes. Of particular significance are sites or features listed in, or are eligible for inclusion in, the National Register of Historic Places.

Evaluation of Present Situation

SEGMENT 1 (lower Sycan)

Numerous cultural sites (i.e. lithic scatters) have been identified within this segment and potential exist for other sites to be identified. The Klamath Tribe has indicated that sacred sites (vision quest, cremation and healing sites) also exist within this segment.

Findings

This segment of the river has *"Significant"* cultural values. These values include cultural sites such as lithic scatters and sacred sites. These types of sites are common throughout this geographic area, thus not considered to be an *outstandingly remarkable* value.

SEGMENT 2 (Sycan Marsh)

Numerous cultural sites that date back to prehistoric times occur in and around the marsh, however there have been no significant cultural sites identified within the river corridor. There is potential for significant sites to be found within the river corridor.

Findings

Data gathered to date does not support an outstandingly remarkable rating for this segment.

SEGMENT 3 (upper Sycan)

No significant cultural sites have been identified within this segment. Potential for significant sites to be found within this segment is moderate to high.

Findings

Data gathered to date does not support an outstandingly remarkable rating for this segment.

CULTURAL VALUE SUMMARY

Segment 1 of the Sycan River has *"Significant"* cultural values. This determination confirms the Congressional Record which indicates that *"cultural resources are also additional values associated with the river corridor"*.

HISTORIC

Criteria for "Outstandingly Remarkable" Rating

The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare, unusual or one-of-a-kind in the region. A historic site(s) and/or feature(s) in most cases is 50 years old or older. Of particular significance are sites or features listed in, or are eligible for inclusion in, the National Register of Historic Places.

Evaluation of Present Situation

SEGMENT 1 (lower Sycan)

A historic railroad grade crosses this segment and a historic BIA guard station site occurs adjacent the river corridor. Little information is available on either site.

There are no known features or sites in this segment that are eligible for the National Register of Historic Places.

Findings

Data gathered to date does not support an outstandingly remarkable rating for this segment.

SEGMENT 2 (Sycan Marsh)

No historic features or sites have been identified in this segment.

Findings

Data gathered to date does not support an outstandingly remarkable rating for this segment.

SEGMENT 3 (upper Sycan)

No historic features or sites have been identified in this segment.

Findings

Data gathered to date does not support an outstandingly remarkable rating for this segment.

HISTORIC VALUE SUMMARY

There has been no data gathered to date to support an outstandingly remarkable rating, or evidence that there are historic values of significance within any of the designated segments. The Congressional Record does not mention historic values.

TRADITIONAL USE, CULTURAL

Criteria for "Outstandingly Remarkable" Rating

The river or area within the river corridor contains regionally unique location(s) of importance to Indian tribes (religious activities, fishing, hunting, and gathering). Locations may have unusual characteristics or exceptional cultural value being integral to continued pursuit of such activities. Locations may have been associated with treaty rights on ceded lands or activities unprotected by treaty on ceded lands or in traditional territories outside ceded lands.

Evaluation of Present Situation

SEGMENT 1 (lower Sycan)

This area is within the former Klamath Indian Reservation and traditional uses include hunting, fishing and trapping. As part of the agreement resulting from the Termination Act of 1954 the tribe has non-exclusive hunting, fishing and trapping rights within the area this segment is located in.

Findings

This segment of the river has traditional use, cultural values associated with the river (i.e. hunting, fishing, trapping), however these uses are not considered unique with this geographic region (Klamath and Lake counties) and not considered to be an *Outstandingly Remarkable* value.

SEGMENT 2 (Sycan Marsh)

The Sycan Marsh and the surrounding area has been occupied by humans for at least 10,000 years. In fact the very name *"Sycan"* is purportedly

derived from *"saiga keni"*, which is a Klamath Indian name for a level, grassy place. The Marsh is within the former Klamath Indian Reservation and appears to have been used by both the Yahooskin (northern) Piute and Upper Klamath Indians. The gathering of food items (i.e. wocus seed and bird eggs) may have been one of the primary uses of the area. The first recorded white inhabitants moved into the area shortly after the Treaty of 1864 between the U.S. and the Klamath Indians. A few individual Klamaths continued to own portions of the Marsh as recent as 1954, however with the Klamath Termination Act of 1954 they began selling it off. Today that portion of the Sycan Marsh that is within the river corridor is owned entirely by The Nature Conservancy.

Findings

This segment of the river has historically been used by the Yahooskin Piute and Upper Klamath Indians. However such use has generally been associated with subsistence activities and is not considered unique, thus does not meet the criteria for outstandingly remarkable.

SEGMENT 3 (upper Sycan)

This area is within the lands claimed by the Klamath Indians in the Treaty of 1864, and thus is part of the historic use area of the Tribe. Part of the area is within the the area of their non-exclusive hunting, fishing and trapping rights that resulted from the enactment of the Termination Act of 1954. No private lands exist within this segment.

Findings

The Klamath Indians historically used the lands within this area, and a portion of the area (about 5 miles of the river corridor) is included within those lands they have hunting, fishing and trapping rights on. (It should be noted that treaty rights do have some influence on the rivers upstream water quality and quantity that would have an effect on fish and wildlife within the treaty rights area.) However the actual use of the area has been activities associated with traditional subsistence activities, such as hunting and fishing. There is no evidence of unique traditional use activities (i.e. vision quest sites) occurring within this segment.

TRADITIONAL USE, CULTURAL VALUE SUMMARY

The Sycan river is recognized as being within the area historically used by the Yahooskin Piute and Upper Klamath Indians for traditional subsistence activities such as hunting, fishing, trapping and gathering. However there is no evidence of "unique" traditional use activities occurring within these segments, thus an outstandingly remarkable rating is not given.

The Congressional Record makes no mention of traditional use, cultural activities.

BOTANICAL

Criteria for "Outstandingly Remarkable" Rating

River corridor, or an area within the river corridor provides habitat for Threatened or Endangered plant species, or a Region 6 sensitive plant species, and the species is present in that habitat.

River corridor contains nationally or regionally unique combinations of plant communities, a rare or displaced plant community (bogs, swamps, etc...) or significant wetland/riparian habitat that is essentially undisturbed.

Evaluation of Present Situation

SEGMENT 1 (lower Sycan)

In the lower part of this segment, in the Coyote Bucket area Mimulus tricolor (three colored monkey flower), a threatened species in Oregon, is suspected to occur.

Stands of mature and over mature ponderosa pine occur throughout this segment, particularly in the river canyon.

Findings

Botanical values in this segment are ***significant***, but do not meet the criteria for ***outstandingly remarkable***. This determination is based on three colored monkey flower habitat occurring within the river corridor, however no occurance of this species has been documented within the river corridor.

SEGMENT 2 (Sycan Marsh)

The habitat within this segment is typical wetland/marsh habitat and is characterized by hydric soils, wetland hydrology and a predominance of hydrophetic (water loving) vegetation. Vegetative communities within the river corridor include water lily, tule/sedge, sedge/rush, tufted hairgrass, bluegrass and sagebrush type communities.

Plant species in the marsh include tricolored monkeyflower (Mimulus tricolor) and little grape fern (Botrychim simplex), both of which are threatened species in Oregon. These species may occur within the river corridor.

Findings

Botanical values in this segment are significant, but do not meet the criteria for outstandingly remarkable. This determination is based on threatened species habitat occurring within the river corridor, however no occurance of this species has been documented with the river corridor.

SEGMENT 3 (upper Sycan)

The large, open meadows in the upper part of this segment provide a significant amount of high quality wetland/riparian habitat. These areas have been grazed by cattle for many years, yet continue to remain in reasonably good condition. Some evidence of streamside/riverbank damage from grazing is present, but not excessive. Elk can also be seen grazing these meadows during the summer months. The interface (ecotone) between the lodgepole pine and the wet areas is in many cases being invaded by big sagebrush.

The type and extent of these wetland meadows and riparian areas is unique within this geographic region.

Stands of mature and over mature ponderosa pine occur at various locations within the canyon. Mature lodgepole pine stands occur in the upper part of this segment (particularly in the area above Pikes Crossing). The mountain pine beetle infestation is estimated to have affected 10 to 15 percent of the lodgepole pine stands.

Findings

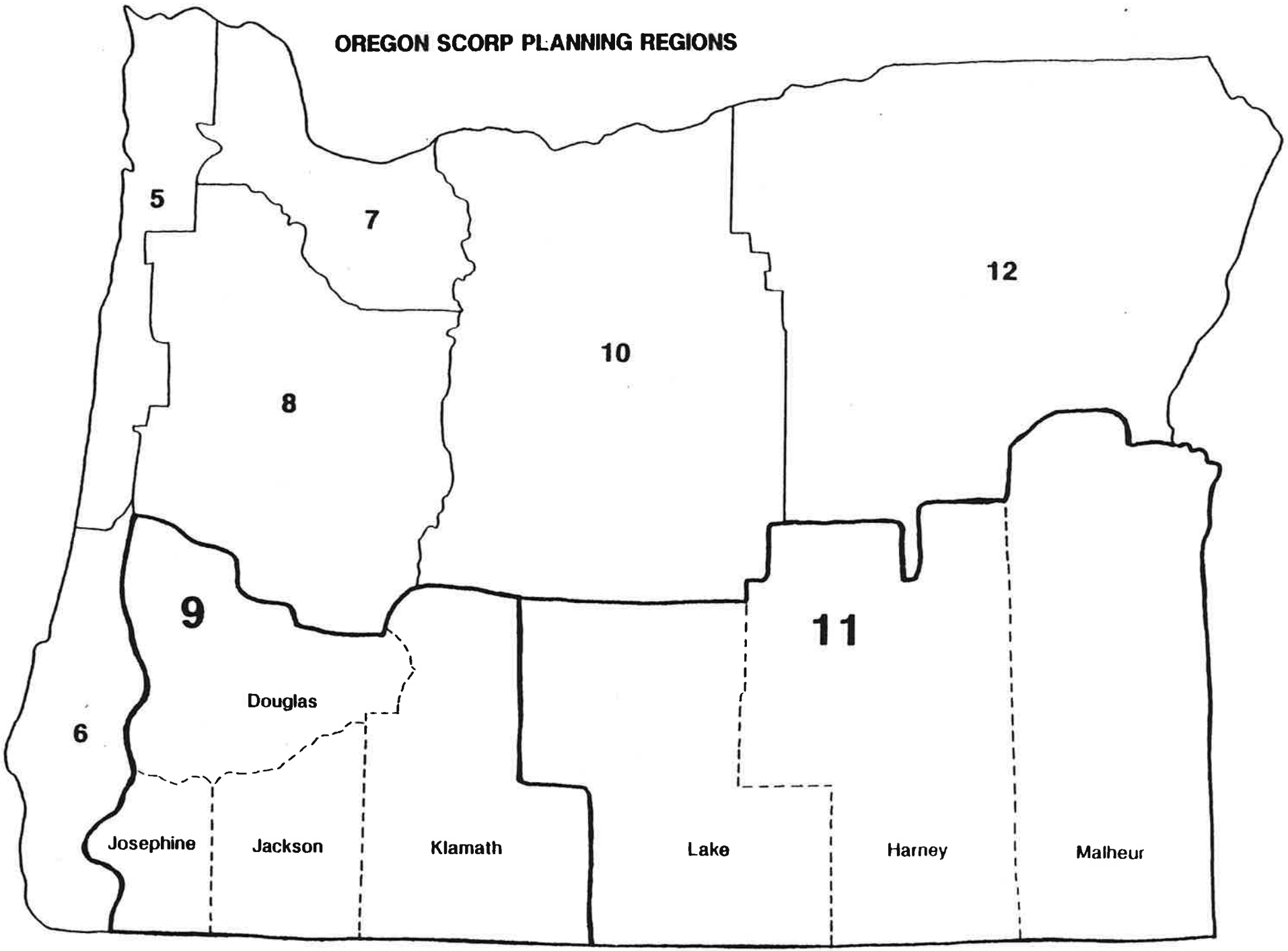
Botanical values in this segment are *significant*, but do not meet the criteria for *outstandingly remarkable*. This determination is based on the large areas of wetland/riparian habitat that occurs within the river corridor. An outstandingly remarkable rating was not given because the wetland/riparian areas did not meet the criteria of "essentially undisturbed".

BOTANICAL VALUE SUMMARY

Botanical values do not meet the criteria for outstandingly remarkable, but are significant in all segments. The Congressional Record does not specifically mention botanical values, however it does mention a diversity of vegetation, including "water related riparian vegetation".

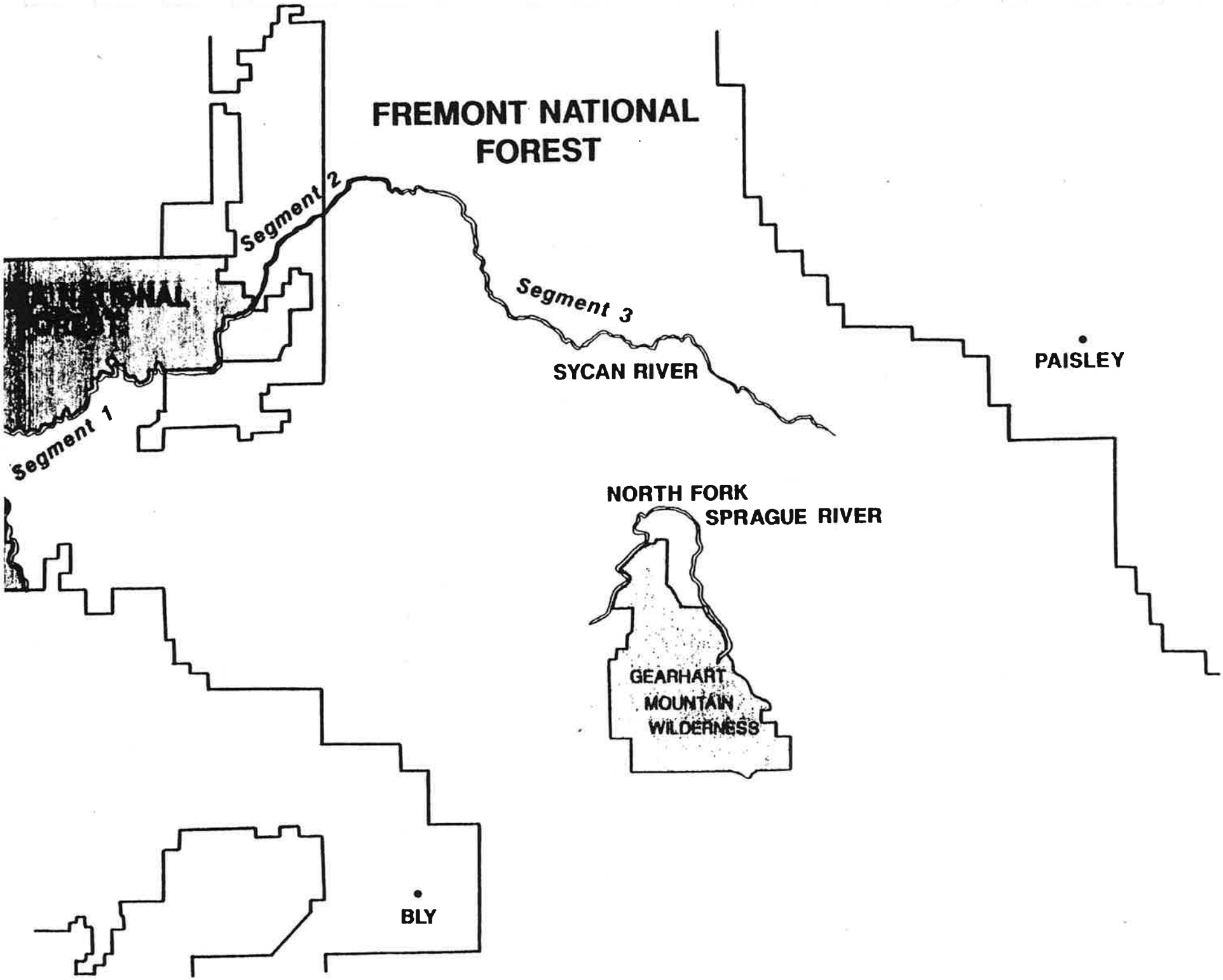
APPENDIX 1

(Geographic/Regional Area - Klamath County and Lake County)


OREGON SCORP PLANNING REGIONS
5
7
12
10
8
9
11
6
Douglas
Josephine
Jackson
Klamath
Lake
Harney
Malheur

APPENDIX 2

(Map of Sycan River and North Fork of the Sprague River)


FREMONT NATIONAL FOREST
Segment 2
Segment 3
Segment 1
SYCAN RIVER
PAISLEY
NORTH FORK SPRAGUE RIVER
GEARHART MOUNTAIN WILDERNESS
BLY

APPENDIX 3

(Current Management Emphasis)

CURRENT MANAGEMENT EMPHASIS

The following is the current management emphasis for management activities within the river corridor.

