II-B-1-g 002

United States
Department
of Agriculture

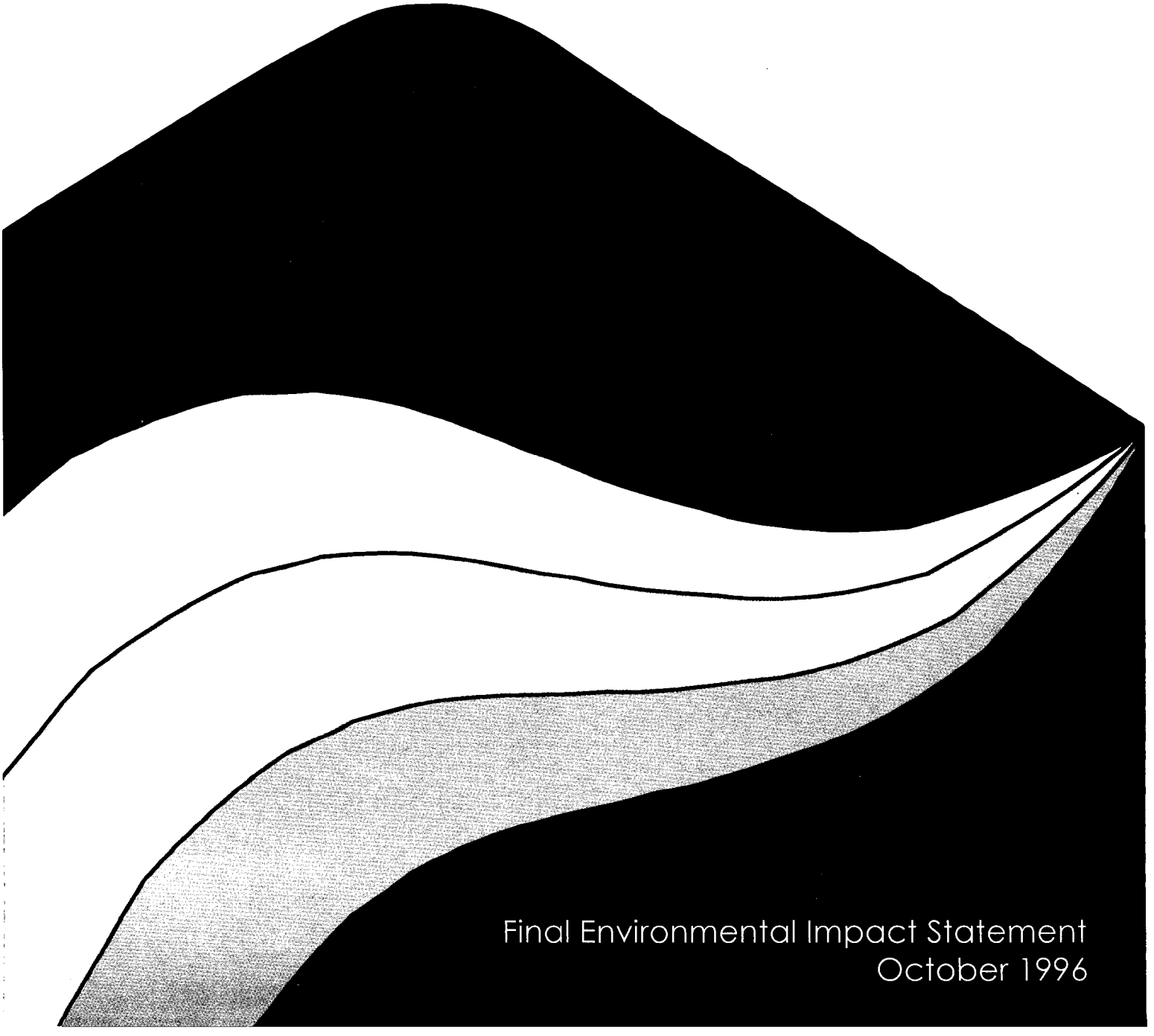
Forest Service

Pacific
Northwest
Region

Deschutes
National Forest

Metolius

Wild and Scenic River Management Plan



Final Environmental Impact Statement
October 1996

USDA Forest Service, Lead Agency
USDI Bureau of Indian Affairs
State of Oregon
Jefferson County
Confederated Tribes of Warm Springs Reservation

Metolius

Wild and Scenic River Management Plan

Final Environmental Impact Statement

Abstract

This final environmental impact statement describes six alternatives for managing the Metolius Wild and Scenic River corridor. Each alternative responds differently to the major issues and concerns identified by the public and interested agencies. Alternative 1 is the "No Action" alternative. Alternative 2 maintains the overall existing condition, repairs significant impacts, and prevents future degradation. Alternative 3 accommodates many existing uses when resources can be protected or impacts mitigated. Alternative 4 accommodates uses only when resources can be thoroughly protected. Alternative 5 provides existing and new facilities which are designed to protect the natural resources. In the Draft Environmental Impact Statement, the Preferred Alternative was presented as the alternative that best responded to the issues and protected the river values. Comments received on the Draft Environmental Impact Statement were used to modify and refine the Preferred Alternative into the Proposed Action presented herein. Comments and responses are displayed in Appendix A of this document.

For more information contact:

Rod Bonacker
Sisters Ranger District
P.O. Box 249
Sisters, OR 97759
(541) 549-7729

For Russ Olson,

Friend and fellow angler.
He loved all rivers,
and especially the Metolius.

Table of Contents

Chapter 1 - Introduction 1

Background 1
Location 1
Designation of the Metolius 2
Purpose and Need for the Management Plan 4
Related Federal, Tribal, State, and Local Planning and Management Responsibilities 5
Management Planning Process 8
Public Involvement 10

Chapter 2 - Issues & Alternatives 11

Introduction 11
Issue #1: Hydrology 12
Issue #2: Vegetation and Ecology 14
Issue #3: Fish Populations and Habitat 20
Issue #4: Wildlife 22
Issue #5: Aesthetic Qualities and Character 24
Issue #6: Prehistoric and Historic Resources 28
Issue #7: Recreation 30
Issue #8: Scenic River Segment 38
Issue #9: Commercial and Other Special Uses 40
Issue #10: Recreation Residences 42
Issue #11: Education and Interpretation 44
Other Alternatives Considered 45

Chapter 3 - Affected Environment 69

Introduction 69
Geology 69
Hydrology 72
Vegetation & Ecology 74
Fisheries 78
Wildlife 82
Visual Resources 85
Heritage Resources 88
Recreation 90
Land Use 95
Socioeconomics 97

Chapter 4 - Environmental Consequences 99

Introduction 99
Air 100
Water 101
Soils 102
Biodiversity 104
Upland Vegetation 105
Riparian Vegetation 108
Fire 112
Weeds 114
Fisheries 115
Wildlife 119
Natural-Appearing Scenery 122
Cultural Scenery 122
Prehistoric Resources 123
Historic Resources 123
Native Americans 124
Motorized Access 125
Campers 127
Trail Users 131
Boaters 134
Anglers 136
Hunters 138
Recreation Residents 139
Public Safety 142
Socioeconomics 143
Required Disclosures 144

Glossary 147

Index 153

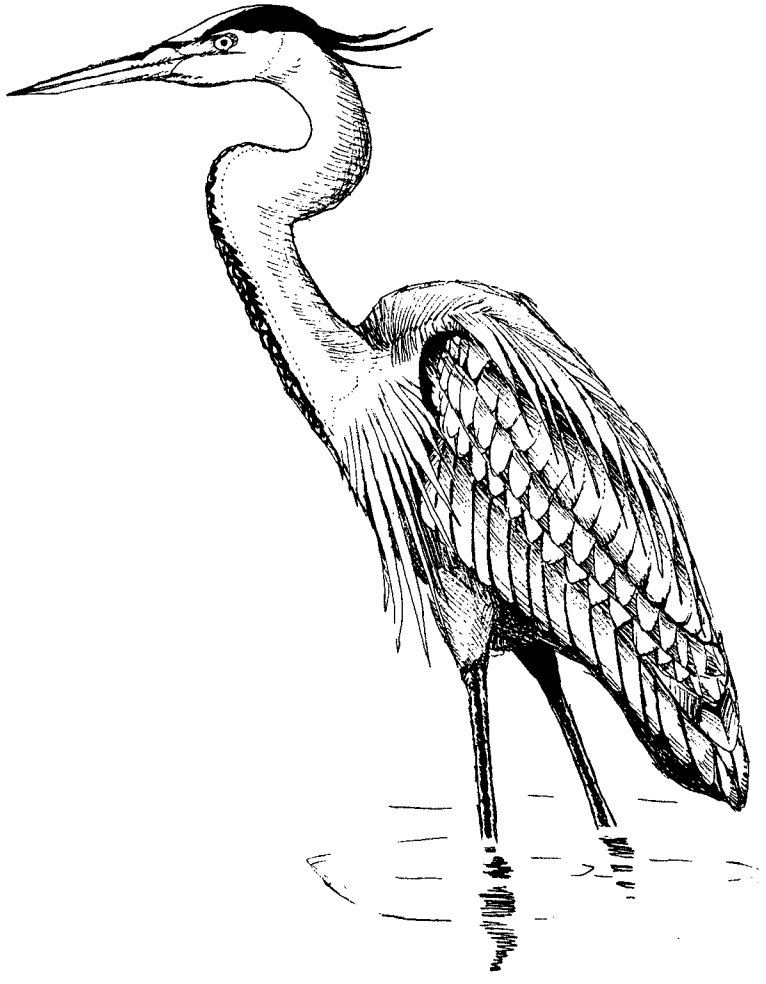
Appendix A - Comments and Responses 157

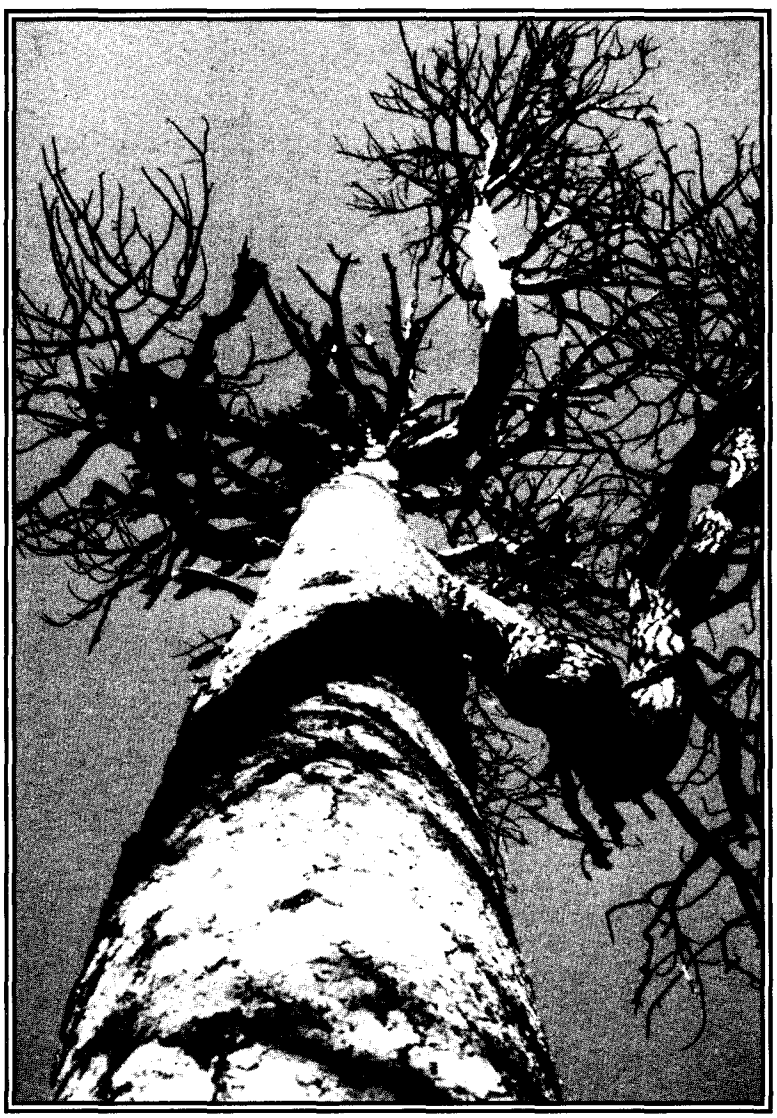
Comment Summary 157
Sources of Comments 161
Responses to Comments 164

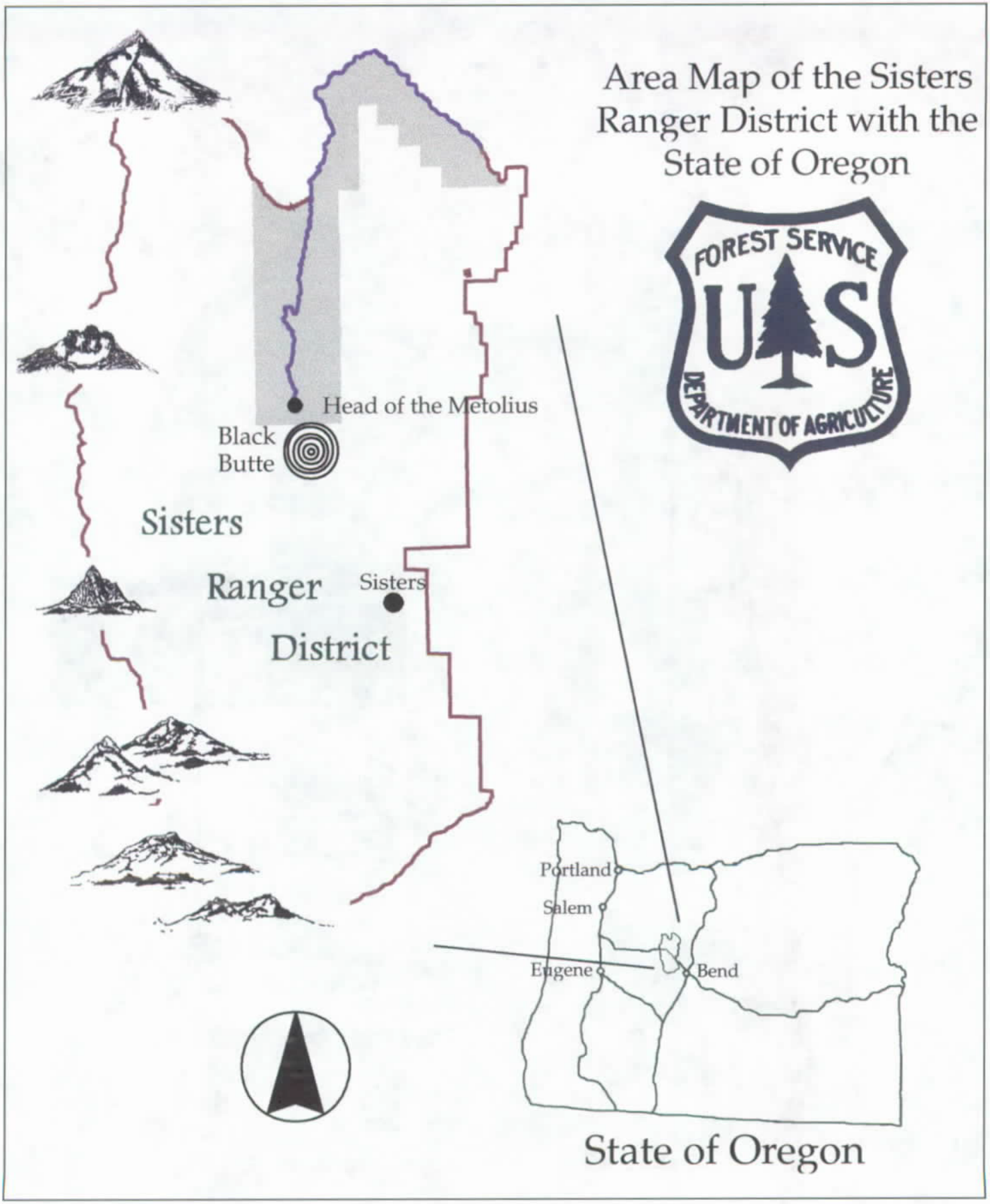
Appendix B - List of Preparers 235

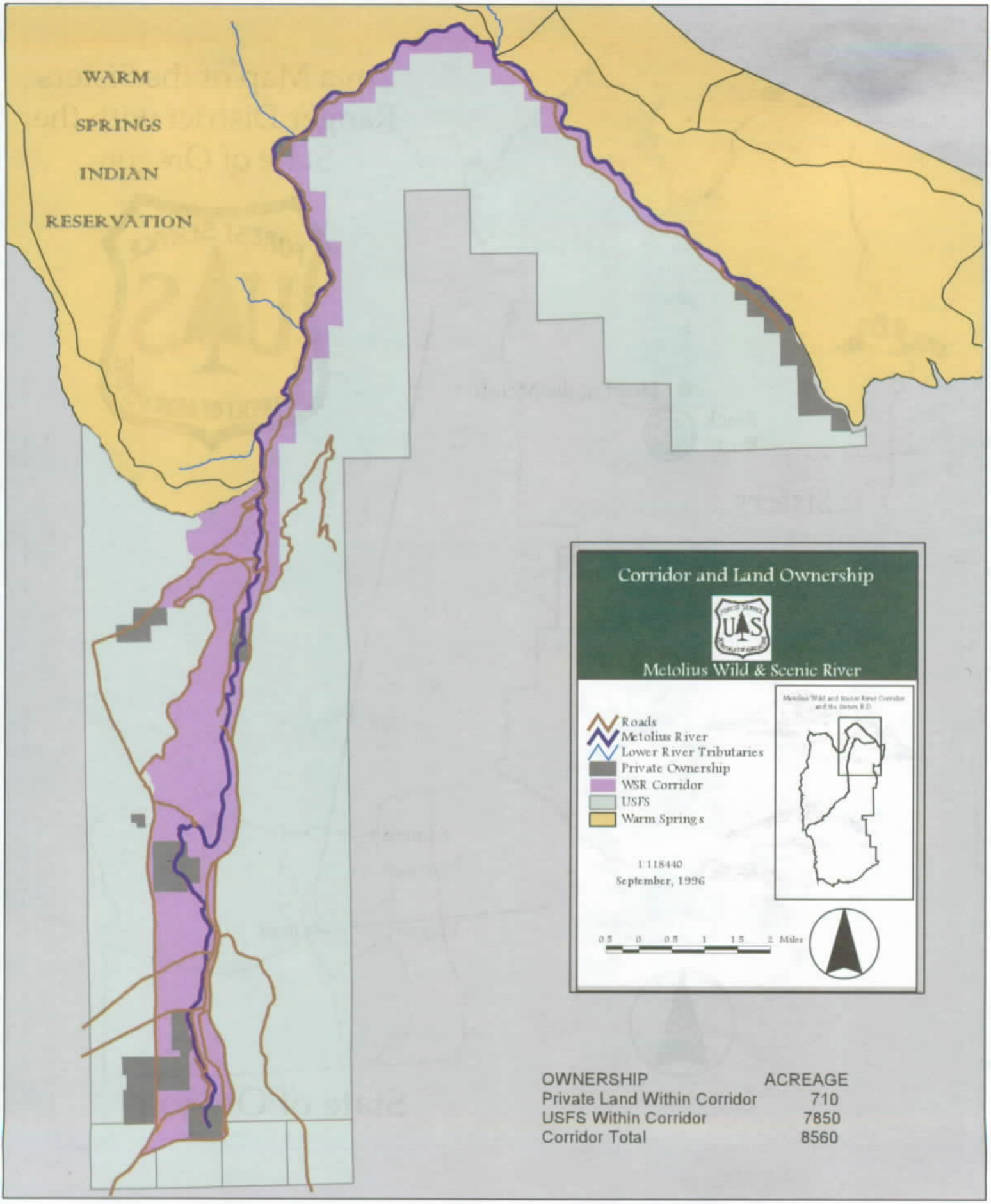
Chapter 1

Metolius Wild and Scenic River Management Plan






Area Map of the Sisters Ranger District with the State of Oregon
FOREST SERVICE
U S
DEPARTMENT OF AGRICULTURE
Head of the Metolius
Black Butte
Sisters
Ranger
District
Sisters
Portland
Salem
Eugene
Bend
State of Oregon



OWNERSHIP	ACREAGE
Private Land Within Corridor	710
USFS Within Corridor	7850
Corridor Total	8560

Metolius Wild & Scenic River

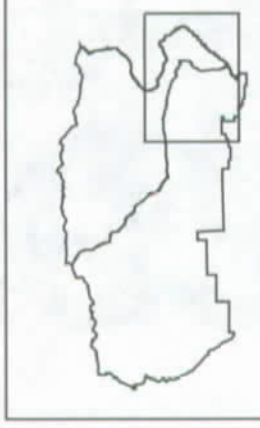
Corridor Map

Metolius River
Upper River Tributaries
Campgrounds
Recreational Residence
Roads
Private Ownership
WSR Boundary
USFS
Warm Springs
Mileposts

Scale 1:43,111
September, 1996

0.25 0 0.25 0.5 0.75 1 Miles

Metolius Wild and Scenic River Corridor and the Sisters R.D.