Current Management Emphasis for SCENIC values

The goal of Management area 11 (Wild and Scenic River Management Area) of the Fremont National Forest Land and Resource Management Plan (L&RMP) is "to preserve the Scenic River characteristics of the rivers and corridors designated as Scenic Rivers..." The prescription states that Scenic Rivers will be managed to "maintain or enhance the condition of the high quality scenery... " and to "utilize other resources and permit other activities which maintain or enhance the quality of the....scenic attraction". Standards and guidelines state that "area management practices shall be commensurate with the retention visual quality."

Goal #22 of the Winema National Forest L&RMP is to "Maintain the high quality scenery and natural-appearing condition of the Sycan River corridor to meet the intent of its designation as a wild and scenic river."

Management Area 5 of the Winema National Forest L&RMP "emphasizes protection of the Sycan River, along with its immediate environment that possesses outstandingly remarkable scenic values...". The Plan also states that "The desired future condition is that .... the values that qualified the river for inclusion.... are protected". The Plan further states that "Scenic quality was the outstandingly remarkable value found for the Sycan River. " The Plan also states that "The visual quality objective is retention "

Current Management Emphasis for RECREATION values

The Fremont National Forest L&RMP prescription for this management area states that the river will be managed to "provide opportunities for river-oriented recreation which is consistent with its largely undeveloped nature and dependant on its free-flowing condition." Standards and guidelines indicate that "river use levels should be managed to maintain the recreation experience quality" and at the same time indicates that "maximum use for a range of trail and river related activities" should be available. Visitor contacts by the Forest Service are to "encourage user behavior that is respectful of the river and area resources", and to insure that "visitor activities are in compliance with established management standards." Structures and improvements (i.e. campgrounds) that "enhance user experiences, facilitate use, protect resource values, and administration of the area" are permitted.

The Winema National Forest Desired Future Condition for the Sycan River states that "The area is to be managed to place only a minimal amount of restrictions on the user and to provide a feeling of solitude." The Winema National Forest L&RMP Standards and Guidelines would allow "Facilities such as fire rings and toilets ... where necessary to manage the effects of recreation use on the river resource". Any such facilities would have to "blend with the natural setting". The Plan also states that "The area shall be managed to provide a roaded natural ROS class setting. "

The Winema LMP also states "Large-scale public use facilities – such as moderate-size campgrounds, public information centers, and administrative headquarters – are allowed if such structures are screened from the river or blend into the landscape when viewed from the river."

Current Management Emphasis for GEOLOGIC values

The Fremont National Forest L&RMP Standards and Guidelines protect the geologic values of the river by protecting the "corridor under mining laws ", and by not permitting the "removal of mineral materials* within the corridor ".

The Winema National Forest L&RMP Standards and Guidelines protects the geologic values by not allowing surface occupancy or the development of saleable mineral material*. Exploration and development of energy sources "may be allowed with restrictions as determined by the environmental assessment process".

(* mineral material and saleable mineral material refers to common variety material; i.e. sand, gravel, etc.)

Current Management Emphasis for FISHERIES values

The Fremont National Forest L&RMP prescription for this management area states that the river will be managed to "improve the fish and wildlife habitat ". Specific habitat improvements and/or methods are not identified.

The Oregon Department of Fish and Wildlife Fish Management Plan for the Sycan River (dated 11/81) states that the river is "currently managed for wild trout ". Identified objectives for the river include the following:

1. Improve riparian habitat by working closely with land management agencies and landowners.

2. Improve summer low flows from Sycan Marsh to Torrent Spring.

3. Document species and size catch data for the fish populations.

Current Management Emphasis for WILDLIFE values

The Fremont National Forest L&RMP prescription for this management area states that the river will be managed to "improve fish and wildlife habitat ", and to "utilize other resources and permit other activities which maintain or enhance the quality of the wildlife habitat,..." Specific habitat improvements and/or methods are not identified.

The Winema National Forest L&RMP Standards and Guidelines state that "Habitat improvements shall use native or natural-appearing materials designed to blend into the landscape."

Current Management Emphasis for CULTURAL values

The Fremont National Forest L&RMP direction for this management area makes no specific references towards cultural resources.

The Winema National Forest L&RMP direction for this management area makes no specific references towards cultural resources.

Current Management Emphasis for HISTORIC values

The Fremont National Forest L&RMP direction for this management area makes no specific reference to historic values.

The Winema National Forest L&RMP direction for this management area yakes no specific reference to historic values

Current Management Emphasis for TRADITIONAL USE, CULTURAL values

The Fremont National Forest L&RMP direction for this management area makes no specific references to traditional uses, cultural values.

The Winema National Forest L&RMP direction for this management area makes no specific references to traditional uses, cultural values.

Current Management Emphasis for BOTANICAL values

Neither the Fremont National Forest L&RMP, or the Winema National Forest L&RMP have specific management direction in regards to botanical values.

Other pertinent Management Emphasis is as follows:

Existing water quality must be maintained according to Oregon Administrative Rules - Policies and Guidelines Generally Applicable to All Basins; Section 340-41-026(1)(a), which states the following:

"Existing high quality waters which exceed those levels necessary to support the propagation of fish, shellfish and wildlife and recreation in and on the water shall be maintained and protected unless the Environmental Quality Commission chooses, after full satisfaction of the intergovernmental coordination and public participation provisions of the continued planning process to lower water quality for necessary and justifiable economic or social development. The director or his designee may allow lower water quality on a short-term basis in order to respond to emergencies or to otherwise protect public health and welfare. **In no event, however, may degradation of water quality interfere with or become injurious to the beneficial uses of water within surface waters of the following areas:**

(A) National Parks;

(B) National Wild and Scenic Rivers;

(C) National Wildlife Refuges;

(D) State Parks."

APPENDIX B

WILD AND SCENIC RIVERS ACT[1]

AN Act to provide a National Wild and Scenic Rivers System, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) this Act may be cited as the "Wild and Scenic Rivers Act".

(b) It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declared that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.

(c) The purpose of this Act is to implement this policy by instituting a national wild and scenic river system, by designating the initial components with that system and by prescribing the methods by which and standards according to which additional components may be added to the system from time to time.

SECTION 2. (a) The national wild and scenic rivers system shall comprise rivers (i) that are authorized for inclusion therein by Act of Congress, or (ii) that are designated as wild, scenic or recreational rivers by or pursuant to an act of the legislature of the State or States through which they flow, that are to be permanently administered as wild, scenic or recreational rivers by an agency or political subdivision of the State or States concerned, that are found by the Secretary of the Interior, upon application of the Governor of the State or the Governors of the States concerned, or a person or persons thereunto duly appointed by him or them, to meet the criteria supplementary thereto as he may prescribe, and that are approved by him for inclusion in the system... Upon receipt of an application under clause (ii) of this subsection, the Secretary shall notify the federal Energy Regulatory Commission and publish such application in the Federal Register. Each river designated under clause (ii) shall be administered by the State or political subdivision thereof without expense to the United States other than for administration and management of federally owned lands. For purposes of the preceding sentence, amounts made available to any State or political subdivision under the Land and

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[1] The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287) consists of Public Law 90-542 (October 2, 1968) as amended. P.L. 99-590 (October 10, 1986) was the last Act that added generic amendments to the Act.

political subdivision under the Land and Water Conservation Act of 1965 or any other provision of law shall not be treated as an expense to the United States. Nothing in this subsection shall be construed to provide for the transfer to, or administration by, a State or local authority of any federally owned lands which are within the boundaries of any river included within the system under clause (ii).

(b) A wild, scenic or recreational river area eligible to be included in the system is a free-flowing stream and the related adjacent land area that possesses one or more of the values referred to in Section 1, Subsection (b) of this Act. Every wild, scenic or recreational river in its free-flowing condition, or upon restoration to this condition, shall be considered eligible for inclusion in the national wild and scenic rivers system and, if included, shall be classified, designated, administered as one of the following:

(1) Wild river areas - Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

(2) Scenic river areas - Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

(3) Recreational river areas - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

SECTION 3. (a) The following rivers and the land adjacent thereto are hereby designated as components of the national wild and scenic rivers system:

(Designation language for individual W&S Rivers)

(b) The agency charged with the administration of each component of the national wild and scenic rivers system designed by Subsection (a) of this section shall, within one year from the date of designation of such component under Subsection (a) (except where a different date is provided in Subsection (a) establish detailed boundaries therefor; determine which of the classes outlined in Section 2, Subsection (b) of this Act best fit the river or its various segments. Notice of the availability of the boundaries and classification, and of subsequent boundary amendments shall be published in the Federal Register and shall not become effective until ninety days after they have been forwarded to the President of the Senate and the Speaker of the House of Representatives.

(c) Maps of all boundaries and descriptions of the classifications of designated river segments, and subsequent boundary amendments to such boundaries, shall be available for public inspection in the offices of the administering agency in the District of Columbia and in locations convenient to the designated river.

(d) (1) For rivers designated on or after January 1, 1986, the Federal agency charged with the administration of each component on the National Wild and Scenic Rivers System shall prepare a comprehensive management plan for such river segment to provide for the protection of the river values. The plan shall address resource protection, development of lands desirable to achieve

the purposes of this Act. The plan shall be coordinated with and may be incorporated into resource management planning for affected adjacent Federal lands. The plan shall be prepared, after consultation with State and local governments and the interested public within three full fiscal years after the date of designation. Notice of the completion and availability of such plans shall be published in the Federal Register.

(2) For rivers designated before January 1, 1986, all boundaries, classifications and plans shall be reviewed for conformity within the requirements of this subsection within ten years through regular agency planning processes.

SECTION 4. (a) The Secretary of the Interior or, where national forest lands are involved, the Secretary of AGriculture, or, in appropriate cases, the two Secretaries jointly shall study and submit to the President reports on the suitability or nonsuitability for addition to the national wild and scenic rivers system or rivers which are designated herein or hereafter by the Congress as potential additions to such system. The President shall report to the Congress his recommendations and proposals with respect to the designation of each such river or section thereof under this Act. In conducting these studies the Secretary of the Interior and the Secretary of Agriculture shall give priority to those rivers (i) with respect to which there is the greatest likelihood of developments which, if undertaken, would render the rivers unsuitable for inclusion of the national wild and scenic rivers system, and (ii) which possess the greatest proportion of private land within their areas. Every such study and plan shall be coordinated with any water resources planning involving the same river which is being conducted pursuant to the Water Resources Planning Act (79 Stat. 244; 42 U.S.C. 1962 et seq.).

Each report, including maps and illustrations, shall show among other things the area included within the report; the characteristics which do or do not make the area a worthy addition to the system; the current status of land ownership and use in the area; the reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the national wild and scenic rivers system; the Federal agency (which is the case of a river which is wholly or substantially within a national forest, shall be the Department of Agriculture) by which it is proposed the area, should it be added to the system, be administered; the extent to which the costs thereof, be shared by State and local agencies; and the estimated cost to the United States of acquiring necessary land and interests in land and of administering the area, should it be added to the system. Each such report shall be printed as a Senate or House document.

(b) Before submitting any such report to the President and the Congress, copies of the proposed report shall, unless it was prepared jointly by the Secretary of the Interior and the Secretary of Agriculture, be submitted by the Secretary of the Interior to the Secretary of Agriculture or by the Secretary of Agriculture to the Secretary of the Interior, as the case may be, and to the Secretary of the Army, the Chairman of the Federal Power Commission, the head of any other affected Federal department or agency and, unless the lands proposed to be included in the area are already owned by the United States or have already been authorized for acquisition by Act of Congress, the Governor of the State or States in which they are located or an officer designated by the Governor to receive the same. Any recommendations or comments on the

proposal which the said officials furnish the Secretary or Secretaries who prepared the report within ninety days of the date on which the report is submitted to them, together with the Secretary's or Secretaries' comments thereon, shall be included with the transmittal to the President and the Congress.

(c) Before approving or disapproving for inclusion in the nation wild and scenic rivers system any river designated as a wild, scenic or recreational river by or pursuant to an act of a State legislature, the Secretary of the Interior shall submit the proposal to the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Federal Power Commission and the head of any other affected Federal department or agency and shall evaluate and give due weight to any recommendations or comments which the said officials furnish him within ninety days of the date of which it is submitted to them. If he approves the proposed inclusion, he shall publish notice thereof in the Federal Register.

(d) The boundaries of any river proposed in Section 5(a) of this Act for potential addition to the National Wild and Scenic Rivers System shall generally comprise that area measured within one-quarter mile from the ordinary highwater mark on each side of the river. In the case of any designated river, prior to publication of boundaries pursuant to Section 3(b) of this Act, the boundaries also shall comprise the same area. This subsection shall not be construed to limit the possible scope of the study report to address areas which may lie more than one-quarter mile from the ordinary high water mark on each side of the river.

SECTION 5. (a) The following rivers are hereby designated for potential addition to the national wild and scenic river system:

(designation language for individual W&S study rivers)

(b)(4) For the purposes of conducting the studies of rivers named in Subsection (a) there are authorized to be appropriated such sums as necessary.

(c) The study of any of said rivers shall be pursued in as close cooperation with appropriate agencies of the affected State and its political subdivisions as possible, shall be carried on jointly with such agencies if request for such joint study is made by the State, and shall include a determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the national wild and scenic rivers system.

(d) In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials. The Secretary of the Interior and the Secretary of Agriculture shall make specific studies and investigations to determine which additional wild, scenic and recreational river areas within the Untied States shall be evaluated in planning reports by all federal agencies as potential alternative uses of the water and related land resources involved.

SECTION 6. (a)(1) The Secretary of the Interior and the Secretary of Agriculture are each authorized to acquire lands and interests in land within the authorized boundaries of any component of the national wild and scenic rivers system designated in Section 3 of this Act, or hereafter designated for

inclusion the system by Act of Congress, which is administered by him but he shall not acquire fee title to an average of more than 100 acres per mile on both sides of the river. Lands owned by a State may be acquired only by donation or by exchange in accordance with Subsection (d) of this section. Lands owned by an Indian tribe or a political subdivision of a State may not be acquired without the consent of the appropriate governing body thereof as long as the Indian tribe or political subdivision is following a plan for management and protection of the lands which the Secretary finds protects the land and assures its use for purposes consistent with this Act. Money appropriated for Federal purposes from the land and water conservation fund shall, without prejudice to the use of appropriations from other sources, be available to Federal departments and agencies for the acquisition of property for the purposes of this Act.

(2) When a tract of land lies partially within and partially outside the boundaries of a component of the National Wild and Scenic System, the appropriate Secretary may, with the consent of the land owners for the portion outside of the boundaries, acquire the entire tract. The land or interest therein so acquired outside the boundaries shall not be counted against the average one-hundred-acre-per-mile limitation of Subsection (a)(1). The lands or interest therein outside such boundaries shall be disposed of, consistent with existing authorities of law, by sale, lease or exchange.

(b) If 50 per centum or more of the entire acreage outside of the ordinary high water mark on both sides of the river within a federally administered wild, scenic or recreational river area is owned in fee title by the United States, by the State or States within which it lies, or by political subdivisions of those States, neither Secretary shall acquire fee title to any lands by condemnation under authority of this Act. Nothing contained in this section, however, shall preclude the use of condemnation when necessary to clear title or to acquire scenic easements or other such easements as are reasonably necessary to give the public access to the river and to permit its members to traverse the length of the area or of selected segments thereof.

(c) Neither the Secretary of the Interior not the Secretary of Agriculture may acquire lands by condemnation, for the purpose of including such lands in any national wild, scenic or recreational river area, if such lands are located within any incorporated city, village or borough which has in force and applicable to such lands a duly adopted, valid zoning ordinance that conforms with the purposes of this Act. In order to carry out the provisions of this subsection, the appropriate Secretary shall issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of this Act. The standards specified in such guidelines shall have the object of (A) prohibiting new commercial or industrial uses other than commercial or industrial uses which are consistent with the purposes of this Act, and (B) the protection of the bank lands by means of acreage, frontage and setback requirements on development.

(d) The appropriate Secretary is authorized to accept title to non-Federal property within the authorized boundaries of any federally administered component of the national wild and scenic rivers system designated in Section 3 of this Act or hereafter designated for inclusion in the system by Act of Congress and, in exchange therefor, convey to the grantor any federally owned property which is under his jurisdiction within the State in which the component lies and which he classifies as suitable for exchange or other

disposal. The values of the properties so exchanged either shall be approximately equal or, if they are not approximately equal, shall be equalized by the payment of cash to the grantor or the Secretary as the circumstances require.

(e) The head of any Federal department or agency having administrative jurisdiction over any lands or interests in land within the authorized boundaries of any federally administered component of the national wild and scenic rivers system designated in Section 3 of this Act or hereafter designated for inclusion in the system by Act of Congress is authorized to transfer to the appropriate Secretary jurisdiction over such lands for administration in accordance with the provisions of this Act. Lands acquired by or transferred to the Secretary of AGriculture for the purposes of this Act within or adjacent to a national forest shall upon such acquisition or transfer become national forest lands.

(f) The appropriate Secretary is authorized to accept donations of land and interest in land, funds and other property for use in connection with his administration of the national wild and scenic rivers system.

(g)(1) Any owner or owners (hereinafter in this subsection referred to as "owner") of improved property on the date of its acquisition, may retain for themselves and their successors or assigns a right of use and occupancy of the improved property for noncommercial residential purposes for a definite term not to exceed twenty-five years or, in lieu thereof, for a term ending at the death of the owner, or the death of his spouse, or the death of either or both of them. The owner shall elect the term to be reserved. The appropriate Secretary shall pay to the owner the fair market value of the property on the date of such acquisition less the fair market value on such date of the right retained by the owner.

(2) A right of use and occupancy retained pursuant to this subsection shall be subject to termination whenever the appropriate Secretary is given reasonable cause to find that such use and occupancy is being exercised in a manner which conflicts with the purposes of this Act. In event of such a finding, the Secretary shall tender to the holder of that right an amount equal to the fair market value of that portion of the right which remains unexpired on the date of termination. Such right of use or occupancy shall terminate by operation of law upon tender of the fair market price.

(3) The term "improved property", as used in this Act, means a detached, one-family dwelling (hereinafter referred to as "dwelling"), the construction of which was begun before January 1, 1967, (except where a different date is specifically provided by law with respect to any particular river, together with so much of the land on which the dwelling is situated, the said land being in the same ownership as the dwelling, as the appropriate Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures accessory to the dwelling which are situated on the land so designated.

SECTION 7. (a) The Federal Power Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line or other project works under the Federal Power Act (41 Stat. 1063), as amended (16 U.S.C. 791A et seq.) on or directly affecting any river which is designated in Section 3 of this Act as a component of the national wild and scenic rivers system or which is hereafter designated for inclusion in that

system, and no department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration. Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or unreasonably diminish the scenic, recreational and fish and wildlife values present in the area on the date of designation of a river as a component of the National Wild and Scenic Rivers System. No department or agency of the United States shall recommend authorization of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its project, whether heretofore or hereafter authorized, without advising the Secretary of the Interior or the Secretary of Agriculture, as the case may be in writing of its intention so to do at least sixty days in advance, and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this Act...

(b) The Federal Power Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line or other project works under the Federal Power Act, as amended on or directly affecting any river which is listed in Section 5, subsection (a) of this Act, and no department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river might be designated, as determined by the Secretary charged responsible for its study or approval -

(i) during the ten-year period following enactment of this Act or for a three complete fiscal year period following any Act of Congress designating any river for potential addition to the national wild and scenic rivers system, whichever is later, unless, prior to the expiration of the relevant period, the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture, on the basis of study, determine that such river should not be included in the national wild and scenic river system and notify the Committees on Interior and Insular Affairs of the United States Congress, in writing, including a copy of the study upon which the determination was made, at least one hundred and eighty days while Congress is in session prior to publishing notice to that effect in the Federal Register: Provided, That if any Act designating any river or rivers for potential addition to the national wild and scenic river system provides a period for the study or studies which exceeds such three complete fiscal year period the period provided for in such Act shall be substituted for the three complete fiscal year period in the provisions of this clause (i); and

(ii) during such interim period from the date a report is due and the time a report is actually submitted to Congress; and

(iii) during such additional period thereafter as, in the case of any river the report for which is submitted to the President and the Congress for inclusion in the national wild and scenic rivers system, is necessary for congressional consideration thereof or, in the case of any river

recommended to the Secretary of the Interior under Section 2(a)(ii) of this Act, is necessary for the Secretary's consideration thereof, which additional period, however, shall not exceed three years in the first case and one year in the second.

Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to developments below or above a potential wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or diminish the scenic, recreational and fish and wildlife values present in the potential wild, scenic or recreational river area on the date of designation of a river for study as provided by Section 5 of this Act. No department or agency of the United States shall, during the periods hereinbefore specified, recommend authorization of any water resources project on any such river or request appropriations to being construction of any such project, whether heretofore or hereafter authorized, without advising the Secretary of Agriculture in writing of its intention so to do at least sixty days in advance of doing so and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this Act and would affect the component and the values to be protected by it under this Act.

(c) The Federal Power Commission and all other Federal agencies shall promptly upon enactment of this Act, inform the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture, of any proceedings, studies or other activities which are hereafter commenced or resumed before they are commenced or resumed.

(d) Nothing in this section with respect to the making of a loan or grant shall apply to grants made under the Land and Water Conservation Act of 1965 (78 Stat. 897; 16 U.S.C. 4601-5 Et Seq.).

SECTION 8. (a) All public lands within the authorized boundaries of any component of the national wild and scenic rivers system which is designated in Section 3 of this Act or which is hereafter designated for inclusion in that system are hereby withdrawn from entry, sale or other disposition under the public lands law of the United States. This subsection shall not be construed to limit the authorities granted in Section 6(d) or 14A of this Act.

(b) All public lands which constitute the bed or bank, or are within one-quarter mile of the bank of any river which is listed in Section 5, subsection (a) of this Act are hereby withdrawn from entry, sale or other disposition under the public land laws of the United States for the periods specified in Section 7, subsection (b) of this Act...

SECTION 9. (a) Nothing in this Act shall affect the applicability of the United States mining and mineral leasing laws within components of the national wild and scenic rivers system except that -

(i) all prospecting, mining operations and other activities on mining claims which, in the case of a component of the system designed in Section 3 of this Act, have not heretofore been perfected or which, in the case of a component hereafter designated pursuant to this Act or any other Act of Congress, are not perfected before its inclusion in the system and all mining operations and other activities under a mineral lease, license or permit issued or renewed after inclusion of a component in the system shall

be subject to such regulations as the Secretary of the Interior or, in the case of national forest lands, the Secretary of Agriculture may prescribe to effectuate the purposes of this Act;

(ii) subject to valid existing rights, the perfection of, or issuance of a patent to, any mining claim affecting lands within the system shall confer or convey a right or title only to the mineral deposits and such rights only to the use of the surface and the surface resources as are reasonably required to carrying on prospecting or mining operations and are consistent with such regulations as may be prescribed by the Secretary of the Interior or, in the case of national forest lands, by the Secretary of Agriculture.

(iii) subject to valid existing rights, the minerals in Federal lands which are part of the system and constitute the bed or bank or are situated within one-quarter mile of the bank of any river designated a wild river under this Act or any subsequent Act are hereby withdrawn from all forms of appropriation under the mining laws and from operation of the mineral leasing laws including, in both cases, amendments thereto.

Regulations issued pursuant to paragraphs (i) and (ii) of this subsection shall, among other things, provide safeguards against pollution of the river involved and unnecessary impairment of the scenery within the components in question.

(b) The minerals in any Federal lands which constitute the bed or bank or are situated within one-quarter mile of the bank of any river which is listed in Section 5, subsection (a) of this Act are hereby withdrawn from all forms of appropriation under the mining and leasing laws during the periods specified in Section 7, subsection (b) of this Act. Nothing contained in this subsection shall be construed to forbid prospecting or the issuance of leases, licenses and permits under the mineral leasing laws subject to such conditions as the Secretary of Agriculture find appropriate to safeguard the area in the event it is subsequently included in the system...

SECTION 10. (a) Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration, primary emphasis shall be given to protecting its asthetic, scenic, historic, archeologic and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.

(b) Any portion of a component of the national wild and scenic rivers system that is within the national wilderness preservation system, as established by or pursuant to the Act of September 3, 1964 (78 Stat. 990; 10 U.S.C., Ch. 33) shall be subject to the provisions of both the Wilderness Act and this Act with respect to preservation of such river and its immediate environment and in the case of conflict, between the provisions of these Acts the more restrictive provisions apply.

(c) Any component of the national wild and scenic rivers system that is administered by the Secretary of the Interior through the National Park Service shall become a part of the national wildlife refuge system. The lands involved shall be subject to the provisions of this act and the Acts under which the

national park system or national wildlife system, as the case may be, is administered, and in the case of conflict between the provisions of these Acts, the more restrictive provisions shall apply. The Secretary of the Interior, in his administration of any component of the national wild and scenic rivers system, may utilize such general statutory authorities relating to areas of the national park system and such general statutory authorities otherwise available to him for recreation and preservation purposes and for the conservation and management of natural resources as he deems appropriate to carry out the purposes of this Act.

(d) The Secretary of AGriculture, in his administration of any component of the national wild and scenic rivers system area, may utilize the general statutory authorities relating to the national forest in such manner as he deems appropriate to carry out the purposes of this Act.

(e) The Federal agency charged with the administration of any component of the national wild and scenic rivers system may enter into written cooperative agreements with the Governor of a State, the head of any state agency, or the appropriate official of a political subdivision of a state for state or local governmental participation in the administration of the component. The states and their political subdivisions shall be encouraged to cooperate in the planning and administration of components of the system which include or adjoin state or county owned lands.

SECTION 11. (a) The Secretary of the Interior shall encourage and assist the states to consider, in formulating and carrying out their comprehensive statewide outdoor recreation plans and proposals for financing assistance for state and local projects submitted pursuant to the Land and Water Conservation Fund Act of 1965 (78 Stat. 897), needs and opportunities for establishing state and local wild, scenic and recreational river areas.

(b)(1) The Secretary of the Interior, the Secretary of Agriculture or the head of any federal agency shall assist, advise and cooperate with states or their political subdivisions, landowners, private organizations or individuals to plan, protect and manage river resources. Such assistance, advice and cooperation may be through written agreements or otherwise. This authority applies within or outside a federally administered area and applies to rivers which are components of the Wild and Scenic Rivers System and to other rivers. Any agreement under this section may include provisions for limited financial or other assistance to encourage participation in the acquisition, protection and management of river resources.

(2) Whenever appropriate in furtherance of the Act, the Secretary of Agriculture and the Secretary of the Interior are authorized and encouraged to utilize the following:

(A) For activities on federally owned land, the Volunteers in the Parks Act of 1969 (16 U.S.C. 18g-j) and the Volunteers in the Forest Act of 1972 (16 U.S.C. 558a-558d).

(B) For activities on all other lands, Section 6 of the Land and Water Conservation Fund Act of 1965 (relating to the development of statewide comprehensive outdoor recreation plans).

(3) For purposes of this subsection, the appropriate Secretary or the head of any federal agency may utilize and make available federal facilities, equipment, tools and technical assistance to volunteers and volunteer

organizations, subject to such limitations and restrictions as the appropriate Secretary or the head of any federal agency deem necessary or desirable.

(4) No permit or other authorization provided for under provision of any other federal law shall be conditioned on the existence of any agreement provided for in this section.

SECTION 12. (a) The Secretary of the Interior, the Secretary of Agriculture and the head of any other federal department or agency having jurisdiction over any lands which include, border upon or are adjacent to any river included within the National Wild and Scenic Rivers System or under consideration for such inclusion in accordance with Section 2(a)(ii), 3(a) or 5(a) shall take such action respecting management policies, regulations, contracts, plans affecting such lands, following the date of enactment of this sentence, as may be necessary to protect such rivers in accordance with the purposes of this Act. Such Secretary or other department or agency head shall, where appropriate, enter into written cooperative agreements with the appropriate State and local official for the planning, administration and management of federal lands which are within the boundaries of any rivers for which approval has been granted under Section 2(a)(ii). Particular attention shall be given to scheduled timber harvesting, road construction and similar activities which might be contrary to the purposes of this Act.