Candle Creek CG
Jefferson Creek
Candle Creek
RD 1200-980
RD 1499
Lower Bridge CG
Bridge 99- River Segment Termini
RD 12
RD 1270
Pioneer Ford CG
Abbot Creek
Allen Springs CG
RD 1270
Wizard Falls
RD 14
Lower Canyon Creek CG
Canyon Creek
Jack Creek
RD 1420
Allingham
RD 1217
Camp Sherman
RD 1216
RD 1419
Lake Creek
RD 1120
Headwaters
RD 14

Gorge CG
First Creek
Pine Rest CG
Tract O
RD 14
Smiling River CG
Allingham
RD 1120
Allingham CG
RD 1217
RD 1419-900
RD 1420
Camp Sherman CG
Tract H
Tract I
RD 1419
Camp Sherman
RD 1419-700
RD 1419-800
RD 14
RD 1419
Tract E
Spring Creek
Lake Creek
Tract C
Riverside CG
RD 1419-200
Headwaters

Metolius Wild & Scenic River

Corridor Map

- Metolius River
- Lower River Tributaries
- Campgrounds
- Recreational Residence
- Roads
- Private Ownership
- WSR Boundary
- USFS
- Warm Springs
- Mileposts

Scale 1:43,111
September, 1996

0.25 0 0.25 0.5 0.75 1 Miles

Metolius Wild and Scenic River Corridor and the Sisters R.D.

Camp Creek

Whitewater River

Private Land West End

Private Land East End

WARM SPRINGS INDIAN RESERVATION

RD 64

Monty CG

RD 1499

Sheep Creek

Eyerly Property

Moriel Creek

Chapter 1 - Introduction

Background

The Metolius River was first mentioned as a potential Wild and Scenic River in the Nationwide Rivers Study published by the National Park Service in 1982. In 1988, the river was included in both the National Wild and Scenic Rivers system and the State Scenic Waterways system.

The overall purpose of this document is to provide a basis for comparing several management alternatives and selecting a management plan for public lands on the Metolius River. The management plan will satisfy requirements of the National Environmental Policy Act and the Omnibus Oregon Wild and Scenic Rivers Act of 1988. It will be consistent with the Deschutes National Forest Land and Resource Management Plan, the Confederated Tribes of the Warm Springs Reservation Integrated Resource Management Plan, and the Record of Decision for Management of Habitat for Late-Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl.

Location

The Metolius River is located on the east side of the Cascade Mountain Range in Oregon. It is a major tributary of the Deschutes River which it joins approximately 100 river miles upstream from its confluence with the Columbia River. The Metolius watershed is approximately 240,000 acres of which 149,000 are on the Sisters Ranger District of the Deschutes National Forest. About 90,000 acres fall within the Warm Springs Indian Reservation. The proposed Wild and Scenic River corridor stretches from near the Metolius headwaters to Lake Billy Chinook (28.7 miles). There are 9435 acres within the proposed corridor.

Designation of the Metolius

National Wild and Scenic Rivers

The National Wild and Scenic Rivers System was created by Congress in 1968 with the passage of the Wild and Scenic Rivers Act (Public Law 90-542). Its purpose is to preserve certain rivers with outstanding natural, cultural, or recreational features in a free-flowing condition for the enjoyment of present and future generations.

Rivers may be designated by Congress (usually following a study and recommendation by a federal agency) or by the Secretary of the Interior. The river designation may include the entire river, or only a part (referred to as a segment), and may include tributaries. For federally administered rivers, the designated interim boundaries are a corridor 1/4 mile on both sides of the river. Boundaries can be adjusted during the planning process to protect related natural, cultural, or recreational values, but cannot exceed an average of 320 acres per river mile (e.g. a 10 mile-long river corridor cannot include more than 3200 acres). In most cases, Wild and Scenic River corridors include privately-owned land. Federal designations and management plan directions do not apply to or control private lands. Agencies can purchase easements or properties, but only up to an average of 100 acres per river mile. Condemnation of private property cannot be used when more than 50 percent of the lands in the corridor are already public lands.

The Federal Energy Regulatory Commission (FERC) is prohibited from licensing projects on, or directly affecting, Wild and Scenic Rivers. Other federal agencies cannot assist by loan, grant, license, or otherwise in the construction of any water resource project (such as dams, diversions, channelization, or riprapping) that would have a direct and adverse effect on river values. However designation does not affect existing water rights or existing jurisdiction of states, the United States, or Tribal governments over waters as determined by established principles of law.

Designated Wild and Scenic Rivers are further classified as wild, scenic, or recreational as defined in the Act:

- **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.
- **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.
- **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.

The Metolius River was added to the federal system by the Omnibus Oregon Wild and Scenic Rivers Act of 1988. Section 3 of the Act specifies that a comprehensive management plan be developed for the Metolius River. Segment 1, from the south Deschutes National Forest boundary near the headwaters to Bridge 99, is designated as a recreational river to be managed by the Secretary of Agriculture. Segment 2, from Bridge 99 to Lake Billy Chinook, is designated as a scenic river and is to be managed by the Secretary of Agriculture through a joint management agreement with the Secretary of Interior and the Confederated Tribes of the Warm Springs Reservation.

The Act also specifies that the lower segment will be managed to provide a primitive recreational experience as defined in the ROS User's Guide.

Oregon State Scenic Waterways

The Oregon State Scenic Waterways System was established by a ballot initiative in 1970. Rivers or other water bodies can be added to the system through designation by the Governor, the legislature, or by citizens of Oregon through the initiative process.

The Scenic Waterways Program promotes cooperative protection and use of rivers in the system by all agencies, individual property owners and recreation users. The program goals are:

To protect the free-flowing character of designated rivers for fish, wildlife, and recreation. No dams, reservoirs, impoundments, or placer mining activities are allowed on scenic waterways.

To protect and enhance scenic, aesthetic, natural, recreational, scientific, and wildlife values along scenic waterways. New development or changes of existing use are reviewed and approved before they may take place.

To protect private property rights. The Act discourages unsightly structures or inappropriate development that could be a nuisance to neighboring landowners. It prohibits pollution and the disturbance of adjacent surface lands by placer mining. It also prohibits public use of private property without the explicit consent of the landowner.

To promote expansion of the Scenic Waterways System. The Act sets up a process for adding new rivers and establishes criteria for candidate rivers.

To encourage local, state, and federal agencies to act consistently with the goals of the program. The Oregon State Parks and Recreation Department reviews plans and decisions made by other agencies to ensure consistency with the Scenic Waterways Program.

Confederated Tribes of Warm Springs Designation

The Integrated Resource Management Plan of the Warm Springs Indian Reservation (IRMP), adopted in 1992, establishes management direction for that portion of the lower Metolius that borders the Reservation. The Wild and Scenic River goals and objectives in the IRMP include protecting and preserving the river and developing a management plan in cooperation with other responsible agencies.

Forest-wide Best Management Practices (BMPs) and specific management direction for Management Zones determine the types of resource protection and management activities allowed in any forested area of the Reservation. The Management Zones that border the Metolius include Wildlife Areas, Biological Diversity Islands, and Conditional Use Areas. All of these zones exclude commercial timber harvest and emphasize protection of wildlife, native vegetation, and natural processes and landscapes.

Purpose and Need for the Management Plan

The primary purpose of this document is to provide a basis for comparing management alternatives and selecting a management plan that protects the resource values of the Metolius River on public lands on the Deschutes National Forest.

Since the adoption of the Deschutes National Forest Land and Resource Management Plan (LRMP) in 1990, most Forest Service management activities along the Metolius have been deferred pending completion of the Wild and Scenic River Plan. Requests for Special Use Permits occur on a weekly basis for such activities as recreation events, commercial "eco-touring", remodeling or reconstructing recreation residences, and commercial TV and film production. While some riparian and instream habitat work has been accomplished, it has been on a site-by-site basis rather than as part of a comprehensive effort to protect and restore priority areas.

Most of the issues discussed in the following chapter reflect growing concerns, perceived or actual, that the amount of human use on the Metolius River is exceeding its capacity to maintain the desired natural appearance and processes. This document identifies the locations of human impacts, the extent of their effects on the river values, the relation of those impacts to the overall condition of the river values, and provides several alternative standards for corrective and protective actions.

Related Federal, Tribal, State, and Local Planning and Management Responsibilities

Federal Planning and Management Responsibilities

Department of Agriculture, Deschutes National Forest

In 1990, the Deschutes National Forest adopted the current Land and Resource Management Plan. This comprehensive plan establishes standards and guidelines and broad management direction for activities on various land allocations, including the Metolius Wild and Scenic River (Management Area 28). The Deschutes National Forest manages the majority of the river corridor, with the rest being private lands primarily in the Recreation river segment and the Warm Springs Reservation lands on the west half of the river below Jefferson Creek.

In April, 1994, the federal government adopted the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl. This ROD amended the Deschutes LRMP and applied new land allocations and standards and guidelines (The Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl, commonly referred to as the Northwest Forest Plan) that overlay and usually supersede the Deschutes allocations.

The Northwest Forest Plan relies on a network of Riparian Reserves and Late-Successional Reserves (LSR) to conserve and protect habitat. LSRs are designed to "maintain a functional, interactive, late-successional and old-growth forest ecosystem." Riparian Reserves are areas along all permanent and intermittent water bodies and wetlands where the main purpose is to "protect the health of the aquatic system and its dependent species."

The Northwest Forest Plan relies heavily on an Aquatic Conservation Strategy which is implemented to protect and improve the health of the region's aquatic ecosystems. Riparian Reserves are one component of that strategy. Key Watersheds are another component, and the Metolius River and its tributaries are identified as a "Key Watershed", primarily because of the presence of sensitive salmonids (bull trout). Key Watersheds require a Watershed Analysis prior to implementing most management activities. Watershed Analysis is a "systematic procedure to characterize the aquatic, riparian, and terrestrial features within a watershed." Watershed analysis for the Metolius River began in 1994 and continues currently.

Most of the Deschutes National Forest lands in the Metolius Wild and Scenic River corridor will be included in Riparian Reserves (roughly 300 feet on either side of the river and tributaries). The rest of the corridor is included in the LSR that encompasses the entire Metolius Basin.

U.S. Fish and Wildlife Service

The USFWL Service administers the Endangered Species Act. The Forest Service consults with this agency to obtain a formal biological opinion on how management activities may affect a threatened or endangered species or its habitat. The resulting opinion may cause the agency to alter or abandon a proposed action.

Department of the Interior, Bureau of Indian Affairs (BIA) and the Confederated Tribes of Warm Springs Reservation

The BIA is the Federal agency with primary responsibility for working with Tribal governments, and does so in a government-to-government relationship. Under a U.S. policy of Indian self-determination, the BIA encourages and supports Tribal efforts to govern themselves and to provide needed programs and services on the reservations.

All of the Deschutes National Forest lands within the Metolius Wild and Scenic River corridor were ceded to the U.S. Government by the Tribes and Bands of Middle Oregon through the Treaty of 1855. The treaty reserves for the Indians exclusive rights of "taking fish in the streams running through and bordering the reservation." Indians also have the right of "hunting, gathering roots and berries, and pasturing their stock on unclaimed lands in common with citizens." The interests of contemporary Native Americans include the protection of Indian burial grounds and other sacred sites and the perpetuation of certain traditional activities, specifically root gathering and fishing.

The Confederated Tribes of the Warm Springs Reservation are consulted by Federal, State and local governments as required by the Archaeological Resources Protection Act of 1979 and as recommended by the Historic Preservation Act of 1966. The Forest Service and State also contact and consult with appropriate Tribal representatives and resource specialists in the early stages of any project or activity planning on FS or State administered lands that may affect Tribal interests, treaty rights, or traditional use areas within ceded Tribal lands.

State and Local Planning and Management Responsibilities

Oregon Department of Fish and Wildlife (ODFW)

ODFW is responsible for the management and wise use of the State's fish and wildlife resources. The Department is responsible for maintaining the optimum numbers of indigenous fish and wildlife, and to ensure that no species are threatened with extinction. The Department is responsible for developing and administering fish and wildlife regulations. The Forest Service, ODFW, and other interested groups work cooperatively in riparian and instream habitat enhancement, big game and non-game terrestrial habitat enhancement, and Deschutes Basin fish management planning. ODFW routinely monitors the Metolius angling and hunting harvest. ODFW administers a trout hatchery at Wizard Falls that provides rainbow trout, brook trout, and several other species of game fish that are stocked in waters throughout central Oregon and the High Cascades.

Oregon State Parks and Recreation Department (OPRD)

OPRD is responsible for administration of the State Scenic Waterways Program. Scenic Waterways are administered under the authority of the Oregon State Parks and Recreation Commission (ORS 390.805 to ORS 390.925). Administrative rules (OAR 736-40-005 to 736-40-095) have been adopted to govern the program. In addition to these general rules, specific rules are generated for the management of each river segment in the system.

The Act and the Commission's rules require the evaluation of proposed land use changes within 1/4 mile of both sides of the river for their potential impacts on aesthetic and scenic values, as viewed from the river. Property owners wanting to develop lands or mines, harvest timber, or begin other similar projects, must provide written notification to OPRD. The Department's evaluation of the project is coordinated with the local planning jurisdiction and other state and federal natural resource agencies that have regulatory responsibilities. Using its river classifications and administrative rules, OPRD determines if the proposed project is compatible with the scenic waterway. The landowner may not begin the project without written approval from OPRD. The Department and Commission works with the landowner to reach a mutually satisfactory resolution of any conflicts.

OPRD works closely with the Forest Service to assure their actions are compatible with scenic waterway laws, rules, and resource management recommendations. In addition to working with Federal agencies, OPRD works closely with Jefferson County planning staff and other State agencies to ensure development on private lands is compatible with the river environment.

Oregon Water Resources Department (WRD)

WRD is responsible for management and allocation of the State's water resource. The Water Resource Commission typically develops policy through the preparation of basin plans for each of Oregon's 18 river basins. Through basin plans, the WRD classifies streamflow for certain purposes such as domestic, industrial, municipal, recreation, or irrigation. The plans are adopted as administrative rules which determine how water is currently used, and how it will be allocated in the future. Three other State Departments may apply for these instream rights: OPRD, ODFW, and the Department of Environmental Quality. Once granted, the instream water benefit is held by WRD in trust for the people of Oregon.

Division of State Lands (DSL)

DSL is responsible for the management of the bed and banks of navigable waterways. DSL also regulates removal, fill, or alteration of 50 cubic yards or more of material in all waterways (including lakes and wetlands).

Department of Environmental Quality (DEQ)

DEQ is responsible for implementation of the Statewide Water Quality Management Plan which establishes water quality standards for each of the 18 river basins. The DEQ anti-degradation policy states that high quality waters like the Metolius are to be protected from degradation unless the Environmental Quality Commission finds it necessary to grant an exception based on economic or social needs.

State Marine Board

The State Marine Board registers motorized watercraft, establishes equipment and operating requirements for the safety of the environment, and regulates the use of boats on Oregon waters. It provides boating education and otherwise promotes safe boating practices. The State Marine Board also has the responsibility for registering all commercial boating outfitters and guides operating in the State.

Jefferson County Comprehensive Plan

The Omnibus Oregon Wild and Scenic Rivers Act of 1988, the Federal Land Policy and Management Act of 1976, and the National Environmental Policy Act of 1969 (as amended) all encourage or mandate intergovernmental coordination, consultation, and where possible, plan consistency. Since the Wild and Scenic Rivers Act envisioned a high reliance on local comprehensive plans to achieve the objectives of the Act, a review and analysis of the adequacy of the existing plans is critical.

The Jefferson County Comprehensive Plan was acknowledged by the Land Conservation and Development Commission (LCDC) to be consistent with statewide planning goals in 1981. The required periodic review and amendment process is currently underway. The amended plan will note the Federal designation and continue to provide protection of State Scenic Waterway resources.

There are no incorporated cities within the river corridor within Jefferson County. The community of Camp Sherman is partially located in the river corridor. Community Advisory Committees provide advice to the County on road and land use issues.

Jefferson County also provides enforcement of state and local laws on public lands in the Metolius Basin through a cooperative law enforcement agreement with the Forest Service.

Management Planning Process

The development of a management plan serves as a key tool for meeting the purposes of both the federal and state mandates. The management plan bridges the several jurisdictions that oversee a river system and provides a coherent set of goals for the specific and unique circumstances of each river. The plan forms a basis for decision-making within those discrete jurisdictions. The management plan accomplishes this in the following ways:

- Provides an image of the desired future condition for the Metolius River and its immediate environment.
- Establishes management standards and guidelines, which will serve as general guidance for more site-specific decisions.
- Establishes interagency cooperation, clarifies roles, defines responsibilities, schedules and prioritizes implementation actions.

The management plan will be incorporated into the various agency policies as applied to the designated portions of the Metolius River. It does not authorize the replacement of one jurisdiction with another (for instance, the Forest Service would not take over management of fish and game).

Forest Service Planning

The USDA Forest Service, Sisters Ranger District of the Deschutes National Forest, has taken the lead in writing the Metolius River management plan because most of the river lies on National Forest System lands. The Deschutes National Forest Land and Resource Management Plan (1990) recognized the status of the Metolius River by establishing a management area and giving the area interim guidance until a river management plan could be written. The Deschutes Forest Plan does not include segments of the river that are covered under the State Scenic Waterways Program, or the Warm Springs Indian Reservation IRMP.

Forest Service planning for Wild and Scenic Rivers is tiered in three planning processes.