(b) Nothing in this section shall be construed to abrogate any existing rights, privileges or contracts affecting federal lands held by any private party without the consent of said party.

(c) The head of any agency administering a component of the national wild and scenic rivers systems shall cooperate with the Administrator, Environmental Protection Agency and the appropriate state water pollution control agencies for the purpose of eliminating or diminishing the pollution of waters of the river.

SECTION 13. (a) Nothing in this Act shall affect the jurisdiction or responsibilities of the states with respect to fish and wildlife. Hunting and fishing shall be permitted on lands and waters administered as parts of the system under applicable state and federal laws and regulations unless, in the case of hunting, those lands or waters are within a national park or monument. The administering secretary may, however, designate zones where, and establish periods when, no hunting is permitted for reasons of public safety, administration or public use and enjoyment and shall issue appropriate regulations after consultation with the wildlife agency of the state or states affected.

(b) The jurisdiction of the states and the United States over waters of any stream included in a national wild, scenic or recreational river area shall be determined by established principles of law. Under the provisions of this Act, any taking by the United States of a water right which is vested under either state or federal law at the time such river is included in the national wild and scenic rivers system shall entitle the owner thereof to just compensation. Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from state water laws.

(c) Designation of any stream or portion thereof as a national wild, scenic or recreational river area shall not be construed as a reservation of

the waters of such streams for purpose other than those specified in this Act, or in quantities greater than necessary to accomplish these purposes.

(d) The jurisdiction of the states over waters of any stream included in a national wild, scenic or recreational river area shall be unaffected by this Act to the extent that such jurisdiction may be exercised without impairing the purposes of this Act or its administration.

(e) Nothing contained in this Act shall be construed to alter, amend, repeal, interpret, modify or be in conflict with any interstate compact made by any states which contain any portion of the national wild and scenic rivers system.

(f) Nothing contained in this Act shall affect existing rights of any state, including the right of access, with respect to the beds of navigable streams, tributaries or rivers (or segments thereof) located in a natural wild, scenic or recreational river area.

(g) The Secretary of the Interior or the Secretary of Agriculture, as the case may be, may grant easements and rights-of-way upon, over, under, across or through any component of the national wild and scenic rivers system in accordance with the laws applicable to the national park system and the national forest system, respectively: Provided: That any conditions precedent to granting such easements and rights-of-way shall be related to the policy and purpose of this Act.

SECTION 14.(a) The claim and allowance of the value of an easement as a charitable contribution under Section 170 of Title 26, United States Code or as a gift under Section 2522 of said Title shall constitute an agreement by the donor on behalf of himself, his heirs and assigns that, if the terms of the instrument creating the easement are violated, the donee or the United States may acquire the servient estate of its fair market value as of the time the easement was donated minus the value of the easement claimed and allowed as a charitable contribution or gift.

For the conservation purposes of preserving or enhancing the values of components of the National Wild and Scenic Rivers System, and the environs thereof as determined by the appropriate Secretary, landowners are authorized to donate or otherwise convey qualified real property interests to qualified organizations consistent with Section 170(h)(3) of the Internal Revenue Code of 1954. Such interest may include, but shall not be limited to, rights-of-way, open space, scenic or conservation easements without regard to any limitation on the nature of the estate or interest otherwise transferable within the jurisdiction where the land is located. The conveyance of any such interest in land in accordance with this subsection shall be deemed to further a federal conservation policy and yield a significant public benefit for purposes of Section 6 of Public Law 96-541.

SECTION 14A. (a) Where appropriate in the discretion of the Secretary, he may lease federally owned land (or any interest therein) which is within the boundaries of any component of the National Wild and Scenic Rivers system and which has been acquired by the Secretary under this Act. Such lease shall be subject to such restrictive covenants as may be necessary to carry out the purposes of this Act.

(b) Any land to be leased by the Secretary under this section shall be offered first for such lease to the person who owned such land immediately before its acquisition by the United States.

SECTION 15...

SECTION 16. As used in this Act, the term -

(a) "River" means a flowing body of water or estuary or a section, portion or tributary thereof, including rivers, creeks, runs, kills, rills and small lakes.

(b) "Free-flowing" as applied to any river or section of a river, means existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway. The existence, however, of low dams, diversion works and other minor structures at the time any river is proposed for inclusion in the National Wild and Scenic Rivers System shall not automatically bar its consideration for such inclusion: Provided, That this shall not be construed to authorize, intend or encourage future construction of such structures within components of the National Wild and Scenic Rivers System.

(c) "Scenic easement" means the right to control the use of land (including the air space above such land) within the authorized boundaries of a component of the Wild and Scenic Rivers System, for the purpose of protecting the natural qualities of a designated wild, scenic or recreational river area, but such control shall not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement. For any designated wild and scenic river, the appropriate secretary shall treat the acquisition of fee title with the reservation of regular existing uses to the owner as a scenic easement for the purposes of this Act. Such an acquisition shall not constitute fee title ownership for purposes of Section 6(b).

SECTION 17...

(Provisions of the Wild and Scenic Rivers Act that are applicable only to specific rivers have been deleted from this version of the Act in the interest of brevity. The Federal Power Commission is now the Federal Energy Regulatory Commission.)

WILD AND SCENIC RIVERS ACT OF 1968, AMENDMENTS

PUBLIC LAW 100-557
100TH CONGRESS

AN ACT

TO AMEND THE WILD AND SCENIC RIVERS ACT OF 1968, AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I - OMNIBUS OREGON WILD AND SCENIC RIVERS ACT OF 1988

SEC. 101. SHORT TITLE.

This title may be referred to as the "Omnibus Oregon Wild and Scenic Rivers Act of 1988".

SEC. 102. AMENDMENTS TO THE WILD AND SCENIC RIVERS ACT.

Section 3(a) of the Wild and Scenic Rivers Act (Public Law 90-542,82 Stat.907) as amended, is further amended by adding the following new paragraphs at the end thereof:

"( ) BIG MARSH CREEK, OREGON. - The 15-mile segment from the northeast quarter of section 15, township 26 south, range 6 east, to its confluence with Crescent Creek in the northeast quarter of section 20, township 24 south, range 7 east, as a recreational river; to be administered by the Secretary of Agriculture; Provided, That nothing in this Act shall prohibit the Secretary from undertaking construction activities to enhance and restore wetland resources associated with Big Marsh Creek.

"( ) CHETCO, OREGON. - The 44.5-mile segment from its headwaters to the Siskiyou National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 25.5-mile segment from its headwaters to Boulder Creek at the Kalmiopsis Wilderness boundary as a wild river;

"(B) the 8-mile segment from Boulder Creek to Steel Bridge as a scenic river; and

"(C) the 11-mile segment from Steel Bridge to the Siskiyou National Forest boundary, one mile below Wilson Creek, as a recreational river.

"( ) CLACKAMAS, OREGON. - The 47-mile segment from Big Springs to Big Cliff; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 4-mile segment from Big Springs to the Forest Service Road 4690 bridge as a scenic river;

"(B) the 3.5-mile segment from the Forest Service Road 4690 bridge to the junction with Oregon State Highway 224 as a recreational river;

"(C) the 10.5-mile segment from Oregon State Highway 224 to the June Creek Bridge as a scenic river;

"(D) the 9-mile segment from June Creek Bridge to Tar Creek as a recreational river;

"(E) the 5.5-mile segment from Tar Creek to just south of Indian Henry Campground as a scenic river; and

"(F) the 14.5-mile segment just south of Indian Henry Campground to Big Cliff as a recreational river.

"( ) CRESCENT CREEK, OREGON. - The 10-mile segment from the southwest quarter of section 11, township 24 south, range 6 east, to the west section line of section 13, township 24 south, range 7 east, as a recreational river; to be administered by the Secretary of Agriculture.

"( ) CROOKED, OREGON. - The 15-mile segment from the National Grassland boundary to Dry Creek; to be administered by the Secretary of the Interior in the following classes:

"(A) The 7-mile segment from the National Grassland boundary to River Mile 8 south of Opal Spring as a recreational river; and

"(B) the 8-mile segment from Bowman Dam to Dry Creek as a recreational river.

"( ) DESCHUTES, OREGON. - Those portions as follows:

"(A) The 40.4-mile segment from Wickiup Dam to northern boundary of Sunriver at the southwest quarter of section 20, township 19 south, range 11 east as a recreational river; to be administered by the Secretary of Agriculture;

"(B) the 11-mile segment from the northern boundary of Sunriver at the southwest quarter of section 20, township 19 south, range 11 east, to the Lava Island Camp as a scenic river; to be administered by the Secretary of Agriculture;

"(C) the 3-mile segment from Lava Island Camp to the Bend Urban Growth Boundary at the southwest corner of section 13, township 18 south, range 11 east, as a recreational river; to be administered by the Secretary of Agriculture;

"(D) the 19-mile segment from Oden Falls to the Upper End of Lake Billy Chinook as a scenic river; to be administered by the Secretary of the Interior;

"(E) the 100-mile segment from the Pelton Reregulating Dam to its confluence with the Columbia River as a recreational river; to be administered by the Secretary of the Interior through a cooperative management agreement between the Confederated Tribes of the Warm Springs Reservation, and the State of Oregon as provided in section 10(e) of this Act and section 105 of the Omnibus Oregon Wild and Scenic Rivers Act of 1988.

"( ) DONNER UND BLITZEN, OREGON. - Those segments, including its major tributaries, as a wild river; to be administered by the Secretary of the Interior as follows:

"(A) The 16.75-mile segment of the Donner und Blitzen from its confluence awith the South Fork Blitzen and Little Blitzen;

"(B) the 12.5-mile segment of the Little Blitzen from its headquarters to its confluence with the South Fork Blitzen;

"(C) the 16.5-mile segment of the South Fork Blitzen from its headwaters to its confluence with the South Fork Blitzen;

"(D) the 10-mile segment of Big Indian Creek from its headwaters to its confluence with the South Fork Blitzen;

"(E) the 3.7-mile segment of Little Indian Creek from its headwaters to its confluence with Big Indian Creek; and

"(F) the 13.25-mile segment of Fish Creek from its headwaters to its confluence with the Donner und Blitzen.

"( ) EAGLE CREEK, OREGON. - The 27-mile segment from its headwaters below Eagle Lake to the Wallowa-Whitman National Forest boundary at Skull Creek; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 4-mile segment from its headwaters below Eagle Lake to the Eagle Cap Wilderness boundary at Hummingbird Mountain as a wild river;

"(B) the 15.5-mile segment from the Eagle Cap Wilderness boundary at Hummingbird Mountain to Paddy Creek as a recreational river;

"(C) the 6-mile segment from Paddy Creek to Little Eagle Creek as a scenic river; and

"(D) the 1.5-mile segment from Little Eagle Creek to the Wallowa- Whitman National Forest boundary as a recreational river.

"( ) ELK, OREGON. - The 19-mile segment to be administered by the Secretary of Agriculture in the following classes:

"(A) The 17-mile segment from the confluence of the North and South Forks of the Elk to Anvil Creek as a recreational river; and

"(B) the 2-mile segment of the North Fork Elk from the falls to its confluence with the South Fork as a wild river.

"( ) GRAND RONDE, OREGON. - The 43.8-mile segment from its confluence with the Wallowa River to the Oregon-Washington State line in the following classes:

"(A) The 1.5-mile segment from its confluence with the Wallowa River to the Umatilla National Forest boundary in section 11, township 3 north, range 40 east, as a recreational river; to be administered by the Secretary of Agriculture;

"(B) the 17.4-mile segment from the Umatilla National Forest boundary in section 11, township 3 north, range 40 east, to the Wallowa-Whitman National Forest boundary approximately one-half mile east of Grossman Creek as a wild river; to be administered by the Secretary of Agriculture;

"(C) the 9-mile segment from the Wallowa-Whitman National Forest boundary approximately one-half mile east of Grossman Creek to Wildcat Creek as a wild river; to be administered by the Secretary of the Interior; and

"(D) the 15.9-mile segment from Wildcat Creek to the Oregon-Washington State line as a recreational river; to be administered by the Secretary of the Interior.

"( ) IMNAHA, OREGON. - Those segments, including the South Fork Imnaha; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 6-mile segment from its confluence with the North and South Forks of the Imnaha River to Indian Crossing as a wild river;

"(B) the 58-mile segment from Indian Crossing to Cow Creek as a recreational river;

"(C) the 4-mile segment from Cow Creek to its mouth as a scenic river; and

" (D) the 9-mile segment of the South Fork Imnaha from its headwaters to its confluence with the Imnaha River as a wild river.

"( ) JOHN DAY, OREGON. - The 147.5-mile segment from Service Creek to Tumwater Falls as a recreational river; to be administered through a cooperative management agreement between the State of Oregon and the Secretary of the Interior as provided in section 10(e) of this Act.

"( ) JOSEPH CREEK, OREGON. - The 8.6-mile segment from Joseph Creek Ranch, one mile downstream from Cougar Creek, to the Wallowa-Whitman National Forest boundary as a wild river; to be administered by the Secretary of Agriculture.

"( ) LITTLE DESCHUTES, OREGON. - The 12-mile segment from its source in the northwest quarter of section 15, township 26 south, range 6 1/2 east to the north section line of section 12, township 26 south, range 7 east as a recreational river; to be administered by the Secretary of Agriculture.

"( ) LOSTINE, OREGON. - The 16-mile segment from its headwaters to the Wallowa-Whitman National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 5-mile segment from its headwaters to the Eagle Cap Wilderness boundary as a wild river; and

"(B) the 11-mile segment from the Eagle Cap Wilderness boundary to the Wallowa-Whitman National Forest boundary at Silver Creek as a recreational river.

"( ) MALHEUR, OREGON. - The 13.7 mile segment from Bosonberg Creek to the Malheur National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 7-mile segment from Bosonberg Creek to Malheur Ford as a scenic river; and

"(B) the 6.7-mile segment from Malheur Ford to the Malheur National Forest boundary as a wild river.

"( ) McKENZIE, OREGON. - The 12.7-mile segment from Clear Lake to Scott Creek; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 1.8-mile segment from Clear Lake to the head of maximum pool at Carmen Reservoir as a recreational river;

"(B) the 4.3-mile segment from a point 100 feet downstream from Carmen Dam to the maximum pool at Trail Bridge Reservoir as a recreational river; and

"(C) the 6.6-mile segment from the developments at the base of the Trail Bridge Reservoir Dam to Scott Creek as a recreational river.

"( ) METOLIUS, OREGON. - The 28.6-mile segment from the south Deschutes National Forest boundary to Lake Billy Chinook in the following classes:

"(A) The 11.5-mile segment from the south Deschutes National Forest boundary (approximately 2,055.5 feet from Metolius Springs) to Bridge 99 as a recreational river; to be administered by the Secretary of Agriculture;

"(B) the 17.1-mile segment from Bridge 99 to Lake Billy Chinook as a scenic river; by the Secretary of Agriculture, through a cooperative management agreement between the Secretary of the Interior and the Confederated Tribes of the Warm Springs Reservation, as provided in section 10(e) of this Act and section 105 of the Omnibus Oregon Wild and Scenic Rivers Act of 1988: Provided, That the river and its adjacent land area will be managed to provide a primitive recreational experience as defined in the ROS User's Guide.

"( ) MINAM, OREGON. - The 39-mile segment from its headwaters at the south end of Minam Lake to the Eagle Cap Wilderness boundary, one-half mile downstream from Cougar Creek, as a wild river; to be administered by the Secretary of Agriculture.

"( ) NORTH FORK CROOKED, OREGON. - The 32.3-mile segment from its source at Williams Prairie to one mile from its confluence with the Crooked River in the following classes:

"(A) The 3-mile segment from its source at Williams Prairie to the Upper End of Big Summit Prairie as a recreational river; to be administered by the Secretary of Agriculture;

"(B) the 3.7-mile segment from the Lower End of Big Summit Prairie to the bridge across from the Deep Creek Campground as a recreational river; to be administered by the Secretary of Agriculture;

"(C) the 8-mile segment from the bridge across from the Deep Creek Campground to the Ochoco National Forest boundary, one-half mile from Lame Dog Creek as a scenic river; to be administered by the Secretary of Agriculture.

"(D) the 1.5-mile segment from the Ochoco National Forest boundary to Upper Falls as a scenic river; to be administered by the Secretary of the Interior;

"(E) the 11.1-mile segment from Upper Falls to Committee Creek as a wild river, tob e administered by the Secretary of the Interior; and

"(F) the 5-mile segment from Committee Creek to one mile from its confluence with the Crooked River as a recreational river; to be administered by the Secretary of the Interior.

"( ) NORTH FORK JOHN DAY, OREGON. - The 54.1 mile segment from its headwaters in the North Fork of the John Day Wilderness Area at section 13, township 8 south, range 36 east, to its confluence with Camas Creek in the following classes:

"(A) The 3.5-mile segment from its headwaters in the North Fork of the John Day Wilderness at section 13, township 8 south, range 36 east, to the North Fork of the John Day Wilderness boundary as a wild river; to be administered by the Secretary of Agriculture;

"(B) the 7.5-mile segment from the North Fork of the John Day Wilderness boundary to Trail Creek as a recreational river; to be administered by the Secretary of Agriculture.

"(C) the 24.3-mile segment from Trail Creek to Big Creek as a wild river, to be administered by the Secretary of Agriculture;

"(D) the 10.5-mile segment from Big Creek to Texas Bar Creek as a scenic river, to be administered by the Secretary of Agriculture; and

"(E) the 8.3-mile segment from Texas Bar Creek to its confluence with Camas Creek as a recreational river, to be administered by the Secretary of Agriculture.

"( ) NORTH FORK MALHEUR, OREGON. - The 25.5-mile segment from its headwaters to the Malheur National Forest boundary as a scenic river; to be administered by the Secretary of Agriculture.

"( ) NORTH FORK OF THE MIDDLE FORK OF THE WILLAMETTER, OREGON. - The 42.3-mile segment from Waldo Lake to the Willamette National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 8.8-mile segment from Waldo Lake to the south section line of section 36, township 19 south, range 5 1/2 east as a wild river;

"(B) the 6.5-mile segment from the south section line of section 36, township 19 south, range 5 1/2 east to Fisher Creek as a scenic river; and

"(C) the 17-mile segment from Fisher Creek to the Willamette National Forest boundary as a recreational river.

"( ) NORTH FORK OWYHEE, OREGON. - The 8-mile segment from the Oregon-Idaho State line to its confluence with the Owyhee River as a wild river; to be administered by the Secretary of the Interior.

"( ) NORTH FORK SMITH, OREGON. - The 13-mile segment from its headwaters to the Oregon-California State line; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 6.5-mile segment from its headwaters to Horse Creek as a wild river;

"(B) the 4.5-mile segment from Horse Creek to Baldface Creek as a scenic river; and

"(C) the 2-mile segment from Baldface Creek to the Oregon-California line as a wild river.

"( ) NORTH FORK SPRAGUE, OREGON. - The 15-mile segment from the head of River Spring in the southwest quarter of section 15, township 35 south, range 16 east, to the northwest quarter of the southwest quarter of section 11, township 35 south, range 15 east, as a scenic river; to be administered by the Secretary of Agriculture.

"( ) NORTH POWDER, OREGON. - The 6-mile segment from its headwaters to the Wallowa-Whitman National Forest boundary at River Mile 20 as a scenic river; to be administered by the Secretary Of Agriculture.

"( ) NORTH UMPQUA, OREGON. - The 33.8-mile segment from the Soda Springs Powerhouse to Rock Creek in the following classes:

"(A) The 25.4-mile segment from the Soda Springs Powerhouse to the Umpqua National Forest boundary as a recreational river; to be administered by the Secretary of Agriculture; and

"(B) the 8.4-mile segment from the Umpqua National Forest boundary to its confluence with Rock Creek as a recreational river; to be administered by the Secretary of the Interior.

"( ) POWDER, OREGON.- The 11.7-mile segment from Thief Valley Dam to the Highway 203 bridge as a scenic river; to be administered by the Secretary of the Interior.

"( ) QUARTZVILLE CREEK, OREGON. - The 12-mile segment from the Willamette National Forest boundary to slack water in Green Peter Reservoir as a recreational river; to be administered by the Secretary of the Interior.

"( ) ROARING, OREGON. - The 13.7-mile segment from its headwaters to its confluence with the Clackamas River; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 13.5-mile segment from its headwaters to one-quarter mile upstream of the mouth as a wild river; and

"(B) the 0.2-mile segment from one-quarter mile upstream of the mouth to its confluence with the Clackamas River as a recreational river.

"( ) SALMON, OREGON. - The 33.5-mile segment from its headwaters to its confluence with the Sandy River in the following classes:

"(A) The 7-mile segment from its headwaters to the south boundary line of section 6, township 4 south, range 9 east as a recreational river; to be administered by the Secretary of Agriculture; Provided, That designation and classification shall not preclude the Secretary from exercising discretion to approve the construction, operation and maintenance of ski lifts, ski runs and associated facilities for the land comprising the Timberline Lodge Winter Sports Area insofar as such construction does not involve water resources projects;

"(B) the 15-mile segment from the south boundary line at section 6, township 4 south, range 9 east to the junction with the South Fork of the Salmon River as a wild river; to be administered by the Secretary of Agriculture;

"(C) the 3.5-mile segment from the junction with the south fork of the Salmon River to the Mt. Hood National Forest boundary as a recreational river; to be administered by the Secretary of Agriculture.

"(D) the 3.2-mile segment from the Mt. Hood National Forest boundary to Lymp Creek as a recreational river; to be administered by the Secretary of the Interior; and

"(E) the 4.8-mile segment from Lump Creek to its confluence with the Sandy River as a scenic river; to be administered by the Secretary of the Interior.

"( ) SANDY, OREGON. - Those portions as follows:

"(A) The 4.5-mile segment from its headwaters to the section line between sections 15 and 22, township 2 south, range 8 east as a wild river; to be administered by the Secretary of Agriculture;

"(B) the 7.9-mile segment from the section line between section 15 and 22, township 2 south, range 8 east to the Mt. Hood National Forest boundary at the west section line of section 26, township 2 south, range 7 east as a recreational river; to be administered by the Secretary of Agriculture; and

"(C) the 12.5-mile segment from the east boundary of sections 25 and 36, township 1 south, range 4 east in Clackamas County near Dodge Park, downstream to the west line of the east half of the northeast quarter of section 6, township 1 south, range 4 east in Multnomah County at Dabney State Park, the upper 3.8 miles as a scenic river and the lower 8.7 miles as a recreational river; both to be administered through a cooperative management agreement between the State of Oregon, the Secretary of the Interior and the Counties of Multnomah and Clackamas in accordance with section 10(e) of this Act.

"( ) SOUTH FORK JOHN DAY, OREGON. - The 47-mile segment from the Malheur National Forest to Smokey Creek as a recreational river; to be administered by the Secretary of the Interior.

"( ) SQUAW CREEK, OREGON. - The 15.4-mile segment from its source to the hydrologic Gaging Station 800 feet upstream from the intake of the McAllister Ditch, including the Soap Fork Squaw Creek, the North Fork, the South Fork, the East and West Forks of Park Creek and Park Creek Fork; to be administered by the Secretary of Agriculture as follows:

"(A) The 6.6-mile segment and its tributaries from the source to the Three Sisters Wilderness boundary as a wild river; and

"(B) the 8.8-mile segment from the boundary of the Three Sisters Wilderness Area to the Hydrologic Gaging Station 800 feet upstream from the intake of the McAllister Ditch as a scenic river; Provided, That nothing in this Act shall prohibit the construction of facilities necessary for emergency protection for the town of Sisters relative to a rapid discharge of Carver Lake if no other reasonable flood warning or control alternative exists.

"( ) SYCAN, OREGON. - The 59-mile segment from the northeast quarter of section 5, township 34 south, range 17 east to Coyote Bucket at the Fremont National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 26.4-mile segment from the northeast quarter of section 5, township 34 south, range 17 east to the west section line of section 22, township 32 south, range 14 1/2 east, as a scenic river;

"(B) the 8.6-mile segment from the west section line of section 22, township 32 south, range 14 east, to the Fremont National Forest boundary in the southeast quarter of section 10, township 33 south, range 13 east, as a recreational river; and

"(C) the 24-mile segment from the Fremont National Forest boundary in the southwest quarter of section 10, township 33 south,

range 13 east, to Coyote Bucket at the Fremont National Forest boundary, as a scenic river.

"( ) UPPER ROGUE, OREGON. - The 40.3-mile segment from the Crater Lake National Park boundary to the Rogue River National Forest boundary; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 0.5-mile segment from the Crater Lake National Park boundary to approximately 0.1-mile downstream from the forest road 6530760 (West Lake Road) crossing as a scenic river;

"(B) the 6.1-mile segment from approximately 0.1-mile downstream from the forest road 6530760 (West Lake Road) crossing to Minehaha Creek as a wild river; and

"(C) the 33.7-mile segment from Minehaha Creek to the Rogue River National Forest boundary as a scenic river.

"( ) WENAHA, OREGON. - The 21.55-mile segment from the confluence of the North Fork and the South Fork to its confluence with the Grande Ronde River; to be administered by the Secretary of Agriculture in the following classes:

"(A) The 18.7-mile segment from the confluence of the North Fork and South Fork to the Umatilla National Forest as a wild river;

"(B) the 2.7-mile segment from the Umatilla National Forest boundary to the easternmost boundary of the Wenaha State Wildlife Area as a scenic area; and

"(C) the 0.15-mile segment from the easternmost boundary of the Wenaha State Wildlife Area to the confluence with the Grande Ronde River as a recreational river.

"( ) WEST LITTLE OWYHEE, OREGON. - The 51-mile segment from its headwaters to its confluence with Owyhee River as a wild river; to be administered by the Secretary of the Interior.

"( ) WHITE, OREGON. - The 46.5-mile segment from its headwaters to its confluence with the Deschutes River in the following classes:

"(A) The 2-mile segment from its headwaters to the section line between sections 9 and 16, township 3 south, range 9 east, as a recreational river, to be administered by the Secretary of Agriculture: Provided, That designation and classification shall not preclude the Secretary from exercising discretion to approve construction, operation and maintenance of sky lifts, ski runs and associated facilities for the land comprising the Mt. Hood Winter Sports Area insofar as such construction does not involve water resource projects and is consistent with protecting the values for which the river was designated.

"(B) the 13.6-mile segment from the section line between sections 9 and 16, township 3 south, range 9 east, to Deep Creek as a recreational river; to be administered by the Secretary of Agriculture;

"(C) the 6.5-mile segment from Deep Creek to the Mt. Hood National Forest boundary as a scenic river; to be administered by the Secretary of Agriculture.

"(D) the 17.5-mile segment from the Mt. Hood National Forest boundary to Three Mile Creek as a scenic river; to be administered by the Secretary of the Interior;

"(E) the 5.3-mile segment from Three Mile Creek to River Mile 2.2 as a recreational river; to be administered by the Secretary of the Interior; and

"(F) the 1.6-mile segment from River Mile 1.6 to its confluence with the Deschutes River as a recreational river; to be administered by the Secretary of the Interior.".

SEC. 103. WILD AND SCENIC RIVER STUDIES.

Section 5(a) of the Wild and Scenic Rivers Act (Public Law 90-542, 82 Stat. 910), as amended, is further amended by adding the following new paragraphs at the end thereof:

"( ) BLUE, OREGON. - The segment from its headwaters to the Blue River Reservoir; by the Secretary of Agriculture.

"( ) CHEWAUCAN, OREGON. - The segment from its headwaters to the Paisley Urban Growth boundary to be studied in cooperation with, and integrated with, the Klamath River Basin Plan; by the Secretary of Agriculture.

"( ) NORTH FORK MALHEUR, OREGON. - The segments from its headwaters to the upper end of Cougar Reservoir and from the lower end of Cougar Reservoir to its confluence with the McKenzie River; by the Secretary of Agriculture.

"( ) STEAMBOAT CREEK, OREGON. - The entire creek; by the Secretary of Agriculture.

"( ) WALLOWA, OREGON. - The segment from its confluence with the Minam River to its confluence with the Grande Ronde River; by the Secretary of Agriculture.

SEC. 104. UPPER KLAMATH RIVER STUDY.

Section 5(d) of the Wild and Scenic Rivers Act (Public Law 90-542, 82 Stat. 910) is amended by inserting "(!)" after "(d)" and by inserting the following new paragraph at the end thereof:

"(2) The Congress finds that the Secretary of the Interior, in preparing the Nationwide Rivers Inventory as a specific study for possible additions to the National Wild and Scenic Rivers System, identified the Upper Klamath River from below the John Boyle Dam to the Oregon-California State line. The Secretary, acting through the Bureau of Land Management, is authorized under this subsection to complete a study of the eligibility and suitability of such segment for potential addition to the National Wild and Scenic Rivers System. Such study shall be completed, and a report containing the results of the study shall be submitted to Congress by April 1, 1990. Nothing in this paragraph shall affect the authority or

responsibilities of any other Federal agency with respect to activities or actions on this segment and its immediate environment.".

SECTION 105. INDIAN TREATY LANDS AND ADMINISTRATIVE PROVISIONS.

(a)(1) Lands now or hereafter held in trust by the United States for the benefit of an Indian tribe or individual Indian shall not be included within the boundaries of the Deschutes or Metolius Rivers as designated by this title without the consent of the applicable tribal council.

(2) When Indian treaty lands exist in association with lands included in the National Wild and Scenic Rivers System under this title, the Secretaries of the Interior and Agriculture, as appropriate, shall fully consult and enter into written cooperative management agreements with the affected Indian tribe for planning, administration and management of such areas as provided in section 10(e) of this Act.