National Environmental Policy Act: an environmental analysis must take place to evaluate the effects on the human environment of any proposed management plan, and the effects of a reasonable range of alternative methods for accomplishing the same goals. The Forest Service decision maker has determined that such a management plan may have a significant impact to the human environment, so this environmental impact statement has been prepared to document those effects.

National Forest Management Act (NFMA): natural resource management on the national forests must occur within a framework of land and resource plans (forest plans), which apply national policies to local areas. Each forest plan establishes management direction for a particular National Forest and sets up management areas for specific resources that in turn call for particular management guidelines.

The Wild and Scenic Rivers Act defines a process with 6 basic steps:

1. **Project Scoping and Public Involvement -** Project initiation letters, public meetings, open houses, and newsletters are used to introduce the public to the planning effort, and to identify issues and concerns. Public involvement for the Metolius continues to reflect the passionate interest in the river that led, during the development of the Forest Plan, to a proposal for a National Conservation Area, and the development of ten unique land allocations in the current LRMP. Public involvement has been on-going, even during the occasional hiatus in planning efforts. For more detail see below.
2. **Resource Evaluation -** The Planning Team must identify and evaluate river-related resources and determine Outstandingly Remarkable Values. A Resource Assessment was written by the Sisters Ranger District and finalized in April 1992. The Resource Assessment guides interim management and serves as a foundation for developing the river's management plan. The assessment identified eight Outstandingly Remarkable Values (ORVs) for the Metolius River (see Appendix).

3. **Identification of Issues** - Issues are generated by the public and agencies to reflect their interests and their concerns about current resource and management activities. Issues usually begin as singular site-specific or incident-specific items which are then combined with the issues of others into broader statements or questions.

4. **Develop Management Alternatives** - A "reasonable range" of alternatives is developed that respond to the issues. Alternatives should reflect the full spectrum of feasible possibilities, but need not display incremental changes or "differences in degree" between alternatives. Alternatives must be legal and implementable.

5. **Determine the Consequences of the Alternatives** - Each alternative poses different consequences to individual resources and the environment in general. The consequences must be assessed as they apply to the Metolius corridor and its individual river values. Additionally, the cumulative effects must be assessed in two ways: how actions in the corridor affect the rest of the basin, Forest, and region, and how actions outside the Wild and Scenic corridor may affect the river values.

6. **Select a Preferred Alternative** - As the alternatives are reviewed for their relative merits and environmental consequences, the agencies and public begin to identify common components that meet their interests. These components or alternative actions may be contained thematically in one of the developed alternatives or they may be combined portions of several alternatives. The Preferred Alternative may even contain new elements that arise from discussion and input. A Preferred Alternative that is substantially different from the original alternatives, as in the case of the Metolius DEIS, is assessed separately for its environmental consequences.

   The Preferred Alternative is displayed in the DEIS as the action the agency believes best addresses all the issues.

7. **Proposed Action and Final EIS** - Once the DEIS and Preferred Alternative are released, the public and other interested agencies have an opportunity, usually 45 to 90 days, to comment, recommend changes to the Preferred Alternative, or to identify where they think the analysis is incomplete or incorrect.

   This document is the Final Environmental Impact Statement or FEIS. Changes and improvements have been made to the EIS. Information has been added and updated. In some cases, modifications have been made to the Preferred Alternative to address public or agency concerns. The Preferred Altenative is now presented as the Proposed Action. This Final EIS also responds to all comments received (Appendix A). This often requires additional analysis and/or modification of the Preferred Alternative.

8. **Record of Decision and Management Plan** - Generally an FEIS is accompanied by a Record of Decision or ROD that formalizes the desions and recommendations of the Deciding Offical, in this case, the Deschutes Forest Supervisor. A Management Plan is also prepared which incorporates the Proposed Action, defines implementation roles and responsibilities, and includes implementation and monitoring activities that provide a an overall and coordinated management strategy for the Wild and Scenic River.

   In the case of the Metolius, a ROD and Management Plan are not being released concurrent with the FEIS. This is because of continued negotiations between the interested agencies regarding the management of boating on the Scenic segment of the river (below Bridge 99). While it is expected that boating will be managed under the objectives as displayed in Chapter 2, Issue 7, agreement on the actions and activities necessary to reach those objectives are not yet finalized.

Public Involvement

Public Involvement for the Metolius River began in 1989 when the Deschutes held a series of public meetings to identify issues associated with all of the proposed Wild and Scenic Rivers on the forest. In this first planning effort, additional public involvement occurred during the development and review of the Resource Assessment.

In 1991, the Forest Service contracted with Land and Water Associates to complete the planning process. Land and Water initiated a series of well attended public meetings in Camp Sherman, Bend, and Salem. These meetings were used to introduce the planning process and to define issues.

In February, 1992, the Public Work Group was formed, consisting of members of the public interested in actively participating in the planning process. This group met 9 times through 1992.

Land and Water presented issues and preliminary alternatives to the public in June, 1992. Public meetings were held in Camp Sherman, Bend, Warm Springs, and Portland; significant changes were proposed.

In December, 1992, the contract with Land and Water was terminated, and a new Interagency planning effort began. The Metolius Coordination Group was formed from representatives of the Deschutes National Forest, The Confederated Tribes of Warm Springs, the Bureau of Indian Affairs, Oregon Parks, Oregon Department of Fish and Wildlife, and Jefferson County. This group sets direction and coordinates agency interests for the planning process. The Interagency Interdisciplinary Team was formed with resource specialists from all of the interested agencies. This ID Team developed the alternatives and determined the environmental consequences.

In 1993 through 1994, two additional packages of alternatives were developed and reviewed by the Coordination Group, the Public Work Group, and the general public. Several public meetings were held to discuss the alternatives. Working meetings of the Interagency ID Team have been open to the public with opportunities to comment and ask questions.

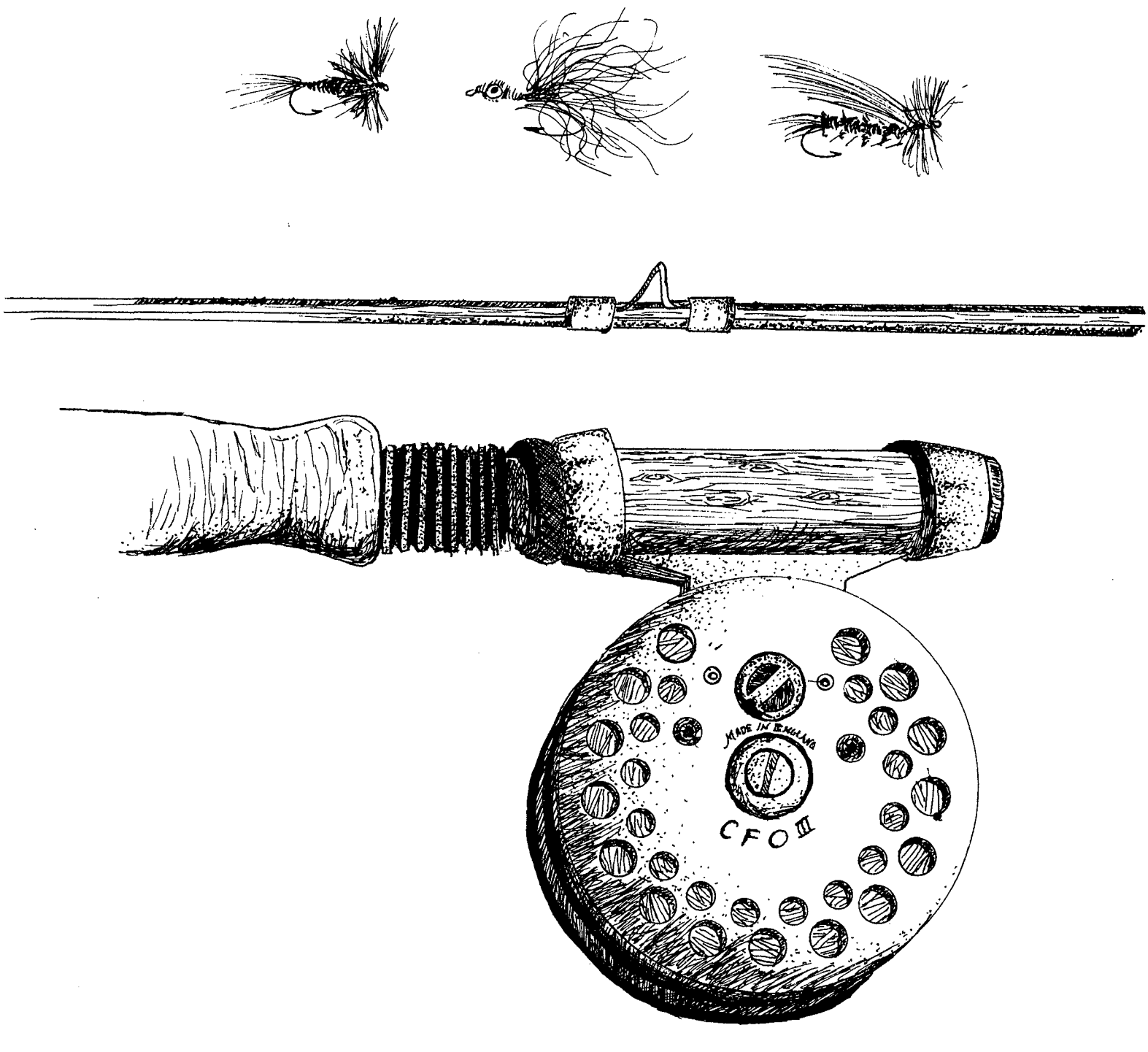
A planning update, in newsletter form, was distributed to all parties on the Metolius Wild and Scenic river mailing list in early 1995. The newsletter announced a Draft Environmental Impact Statement that was made available to anyone interested. Several public meetings were held to discuss the Alternatives and other material presented in the "draft" DEIS. These meetings were also used as an opportunity for the public to express interests to be shared with the Metolius Coordination Group prior to the selection of the Preferred Alternative. This was billed as the last formal opportunity for public participation prior to the printing and distribution of the actual DEIS.

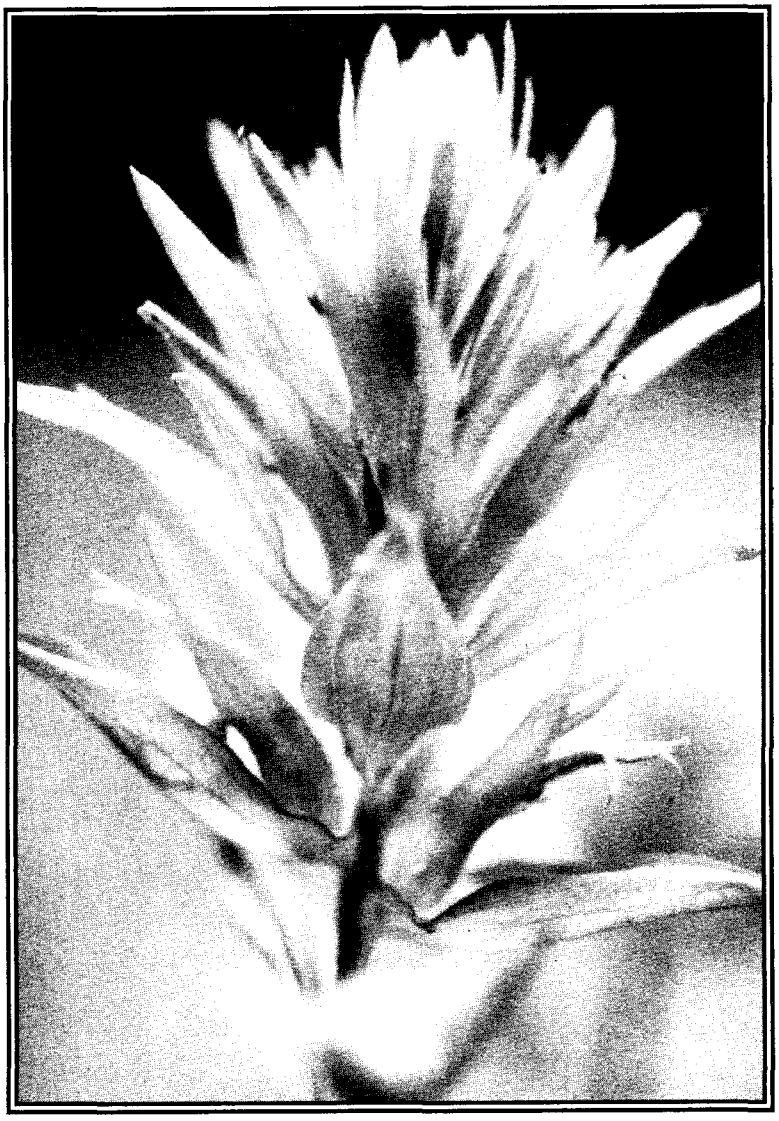
A ninety-day public comment period followed the release of the DEIS in November of 1995. Over 700 copies of the DEIS were distributed for public and agency review. From December 1995 through February 1996, public meetings were held in Sisters, Wilsonville, Camp Sherman, Bend, and Warm Springs. Opportunities for oral comments were given at most meetings. Written comments could be submitted by mail, FAX, or on-line until the close of the comment period on February 16, 1996.

The substantive comments received on the DEIS are displayed in Appendix A along with responses. These comments were used to correct and amend the DEIS as well as develop the final Proposed Action for management of the Metolius River (see Chapter 2).

Chapter 2

Metolius Wild and Scenic River Management Plan





Chapter 2 - Issues & Alternatives

Introduction

Issues have been generated by the public and agencies to reflect interests and concerns about current resource management and the protection and enhancement of the Outstandingly Remarkable Values of the Metolius. Eleven issues have been developed and used in this planning process. They are shown in the table below.

A "reasonable range" of alternative management actions have been developed to address each issue. Five different alternatives, including Alternative 1, the "No Action" alternative, were analyzed for their environmental consequences on the river's resources. This analysis aided in the selection of the Proposed Action which is described in the first section of this chapter. The five other alternatives considered are found in the second section of the chapter.

Boundary

The boundary for the Wild and Scenic river corridor must be established so that it is surveyable and easily administered. Main roads provide most logical and recognizable boundaries for the public and resource managers. Section lines are also easily surveyed. Buffered distances from the river, such as the 1/4 mile interim boundary are difficult to locate and administer. The Scenic river segment limits the corridor size to 320 acres per river mile or 9184 acres for the Metolius. In the Scenic river segment, the topography and similarity in management direction of the adjacent Metolius Wildlife Primitive Management Area (LRMP) reduce the need for a wide corridor.

Proposed Action	The proposed Wild and Scenic River corridor boundary includes 8560 acres of national forest and private land. This acreage is within the limit of 320 acres per river mile imposed by the Wild and Scenic Rivers Act. The proposed division (termini) between the Recreational and Scenic river designations is at Bridge 99, as identified by Congress in the Wild and Scenic Rivers Act.

Issue #1: What should be done to protect and manage the hydrologic and geologic values of the Metolius?

The hydrologic values of the Metolius include: the extremely high quality of water over the full length of the river (the largest spring-fed river in the region); the steep gradient; unique, cold water temperatures that actually decrease downstream; and the consistent, sustained flow levels. The geologic values include the number of springs on the main stem and the tributaries.

During scoping, people emphasized the importance of maintaining water quality and quantity. People expressed concern over possible contamination due to septic systems, horse use, logging, grazing, and dispersed recreational camping along the tributaries. People believed that more information was needed regarding water levels and rights, pollution, water temperature, and conditions throughout the watershed.

At present, water quality monitoring has not indicated that there is any cause for concern about the quality of the Metolius river water. In the past, there has been some concern about contamination of groundwater, especially in the areas around summer homes. Some drinking water wells testing high for fecal coliform were capped, and new, deeper wells were drilled. While monitoring has not indicated any problems, there are many significant inflows to the river between the source of domestic pollution and the water quality monitoring station (Bridge 99). Inflows dilute possible contaminants and may be hiding pollution that could be a problem nearer to the homes.

Comments were received regarding water quantity and water rights, including concern about municipal water rights should Camp Sherman incorporate,and groundwater and springs rights; and a suggestion to apply for instream water rights for fish, wildlife, and recreation.

Water Quality

Water quality in the Metolius and its tributaries is currently very high. Monitoring and management actions to protect this existing high quality is important. It is unlikely that there are many actions that could result in noticeable improvements in water quality, so management actions are focused on preventing, detecting, and addressing future degradation. Septic systems are an area of concern as a potential source of contamination (See Issue #10, Septic Systems). Because the Metolius Basin is a sedimentary basin with a high water table, the ground and surface water in such basins is believed to be especially susceptible to contamination by effluent from septic and drainfield systems. Recreation facilities, roads, and vegetation management activities may contribute to erosion and sedimentation, particularly when they are located in riparian areas. Water quality is a basin-wide issue being affected by activities on private land, tributaries, and in areas outside of the Wild and Scenic River corridor, so interagency coordination is particularly important.

Proposed Action	Water quality standards are established which meet or exceed (in cases where baseline monitoring indicates improvement is possible/necessary) existing water quality. Other resources are managed to give very high levels of protection for water quality. Response to hazardous material spills is coordinated between agencies.

Water Quantity

The Metolius is primarily a spring-fed river. Its flows do not fluctuate greatly with season or time of day. Stable flows have shaped the character of the river's instream habitat and riparian areas. Recent droughts have lowered water levels and dried up springs, but there is no clear understanding of water sources, recharge cycles, and the role that consumptive water use plays in affecting flows. Monitoring to establish baseline data may build better understanding of groundwater flows and influencing factors.

Proposed Action	Water quantities are managed for the most stable flows possible. Baseline flows are established from existing data and used as a basis for management decisions concerning water stability.

Water Rights

A minimal amount of consumptive surface and groundwater rights exist within the Metolius Basin (67 cubic feet per second, half of which are for fish and wildlife uses). Managing the impacts of these and future uses on flow levels is important. The Confederated Tribes of Warm Springs hold an unquantified consumptive right to waters of the Metolius River, the quantity of which is being negotiated with the State of Oregon and the federal government. It is not anticipated that the consumptive rights of the Tribes will be quantified at a figure larger than 50 cfs.

The Oregon Department of Fish and Wildlife has applied for eleven instream water rights on the Metolius River and the following tributaries: Abbot Creek, Candle Creek, Canyon Creek, Fly Creek, Jack Creek, Lake Creek, Link Creek, and Spring Creek. Additionally, the Water Resources Commission has identified State Scenic Waterway flows to protect fish and recreational flows. Under Oregon law, only the Departments of Fish and Wildlife, Environmental Quality, and Parks and Recreation may apply to the Water Resources Department for instream water rights. Instream water rights may be issued for a number of public values, some of which are identified as Outstandingly Remarkable Values. For example, recreation, aquatic and fish life, wildlife, fish and wildlife habitat, and navigation are among the values for which instream water rights may be granted.

Managing the impacts of existing and future uses on flow levels and resources dependent on high, stable flows is important.

Proposed Action	The managing agencies will cooperate in filing applications, under the auspices of the appropriate state agency, for instream water rights where it is determined that current instream rights are not sufficient to protect those public uses for which water rights may be an issue, and which have been identified as Outstandingly Remarkable Values of the Metolius River. The managing agencies will cooperate in acquiring, on the basis of need, existing consumptive water rights in the Metolius Basin from willing parties through purchase, lease, or gift, for conversion to instream water rights.

Issue #2: What should be done to protect and manage the river's ecological values?