(b) Nothing in this title shall affect:

(1) The jurisdiction or responsibilities of an Indian tribe with respect to fish, wildlife, land and water management;

(2) the treaty or other rights of an Indian tribe;

(3) the water and land claims, present or future, of an Indian tribe;

(4) the relicensing or amending the license of the Pelton Hydroelectric Project, FERC Project No. 2030 so long as such project does not adversely affect the values of which the Deschutes River was designated;

(5) the rights or jurisdiction of Indian tribes over waters or any river or stream within the affected river area or stream, or over any ground water resource; or

(6) the beneficial ownership interest of land held in trust, now or hereafter, by the United States for Indian Tribes or individual Indians.

(c) Nothing in this title shall preclude or impair the use by the City of Portland, Oregon, of water in the Bull Run and Little Sandy Rivers to the extent that such water is necessary for the purpose of municipal water supply.

SEC. 106. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated for fiscal years after the fiscal year 1988 -

(a) for the purpose of acquisition of lands, waters and interests therein pursuant to this title, not to exceed $5,000,000;

(b) for the purpose of preparing the studies for the rivers and river segments listed in section 103 of this title, not to exceed $2,500,000; and

(c) for the purpose of preparing the study of the river segment listed in section 104 of this title, not to exceed $200,000.

TITLE II - UMATILLA BASIN PROJECT, OREGON

SEC. 201. SHORT TITLE.

This title may be cited as the "Umatilla Basin Project Act".

SEC. 202. AUTHORIZATION OF PROJECT.

(a) For purposes of mitigating losses to anadromous fisher resources and continuing water service to Hermiston, West Extension, Westland, and Stanfield Irrigation Districts, for the project water exchange, the Secretary of the Interior, acting pursuant to the Federal reclamation laws (Act of June 17, 1902, and Acts amendatory thereof and supplementary thereto), is authorized to construct, operate and maintain the Umatilla Basin Project, Oregon, substantially in accordance with the report entitled: "Umatilla Basin Project, Oregon, Planning Report" dated February 12, 1988, in the manner specified by this title. The principal work of the project shall consist of -

(1) lands, water rights or interests therein acquired for the benefit of fishery resources;

(2) measures to conserve water and improve the efficiency of the existing conveyance, distribution and drainage systems of the Umatilla Project, where such measures are found to make water available for the benefit of fishery resources;

(3) pumping plants and related diversion, conveyance and distribution features;

(4) works incidental to the rehabilitation or modification of existing irrigation systems necessary to accomplish a water exchange required to fulfill the purposes of this title;

(5) fish passage and protective facilities and other necessary mitigation measures;

(6) a program to monitor and regulate project operations; and

(7) a program to evaluate fishery resource mitigation measures.

SEC. 203. INTEGRATION AND OPERATION OF PROJECT.

Project facilities and features authorized by this title shall be integrated and coordinated, from an operational standpoint, into existing features of the Umatilla Project, and shall be operated in a manner consistent with Federal reclamation laws and water rights established pursuant to State law, including the contract rights of water users. Prior to the initiation of project construction, the Secretary shall secure the necessary State and local permits and other authorities for the operation of project facilities, and through the conclusion of appropriate agreements with the State of Oregon, the relevant irrigation districts, and the Confederated Tribes of the Umatilla Indian Reservation provide for the monitoring and regulation of project-related water supplies for the purposes herein identified.

SEC. 204. POWER FOR PROJECT PUMPING.

The Administrator of the Bonneville Power Administration, consistent with provisions of the Columbia River Basin Fish and Wildlife Program established pursuant to the Pacific Northwest Electric Power Planning and Conservation Act

(94 Stat. 2697), shall provide for project power needed to effect the water exchange with irrigation districts for purposes of mitigating anadromous fishery resources. The cost of power shall be credited to fishery restoration goals of the Columbia River Basin Fish and Wildlife Program.

SEC. 205. OPERATION AND MAINTENANCE COSTS.

Non-Federal interests shall be responsible for the cost of operating and maintaining the project, except for those costs associated with implementation of section 204 of this title, and to fulfill the purpose of mitigating losses to anadromous fishers resources.

SEC. 206. INTERIM FLOW AUGMENTATION.

Until the facilities authorized in this title are constructed and in operation, and as an interim measure to provide flow augmentation of the Umatilla River for Anadromous fishery resources, funds are authorized to be appropriated to the Secretary, through the end of fiscal year 1998, to provide for interim operation and maintenance of existing pumps or other facilities for the purpose of providing flow augmentation for anadromous fish.

SEC. 207. NON-FEDERAL COSTS.

(a) CREDIT FOR NON-FEDERAL FISHERY RESOURCE IMPROVEMENTS - The Umatilla Basin Project authorized by this title is a Federal action to improve streamflow and fish passage conditions and shall be considered part of a comprehensive program to restore the Umatilla River basin anadromous fishery resource. Related fishery resource improvement facilities which utilize funding sources under the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (94 Stat. 2697) and programs of the State of Oregon and other entities shall be consolidated in any final calculation of required cost sharing.

(b) TREATMENT OF NON-FEDERAL COSTS INCURRED IN IMPLEMENTING PROJECT FEATURES BEFORE APPROPRIATIONS. - To the extent any public or private entity shares in the cost of or constructs any feature of the project or portion thereof prior to the appropriation of funds for construction of such feature, the costs incurred shall be credited to the total amount of any cost sharing required for the project. The Secretary is authorized to accept title to facilities appropriate to the project without compensation and thereafter to operate and maintain such facilities.

SEC. 208. CONJUNCTIVE USE OF PUMPING FACILITIES.

When project pumping capacity is available in excess of that needed for fishery resource benefits as determined by the Secretary of the Interior, such project pumping capacity may be made available for use on presently irrigated lands eligible for service within the irrigation districts that participate in the project authorized in this title at a rate based on the operation and maintenance costs related to such conjunctive use and an appropriate share of capital costs for such use as specified by an agreement between the Secretary

of the Interior and the irrigation districts: Provided, That (a) boundaries of the irrigation districts may be modified, upon approval of the Secretary of the Interior, to include such lands that received irrigation water service from those districts prior to October 1, 1988; and (b) that such use shall be considered as secondary to the purpose of providing water for fishery resource purposes. Pumping power for this purpose shall be provided to the Bureau of Reclamation by the Administrator of the Bonneville Power Administration. The Administrator's rate for this service during the peak period shall be the forecasted average rate to be paid by public agencies for irrigation loads during peak periods. The cost of power for such pumping, and the cost of transmitting power from the Federal Columbia River Power System to the project pumping facilities shall be borne by irrigation districts receiving the benefit of such water.

SEC. 209. LEASE AND PURCHASE OF WATER.

The Secretary is authorized to acquire from willing parties land, water rights or interests therein for benefit of fishery resources consistent with the purpose of this title; Provided, That acquisition of water rights shall be in accordance with applicable State law. There is hereby authorized to be appropriated not more than $1,000,000 to accomplish the purposes of this section.

SEC. 210. AUTHORIZATION OF APPROPRIATIONS.

(a) There is hereby authorized to be appropriated for construction of the Umatilla Basin Project and the study authorized by section 213 of this title the sum of $42,400,000 (April 1987 prices), less any amounts previously appropriated for the project, plus or minus such amounts as may be required by reason of changes in the cost of construction work of the types involved therein as shown by applicable engineering cost indices and exclusive of facilities indicated in section 210(b) of this title: Provided, That such funds are authorized to be appropriated only through the tenth fiscal year after which construction funds are first made available: Provided further, That all costs, including operation and maintenance costs, allocated to the mitigation of anadromous fish species and the study authorized in section 213 of this title shall be non-reimbursable. There are also authorized to be appropriated such sums as may be required for the Federal share of operation and maintenance of the project, including the monitoring and evaluation of project accomplishments.

(b) Related fish passage and protective facilities constructed or to be constructed by the Bonneville Power Administration that are features of the Columbia River Fish and Wildlife Program established pursuant to the Pacific Northwest Electric Power Planning and Conservation Act (94 Stat. 2697) shall be consolidated into calculations of project costs and benefits: Provided, That the Secretary shall not request an appropriation of funds to construct any such facilities.

SEC. 211. WATER RIGHTS.

Nothing in this title shall be construed to -

(1) impair the validity of or preempt any provision of State water law, or of any interstate compact governing water;

(2) alter the rights of any State to any appropriated share of the waters of any body or surface or ground water, whether determined by past or future interstate compacts, or by past or future legislative or final judicial allocations;

(3) preempt or modify any State or Federal law or interstate compact dealing with water quality or disposal;

(4) confer upon any non-Federal entity the ability to exercise any Federal right to the waters of any stream or to any ground water resources; or

(5) affect any water rights of any Indian or Indian tribe if such rights were established by the setting aside of a reservation by treaty, Executive order, agreements or Act of Congress.

SEC. 212. REHABILITATION AND BETTERMENT AUTHORIZATION.

For purposes of encouraging water conservation and improvements to water supply systems of the irrigation districts participating in the project authorized by this title, Stanfield and Westland Irrigation Districts shall be eligible to receive financial assistance, in an amount not to exceed $2,000,000 each, as deemed appropriate by the Secretary, under provisions of the Rehabilitation and Betterment Act of October 7, 1949 (63 Stat. 724), as amended.

SEC. 213. REVIEW OF UMATILLA PROJECT OPERATIONS.

Within one year from the date of enactment of this title, the Secretary shall complete a review of current operations of the Umatilla Project, for the purpose of identifying opportunities to further mitigate losses to anadromous fishery resources. Within 90 days of the completion of this review, the Secretary shall transmit a report thereon, together with any conclusions and recommendations to improve the management of the existing project, including measures that may require additional legislation, to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate. The review shall include, but not be limited to the following:

(a) Contract negotiation and administration;

(b) water conservation plans and activities required by section 210 of the Reclamation Reform Act of 1982 (Public Law 97-293);

(c) allocation of reservoir storage space;

(d) water deliveries outside the authorized service area; and

(e) water rights held by the United States.

Approved: October 28, 1988.

APPENDIX C

Grazing Allotments and Permittees within the Sycan Wild and Scenic River Corridor

Bear Creek Allotment (West Bear Pasture)

John and Dan O'Leary

Gary and Brenda Isham

Currier Camp Allotment (Squaw Flat Pasture)
(Hog Wallow Pasture)

Withers Ranch, Inc.

Colahan Enterprises, Inc.

James R. Elder

Sycan Allotment

Paul Brattain

Ruth Brattain

Tom Brattain

Withers Allotment (North Pasture)
(South Pasture)

Charles Withers

APPENDIX D

WILD AND SCENIC RIVER WATER MONITORING PLAN
The North Fork of the Sprague River
and
The Sycan River

FREMONT NATIONAL FOREST

Prepared by: _____ 9/13/90
Staff Hydrologist — Date

Reviewed by: _____ 9/13/90
Forest Hydrologist — Date

Approved by: for _____ 9-13-90
Forest Supervisor — Date

WILD AND SCENIC RIVER WATER MONITORING PLAN
The North Fork of the Sprague River
and
The Sycan River

Objectives

The North Fork of the Sprague River and the Sycan River were designated as National Wild Scenic Rivers as a result of passage of the Omnibus Oregon Wild and Scenic Rivers Act of 1988. The Act requires that rivers so designated be maintained in no less than the condition of the time of designation. In addition, values of a river which are determined to be "outstandingly remarkable" must be maintained or enhanced. The water monitoring plan must, therefore, establish the present conditions of the river water quality and channel conditions, insure that future management activities in the respective watersheds do not cause a deteriorization in these stream values, and provide that resource improvement programs can be monitored for their affects on water related parameters.

Basin Resources

The Sycan and the North Fork of the Sprague Rivers are both located in Lake and Klamath Counties, Oregon. The 15 mile designated Wild and Scenic River portion of the North Fork of the Sprague River drains approximately 51 square miles of private and Fremont National Forest land. Twelve of the 51 square miles are within the Gearheart Mountain Wilderness. The 59 mile designated portion of the Sycan River drains approximately 367 square miles of private, Fremont National Forest, and Winema National Forest land. The Sycan is nearly divided equally by a 8.6 mile section of the river which passes through a 36 square mile, privately owned marsh. Twenty-four miles of the Wild and Scenic River are upstream from the marsh and 26.4 miles are downstream from the marsh. Elevations of the watershed contributing to the designated portion of the Sycan River range from 4640 to 7500 feet. The designated portion of the North Fork has a watershed which ranges from 5660 to 8300 feet in elevation.

Resource management in the two watersheds which may have an impact on stream water quality and fish habitat are Forest Service and private land timber harvesting, grazing on Forest Service allotments and private land, and dispersed and developed recreational uses within the watersheds. Because of a high potential for water runoff concentration and sediment production from roads, of particular concern in the forests are road building and road maintenance associated with timber harvesting and forest access. In addition, the affects of water withdrawn for irrigation from the river within the Sycan Marsh and organic contributions to the river from the marsh are of concern in the lower section of the river.

Fisheries resources are significant on both Wild and Scenic Rivers. Fish species found in the Sycan River are rainbow, brook, and brown trout, Pacific lampray, speckled dace, Klamath large scale sucker, Oregon lakes tui chub, redband trout, and sculpins, Three of the species, the Klamath large mouth sucker (Catostomus snyderi), Oregon lakes tui chub (Gila bicolor), and redband trout (Oncorhunchus mykiss, ssp.) are federal category 2 sensitive species.

Historic records indicate that two federally listed endangered species, the short nose sucker (Chasmistes brevirostris) and the Lost River sucker (Catostomus luxatus), had viable populations in the river. Because of the diversity of fish species; the presence of catigory 2 sensitive fish species, and because the river provides an opportunity to restore endangered fish species, the Sycan River has been declared to have "outstanding and remarkable" fishery values.

A thorough fish survey has not been completed on the North Fork of the Sprague River, but fish species which are known to inhabit the river are rainbow, brook, brown, and redband trout. The shortnose sucker and the Lost River sucker, now extinct in the river, were present in the past. Undocumented reports indicate that bull trout (Salvelius conluentus), a catagory 2 sensitive fish species, may also be present in the upper reaches of the river. Because of the inadequate fish survey information, Wild and Scenic River fishery values have not been determined for the North Fork of the Sprague River.

Monitoring Locations

Consistance in monitoring is important. It is helpful to monitor at the same location in the same manner and with equipment of comparable accuracy to establish data records which may be comparable over time. Monitoring is desirable at points where significant physical, biological, management, or land status changes occur on the rivers. The most desirable locations for access may be compromised by ease of access to the monitoring site, whether channel conditions at the site are suitable for monitoring stream flow or any other parameters, and the likelyhood of whether the monitoring equipment left in the stream will be tampered with by visitors to the area.

Sycan River Stations:

The Sycan River is divided into three sections by the privately owned, 23,000 acre Sycan Marsh. This marsh area of the river is presently managed for intensive grazing and is physiologically and biologically different than the other two sections of the river. Logical places for monitoring are, therefore, immediately before the marsh to document the quality of the upper section of the river, and immediately after the marsh, to document changes in parameters due to the affect of the marsh. A third station will be located at the lower end of Coyote Bucket just before the river leaves National Forest property and Wild and Scenic River designation.

The lower section of the river, below the marsh, is diverse. The changes in the river are particularly apparent during the Summer, when irrigation in the Sycan Marsh often reduces flow leaving the marsh to less than 1 cubic feet per second (cfs). Nine and one half miles below the marsh the river receives rejuvinating flows of about 4 cfs from Torrent Springs. The stream then flows through a large section of private land at Teddy Powers Meadow and through Coyote Bucket Canyon, an area of increased stream gradient, before leaving National Forest land. The lower station will monitor the combined affects of all these changes.

Due to the diversity of the lower section of the river, it may be desirable at some time in the future to monitor at least some parameters at more stations. For example, fish habitat improvements may be made on the section the river between Teddy Powers and the Sycan Marsh. In this case,

monitoring before the private land at Teddy Powers Meadow would give a better indication of water quality changes due to the channel improvements before the water quality is influenced by private land management practices.

Stations:

Sycan #1	T.32S., R.15E., SWSW Section 22 At FS road 3239, just above the Sycan Marsh.
Sycan #2	T.33S., R.13E., SENW Section 16 At FS road 27, just downstream from the Sycan Marsh
Sycan #3	T.34S., R.12E., NWSE Section 31 At the lower end of Coyote Bucket. Off of FS road 347.

North Fork of the Sprague River Stations:

The Wild and Scenic River section of the North Fork of the Sprague River is relativly homogenious over its length compared to the Sycan River. The upper three miles of the river flows through a shallow Lodgepole Pine forested canyon bordered on the west and receiving tributary water from the Gearheart Mountain Wilderness. The next 7-8 miles pass through large meadows and mostly Lodgepole pine forest, where the stream gradient is reduced. The last 4 miles of the river, beginning at Sandhill Crossing, pass through an up to 300 foot deep canyon of Lodgepole Pine and mature Ponderosa Pine and Fir, with about 2 1/2 miles of the canyon within Gearhart Mountain Wilderness.

Only one station was selected on the N. Fork of the Sprague. The river is logically divided into two sections at Sandhill Crossing, separating the upper part of the river from the less developed, isolated, and steeper part of the river flowing through the lower canyon. Sandhill Crossing has a slightly steeper gradient and more defined river path making it better for taking flow readings than the slower moving stream areas in Lee Thomas Meadow. The lower part of the river through the wilderness and lower canyon was not selectected for monitoring because of the difficulty in access and the relatively undisturbed nature of this part of the river corridor where water quality is expected to be less affected by management activities. Renewed logging in the lower canyon may require initiation of monitoring in this area.

Stations:

North Fork Sprague #1	T.34S., R.16E., SWNW Section 30 At Sandhill Crossing FS road 3411

Parameters to be Monitored

Parameters to be monitiored should be responsive to management practices and should be a good indicator of water quality and biological stream health. Parameters which are adequate to monitor present Forest Service and private land practices in the watersheds have been selected. All tests must be conducted in a conscientious manner, taking advantage of the maximum accuracy that equipment and procedures allow.

Parameter	Sampling Method
1. Quantity of flow	Price or pigmy velocity flow meters
2. Water temperature	Ryan Tempmentor programmable thermograph, one at each station, removed during the winter.
3. pH	pH meter.
4. Specific conductance	Conductivity meter.
5. Dissolved oxygen	Hatch Company kit.
6. Nitrates	Hatch Company Kit.
7. Phosphates	Hatch Company Kit for reactive phosphorous.
8. Turbidity	Grab samples to be analysed at the office using Hatch Turbiditymeter Model 2100
9. Suspended sediment	DH-48 integrated sampler. To be analyzed in house using the Forest soils lab.
10. Macroinvertibrate analysis	Conducted in accordance with "Aquatic Ecosystem Inventory Macroinvertibrate analysis" taken from Fishers Habitat Surveys Handbook (R-4 FSH2609.23), March 1985. Recommended frequency of monitoring to be modified.
11. Region 6 Stream Survey	Both the Sycan and the North Fork of the Sprague River are to be surveyed during the summer of 1990. This information can be used as Wild and Scenic River condition documentation. No stream survey analysis will be specifically scheduled for this monitoring plan, but a followup analysis may be desirable in the future.

Frequency of Monitoring

Frequency of monitoring must establish sufficient data to be useful in making management decisions and yet the accumulation of data must be cost efficient and practical to carry out. The program is designed so that all of the frequently performed parameters (1-8 below) can be taken at all four stations in one day. Macroinvertibrate analysis for the four stations will require an additional two sampling days in 1991 and 1992. It will not be conducted in 1993. After initiation of the program by the Forest Supervisors Office, the intensions are that the monitoring program will be turned over to the Bly Ranger District to save traveling time to the monitoring area.

Flow monitoring during spring runoff conditions may require two persons for safety. As an alternative to stream wading, flow can be monitored from bridges using weighted meters at stations #1 & #2 on the Sycan and at Sandhill Crossing on the North Fork of the Sprague. Flow at station #3, on the Sycan River below Coyote Bucket, may have to estimated by extrapolating data from the Oregon Department of Water Resources gage at Drews Road (USGS site #11499100) when the river is too dangerous to wade.

Parameter	Monitoring Period
1. pH 2. Specific conductance 3. Dissolved oxygen 4. Turbidity 5. Quantity of flow 6. Nitrates 7. Reactive phosphorous 8. Suspended sediment	1-8. Weekly for 8 weeks as soon as stations can be accessed in the Spring, then once per month until Fall snows prevent access.
9. Temperature	9. Continuous monitoring instrument programmed to take readings every 2 hours. Removed during the winter.
10. Macroinvertibrate survey	10. Twice yearly for two years, May-June and again in Sept.-Oct. Not conducted in 1993.
11. Region 6 stream survey	11. Conducted in 1990. Frequency of future surveys to be determined at a later date.

Duration of Program

The program will begin in the Spring of 1991 and will be reassessed after three years (Fall of 1993).

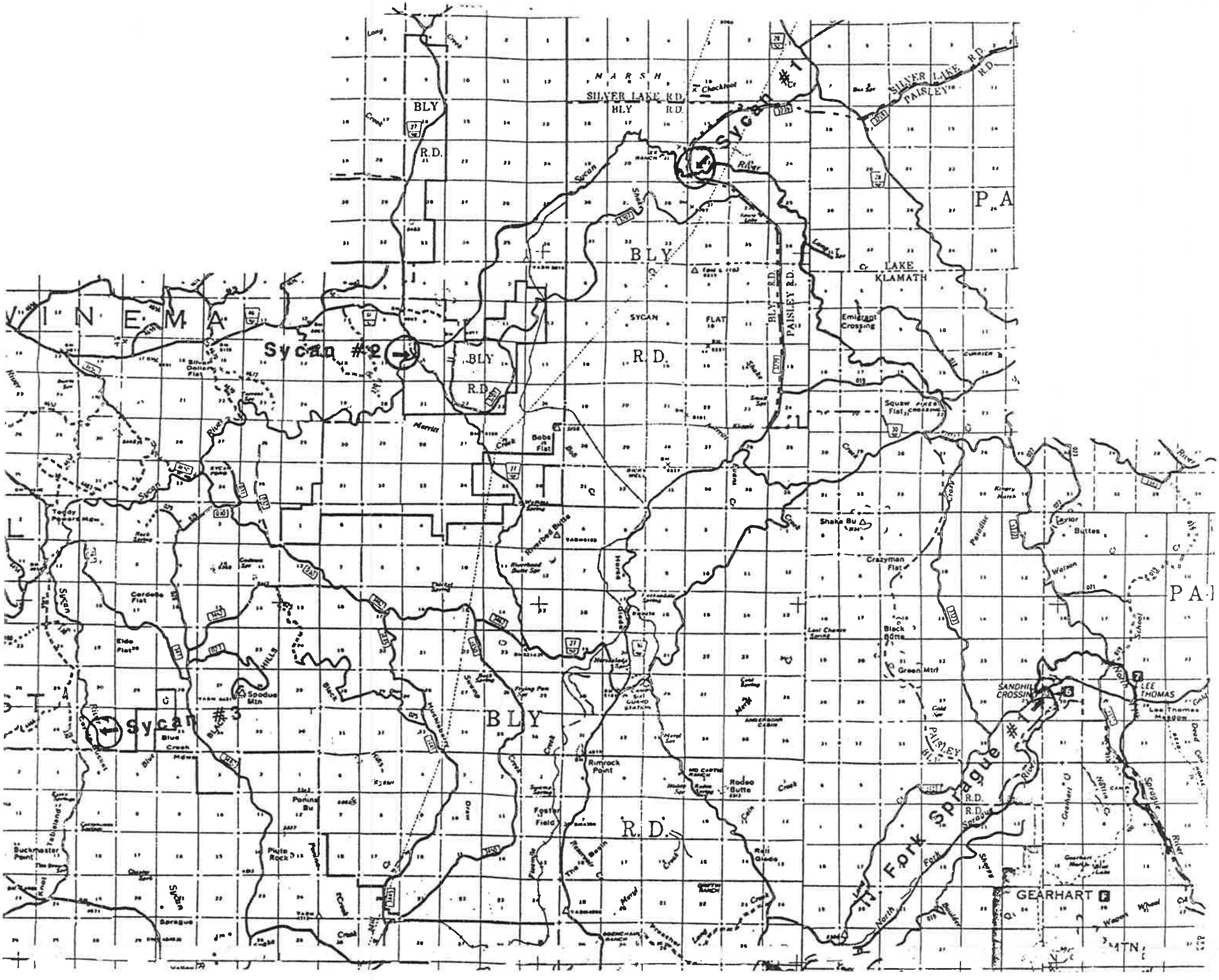
Annual and Final Reports

Data for each year will be compiled and displayed in an annual report. A copy of the report will be provided to the Forest Headquarters Office. At the end of 1993 a final report will be made which interprets the data and includes some statistical analysis along with recommendations on future monitoring needs and/or modifications.