Many of the comments received during scoping emphasized that any specific river corridor decisions should take into account the ecology of the entire Metolius basin and that all activities within the basin should be considered, not just those within the ½-mile wide study corridor. Ecological values identified in the Resource Assessment included: the landscape level gradients of environmental factors as the river travels through a transition zone from forested Cascades to desert Great Basin; the disjunct populations of west-side species associated with Green Ridge; the epicenter of a rare endemic wildflower population, Peck's Penstemon; the historic records of Tall Agoseris and Water Lobelia along the Recreation river segment and the possibility of additional rare species along the Scenic river segment; and the variety of riparian habitats, including islands.

Many people commented on the draft Resource Assessment, strongly recommending that the area's ecological/botanical resources should be defined as outstanding. Many people considered the river corridor to have a high diversity of plants and the Scenic river segment to be part of more than 25,000 acres of relatively pristine vegetation. Other comments focused on the river corridor's rare plants, the riparian area, and forest health, each of which is discussed below.

Rare Plants. Some individuals were concerned with protection of rare or sensitive plant species such as Peck's Penstemon. The two major threats to the continued viability of Peck's Penstemon are habitat fragmentation and habitat loss. Fragmentation of habitat may result from timber harvest activities, recreational use (trampling and development), and through alteration of local hydrology (periodic flooding appears to be important). People felt there was a need to better document the rare plants or populations located within the river corridor.

Other Species of Concern. The Northwest Forest Plan contains special provisions to benefit fungi, lichens, bryophytes, mollusks, amphibians, and mammals that are closely associated with old growth habitats. These species are referred to as "Survey and Manage." One of these species, a rare truffle, Elaphomyces anthracinus, is found within the corridor (its only known site within the range of the northern spotted owl). The mountain lady slipper, Cypripedium montanum is also reported to occur along the river. Potential habitat for other rare species exists within the corridor.

Riparian Area. Protection of the riparian zone was listed as a priority by many people during the scoping process. Many people commented on the impacts of recreational use on riparian vegetation and soils. People said that a healthy riparian area was necessary for a healthy river and fishery (in part by providing proper habitat cover and insect populations), as well as providing habitat for wildlife. People made a variety of comments about streamside trails and other uses of the riparian area, generally favoring a more natural-appearing and functioning riparian area with native vegetation. Many viewed the proximity of the campgrounds to the river as contributing to the problem, suggesting a variety of actions including closing some campgrounds on a rotating basis, or moving campgrounds out of the riparian area. Other suggestions included increasing setback requirements, moving trails farther away from the river, keeping livestock away from stream banks, limiting fishing use, and revegetation with native species.

Forest Health. The stands of large ponderosa pines are a critical component of the character of the Metolius. Concerns were noted about forest health, including the spruce budworm, and problems associated with environmental risks and safety. It was suggested that past fire suppression and timber harvest practices are changing the area from a forest dominated by pine to one dominated by fir. Insect and disease-caused mortality, fuel loads, and fire hazards have increased, leaving the open, park-like stands of big ponderosa pines at risk without active management to perpetuate them. The difficulty of achieving biodiversity of forest stands while maintaining open stands of ponderosa pines was also mentioned, noting that sometimes the language of the Forest Plan was not conducive to determining the preferred management action. A related concern was educating visitors about fire hazards and taking steps to minimize the potential of recreation-caused fires.

Biodiversity

The variety of life and its processes sustain a healthy and adaptable ecosystem. Conservation of this diversity is much easier, more feasible, and less costly than restoration. There is much undiscovered biodiversity in the Metolius basin represented by small creatures such as insects, mites, and mollusks and unassuming plants such as fungi, lichens and mosses. These groups and others perform numerous ecological roles but our understanding of them is incomplete. Major functional systems may yet be discovered.

The Northwest Forest Plan contains special provisions to benefit fungi, lichens, bryophytes, mollusks, amphibians, and mammals that are closely associated with old growth habitats. These "Survey and Manage" guidelines establish four categories of priorities. The highest priority species require management and protection of known sites. There are two known sites within the corridor. Potential habitat for others exists. Regional surveys for several species groups are being conducted, and new sites will be considered in any management activity planning.

A broad scale approach to conserve known and unknown diversity is to conserve landscape patterns and processes. This is called a "coarse filter" strategy. Where species viability may have already been compromised, and for rare ecological elements, "fine filter" strategies can provide specific conditions for a single species or special habitat. When conflicts arise between biodiversity and other resource values, the following mitigation strategies (listed in general order of preference) are followed: avoid, minimize, rectify, reduce, or compensate for the impact.

Proposed Action	Biodiversity is approached with both "coarse-filter" and "fine-filter" conservation strategies. Significant downward trends (current or predicted) in genetic diversity, population numbers, density, or habitat capability are identified so that management may be modified to reverse or slow these trends.

Upland Vegetation

If they were not Congressionally Withdrawn, all of the federal lands within the proposed Wild and Scenic River corridor would be designated in the Northwest Forest Plan as Late-Successional Reserve (LSR). In addition, all land within certain specified distances of the river, tributaries, and other wetlands or waterbodies is considered to be Riparian Reserve. The Wild and Scenic River Plan defines the desired local vegetative conditions that will meet the objectives of LSR and Riparian Reserves.

Vegetation management in the corridor is patterned after that within LSRs which must be designed to aid in the development of old growth forest characteristics and prevent large scale disturbances that destroy or limit the function of habitat for old growth related species.

Upland vegetation management in Riparian Reserves must help to attain the objectives of the Aquatic Conservation Strategy. The Standards and Guidelines prohibit or regulate activities that might adversely affect aquatic species or riparian processes and functions.

Forest health is a major objective of upland vegetation management. A "healthy" forest has the ability to tolerate or resist various stresses and recover from disturbances. Intensified cycles of insects and disease are a symptom of an unhealthy forest which can cause large-scale disturbances across landscapes. However, treating only the symptom does not cure the underlying problem. Long term answers to forest health problems can be found in restoration of sustainable conditions and ecosystem processes and disturbances.

Management action which perpetuate healthy forests with old growth characteristics are also important to the protection of the character of the area and the desired visual quality for natural-appearing scenery.

Proposed Action	The desired vegetative conditions are healthy forests (defined by the ability to tolerate or resist various stresses and to recover from disturbance). These forests are dominated by open stands of large trees, and have an understory of the minimum density necessary to supply future replacement trees and provide structural and habitat diversity, and have adequate numbers of snags and large down logs (see Issue #4 - Snags and Down Logs). Forest canopy adjacent to the river is dense enough to provide the amount of shade necessary to maintain stream temperatures. Areas that are outside of the range of desired conditions will be restored. These areas are defined by excessive stand densities, high fuel loads or fuel arrangements conducive to crown fires, and presence of non-native species. Upland vegetation restoration outside of the developed areas is achieved primarily through natural succession and disturbance processes, supplemented by the use of prescribed fire. Other tools that are used expressly for the purpose of meeting vegetation objectives include understory thinning, harvest of excessive fuel loads, planting, and subsoiling. In the Scenic river segment, vegetation management is performed only if consistent with the primitive character of the area (see Issue #8). Prescribed natural fire is the primary method of vegetation management, but small scale, low intensity prescribed burning and thinning may be used to reduce understory densities where upland or riparian habitat will benefit.

Riparian Vegetation

Riparian areas occur along the interface of aquatic and terrestrial ecosystems. These areas are critical to the health of the river, protect water quality, and are important habitats for a diversity of wildlife and plant species. People are attracted to these areas too and have impacted riparian functions with campgrounds, trails, fishing spots, and roads.

Riparian areas are protected by the Northwest Forest Plan as "Riparian Reserves" where special standards and guidelines apply. Riparian Reserves are a key component of the Aquatic Conservation Strategy, which has nine objectives to maintain and restore aquatic ecosystems. To comply with the Aquatic Conservation Strategy Objectives, management of riparian resources must maintain the existing condition or implement actions to restore conditions. The objectives most pertinent to riparian health are:

- Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.
- Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody material sufficient to sustain physical complexity and stability.
- Maintain and restore habitat to support well-distributed populations of native plants, invertebrate, and invertebrate riparian-dependent species.

Under all alternatives, management of riparian areas must maintain the existing condition or implement actions to restore conditions toward the range of natural variability. The Northwest Forest Plan specifies that dispersed and developed recreation practices that retard or prevent attainment of the Aquatic Conservation Strategy Objectives be adjusted through education, use limitations, traffic control, increased maintenance, relocation of facilities, and/or site specific closures. If these measures are not effective the practice or occupancy is eliminated.

The Wild and Scenic River Plan defines the desired, local vegetative conditions that will meet the objectives of ACS. It also provides condition-specific direction for implementing the Standards and Guidelines of the Northwest Forest Plan.

Proposed Action	Riparian vegetation is managed according to the desired vegetative conditions (natural processes and healthy riparian areas dominated by shrubs and trees that overhang the stream, native forbs and grasses, islands, meadows, and small patches of early seral vegetation) and objectives set forth in the Northwest Forest Plan (see above). Areas that are moderately or significantly outside the range of desired vegetative conditions are rehabilitated. Existing uses, including the river trail, campgrounds, and recreation residences, have special objectives for protecting riparian vegetation that are addressed in respective portions of this plan. (see Issue #7 & Issue #10)

Fire

Fire is a natural, periodic event in the forest ecosystems of the Metolius Basin. The disturbance caused by fire sets the stage for the cycle of forest renewal. Decades of wildfire suppression have greatly altered natural fire frequency, intensity, and the potential for destructive effects. Without periodic fire, tree species composition and densities have progressed to unsustainable conditions and the cycles of other disturbances such as insects and disease have intensified.

The reintroduction of prescribed fire for beneficial objectives is complicated by concerns about escaped fires, smoke, and visual effects. Fuel accumulations and the development of brush and thickets also create much hotter fires today than those which occurred historically. Special precautions, such as pretreatment thinnings to reduce fuel loads and burning when conditions are moist, reduce the risk of escape and damage. The careful use of prescribed fire can reduce the risks of catastrophic wildfires and improve forest health.

Wildfire suppression activities can impact the natural resources and character of an area. Strategic planning or limitations on suppression activities could help protect the primitive nature of the Scenic river segment. In the Recreation river segment, more aggressive suppression tactics and preventive measures would be appropriate for the protection of recreationists and private property.

Proposed Action	Fire is the primary means of restoring desired vegetative conditions. Pretreatment thinnings and multi-stage burns are used where necessary to reduce risks to developed areas or ORVs. A Fire Management Plan guides the use of natural fire under prescription. Wildfire suppression objectives and standards in the corridor from Candle Creek downstream are to be developed consistent with the primitive character of the area and the Late-Succession Reserve Assessment (see Chapter 1).

Timber Harvest and Salvage

There may be a need to remove some trees as part of restoring structure and composition towards the desired conditions, protecting surrounding stands, and reintroducing fire. The term "salvage" refers to removing trees that are damaged, dying or dead for the recovery of timber values. The economic role of harvest and salvage is a subordinate consideration in the corridor, though the commercial value of timber does contribute to enabling work that would be otherwise economically infeasible. In harvest and salvage guidelines, tree mortality is recognized as a natural process in the forest ecosystem and dead and dying trees are important components of old growth forests.

Proposed Action	There is no programmed timber harvest in the Metolius Wild and Scenic River corridor. Timber harvest and salvage are only used to restore desired vegetative conditions, enable the safe and efficient use of prescribed fire, or protect surrounding stands which are at risk (see Vegetation Management).

Grazing

Livestock grazing is a very minor use on federal lands within the corridor. It is currently comprised of one horse pasture and crossings tied to the potential future use of a vacated sheep allotment which covers most of the northern part of the Sisters Ranger District. Private lands comprise such a small percentage of the river corridor that the grazing which takes place there does not have a major influence on the river. Wide-scale grazing can have impacts on a river ecosystem, especially when it takes place in riparian areas. The loss of shrubs and the break-down of banks in other rivers that have been heavily grazed increases stream temperature, reduces fish habitat, and affects water quality. Grazing can also compact soils, increase erosion, and alter species composition.

Proposed Action	Grazing is not an essential or appropriate tool for managing vegetation in the corridor. To the very limited extent that it is an enduring traditional or historic use (one existing pasture permit), it will be permitted. When necessary for the utilization of out-of-the-corridor grazing allotments, crossing may be permitted. These uses will be managed to protect corridor resources, especially riparian related, under existing range management direction.

Special Forest Products

Special Forest Products include mushrooms, firewood, cones, boughs, wildflowers, herbs, nuts, berries, moss, lichens, floral greenery, native plant transplants, burls, Christmas trees, and small trees for posts or poles. Personal use or commercial permits are required to remove more than incidental quantities of these items from the National Forest, except for Native American Tribal members who hold treaty rights on ceded lands (see Issue #6, Traditional Uses). All Special Forest Products are also components of the river ecosystem and many are important to the visual and biological diversity. High use in the river corridor concentrates the impacts of special forest product removal and can have adverse or unknown impacts on the river ecosystem and scenery.

Proposed Action	Commercial harvest of special forest products is permitted only in designated areas to accomplish vegetation management goals or meet other resource needs. Incidental use of special forest products is discouraged through education and interpretation of ecological values. Firewood cutting and gathering are only allowed in designated areas to reduce hazards or meet other resource needs. A firewood concession is available for campers.

Weed Control

Weeds are aggressive non-native plants that invade native plant communities and reduce the quality and quantity of their habitat. Undisturbed forest ecosystems are fairly resistant to weed invasion, but disturbed areas such as roadsides, timber units, trails, and recreation sites are vulnerable. Weed seeds are commonly introduced by vehicle tires, equipment, contaminated hay, or livestock manure. Integrated weed

management strategies emphasize the need for prevention and early detection of weeds because well established weed populations are extremely difficult to control and can make restoration activities futile. Weed control methods include manual (pulling plants or seed heads), mechanical (mowing), biological (using specific insects that eat seeds, roots, or plants), or chemical (herbicides). A great deal of existing regulations guide and limit the use of herbicides on National Forest lands in order to safeguard the environment.

Proposed Action	Weed prevention and early detection efforts are emphasized. Chemical herbicides are used only where biological or manual control is impractical or ineffective in preventing degradation of native plant habitat. Herbicide application will be selective, site-specific, and in accordance with an Integrated Weed Management Plan (scheduled to be developed for the Deschutes National Forest). Weed control is coordinated between agencies. Weed awareness is pursued through education.

Issue #3: What should be done to protect and manage the river's fish populations and habitat?

The cold, clean water and stable flow creates unique aquatic habitats for the fish of the Metolius River (Issue 1 addresses hydrology in more detail). The river is noted state and nationwide for trout fishing, with the clear spring-fed water and scenic views of the Cascade peaks through large ponderosa pines an important part of the experience. Wild rainbow trout, hatchery rainbow trout, and a now-thriving bull trout population have drawn many anglers to the Metolius River for years. The rich diversity and unique timing of the insect populations are important parts of the river's ecology, and offer quality flyfishing opportunities. The road access and the ease of wading in the Camp Sherman area has opened the river to anglers for many years.

Currently, the river supports wild populations of rainbow trout, bull trout, mountain whitefish, kokanee, sculpins, dace and suckers. Hatchery rainbow trout and naturally reproducing populations of brown trout, brook trout and kokanee have been introduced to the system. Historic runs of chinook and sockeye salmon were native to the Metolius system but have been extirpated. Oregon Department of Fish and Wildlife (ODFW) recognizes the wild rainbow trout of the river to be redband trout, a classification of rainbow trout indigenous to the upper Colombia basin. Redband are listed as Sensitive by the Forest Service and ODFW, and as a Category 2 candidate species under the Endangered Species Act. Bull trout have been petitioned for listing as threatened or endangered under the Endangered Species Act throughout their range in the northwestern United States. The US Fish and Wildlife ruling on the listing is pending.

During scoping, some people favored restoring indigenous species, managing for wild fish only, and maintaining wild genetic stocks to the extent possible. Others supported hatchery fish which provide a recreational experience important to many, especially beginning anglers and youth, because they are more easily caught than wild fish and provide an increased abundancy.

Protection or enhancement of fish habitat, including that of the tributaries, is important for the survival of bull trout and other fish species. Other habitat considerations include reserving habitat options for the future possibility of restoring anadromous fish runs.

Habitat restoration projects, especially management and placement of woody material, have been an issue on the Metolius. Among the concerns was the appearance of material used for instream structure. The placement of rocks and trees could be a hazard to floaters and rafters. People commented that improving fish habitat should be considered more important than providing floating opportunities. Some also cited the need for better enforcement of fishing regulations.

Fish Populations

The concern for fish population management in the river has focused on wild fish populations, the role of hatchery fish, and the reintroduction of anadromous fish. Hatchery rainbow trout are suspected to present a competitive interaction with wild fish for food and habitat in the river. Recent studies suggest that hatchery rainbow trout may have interbred with wild rainbow trout or displaced them from optimum habitat in the Recreation river segment. ODFW's Wild Fish Management Policy identifies limits on the amount of interaction allowed between hatchery and wild fish.

On the Metolius River, the fishery resource was identified as an Outstandingly Remarkable Value, thus requiring the Forest Service to ensure its protection and enhancement. This is accomplished by providing sustainable habitat for fish populations and policies such as ODFW's Wild Fish Management Policy, which by definition protects and enhances the fishery ORV. On lands and waters of the Confederated Tribes of Warm Springs Reservation, the Tribes have responsibility for management of habitat which supports the fishery resource.

Proposed Action	Oregon Department of Fish and Wildlife manages fish populations in the river cooperatively with the Confederated Tribes of Warm Springs Reservation. Oregon Fish and Wildlife Commission has selected a management strategy which maximizes the protection of genetic diversity, adaptiveness, and abundance of wild fish populations. The objectives of this plan include eliminating stocking in the Metolius and its tributaries, providing a fishery for hatchery rainbow trout in an off-channel pond, and pursuing feasible means of restoring anadromous populations of salmon to the Metolius River. These actions support the ODFW's Wild Fish Management Policy, and thereby protect and enhance the Fisheries ORV.

General Fish Habitat

Fish habitat includes instream logs and rocks, undercut banks, and riparian vegetation. Activities such as landscaping and hazard tree removal in developed areas along the riverside, the placement of structures in the river, the break-down of banks by trail and fishing access, and the removal of instream wood have impacted natural occurrence and distribution of fish habitat. Habitat is missing or degraded in some areas, and rehabilitation is necessary. The natural appearance of restoration projects is important to maintaining the visual quality, particularly because restoration will generally take place near developed or recreation areas. Rehabilitation activities may have short duration impacts on fish and riparian habitat which may be limited by regulating the timing and techniques used.

Proposed Action	Fish habitat enhancement results from natural processes. Fish habitat restoration projects improve instream structure in areas where natural infall processes have been altered (hazard trees are removed from the bank or wood is manipulated for boating passage). Habitat restoration projects should appear comparable to habitat formed through natural processes. Instream work, including fish habitat restoration, is only performed between 5/1 and 8/1 to protect gravels for rearing embryos and fall spawners.

Instream Wood

Large logs in the river provide valuable cover for fish, rearrange flows, diversify stream structure, provide food and habitat for invertebrates, and provide the foundations for the unique Metolius islands. Logs or logjams that span the river may provide the most valuable instream habitat. Instream wood may block passage for boaters, create boating hazards, and result in portages that adversely impact riparian vegetation. It is possible to adjust logs to allow for passage without a total loss of habitat value. Historically, woody material has been manipulated and removed from the river, so current amounts of logs in the river are less than what naturally occurred.

Proposed Action	Minor manipulations of wood (trimming and limbing of hazards that are located where they cannot be seen in time to avoid by either standing up or portaging around them) are allowed upstream from Gorge Campground, but boating passage is not provided. Between Gorge Campground and Bridge 99, minimum safe boating passage is maintained in a manner that minimizes riparian impacts and maximizes instream habitat value. There is no wood manipulation downstream from Bridge 99.

Issue #4: What should be done to manage and protect wildlife values in the river corridor?

A diversity of resident and migratory wildlife species is present in riparian and old growth forest habitats in and near the Metolius corridor. The critical wildlife values identified in the Resource Assessment included: the presence of federally listed threatened and endangered species such as the northern spotted owl and the bald eagle, the wealth of wildlife species resulting from the diversity of river-related habitat, the important east/west link between winter and summer ranges for big game and other animals, and the presence of winter range for elk and mule deer.

The public felt that wildlife was an outstanding river corridor value. The importance of maintaining or enlarging the game refuge has been expressed. Maintaining high quality and diverse habitat is important for protecting and enhancing wildlife values.

The Metolius also provides an excellent opportunity for wildlife viewing and more watchable wildlife opportunities could be provided. Encouraging wildlife viewing and other recreational activities could increase harassment and disturbance of wildlife and degradation of habitat. The relationship between people and wildlife is an important one.

Wildlife Protection Measures

Many actions taken in the corridor will have benefits to wildlife. Habitat restoration and road closures will help protect the health and vigor of wildlife species.

For specific actions see: Issue #2 - Biodiversity & Vegetation and Issue #5 - Road Closures

Snags

Standing dead trees provide important habitat for many wildlife and invertebrate species. Larger size snags have greater longevity and can be used by more species than small snags. Human safety and property may be at risk from snags which have become hazard trees. Certain areas, such as developed recreation sites, designated dispersed campsites, recreation residences or other special use permit areas, and road or powerline rights of way, require special risk consideration because of potential damage posed by hazardous trees. Such risk can be managed by falling the hazard tree, topping the hazard tree, or removing the human use. Because developed areas are a small percentage of the corridor, and disturbances in developed areas have compromised some of the habitat value of the snags they contain, the removal of hazard trees is not likely to result in a significant decrease in dependent wildlife species populations.

Proposed Action	Natural processes determine snag levels outside of developed campgrounds, special use areas, utility corridors, and roadways. Within these areas, large hazard trees (generally over 14" dbh) are topped or felled to provide safety for the associated use. Small hazard trees (generally under 14" dbh) are generally felled. Hazard tree operations dovetail with fish and wildlife habitat enhancement work whenever possible. In areas where hazard trees are not managed, but snag levels may be affected by vegetation treatments or other management, snags are managed to provide 100% maximum population potential for dependent species. Where such levels do no exist, existing snag levels will be maintained or increased. With the use of prescribed fire, snag objectives may not be met in the short-term, but snag levels will be commensurate with those produced by fire disturbance.

Down Logs

Down logs provide important habitat for many wildlife, invertebrate, and amphibian species. Logs are nutrient banks for the soil. They also contribute to the fire fuel loading. The demand for firewood, especially in campgrounds, can deplete logs. Further discussion of firewood is found in Issue #2 - Special Forest Products.

Proposed Action	120 linear feet per acre is the minimum standard for down logs in areas such as firewood cutting areas and vegetation management units where logs are affected by vegetation management. In developed recreation areas, down logs are retained whenever possible, though retention is not expected if the log poses an immediate safety hazard or falls on or across an existing improvement or area of established use. Outside these areas, natural processes determine log quantities. With the use of prescribed fire, down log objectives may not be met in the short-term, but down log levels will be commensurate with those produced by fire disturbance.

Wildlife Refuge

Hunting and trapping regulations are determined by Oregon Department of Fish and Wildlife for private and National Forest lands and by the Confederated Tribes of Warm Springs on tribal lands. In the Recreation river segment, many individual animals have lost their fear of humans and are easily viewed from roads, campgrounds, trails, and residences in the area. These animals, particularly mule deer, furbearers, and waterfowl, are vulnerable to hunting, road-kill, and poaching because they have become accustomed to humans and human-related activities.

Proposed Action	No changes are made to the existing wildlife refuge which extends from Head of the Metolius to Canyon Creek.

Issue #5: What should be done to protect and manage aesthetic qualities and retain the existing character of the river corridor?

Aesthetic qualities include the appearance, sounds, and smells of the river corridor that contribute to its appreciation (or can detract from it). The rustic Recreation river segment and primitive Scenic river segment contain many outstanding features, including the unique extent and context of the foreground landscape within a ponderosa pine forest, the diversity of views over the length of the river, the lack of significant modifications of the view over the full length of the river, the rustic character of the existing buildings, which generally blend well with elements found in the natural landscape, and the area's reputation for spectacular views. To many, the river has intrinsic values and qualities apart from human use.

Public comments received suggest that people feel the landscape has been developed with care and sensitivity, and that the community has chosen to protect the river corridor's unique character. Many people commented that the existing level of development in the river corridor was appropriate, and added to—not detracted from—the charm and character of the Metolius. People cited the summer homes, water wheels, Camp Sherman store, and sense of history and community among local residents as contributing to the river's unique character.

People suggested that additional development could threaten the existing balance, and that fine-tuning existing laws and guidelines could make sure that existing development continued to blend in with the corridor's natural setting. Concerns were expressed on visual conflicts such as lights, paint color, antennas, satellite dishes and other structures.

Noise pollution from recreation visitors and local residences also was listed as a threat to the character of the river corridor. Concerns included generators, chain saws, off-highway vehicles, radios and firearms. Smoke from campfires, chimneys, yard debris burning, and prescribed burns was noted as a health problem for people sensitive to smoke and as an impediment to scenic quality.

People felt that impacts to private property owners and summer homeowners should be considered when maintaining sensory qualities or taking other actions that could affect how people manage their lands and permits. It was pointed out that private landowners have been good stewards, and that the presence of the limited amount of private land in the corridor has prevented some of the corridor from being developed for (and potentially degraded by) public use.

Scenic Quality

Scenic quality in the Metolius corridor is analyzed in relationship to "natural appearing" and "cultural" landscapes and may add to the "sense of place". Some people value the unaltered "natural appearing" landscape (as found in the Scenic river segment), while others feel the "cultural" historic character of structures and development in the Recreation river segment are important to the river's appeal.

Scenery Management System (SMS) is applied to both "natural appearing" and human-altered, "cultural" landscapes. SMS evaluates scenic landscapes as they relate to people's perceptions of harmony, integrity, diversity, etc. in terms of line, form, color, and texture which can be applied to the river corridor.

Scenic Integrity Objectives (SIO) are a set of prescriptions that have been established by the Forest Service for managing National Forest landscapes. These prescriptions are categorized. The SIO's applied to the Metolius are:

- Very High - fully intact characteristic landscapes in which the only allowable discordance has no effect upon scenic integrity or the landscape character (such as low impact trails and slight vegetative changes).

- High - nearly intact characteristic landscapes in which scenic discordance remains unnoticeable to the typical observer.
- Medium - slightly altered characteristic landscapes in which minor discordances are apparent, but subordinate, and reflect form, line, color, texture, pattern, and scale found in characteristic landscapes.

SIO's are used as a goal and all new management activities will meet them. They do not necessarily imply the existing condition or existing degree of scenic integrity.

Proposed Action	The Scenic Integrity Objective for the corridor is High, except downstream from Bridge 99 where it is Very High. The Camp Sherman area is managed as a "cultural" rural class landscape to meet a High degree of scenic integrity. Characteristic Landscapes are defined by desired vegetative conditions (Issue #2 - Upland Vegetation) for the natural appearing landscape and by the rustic, historic-appearing structure amid, but not dominant in, a highly intact natural setting for the "cultural" rural class landscape. Scenic easements on private lands that are important to meet the objectives of this plan are secured from willing sellers to ensure a high degree of scenic integrity. All structures are screened or have scenic composition representing the landscape character of the area.

Land Use

Jefferson County and the State of Oregon have jurisdiction over private land uses in the river corridor. County ordinances and State Scenic Waterway Rules guide uses on private land. Private land owners want to maintain property values and rights to manage their land without undue restriction. Activities on private land may affect the entire river corridor and may have the potential to degrade public resources if not regulated.

Proposed Action	The river corridor is managed for the greatest consistency across public and private ownership as is possible in the application of all objectives of this plan.

Transportation Management

Transportation patterns and use of vehicles has an effect on the character of the river corridor and natural resource values. Road access facilitates many recreational activities. Motorized vehicles can disturb wildlife, compact soils, and interfere with the solitude of other users. Roadways are a primary source of erosion and siltation. Public safety on roadways and emergency access are important considerations which must be emphasized in transportation planning. The Camp Sherman core area has narrow roadways that can be congested with motorized and non-motorized uses. The visual impacts of roads, parking, and road signs need to be in keeping with the desired scenic character of the area.

Proposed Action	New road construction, reconstruction, and maintenance is designed to the minimum standard necessary to meet the objectives of this plan. Roads receive maintenance to control erosion, siltation, and sedimentation. Turbidity and sedimentation are controlled by actively maintaining and repairing erosion control structures and road drainages within the river corridor. Transportation planning is coordinated with Jefferson County to develop an efficient road network and protect ORVs. A consistent sign theme, with the goal of consolidating, minimizing visual impact, and perpetuating a historic character, is developed in coordination with Jefferson County. The major roads to remain open will be identified. Minor roads are managed to reduce road densities, and may be subject to closure on a case-by-case basis. Private access across National Forest lands is managed to reduce road density. No rights-of-way or easements are granted for new road construction on National Forest lands unless it is the only reasonable means of access to private land or it has a significant resource benefit to an ORV. Existing road bridges are maintained to the appropriate standards for safety, appearance, and resource protection. Reconstruction of private road bridges is authorized when it is the only reasonable means of access. Motorized use is prohibited except on open roads. Parking outside of developed recreation sites is in designated parking areas. Centralized parking is established, set back from the river at Camp Sherman, Allingham, Wizard Falls, and Lower Bridge. Some road-side pullouts are hardened or relocated back from the river to be used as designated parking. Roads around the Camp Sherman core area are managed, in coordination with Jefferson County, to improve safety, reduce congestion, provide better traffic flow, and move parking back from the river. The Camp Sherman core includes Roads 1217, 1400, 1419, 1419-700, 1419-800, 1419-900, and 1420.

Road Use and Closures

Roadways are a primary source of erosion and siltation. The rehabilitation or restoration of closed roads reduces run-off, erosion, and associated water quality impacts. These closures also reduce disturbance and harassment of wildlife by human activity and protect, rehabilitate, or restore wildlife habitat. Limiting human uses and access changes recreation opportunities, could inconvenience private property holders, and affects forest management activities. In cases where access must be provided to private land, roads may be closed to public motorized use but remain as non-motorized trails, which provide a different sort of recreation opportunity.

In the case of Rd 700, conversion to a non-motorized trail will allow for the elimination and rehabilitation of the river trail in some areas which will provide additional riparian and water quality benefits. Rd 1298 provides a trail opportunity away from the river for uses which are not allowed on the river trail. In the scenic portion of the river corridor, road closures and the accompanying change in recreation use is necessary to promote a primitive recreation experience as mandated in the Scenic river segment. In the case of Rd 64, limiting seasonal access is aimed at reducing vandalism of facilities and inappropriate recreation uses when a management presence is not provided at Monty campground. This closure will also limit disturbance during the early portion of the bald eagle nesting season. **See Road Closure maps in the "Other Alternatives Considered" portion of this chapter for Preferred Alternative road closure map.**

Proposed Action	♦ Public motorized access is closed in the following areas (emergency, administrative, and private land access remains where noted with an "*"): ♦ Rd 64 upstream from Monty Campground* ♦ Rd 1419-700 between Tract C bridge and Tract F ♦ Rd 1499 downstream from Candle Creek* Public motorized access is closed on a trial basis in the following areas for the following reasons (emergency, administrative, and private land access remains): ♦ Rd 1298 to evaluate non-motorized use and resource effects ♦ Rd 1499 between Bridge 99 and Candle Creek to rest dispersed campsites from vehicular impacts and evaluate the amount or level of dispersed camping use received/displaced Public motorized access is closed seasonally on Rd 64 at or near the SE boundary of the Eyerly property in Sec 19 se/se, T11S, R11E when Monty Campground is closed.

Utilities

Powerlines and telephone lines service development on National Forest and private lands. Above ground, utilities are often regarded as visually obtrusive. Burying utilities can generate conflicts with prehistoric resources and sensitive plant populations. Installing underground utilities is more expensive than aerial.

Proposed Action	New utilities are constructed to minimize visual impacts to the greatest extent possible while protecting other resources. Utilities are located underground and in existing rights-of-way to the greatest extent possible.

Issue #6: How should the river's cultural values, including prehistoric sites, historic sites, and traditional uses, be protected and managed?

The cultural values of the Metolius River corridor include outstanding prehistoric sites (lithic scatter sites), historic sites (the Camp Sherman store and evidence of use by early explorers, CCC use, and early Forest Service administration), and traditional uses (including fish harvest, food gathering and hunting, religious practices, and their value to the Confederated Tribes of the Warm Springs Reservation). Having clean, clear water in the river has been emphasized as another cultural value. A priority for the Tribes is to insure that the Metolius, used by people over the past 10,000 to 12,000 years, remains part of their culture, and to raise the level of importance and knowledge of that culture.

Many public comments addressed the potential for interpretation of cultural resources, coupled with the recognition that many specific cultural sites should not be identified to prevent impacts. People viewed recreational use and new development as the primary threats to cultural resources and values. Many people commented that the older buildings and water wheels associated with recreation residences in the Camp Sherman area added to the area's historical flavor and atmosphere.

The Bureau of Indian Affairs and Confederated Tribes of the Warm Springs Reservation have said one of their biggest concerns is protection of rights under the 1855 treaty, and to make sure that fish populations and habitat are protected (and that addition of woody material is not affected by recreational use or concerns). The Tribes are concerned with possible impacts to four types of land bases: The Reservation, ceded lands, usual and accustomed lands, and ancestral lands. The Tribes have their own Wild and Scenic code, which includes the Metolius as one of the rivers to be protected for cultural and other values, and have said that a consistent Tribal goal is to keep the river corridor as primitive as possible.

Prehistoric and Historic Resources

Heritage resources are esteemed by diverse people whose ancestors have used the area in prehistoric and historic times. Past activities have resulted in site formation and resource manipulation which is integral to the maintenance of contemporary cultures. Federal policy cannot fully convey the heartfelt meaning of these resources.

These resources are also an important source of information about how people have used this same area through time. The Metolius is a significant area between the High Desert and the Cascade Mountains. How people utilized the Metolius River through time can tell us a lot about changing populations, associations, trade, and travel. This information is also important to native peoples who can learn more about their heritage through archaeology.

The largest risk to prehistoric resources is through development projects or other administrative or resource projects of ground-disturbing or ground-clearing nature. This type of disturbance can completely destroy prehistoric sites or severely mix deposits destroying contextual information and intact features. A second risk to the resource is erosion due to natural or human causes that can expose, relocate, and redeposit prehistoric artifacts or destroy prehistoric features such as rock formations or fire pits. A last risk to this resource is through casual artifact collection or systematic pothunting that removes artifacts from context and destroys information in the process.

The most significant historic resources in the river corridor are structural in nature. One of the largest risks to these resources is their destruction from fire. Other threats include administrative decisions to remove resources, neglect of structures, development that replaces or modifies structures, and bottle hunters in historic sites.

Proposed Action	The non-renewable and generally fragile nature of heritage resources is recognized, and they are managed accordingly for the greatest scientific and public good. Significant resources are managed to avoid damage or detrimental change. Data recovery or recordation is undertaken where damage or change cannot be mitigated, rehabilitated, or avoided. Inventories to locate previously unknown resources are done as part of specific projects. Determination of cultural significance and eligibility for the National Register of Historic Places is coordinated with the Confederated Tribes of Warm Springs.

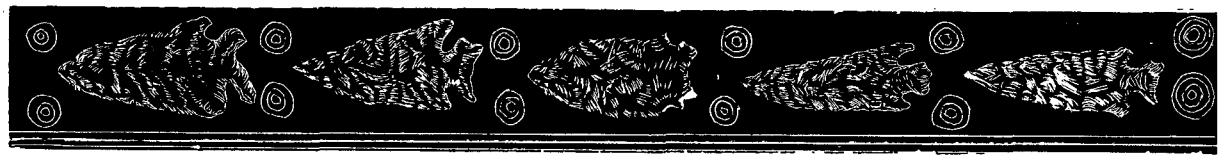
Traditional Uses

The Metolius River and surrounding area are known to have been utilized in recent historic times by the Northern Paiute and Sahaptin-speaking peoples. The Metolius Basin served as a traditional gathering place for many aspects of social interaction. Social interaction through resource exploitation by fishing, hunting, and gathering was probably done by relatively small familial groups. Little is known of established campsites and travel routes with the exception of those evidenced by the archaeological record. It is reasonable to believe that numerous personal and private activities were conducted in the Metolius Basin. The paucity of recorded ethnographic information leaves much of the traditional use interpretation to that of inference.

Tribal members are no longer totally dependent on traditional seasonal rounds, but they still hold in high respect and value the resources needed for cultural maintenance. Change in the cultural landscape and use displacement can be attributed to fire prevention, forest practices, and physical environmental manipulation. The setting, feeling, and association of the cultural landscape are contributing factors important to traditional use and maintaining traditional cultural values within the Wild and Scenic River corridor.

Many traditional use resources are considered under existing treaty rights for portions of the river corridor. Ensuring that these treaty rights are respected in management of traditional use resources is necessary.

Proposed Action	The gathering of traditional use resources by local tribal members on ceded lands within the corridor is managed according to the practices of the Confederated Tribes of Warm Springs Reservation.



Issue #7: What types of recreational activities and experiences should be managed for in the river corridor, and how can these activities and experiences be provided without degrading the natural resources on which they depend?

The broad question is what recreational activities and experiences should be provided in the river corridor, how recreational quality should be measured, and how to keep the impacts of recreational use at acceptable levels.

The Metolius offers a unique combination of recreational activities, settings, and experiences, from the developed and dispersed opportunities along the Recreation river segment to the more primitive, dispersed opportunities along the Scenic river segment. This mix of activities was found to be an outstanding characteristic of recreation along the river.

To many people, balancing provision of recreation with maintenance and enhancement of the corridor's physical and biological resources is the key management issue. Many people believe that increasing numbers of recreation visitors are not only damaging the resource but lowering the quality of recreation experiences through crowding, noise, and conflicting uses. A number of comments said that protection and enhancement of natural resources should have a higher priority than provision of recreation settings.

This is a complex question that has several important facets. A variety of concerns regarding provision of recreation opportunities were raised during the scoping process. The most prominent were: the physical and social impacts of recreational use; public access; the continued provision of river floating opportunities; and campground management.

Impacts of Recreational Use. Based on the public comments received to date, the effects of recreational use on the natural resources and character of the river corridor is perhaps the strongest public issue. Specific concerns include trampling of the riparian area, loss of campground vegetation (especially big ponderosa pine identified as hazard trees), disturbance of wildlife and plants, and the threat that such impacts will only worsen without management intervention. Concerns about trash in the corridor and at access sites were also mentioned.