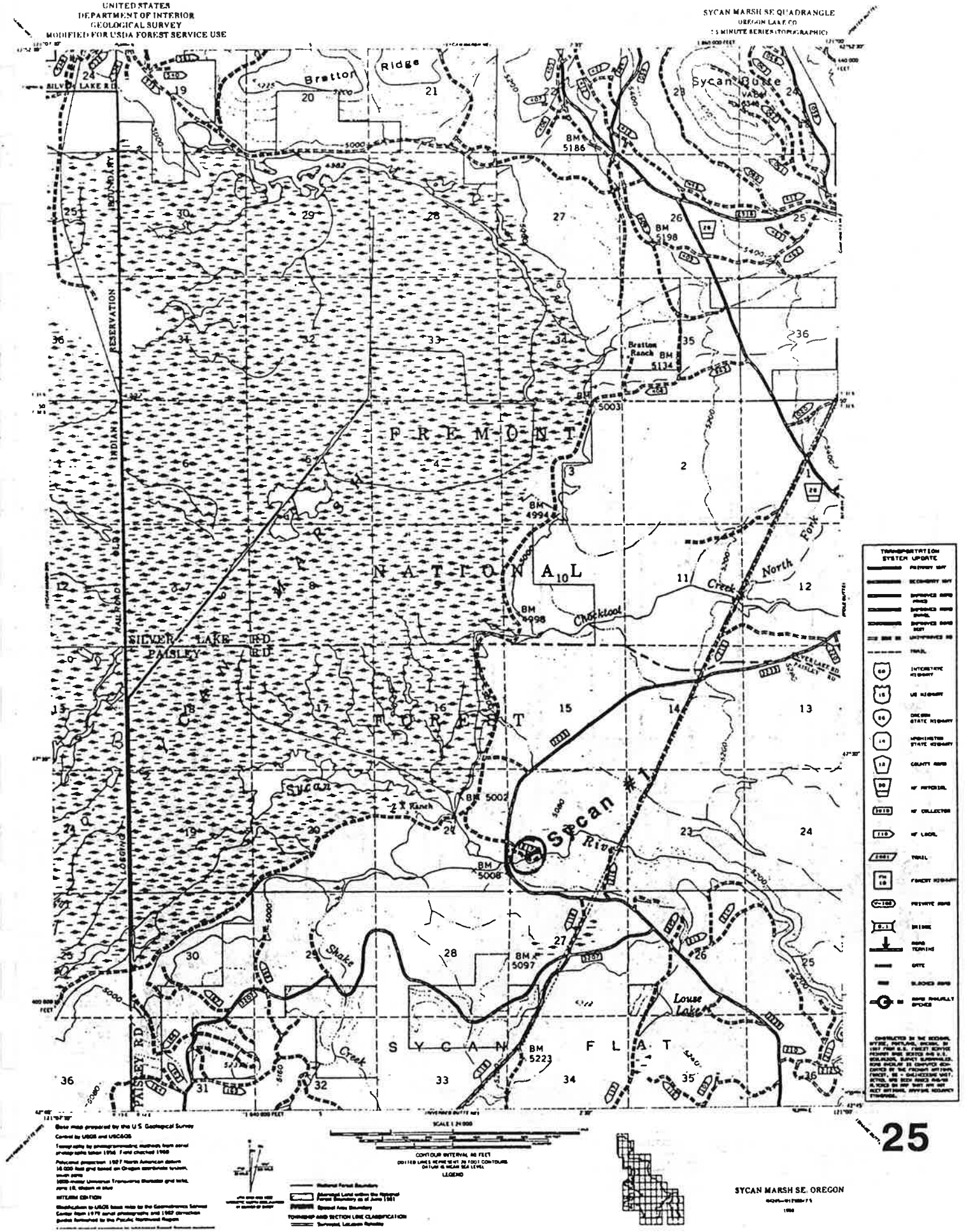
Program Costs

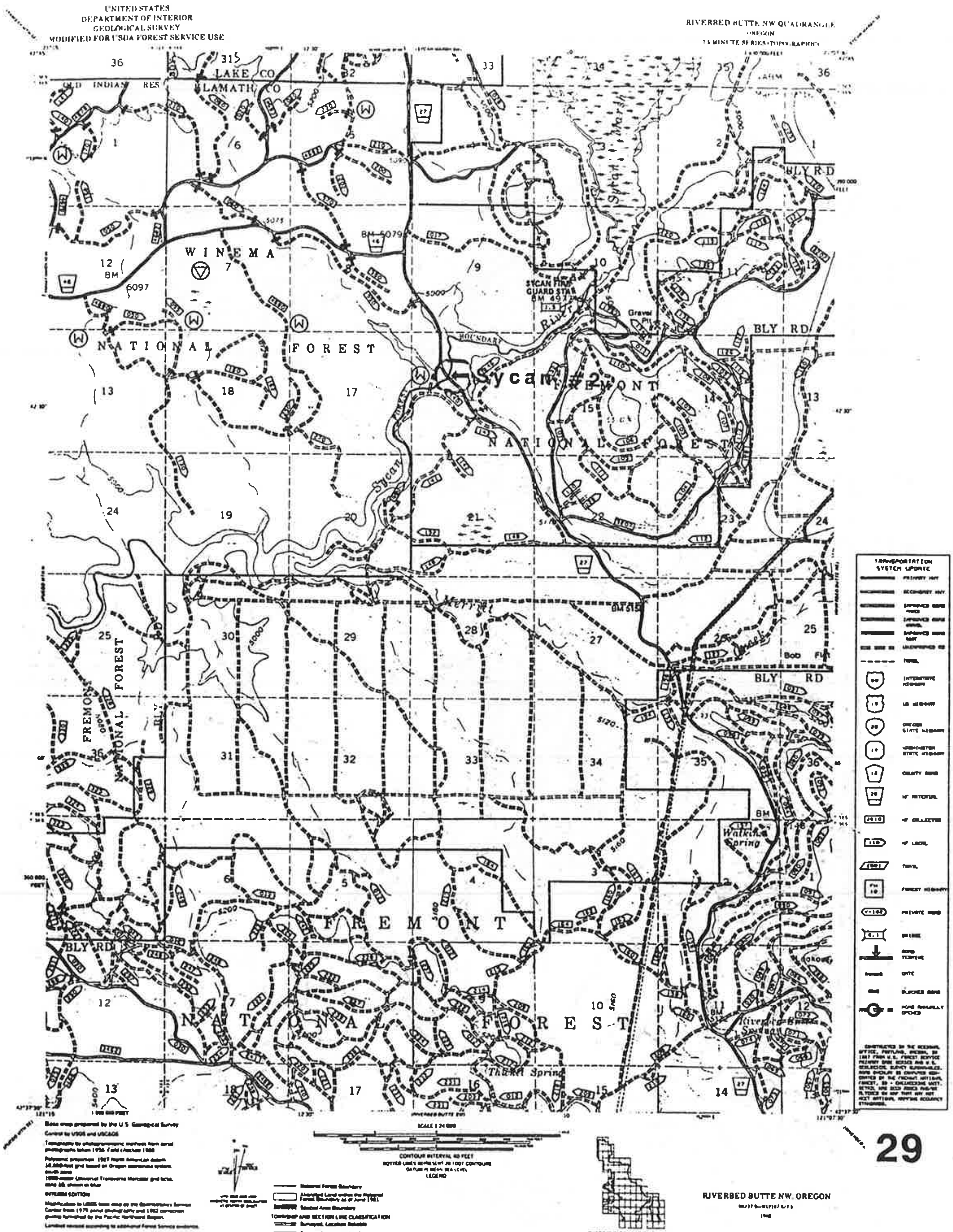
Cost factor	Cost	
A. Annually for 1991 and 1992 Parameters 1-5		
	Apr-May	Jun-Nov
sampling labor	8 days @ $97/day=$776	6 days @ $97/day=$582
vehicle costs	8 days @ $20/day=$160	6 days @ $20/day=$120
lab time for suspended sediment and turbidity analysis	1 day @ $97/day =$ 97	1 day @ $97/day =$ 97
	$1033	$799

Macroinvertibrate analysis		
sampling labor	2 times/yr at 4 stations=4 days @ $97/day	=$388
vehicle costs	4 days @ $20/day	=$ 80
analysis costs	$100/sample set X 2/yr X 4 stations	=$800
		$1268
Region 6 stream survey	No cost to this program	
Annual report writing	Two days @ $97/day	=$194
Miscellaneous equipment and supplies		=$100
B. Total 1991 + 1992	(total from (A) above =$3394 each year)	=$6788
C. 1993 annual cost	Same as 1991 and 1992 minus macroinvertebrate analysis =$3394-$1268	=$2126
D. Total costs 1991-1993	1991 + 1992 + 1993 + four days for final report writing =$3394 + $3394 + $2126 + 4 X $97	=$9302



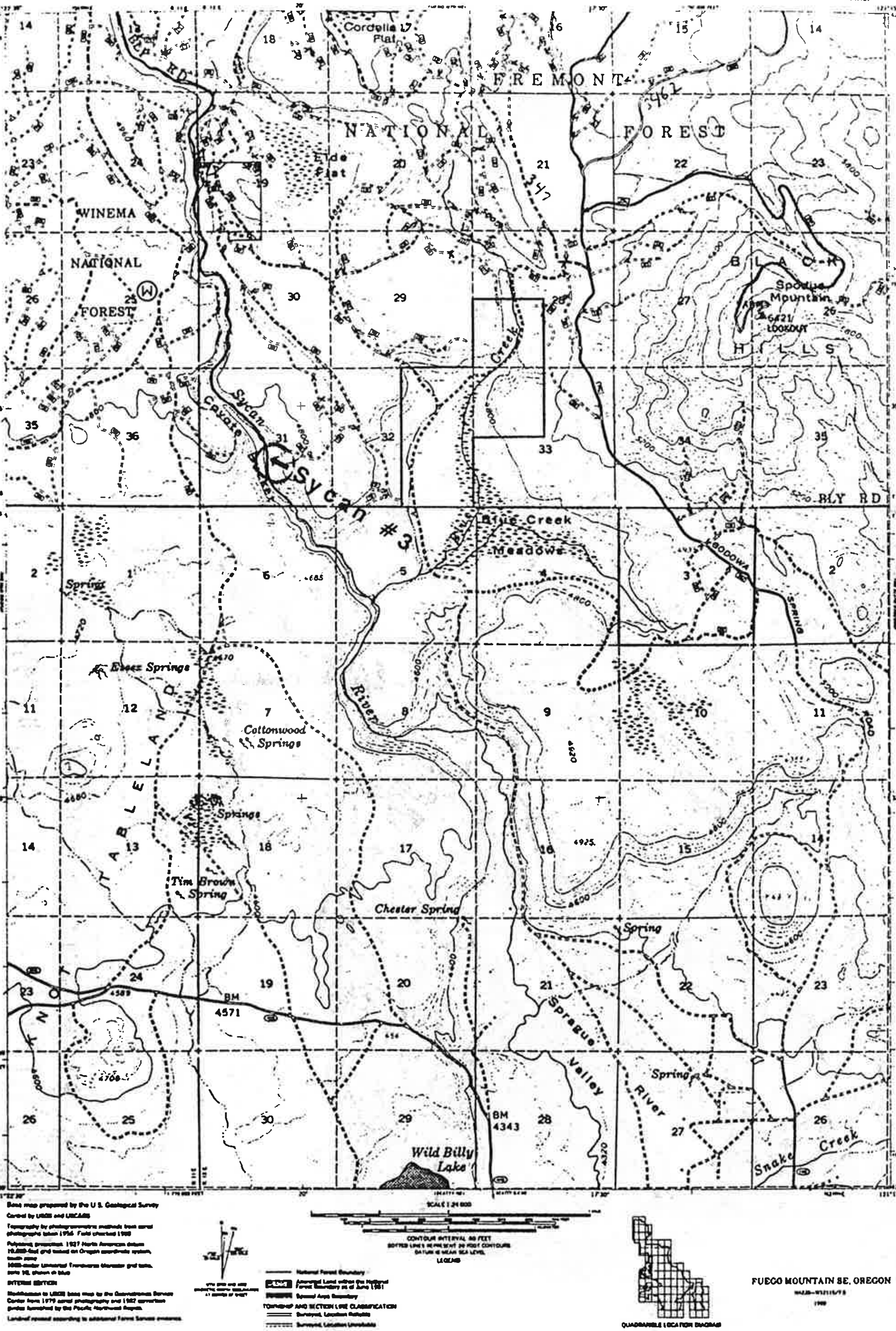
MARSH
SILVER LAKE R.D.
BLY R.D.
PAISLEY R.D.
Sycan #1
Sycan #2
Sycan #3
PA
LAKE
KLAMATH
BLY
SYCAN
FLAT
R.D.
Emigrant Crossing
Squaw Flat
VINEMA
Silver Dollar Flat
Bobs Flat
Merritt
Riverbed Butte
Shake Bu
Crazyman Flat
Taylor Buttes
Watson
Black Butte
Green Mtn
SANDHILL CROSSING
LEE THOMAS
Lee Thomas Meadow
Teddy Powers Mdw
Cordelle Flat
Elde Flat
Spodue Mtn
HILLS
Blue Creek
Rimrock Point
Rodeo Butte
Anderson Cabin
Foster Field
Pinine Bu
Piute Rock
Buckmaster Point
Sprague
North Fork Sprague
GEARHART
Huckleberry
Sycan
River
Creek


UNITED STATES
DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY
MODIFIED FOR USDA FOREST SERVICE USE
SYCAN MARSH SE QUADRANGLE
OREGON-LAKE CO
7.5 MINUTE SERIES (TOPOGRAPHIC)
Bratton Ridge
Sycan Butte
BM 5186
BM 5198
Bratton Ranch
BM 5134
BM 5003
FREMONT
NATIONAL
FOREST
BM 4994
BM 5098
Chocktoot
North Fork
Creek
SILVER LAKE RD
PAISLEY RD
RESERVATION BOUNDARY
Sycan
2 T Ranch
BM 5002
Sycan River
BM 5008
Shake
BM 5097
Louse Lake
SYCAN
FLAT
BM 5223
Creek
TRANSPORTATION SYSTEM UPDATE
CONTOUR INTERVAL 40 FEET
SYCAN MARSH SE, OREGON
25


UNITED STATES
DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY
MODIFIED FOR USDA FOREST SERVICE USE
RIVERBED BUTTE NW QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)
LAKE CO
KLAMATH CO
OLD INDIAN RES
WINEMA
NATIONAL FOREST
FREMONT
NATIONAL FOREST
Sycan #2
SYCAN FIRE GUARD STA
Sycan River
Sycan Marsh
BLY RD
Gravel Pit
Merritt
Bob Flat
Walking Spring
Thank Spring
Riverbed Butte
TRANSPORTATION SYSTEM UPDATE
CONTOUR INTERVAL 40 FEET
LEGEND
National Forest Boundary
Township and Section Line Classification
QUADRANGLE LOCATION DIAGRAM
RIVERBED BUTTE NW, OREGON

UNITED STATES
DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY
MODIFIED FOR USDA FOREST SERVICE USE

FUEGO MOUNTAIN SE. QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



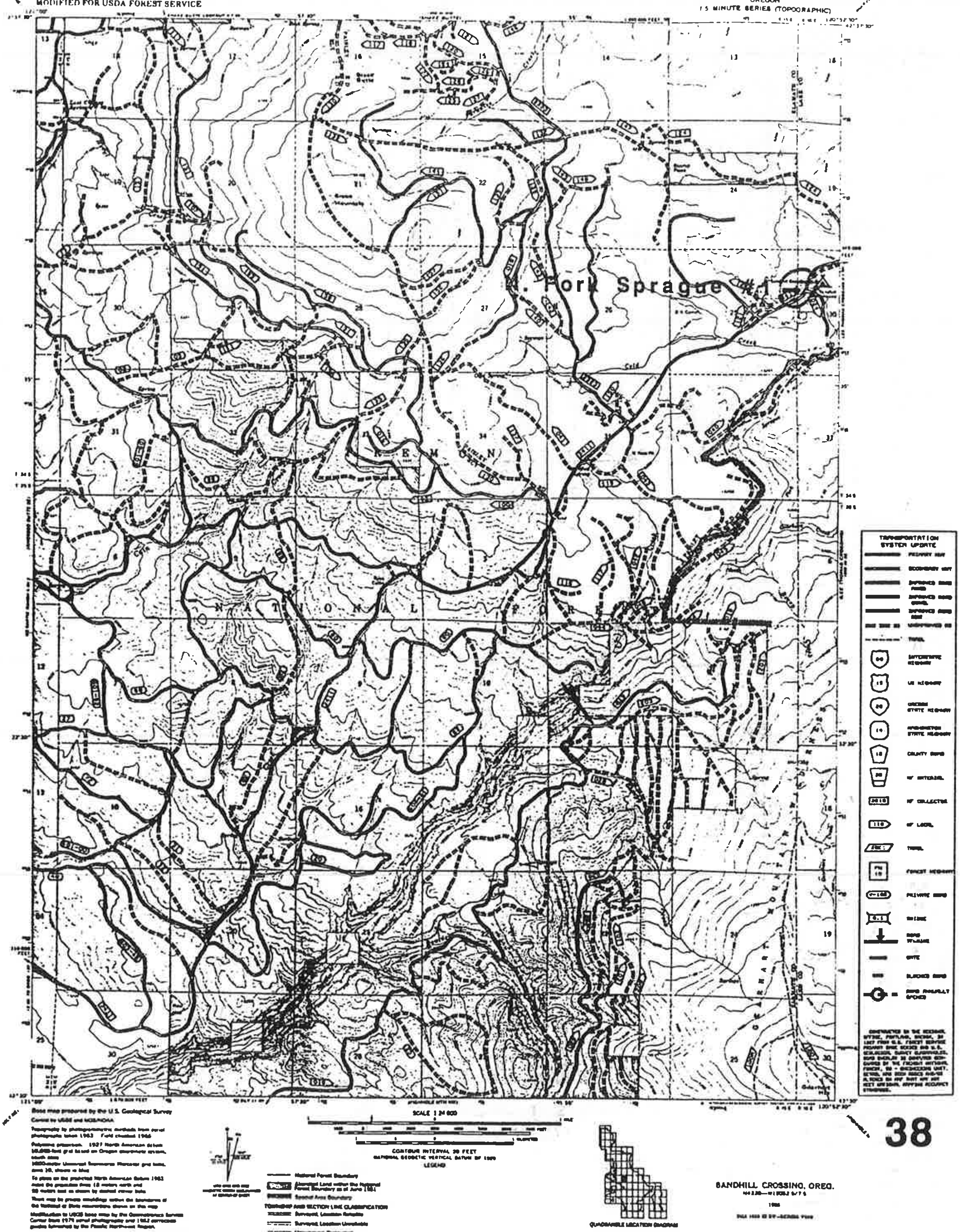
Cordelle Flat
FREMONT
NATIONAL
FOREST
Ede Flat
WINEMA
NATIONAL
FOREST
BLACK
HILLS
Spodue Mountain
6421
LOOKOUT
BLY RD
Sycan River
Coyote Bucket
Blue Creek
Blue Creek Meadows
Creek
BODOWA
SPRING
Spring
Essex Springs
Cottonwood Springs
Springs
TABLELAND
Tim Brown Spring
Chester Spring
Spring
Sprague River Valley
River
BM 4571
4589
4709
4925
BM 4343
Wild Billy Lake
Snake Creek
SCALE 1:24 000
CONTOUR INTERVAL 40 FEET
LEGEND

FUEGO MOUNTAIN SE, OREGON

QUADRANGLE LOCATION DIAGRAM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
MODIFIED FOR USDA FOREST SERVICE

SANDHILL CROSSING QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Base map prepared by the U.S. Geological Survey

SANDHILL CROSSING, OREG.