People believe that the source of these types of impacts are not just the number of people visiting the Metolius, but how, when, and where they use the river. For instance, many people opposed year-round angling, saying "Let's give the river a rest", while several favored the existing year-round season, saying it provided a more peaceful experience than the high use season. Others have expressed concern that if river resources are enhanced (such as the fishery), more visitors will be attracted, compounding any existing impacts.

Several people suggested limiting or eliminating hunting (waterfowl and mammal) in the river corridor; comments raised from both a public safety and conflict standpoint, as well as concern over impacts to wildlife populations.

Public Access. People said that the existing road and trail access may already be more than enough; many opposed construction of any new roads, or upgrading existing ones. Cutting back on existing access also was favored by many. Controversy over recent county proposals to pave a road near the river corridor led the county to put its plans on hold. Concerns about parking, off-highway vehicles (OHVs) and motorized watercraft were also mentioned. Several people said that recreation opportunities that are fully accessible to the physically challenged should be added.

Rafting and Floating. A wide variety of opinions regarding rafting and floating was found during scoping. People often viewed the upper and Scenic river segment differently, saying the issues and impacts of floating differed on each segment. People who favored prohibiting watercraft on the Recreation river segment usually said they were concerned about the impacts to fly fishing, and other activities. A related concern was potential conflict between floating and providing fish habitat by introducing woody

material into the river. The safety of floaters, who on the Recreation river segment have often been casual participants, unprepared for the sections of whitewater and very cold water temperatures, also was an issue, as was trespass on private lands.

People who favored prohibiting floating on the Scenic river segment listed some of the same concerns. Search and rescue could be difficult because of the limited road access. Others voiced concern about impacts to wildlife and vegetation, given the undeveloped character of the Scenic river segment. The Confederated Tribes of the Warm Springs Reservation have consistently opposed floating on the Scenic river segment, voicing strong concerns about the potential for trespass, wildfire, the difficulty of search and rescue, liability, theft, and floater removal of woody material. Others simply feel that the Scenic river segment is a good place to keep as natural as possible, and favor allowing either no use or extremely limited public use.

People who favored continuing to provide floating were most vocal regarding the Scenic river segment, which currently provides a high-quality experience for a remote, Class II-III whitewater day trip, runnable year-round. Several people mentioned that use levels currently appear low, so few problems exist; the Forest Service does not have data on floating use levels for either the upper or Scenic river segment. Many people, including the Tribes, said that the Metolius cannot be allowed to become another Deschutes, where they felt use levels have resulted in unacceptable impacts both to natural resources and to the quality of the recreation experience.

Campgrounds. Most of the public comment on campgrounds along the Recreation river segment stemmed from concerns about overdevelopment and the effects of campgrounds on natural resources. Some believed that provision of new camping opportunities in the river corridor would lead to further problems, and that addition of more-modern facilities could unacceptably change the character and resources of the river. Others felt that trying to keep pace with ever-increasing demand for recreation along the Metolius, without a clear definition of the type of experience that should be provided, would be a futile effort, condemning to mediocrity the river, its resources, and the recreation experiences possible.

People expressed concern that the number of campgrounds situated on the Recreation river segment, coupled with high occupancy rates, was detracting from the riparian area as well as creating crowding and congestion along the river. People suggested moving some campgrounds back from the river. The public also was concerned about resource impacts within campgrounds, including amount of bare ground, loss of vegetation, and noise. Many suggestions called for closing campgrounds on a rotating basis for rehabilitation.

Management of hazard trees in campgrounds has attracted much attention in recent years; segments of the public have claimed that the Forest Service was removing more trees than necessary and without adequate public involvement. For reasons of liability and the public's expectation of safety, the Forest Service has no choices beyond either removing the hazard or removing the facility that exposes the public to risk from the hazard.

Public concerns expressed during scoping also suggested that impacts unacceptable in a primitive setting have resulted from uncontrolled recreational use of undeveloped camping areas along the Scenic river segment. Specific concerns included noise, trampling of riparian vegetation, dust, exposed tree roots, erosion, multiple fire rings, and other effects of heavy use. Unrestricted vehicle use has resulted in the creation of new roads into and between campsites with impacts to soils, vegetation, and water quality.

Developed Campgrounds

Camping is one of the most popular and enduring activities in the corridor. Campgrounds accommodate a large percentage of the area's overnight use. The vegetation in campgrounds is important for creating privacy and a natural setting. Unstructured use results in loss of vegetation and, therefore, affects the camping setting and experience. All the campgrounds have an effect on adjacent riparian areas. Loss of vegetation and soil compaction in these areas can have localized, but notable, impacts on riparian habitat and water quality. The scope of these impacts is quite limited, and their significance must be weighed

against potential impacts to the desired river-influenced recreation experience. The amenities, level of development, social interaction, and landscape of a campground have a great influence on the recreation experience both in and around the campground.

Proposed Action	A vegetation and landscape schematic design is developed for each campground, which improves the visual appearance and protects the vegetation of the campground by consolidating and redirecting traffic patterns, defining or relocating campsites, planting, and repairing sources of erosion. The objective for enhancing the natural appearance of the campground is to reduce the amount of developed area within 100 feet of the river and allow no more than one quarter of this area to be in a developed condition (campsite, pathway, trail, road, etc.). Campsites which have unacceptable resource impacts are rehabilitated, rested, relocated, or closed (in order of preference). Unacceptable sites are those which are devegetated beyond the confines of the designated site, lack soil stability, result in foot traffic that cannot be limited by trail maintenance strategies, or place evident siltation in the streambed. Lower Canyon Creek, Candle Creek, and Monty have designated campsites (approximately 5-10 at Lower Canyon Creek and Candle Creek and 20 at Monty) and are "improved" (defined sites with fireplaces, tables, and parking, garbage collection, frequent patrols) so that fees may be charged. Lower Bridge, Candle Creek, and Monty campgrounds are managed to provide a transition to the more primitive recreation experience in the Scenic river segment. Monty is open only when a management presence is maintained sufficient to ensure a quality camping experience and protect facilities from vandalism. Candle Creek campground is designated for tent camping only. Lower Bridge campground is designed to emphasize tent and car camping. When a 20% or greater reduction in campground capacity results from resting or closing sites, options will be considered to address the impacts on campsite availability. Options may include (in order of preference) a reservation system or the creation of a new campground outside the corridor.

Day-Use Facilities

There is notable demand for day-use facilities. Few currently exist: the result being that day users choose inappropriate locations that cannot handle the impact. Day-use facilities, at least, provide parking, sanitary facilities, and picnicking opportunities. They generally do not provide supervision or an agency presence to the same extent as campgrounds. Concerns about appropriate use of day-use facilities exist. Overnight campground facilities are generally not available for day use. Day-use activities and facilities, as with any recreation amenities, accommodate human use in the corridor that may impact biological and physical resources. Smiling River's proximity to existing day-use, central location, and campground-level oversight make it a desirable site for day-use.

Proposed Action	The upstream portion of Smiling River campground is converted to day-use and provides some designated parking for the Allingham area. Better information, signing, and access are provided for existing day-use areas, so that they may be more easily located by visitors in the corridor.

Trails

There is potential for conflicts between user groups on the river trail. Social conflicts mentioned include hikers forced off trails by stock and bicycles, stock startled by the unexpected appearance of bicycles, and dislike of animal waste on the trails.

Trails are managed to minimize such conflicts by regulating types of uses. Conflicts may be managed by segregating uses to trail sections best able to accommodate the type of use. Above Wizard Falls, the river trail is narrow and receives high use from pedestrians. Other uses on this segment of trail would have a significant potential to generate conflicts. From Wizard Falls bridge to Candle Creek on the west side and Lower Bridge campground on the east side, use levels are moderate, the trail is narrow, and soils are sensitive. This segment can accommodate only limited uses. Below Candle Creek on the west side and Lower Bridge campground on the east side, trail use takes place primarily on roads or user created trails, with the exception of the designated trail between Rd 1499 and Rd 64. Roads generally accommodate the widest variety of use.

The Deschutes National Forest LRMP directs that there is no off-road motorized use in the river corridor. All trails are designed and maintained in accordance to guidelines within ROS classes. Some riparian impacts result from levels and types of use and the trail location in relation to the river. Riparian impacts may be minimized by modifying trail location, altering trail design, and improving maintenance.

Proposed Action	The river trail, where it currently exists, upstream from Candle Creek is designated as a Forest Service system trail and maintained. Foot traffic is the only use allowed on the river trail. Opportunities for other uses are provided on closed roads or off-river trails where appropriate. The closed portion of Rd 1419-700 is converted to a high standard trail for bicycles and pedestrians. The closed portions of Rd 1499 and Rd 64 are used as a non-motorized trail. Equestrian and mechanized uses in the Scenic segment of the river are restricted to closed roads. Trail construction fits with the topography, retains as much vegetation as possible, and protects riparian functions. Trail maintenance work and structures blend with the natural setting to the greatest extent possible without compromising function or resource benefit. The river trail and fishing access points are defined, hardened, replanted, relocated, or closed where they result in unacceptable impacts to riparian vegetation, streambanks, or water quality. Unacceptable sites show some combination of the following conditions: devegetation beyond the confines of normal trail width, lack of stability (soils are raveling), exposed tree roots, breakdown or loss of overhanging banks, lack of trail definition or multiple parallel trails in the same area, or evidence of siltation in the streambed. A registration system may be used in the Scenic segment of the river to determine use patterns and thresholds of use that maintain the desired, primitive recreational experience as defined by ROS. Social setting objectives are established for the area: encounters with other parties should be limited to 7 per day, group size should be limited to no more than 12 people and 12 head of stock, camps should be separated from other campsites so that no more than one other camp is visible. A transition zone is expected at either end of the Scenic river segment where it has proximity to the heavier use and development of the Recreation river segment and Lake Billy Chinook. Social setting objectives and facility management will be consistent with the transition from one to the other.

Boating

A comprehensive, interagency boating management strategy has been elusive largely because the managing agencies have not come to a common understanding about jurisdictions and authorities regarding boating management. The various agency positions are summarized as follows:

The Position of the Confederated Tribes of Warm Springs Reservation:

For countless generations, members of the Confederated Tribes of Warm Springs and their ancestors have viewed the life giving waters of the Metolius River as a sacred gift from Creator. As is evidenced by the pristine condition of the land adjacent to the river on the Warm Springs Reservation, it is treated with not only respect but reverence by tribal members.

In the Treaty of June 25, 1855 between the United States and the Tribes and Bands of Middle Oregon, the Tribes ceded title to 10 million acres in Central Oregon to the United States while reserving title to lands comprising the Reservation. The United States agreed that the Tribes would have the exclusive use of their Reservation lands. The Tribes also reserved and were guaranteed the exclusive right to take fish in rivers and streams running through and bordering the Reservation. The Reservation boundary in the treaty is defined as:

> "commencing in the middle of the channel of the De Chutes River opposite the eastern termination of a range of high lands usually known as the Mutton Mountains; thence westerly to the summit of said range, along the divide to its connection with the Cascade Mountains; thence to the summit of said mountains; thence southerly to Mount Jefferson; thence down the main branch of De Chutes River: heading in this peak, to its junction with De Chutes River ; and thence down the middle of the channel of said river to the place of beginning."

Historically, the Metolius River was considered the "main branch of the Deschutes River." The Tribes believe that the intent and language of the Treaty provided that the Tribes had complete jurisdiction over the Metolius and its waters where they adjoin the Reservation.

The Tribes believe that boating in the vicinity of the Reservation on the Metolius should be eliminated for a number of reasons:

1. The sacred nature of the Metolius River.
2. The need to restore fish habitat, primarily large down woody material, and increase fish populations to maintain the culture of tribal members.
3. Continued boating in light of the tribal ban is an infringement on the sovereignty of the Tribe and their Treaty right to the exclusive use of lands and waters within the Reservation.
4. The danger to the members of the public and those that must rescue them or recover their bodies when boaters encounter problems on this very hazardous section of the river along the Reservation.
5. The desire of the Tribes to maintain the primitive nature of the lower Metolius.

The Tribes firmly believe that through the Treaty of 1855 they retain title to the bed and banks of the Metolius River and that banning boating on the lower Metolius is in both the public and the Tribal interest.

The Position of the state of Oregon:

Every state, upon admission to the Union, receives from the federal government all lands beneath "navigable" waterways. Thus, since 1859, Oregon has owned the bed and banks of all waterways that met the federal navigability test. This was confirmed in the 1994 case of Oregon V. Tidewater Contractors in the U.S. District Court for Oregon, where judges Hogan ruled that the Chetco River was navigable, and that therefore the state held its bed and banks in trust for the public.

Over the years, the Oregon Division of State Lands has gathered a considerable amount of evidence concerning the navigability of the Metolius River. The 1995 Legislative Assembly enacted HB 2697, which prohibits the state from asserting new navigability claims until rules establishing a new, more formalized navigability study process (including public hearings and public notice) are in place and particular waterways are studied through that process. Those rules will be brought before the State Land Board for proposed adoption on June 11, 1996. Accordingly, at this point the state can neither assert nor waive a claim to the bed and banks of the Metolius River.

Also potentially relevant to the Metolius River is another, entirely separate, body of law typically known as the "floatage easement". This is a common law right that guarantees the public the right to float waterways regardless of who may own the underlying band and banks. The Oregon floatage easement cases indicate that this right to float also includes the right to make reasonable, incidental use of the waterway's bed and banks. Because there are no Oregon cases in the content of modern recreational use, it is unclear whether the floatage easement includes the right to anchor on or wade in the river bed or to cast, picnic, camp or portage on the river bank. Moreover, no Oregon case addresses the floatage easement's interaction with Indian treaty rights.

The Position of the USDA Forest Service:

The Forest Service can not recognize the Metolius as either a navigable waterway or submerged lands included within the reservation until these claims have been adjudicated in a court of law. Regardless of these claims, the Secretary of Agriculture (through the Forest Service) is charged in the Wild and Scenic Rivers Act with the authority to manage the surface of the Metolius river and the boating use which takes place thereon where forest conditions indicated that boating would impair the purposes or administration of the Wild and Scenic Rivers Act.

Congress intended that the scenic river segment and its adjacent land area be managed to provide a "primitive recreation experience" as defined in the ROS user guide.

Unrestricted boating would impair the attainment of this purpose of the Act. Prohibiting motorized boating and regulating non-motorized boating use is necessary to provide this primitive experience.

Protection or enhancement of Outstandingly Remarkable Values of the Metolius river is one the primary objectives of the river management plan and one of the purposes of the Act.

Pursuant to our authority, the Forest Service can eliminate or manage boating if local conditions indicate that boating is impairing the protection of instream and riparian resources which are essential elements of the Hydrology, Fisheries, and Vegetation/Ecology ORVs. Current conditions suggest the need for regulations, but do not warrant the removal of all boating use.

Whitewater boating is part of the Recreation ORV for the Metolius, and, therefore, must also be protected. Protection of an ORV is measure relative to its condition at the time of the river's designation; however, protection does not preclude regulations to protect other river values or to meet other purposes of the Wild and Scenic Rivers Act.

The Forest Service, as a neighbor and holder of tribal trust responsibilities, respects the Tribal values associated with the Metolius river and the Tribes' efforts to protect those values. We do not have the discretion to impose or enforce a ban on boating the Metolius based solely on these values. We are committed to educating river users about tribal values and encouraging boaters to respect these values.

The Metolius provides a unique non-motorized boating experience. In low water seasons, it is often the only river available to northwest boaters that provides an experience which is remote and primitive. Boating has resulted in riparian impacts at launches and some loss of instream habitat where wood has been manipulated to provide passage (see Issue #3 - Instream Wood). Boating has the potential for

disturbing wildlife, and of particular concern are effects on nesting and foraging osprey and eagles in the Scenic river segment. Though some limitation may be appropriate, there is no evidence that these impacts warrant a total ban on boating.

Until the differing claims and interests of the managing agencies can be resolved through continued negotiations or legal action, the Forest Service has the responsibility to manage boating under the authority of the Scenic river segment.

Proposed Action	Boating will be managed to accomplish these primary objectives: ◆ to emphasize safety, ◆ to preserve riparian and instream resources and habitat, ◆ to protect the primitive recreation experience in the Scenic river segment, ◆ to avoid trespass on tribal and private lands, ◆ to respect tribal values regarding the river, ◆ to manage use consistent with public trust doctrine, and ◆ to minimize administration and enforcement. Until the issues of jurisdiction, ownership, and authority can be resolved, obstensively through continued negotiations or legal action, the following direction will guide the management of boating: Upstream from Gorge Campground, wood is not managed to provide boating passage. Minimal manipulation of instream wood is allowed. From Gorge Campground to Bridge 99, minimum safe boating passage is maintained when wood manipulation does not adversely impact riparian or instream habitat. Use is not limited, but registration may be required to establish a future threshold. Downstream from Bridge 99, a registration system for boaters is used to determine use patterns and thresholds of use that maintain the desired, primitive recreation experience. Social setting objectives described for the Scenic river segment apply to water-based as well as land-based recreation. Modest boat landings are provided at Bridge 99 and Monty campground to minimize erosion and riparian impacts. Monty campground is closed seasonally and not available for boating take-out when the campground is closed. Wood is not manipulated for boating passage. Boater education is emphasized in the registration system and at access points. Key messages are respect for Tribal land, values, and rights; protection of the resource, especially instream wood; and boater safety and need for competence. Hazard surveys are not done and comprehensive information on boating conditions is not guaranteed. Motorized boating is prohibited on the river.

Dispersed Camping

Dispersed camping is defined as occurring outside of developed campgrounds. Though dispersed camping opportunities vary in levels of regulation and development, they are not as controlled and do not offer as many amenities as developed campgrounds. Dispersed camping is sought by visitors wanting greater solitude and a more primitive experience than is available in campgrounds. As the river and streams are primary attractions, dispersed sites are often located adjacent to or within riparian areas. The resulting

impacts to vegetation, water quality, and wildlife are a source of concern. Dispersed campsites lack sanitary facilities and indiscriminate dispersal of human waste adversely impacts natural resources. Increased occurrence of wildfires from abandoned campfires is also a risk associated with dispersed camping.

Proposed Action	Dispersed camping is limited to designated sites. Designated sites are developed only from existing dispersed sites where they are set back from the river's edge. Dispersed camping is incidental and non-integral to the use of the Recreation segment of the river, so there are few designated sites (fewer than 10). Dispersed camping sites are more numerous in the Scenic segment of the river (fewer than 20) because they provide the only opportunity for overnight use and access to the more distant portions of this large area. Fires are allowed only within designated fire rings. Where they result in unacceptable impacts to riparian vegetation, upland vegetation, or water quality, dispersed campsites are relocated or closed. Unacceptable sites show conditions such as devegetation beyond the confines of the designated site, lack of stability (soils are raveling), foot traffic impacts that cannot be limited by trail maintenance strategies, or evident siltation in the streambed.

Recreation Experience Goals

There is an overall recreation experience to be expected in an area based on landscape character, types of facilities, and numbers of people. The following categories from the Recreation Opportunity Spectrum (ROS) are summarized:

Rural: Concentrations of people around focal points such as Head of Metolius and Camp Sherman Store are to be expected. Structures are at times dominant. Some roads are paved and support moderate levels of traffic. Human elements predominate in a natural setting.

Roaded Natural: Access to the river becomes more limited and dispersed. Numbers of people decrease from levels found in Rural settings. Structures are few and isolated and blend into the surrounding environment. Only main roads are paved and traffic levels are low. Human elements are present but do not dominate over the natural setting.

Semi-Primitive: Human encounters are few. Structures are rare and highly integrated into the surroundings. Roads are primitive and generally not constructed for typical passenger vehicles. Little or no evidence of human elements are present in a natural setting. The difference between Motorized and Non-motorized is the presence or absence of motor vehicles.

Primitive: Human encounters are rare. Structures, roads, and motor vehicles are not present. Trails are primitive travel corridors. The impression of an undisturbed, natural setting exists.

Proposed Action	ROS classifications are applied which best reflect the current and desired recreational settings and experiences.

Issue #8: How should the Scenic river segment be managed to provide a primitive recreation experience?

In the act designating the Metolius to the Wild and Scenic Rivers System, Congress specified that the river downstream from Bridge 99 and its adjacent land area be managed to provide a primitive recreational experience as defined in the ROS Users Guide.

A primitive opportunity typically is defined as taking place in an unmodified natural environment of fairly large size; interaction between users is very low and evidence of other users is minimal and the area is managed to be essentially free from evidence of human-induced restrictions and controls. There is an extremely high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquillity, and self-reliance through the application of outdoor skills in an environment that offers a high degree of challenge and risk. Motorized activities are typically not present.

One facet of this issue is the existence of roads within the area designated to be managed as "primitive". The existing roads run upstream from Lake Billy Chinook and downstream from Lower Bridge Campground. Although they do not meet in the middle and are not generally maintained, the roads provide motorized access to nearly all of the Scenic river segment except for a 1.5-mile segment. These roads also provide access to several privately-owned parcels and residences. A letter from Senator Hatfield to a corridor resident stated that it was not the intent of Congress to create a roadless area along the Scenic river segment, suggesting that alternatives to closing the road were appropriate to consider.

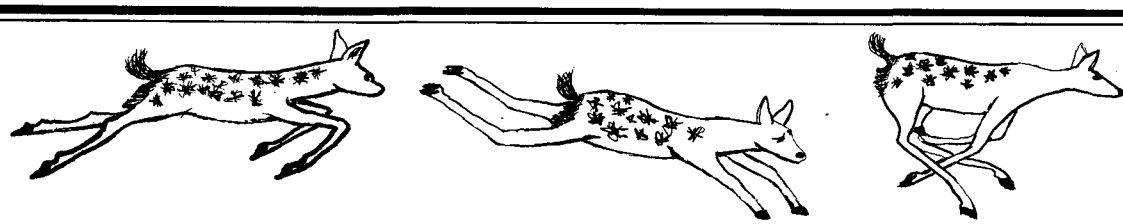
The Confederated Tribes of the Warm Springs Reservation have expressed great concern about impacts to natural and cultural resources both on and off reservation that can result from uncontrolled recreational use of the Scenic river segment.

Proposed Action Summary	The area is managed to protect and perpetuate a predominantly unmodified natural environment where natural ecological processes can continue. The area provides habitat for a wide variety of wildlife especially riparian dependent and riverine species. This setting provides an opportunity for non-motorized recreation opportunities that are attainable in large undeveloped areas. Visitors have the feeling of remoteness and solitude. Limited social contact and interactions are expected. The following social setting objectives are used to define and protect the area's primitive recreation experience: ♦ group sizes are limited to not more than twelve people ♦ encounters without groups are limited to no more than seven per day and this standard will be met 80% of the time. ♦ No more than one other campsite should be visible from any camp Motorized access is not provided past Candle Creek and Monty campground. The area between Lower Bridge campground and the debris slide on Rd 1499 is closed to motor vehicles on a trial basis to rest dispersed campsites from vehicle impacts and evaluate the amount of camping use received and displaced. The campgrounds in the Scenic river segment are managed to provide a transition into the primitive recreation experience of the Scenic river segment. Rd 1499 is gated and parking is provided for downstream users at this

	location. Rd 64 is gated at Monty Campground, and seasonally closed to motorized access at or near the Eyerly property. Between the gates, only non-motorized use is allowed. A river trail, for foot traffic only, is maintained from Bridge 99 to Candle Creek which is comparable to that found in the Recreation segment of the river. Between the ends of the closed portions of Rd 1499 and Rd 64, the river trail is maintained for resource protection, but not to facilitate passage. Some segments of river trail may be added or improved where they fit with topography, retain vegetation, or protect resources. These trails receive the lowest level of maintenance necessary to protect resources. Registration is required for visitors in the non-motorized portion of the Scenic river segment. The potential for future type of use and number restrictions in this area is based on the information gathered, social setting objectives, and a Limits of Acceptable Change process which will monitor resource impacts. Mechanized (non-motorized) and stock use is allowed on closed roads. Foot use is the only trail use allowed off of closed roads. Overnight use is allowed in designated sites. Boating use is allowed, but instream wood is not manipulated for boating passage. Registration is required. Modest boat launches are provided at Bridge 99 and Monty Campground. User education is emphasized in the registration system and at access points. Information about the area and use regulations are provided at the road gates. Interpretation subjects include protection of resources, safety, and respect for Tribal interests. Rd 1499 and Rd 64 receive maintenance to provide minimum conditions for passenger vehicle use to the gates. Beyond the gate, the roads receive maintenance to provide minimum conditions for high-clearance vehicles and resource protection. Motorized use beyond the gates is for access to private land and emergency and administrative access only. When private property is acquired from willing sellers, maintenance is performed only to minimize resource damage and provide emergency and administrative access.

Additional details for Scenic river segment management are contained in the following locations:

Issue #2 - Upland Vegetation, Riparian Vegetation, Fire
Issue #5 - Road Use and Closures, Scenic Quality
Issue #7 - Developed Campgrounds, Trails, Boating, Dispersed Camping, Recreation Experience Goals



Issue #8 -Scenic River Segment

Issue #9: What is the appropriate role of commercial and other special uses in the river corridor?

The Forest Service uses Special Use Permits to authorize commercial activity, special events, or other forms of land occupancy on National Forest land. Outfitter and Guide Permits are a form of Special Use Permit that includes such activities as commercial rafting, fishing guides, and non-commercial activity such as nature study trips sponsored by schools, universities, or parks and recreation districts.

Most of these comments focused on outfitting and guiding operations. Some people believed that outfitting should be viewed in the context of other special uses that provide goods and services to visitors (such as private resorts and the Camp Sherman Store), while others regarded outfitting and guiding as a completely separate issue.

Public comments received during scoping generally spoke to limiting or banning outfitting and guiding. However, some comments received suggested that a limited amount of commercial operations could be allowed if they were conducted in an "environmentally and socially compatible manner." Some people felt that commercial educational activities could be allowed through a carefully administered special use permit. Several individuals raised the distinction between for-profit and not-for-profit guided activities and noted that there should be a clear definition of instructional use. Several people noted that illegal commercial float trips may not be uncommon in the absence of permitted outfitting and feel that this should be stopped.

In the past, the Forest Service disapproved an application for a commercial floating venture on the Recreation river segment based primarily on potential conflicts with angling and the potential for increased private and commercial floating use. A proposal for a whitewater float permit on the Scenic river segment was eventually denied based in part on opposition by the Confederated Tribes of the Warm Springs Reservation, which has consistently opposed commercial (and private) rafting on the Scenic river segment. Other reasons for denying the application included potential for wildfire, public safety, and the possibility that commercial use could increase private use, aggravating these possible impacts. There is also concern that providing even one special use permit for guiding could serve as a foot-in-the-door for continued commercial use of the river corridor.

Currently, the Forest Service does not allow guiding or outfitting ventures in the river corridor. A temporary permit for a small-scale, education-oriented fly fishing venture in 1989 was not reissued pending completion of the Wild and Scenic River Plan. The Forest Service has received requests for float outfitter/guiding to be considered during the management planning process.

Commercial Development

Commercial development addresses any permanent improvements which exist to generate revenue or contribute to the generation of revenue for private individuals or groups. The nature or, by in large, absence of commercial development in the river corridor contributes greatly to the character of the area. There is currently very little commercial development. Recreational services are the primary commercial demand. Some types of commercial uses may protect or enhance river resources. Other commercial uses would be counter to the desired character of the river corridor and may even be harmful. It is difficult to anticipate the types of activities which might be proposed and whether they would be beneficial or harmful. Development is limited by the availability of private land, county zoning, and Forest Service policies for commercial special uses.

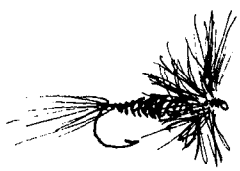
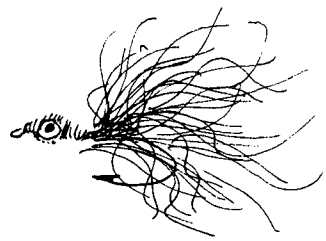
Proposed Action	New development and changes to existing development will be allowed if the development responds to a demonstrated need and not merely demand. The following criteria define demonstrated need: 1) necessary for the health and safety of the public, 2) necessary to accomplish a specific goal of this Plan, 3) fulfill and agency management or administrative role, or 4) involve the study or research of values unique to the Metolius.

Other Special Uses

The Forest Service receives many requests for permits to allow uses such as outfitter/guide services, recreation events, family reunions, weddings, commercial photography, car rallies, and others. The types and sizes vary immensely. It is difficult to predict what types of uses may generate demand for permits in the future. Permitting these activities may be contradictory to desires for limiting overall use in the basin and maintaining the existing character of the river. Educational events and guides do provide opportunities to promote understanding and stewardship of the basin. Some special uses can provide services that actually protect resources (e.g.: firewood sales). Outfitter/guide services may be a safer and less impactive alternative to uncontrolled use. Special Use permits can also control the timing and place of activities that might occur and cause more damage without a permit.

See other direction for developed special uses in Issue #5 - Transportation, Utilities; Issue #9 - Commercial Development; and Issue #10 - Recreational Residences.

Proposed Action	Special Use permits authorize only those uses and activities that are consistent with and complement or support the goals of this plan. Commercial special uses are appropriate only if there is a demonstrated need (not merely demand) as defined for commercial development. Special uses, with the exception of those which involve permanent improvements, are permitted only if they have a negligible impact on the river's natural resources and recreational character. Permitted uses should not be used to promote or advertise the Metolius area. The existing permit for equestrian guiding on the Metolius Windigo trail is allowed to continue. No new septic systems which service facilities on private lands will be permitted on National Forest land.

Issue #10: How should the 108 recreation residences be managed in a manner compatible with Wild and Scenic designation?

During scoping, many people strongly supported maintaining summer homes because they are a tradition along the Metolius and add to the river's ambiance and character. They viewed the recreation residences as an integral part of the historic community identity of Camp Sherman.

However, many public comments addressed summer homes and impacts to water quality, air quality, riparian vegetation, and visual appearance. Many people questioned the appropriateness of "managing the basin for the benefit of 108 families" and suggested that more restrictions and better enforcement was necessary regarding year-round occupancy, lawn mowing, and building setbacks. The effects of septic systems and water systems servicing the summer homes on ground and surface water quality was cited by many as their primary concern related to river development.

Recreation Residences

The existing, rustic appearance of the recreation residences is integral to the character of the Metolius. However, many of the cabins are old, quite small, or provide less amenities than the current owners desire. The desire to expand or improve structures must be balanced with the need to protect scenic quality and riparian areas. Some existing site impacts can be reduced by relocating or redesigning the structures.

Proposed Action	In keeping with the unique and historic character of the community of Camp Sherman, recreation residences are maintained as rustic, simple cabins. Remodeling and expansion of the primary residences is permitted in a manner that protects key riparian components, the historic character of the structure, and the dominance of the river in the landscape character of the river.

Landscape Management

The Metolius Recreation Residences are located on the river. Lot boundaries range from 20 to 150 feet from the water's edge. Current Tract Objectives and FS policy prohibit residences from cutting or removing off-lot vegetation, but a riparian vegetation has been lost in the past. The Tract Objectives allow lawns and other non-native vegetation on lots, and, thus, riparian vegetation is lost. There are objectives for not planting non-native species, but no binding standards. Residents cut or remove native vegetation primarily to maintain their landscapes and views of the river and for fire protection.

Proposed Action	On-lot vegetation is managed to protect key riparian components, increase overall riparian function, and maintain the integrity of native, upland vegetation. Areas which have unacceptable impacts to riparian vegetation will be rehabilitated.

Off-Lot Improvements

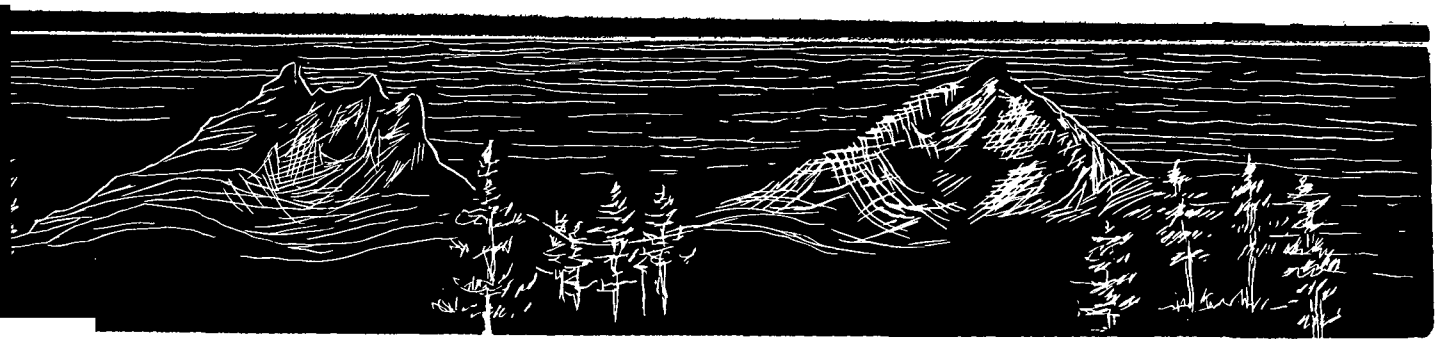
Waterwheels, platforms, footbridges have been constructed along the Metolius for many years. Though construction of such facilities is no longer a part of recreation residence management, impacts of their placement has already occurred and removal is likely to be more damaging than leaving them in place. These structures have become an expected and desired element of the character of the river for some and are consistent with the level of development allowed in the Recreation river segment.

Proposed Action	No new waterwheels, platforms, footbridges, or other off-lot improvements are permitted. Existing off-lot improvements are permitted and maintained for safety, historic appearance, and resource protection. Maintenance and reconstruction of existing improvements are allowed only when they do not adversely harm riparian vegetation, streambanks, instream habitat, or water. When necessary maintenance is not possible, the improvement will be removed.

Septic and Water Systems

Testing wells and septic systems not only protects the health and well-being of the users, but is the first line of monitoring to determine the effects to groundwater quality and its relationship to the river.

Proposed Action	Water testing for fecal coliform and nitrates is performed by owners on all wells and domestic water systems at least once a year. The results of this testing are provided to the Forest Service to be used in water quality monitoring. More testing may be required in areas of positive test results. Septic systems are managed to protect the river's extremely high water quality. An inventory of all septic systems within the corridor is performed by owners to establish the existence of septic systems within a year of adoption of the plan. Pit toilets and dry wells are not acceptable septic systems and shall be removed or upgraded (applications for this work to be made within two years of the adoption of the plan). Upon transfer of a special use permit or remodeling/expansion, septic systems will be tested for proper function and upgraded to current standards if not functioning. No new off-lot septics are permitted on National Forest lands..



Issue #11: How should the unique qualities and the management policies of the Metolius be shared with the public through education and interpretation?

Issues regarding interpretation and education generally fell into two areas: the type of information distributed and the medium and level of distribution.

Topics suggested for inclusion in interpretative and educational services were widespread and numerous. Most focused on resource management of the Metolius Basin, protection of the ecological resources, and general information about the physical, biological, and cultural resources of the river corridor.

While providing information about river resources will help improve awareness and resource protection, it can also draw attention to and possibly have adverse effects on sensitive features of the corridor. It may also be viewed as a form of entertainment that might attract users to the area.

The appropriate level and scope of education and interpretation is important. Some people suggested limiting promotion of the Metolius to discourage people coming in to the area. Other people felt that signs and interpretive facilities should be severely limited to retain the natural character of the corridor.

Contact with users and enforcement of land management policies are issues that may be supported by education and interpretation, but need separate consideration. The amount, methods, and timeframes of enforcement has a great deal of bearing on the effectiveness of policies and regulations.

Interpretation

Proposed Action	An interpretive plan is developed to address themes, media, location, and timing in accordance with resource objectives in the Metolius Wild and Scenic River Plan. A "campfire circle" near Allingham and brochures are among the media and facilities included in the plan. Emphasis is on interpretive mediums which do not involve capital investment (i.e., brochures, personnel) versus signs and new facilities. Signs and permanent structures are used where continuous information is important for visitor safety, immediate resource protection, road signing, etc. Interpretation and education are integral in the resource management of the corridor. Interpretive themes stress resource protection, stewardship, and visitor responsibility. Focus is on increasing visitor awareness of resources within the Metolius Basin and their sensitivity with the goal of promoting visitor stewardship.

Issue #1: What should be done to protect and manage the hydrologic and geologic values of the Metolius?

Water Quality	
Alternative 1	Best Management Practices of the State of Oregon, Deschutes National Forest LRMP, and Confederated Tribes of Warm Springs IRMP are used for water quality and water quantity management. Water quality is high based on Oregon Department of Environmental Quality monitoring at Bridge 99. A Forest Service plan for hazardous material spills exists.
Alternative 2	Metolius Best Management Practices as shown in Appendix A are applied to the corridor for managing water quality and water quantity. Water quality meets or exceeds state water quality standards. Response to hazardous material spills is coordinated between agencies.
Alternative 3	Same as Alternative 2, and BMP's are also adopted on Metolius tributaries outside of the corridor through amendment of respective management documents.
Alternative 4	Same as Alternative 3, except existing water quality is established as an interim management standard and permanent standards are established in 10 years.
Alternative 5	Same as Alternative 3.
Water Quantity	
Alternative 1	Best Management Practices of the State of Oregon, Deschutes National Forest Land and Resource Management Plan, and Confederated Tribes of Warm Springs Integrated Resource Management Plan are used for water quality and water quantity management. Water quantity is measured at various locations on the Metolius River, Whitewater River, Jefferson Creek, and Lake Creek. Peak flow is gauged at various other locations.
Alternative 2	Metolius Best Management Practices are applied to the corridor for managing water quality and water quantity. Baseline flows are established from existing data and used as a basis for management decisions concerning river stability.
Alternative 3	Same as Alternative 2, and BMPs are also adopted for Metolius tributaries through amendments of appropriate management documents.
Alternative 4	Same as Alternative 3
Alternative 5	Same as Alternative 3

Water Rights	
Alternative 1	Instream flows, equal to natural flow levels, have been established for fish, wildlife, and recreation needs. Existing rights for irrigation are monitored and reviewed by the State Department of Water Resources. No new surface water rights are granted.
Alternative 2	Same as Alternative 1, and instream flows are protected. New water right applications for ground water and changes to existing uses are reviewed for consistency with the Metolius Wild and Scenic River Plan. Instream flows are established to protect all the river's ORVs.
Alternative 3	Same as Alternative 2, and applications are made for instream flows throughout the entire river system to protect all of the river's ORVs. Existing rights for irrigation are transferred to instream flow whenever possible.
Alternative 4	Same as Alternative 3.
Alternative 5	Same as Alternative 3

Issue #2: What should be done to protect and manage the river's ecological values?

Biodiversity	
Alternative 1	Biological diversity is conserved by providing habitat diversity for wildlife species and by consideration of threatened, endangered, or sensitive species during project analysis. Monitoring is done to identify potential for irretrievable loss of TES species or their habitat.
Alternative 2	Same as Alternative 1.
Alternative 3	Biodiversity is approached with a "coarse-filter" conservation strategy. Irretrievable loss and significant downward trends (current or predicted) in genetic diversity, population numbers, density, or habitat capability are prevented.
Alternative 4	Same as Alternative 3, plus restoration of biological diversity, by reintroducing processes and structure, towards the historic range of variability is a goal throughout the corridor.
Alternative 5	Same as Alternative 3.
Vegetation Management	
Alternative 1	Vegetation management is only performed to meet health and safety needs or to prevent catastrophic loss to ORVs. Thinning, salvage, and hazard tree removal follow the guidelines of the LRMP. Prescribed burning is done under individual project analysis. Effects of insects and disease are monitored at a landscape level on an annual basis by aerial surveys. Areas determined to be at risk are targeted for more intensive monitoring and possible preventative treatments.

Alternative 2	Vegetation management is performed only to maintain or restore desired vegetative conditions, conserve biological diversity and TES species habitat, or protect and enhance the river's ORVs. Vegetation management focuses restoration in areas where conditions are significantly outside of the desired range. Assessments of the current and historic range of variability are used to identify areas where there is a high likelihood of intensified or altered disturbance by fire, insects, or disease and more intensive monitoring and preventative treatments are implemented in these areas.
Alternative 3	Same as Alternative 2, except vegetation management focuses restoration in areas that are moderately and significantly outside of the desired range. More intensive monitoring and preventative treatments are implemented in these areas.
Alternative 4	Same as Alternative 2, except vegetation management focuses restoration towards primarily natural processes such as fire and thinning caused by insects and disease. Some hand thinning may be allowed to facilitate the use of prescribed fire in areas of high fuel loads. Time frames for change are long.
Alternative 5	Same as Alternative 3.
Riparian Vegetation	
Alternative 1	Riparian areas are managed under the LRMP to maintain or enhance riparian-dependent resources such as water quality, water quantity, fish, and certain wildlife and vegetation. These resources are given preference over non-riparian dependent resources (timber harvest, grazing, recreation, special uses). The CTWS IRMP prohibits management activity within 100' of the river and the Conditional Use direction requires Tribal Council approval for any activity outside the 100' buffer.
Alternative 2	Riparian vegetation is managed primarily to maintain existing conditions, except in highly impacted areas where restoration options are implemented.
Alternative 3	Riparian vegetation is managed to maintain or enhance existing conditions. Riparian vegetation in developed recreation sites, recreation residences, and other high use areas is managed through restoration options towards a goal of fair ecological condition (26-50% of the area has the potential natural plant community). The remainder of the corridor is managed with the goal of maintaining riparian vegetation in good ecological condition (51-75% of the area has the potential natural plant community). Areas in poor ecological condition (0-25% of the area has the potential natural plant community) are managed through restoration options.
Alternative 4	Riparian vegetation is managed primarily to enhance existing conditions toward the range of natural variability. Riparian vegetation in the entire river corridor is managed with the goal of maintaining riparian vegetation in excellent ecological condition (76-100% of the area has the potential natural plant community). Areas in poor (0-25% of the area has the potential natural plant community) and fair (25-50% of the area has the potential natural plant community) ecological condition are managed through restoration options.
Alternative 5	Same as Alternative 3.

Fire	
Alternative 1	Prescribed fire is used to reduce fuel loading and modify stand structure in the Metolius RNA and other individual projects. Burning prescriptions generally use low or moderate-intensity fires. High-intensity fires are occasionally used to thin trees and create openings. All wildfires are aggressively suppressed using the appropriate suppression response. Low impact methods are used where appropriate.
Alternative 2	Prescribed fire is used to reduce fuel loading and modify stand structure in areas which are significantly outside their historic range of natural variability. Pretreatment thinnings or multi-stage burns are considered to reduce the risks to developed areas and ORVs. Burning prescriptions generally use low or moderate-intensity fires. High-intensity fires are occasionally used to thin trees and create openings. All wildfires are aggressively suppressed using the appropriate suppression response. Low impact methods are used where appropriate.
Alternative 3	Same as Alternative 2, except prescribed fire is used in areas which are moderately or significantly outside their historic range of natural variability. In the Scenic river segment, prescribed fire and prescribed natural fire are the preferred means of stand structure restoration. A Fire Management Plan guides the use of natural fire under prescription.
Alternative 4	Prescribed fire is used to reduce fuel loading and modify stand structure in areas which are outside their historic range of natural variability. Multi-stage burns are used to reduce the risks to developed areas and ORVs. Burning prescriptions use low, moderate, and high intensity fires. Prescribed fire and prescribed natural fire are the preferred means of stand structure restoration. A Fire Management Plan guides the use of natural fire under prescription.
Alternative 5	Same as Alternative 3.
Timber Harvest and Salvage	
Alternative 1	**For the Scenic segment** - removal of trees is confined to those required to meet health and safety needs and to protect resources during catastrophic situations. **For the Recreational segment** - removal of trees is confined to those required to protect the immediate river environment and its ORVs. Dead and dying trees are evaluated for their scenic, wildlife and fisheries values as well as for safety and disease control risks they may pose.
Alternative 2	See "Vegetation Management", Alternative 2.
Alternative 3	See "Vegetation Management", Alternative 3.
Alternative 4	See "Vegetation Management", Alternative 4.
Alternative 5	See "Vegetation Management", Alternative 5.
Grazing	
Alternative 1	Grazing is managed by Livestock Use, Special Use, or Crossing permits. No term or temporary permits are issued.
Alternative 2	Livestock grazing is used only as a management tool to meet other resource objectives. Grazing is managed by Livestock Use, Special Use, or Crossing permits. No term or temporary permits are issued.
Alternative 3	Same as Alternative 2
Alternative 4	No grazing is permitted.

Alternative 5	Same as Alternative 2
Special Forest Products	
Alternative 1	Special Forest Products are harvested by permit. Commercial activity is permitted on a case-by-case basis. Commercial mushroom permits are routinely issued for picking throughout the corridor. Wildflower picking is not regulated. Firewood gathering is allowed throughout the corridor. Down wood in campgrounds to be retained for fish and wildlife habitat is marked. Native American Tribal members to gather special forest products under existing treaty rights for ceded lands.
Alternative 2	Commercial activity is permitted on a case-by-case basis, except mushrooms which are allowed throughout the corridor with the following exception: commercial or personal use mushroom and wildflower picking are not allowed in campgrounds or along the river trail. Firewood gathering is allowed in designated areas. Firewood cutting is permitted in designated areas to reduce hazards or meet other resource needs. Traditional use gathering is managed the same as Alternative 1.
Alternative 3	No personal or commercial harvest of special forest products is permitted in the corridor except where it meets resource management objectives. Incidental use of mushrooms is allowed without a permit (less than 20 mushrooms). Incidental use of other items is discouraged through education and interpretation of ecological values. Wildflower picking is not allowed. Firewood is managed the same as in Alternative 2 plus: a firewood concession operates in all fee campgrounds. Traditional use gathering is managed the same as Alternative 1.
Alternative 4	Same as Alternative 3, except incidental use of all items is discouraged through education. Firewood is managed the same as in Alternative 2. Traditional use gathering is managed the same as Alternative 1.
Alternative 5	No personal or commercial harvest of special forest products is permitted in the corridor, except where it meets resource management objectives. Incidental use of all items except wildflowers and wood is allowed. Wildflower picking is not allowed and is explained through education and interpretation. Firewood is managed the same as in Alternative 3. Traditional use gathering is managed the same as Alternative 1.
Weeds	
Alternative 1	Weeds are noted during sensitive plant surveys. Some mitigation is performed during projects (e.g. cleaning equipment).
Alternative 2	Weeds are noted during sensitive plant surveys. Biological and manual control methods are coordinated between agencies.

Alternative 3	Weed prevention and early detection efforts are emphasized. Chemical herbicides are used only as a last resort. Weed control is coordinated between agencies. Weed awareness is pursued through education.
Alternative 4	Same as Alternative 3 except: chemical herbicides are not used.
Alternative 5	Same as Alternative 3.

Issue #3: What should be done to protect and manage the river's fish populations and habitat?

Fish Populations	
Alternative 1	Oregon Department of Fish and Wildlife manages fish populations in the river under the Upper Deschutes Basin Fish Management Plan, which is currently undergoing revision. The basin planning process has developed three alternatives for fish management in the Metolius River. All of the proposed alternatives in the basin plan are in compliance with the ODFW Wild Fish Management Policy, and all alternatives protect and enhance the fisheries ORV. They also include the continuance of the bull trout fishery and investigate the feasibility of restoring anadromous fish.
Alternative 2	Same as Alternative 1.
Alternative 3	Same as Alternative 1.
Alternative 4	Same as Alternative 1.
Alternative 5	Same as Alternative 1.
General Fish Habitat	
Alternative 1	Quantified habitat surveys, habitat capacity targets, and prioritized improvement work guidelines in the 1990 Deschutes National Forest LRMP are followed.
Alternative 2	Same as Alternative 1, except instream work, including restoration, is only allowed from May 1 to August 1 to reduce risk to spawning and juvenile fish.
Alternative 3	Same as Alternative 2, and habitat restoration enhances instream structure in areas of poor natural recruitment.
Alternative 4	Same as Alternative 2, except habitat restoration emphasizes natural processes.
Alternative 5	Same as Alternative 3.
Instream Wood	
Alternative 1	Adjustment of instream wood to accommodate boating may take place in the river segments from Camp Sherman bridge to Bridge 99. No adjustment by the agencies is done below Bridge 99. Wood is not removed from the river for safety or aesthetic reasons, though users do unauthorized adjustments and removal.
Alternative 2	Instream wood is managed for minimum safe passage for boaters between Canyon Creek and Bridge 99. There is no adjustment for passage below Bridge 99 as no boating is allowed in this section.

Alternative 3	While boating is allowed below Wizard Falls Bridge, no adjustment of instream wood for passage is allowed. Education and public information on wood management in the river addresses boating risks.
Alternative 4	Adjustment of instream wood to provide passage is not allowed because boating is prohibited.
Alternative 5	No boating or instream wood manipulation for passage is allowed above Camp Sherman Bridge. Wood is adjusted to provide minimum safe passage for boaters below Camp Sherman. Log jams and other passage barriers may be managed where portages can be established with acceptable impacts to riparian vegetation.

Issue #4: What should be done to manage and protect wildlife values in the river corridor?

Elk and Deer Range	
Alternative 1	The river corridor from Pioneer Ford Campground to White Water River is a Key Elk Area and deer winter area as designated in the Deschutes National Forest LRMP. The area from Jefferson Creek to Lake Billy Chinook on tribal lands is deer and elk winter range. Some vegetation management may be performed to provide effective cover and forage.
Alternative 2	The river corridor from Pioneer Ford Campground to White Water River is a Key Elk Area and deer winter area. The area from Jefferson Creek to Lake Billy Chinook on tribal lands is deer and elk winter range. Vegetation management, such as prescribed burning and thinning, may be performed to provide effective cover and forage.
Alternative 3	The river corridor from Cold Springs to Lake Billy Chinook and the lowland pine area from Lake Creek north to First Creek is a Key Elk Area and deer winter area. Within this area, roads are closed on a case-by-case basis to provide security and reduced harassment. Vegetation management, such as prescribed burning and thinning, may be performed to provide effective cover and forage.
Alternative 4	The river corridor from Wizard Falls Bridge to Lake Billy Chinook and the lowland pine area from Lake Creek north to First Creek is a Key Elk Area and deer winter area. Within this area, roads are closed on a case-by-case basis to provide security and reduced harassment. Vegetation management to provide effective cover and forage occurs primarily through natural processes.
Alternative 5	Same as Alternative 2

Snags	
Alternative 1	Snags are provided in sufficient densities to provide 100% potential population levels except in recreation sites. Snags are created where deficiencies occur. Snags in recreation areas, rights of way, and other special use permit areas are rated using the Hazard Tree Management Guidelines and only removed if necessary. Topping is preferred where feasible. Snags are not managed or assessed for hazard in dispersed recreation sites. The CTWS Integrated Resource Management Plan requires a minimum of 2 snags per acre or 60% avian capacity, except in Conditional Use Areas where no snag management is done.
Alternative 2	Outside special risk consideration areas, desired maximum potential snag levels are determined by environmental factors. In areas with special risk consideration, hazard trees greater than 14" dbh are given careful consideration for retention or topping before felling. Felling hazard trees over 14" dbh is a last resort, unless they are within 100' of the river in which case they are considered for instream habitat. Hazard trees less than 14" dbh are generally felled and left for firewood, down wood, or instream habitat.
Alternative 3	Outside special risk consideration areas, desired maximum potential snag levels are determined by environmental factors. In areas with special risk consideration: **From Lower Bridge campground upstream**: Hazard trees greater than 14" dbh are given careful consideration for retention or topping before felling. Felling hazard trees over 14" dbh is a last resort, unless they are within 100' of the river, in which case they are considered for instream habitat. Campsites and other uses may be moved to retain hazard trees greater than 24" dbh. Hazard trees less than 14" dbh are generally felled and left for firewood, down wood, or instream habitat. **Downstream from Lower Bridge campground:** Hazard trees less than 14" dbh are generally felled and left for firewood, down wood, or instream habitat. 14" to 20" dbh hazard trees may be topped or felled into the river. Hazard trees greater than 20" dbh will be retained. This may require recreation sites or other uses that are at risk to be closed or relocated.
Alternative 4	Outside special risk consideration areas, desired maximum potential snag levels are determined by environmental factors. In areas with special risk consideration: **From Lower Bridge campground upstream:** Hazard trees 14"-24" dbh are given careful consideration for retention before topping or felling into the river. Hazard trees greater that 24" dbh will be retained and campsites or other uses that are at risk may have to be moved. Hazard trees less than 14" dbh are the only snags which can be felled and left for firewood, down wood, or instream habitat. **Downstream from Lower Bridge campground:** Hazard tree management is only performed on hazards less than 14" dbh which are retained, topped, or felled to meet fish and wildlife objectives. This may require recreation sites or other uses that are at risk to be closed.

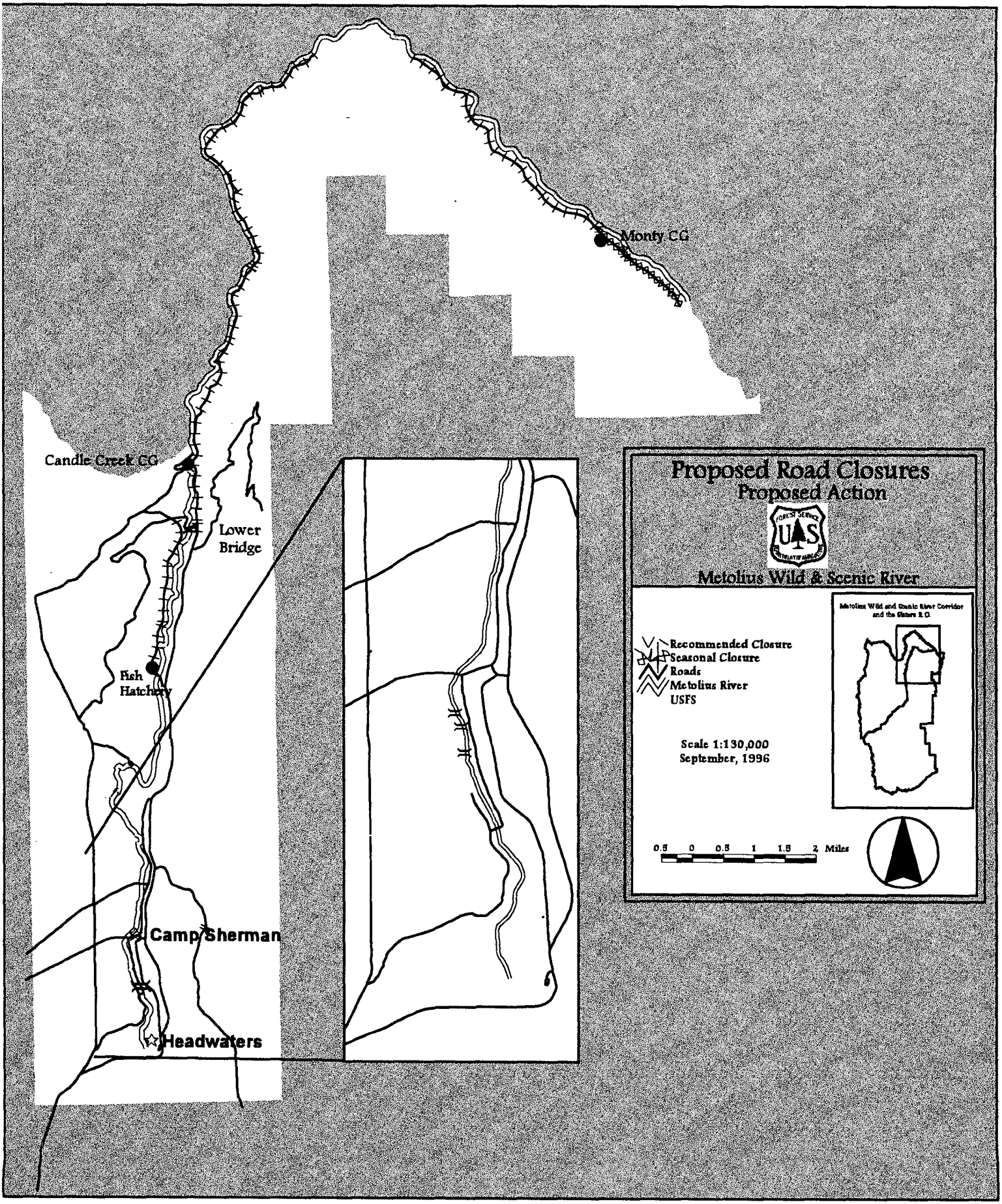
Alternative 5	Outside special risk consideration areas, desired maximum potential snag levels are determined by environmental factors. In areas with special risk consideration: **From Lower Bridge campground upstream:** Hazard trees greater than 14" dbh are given careful consideration for retention or topping before felling. Felling hazard trees over 14" dbh is a last resort, unless they are within 100' of the river in which case they are considered for instream habitat. Hazard trees less than 14" dbh are generally felled. **Downstream from Lower Bridge campground:** Hazard trees greater than 14" dbh may be retained, topped, or felled to meet fish and wildlife objectives. Where hazard tree retention is desired, recreation sites or other uses are relocated. Hazard trees less than 14" dbh are generally felled.
Down Logs	
Alternative 1	The LRMP standard for down logs is 6 per acre (3 sound and 3 soft) on a stand-by-stand basis. Downed logs may be created where deficiencies occur. Downed logs in campgrounds are marked as fish or wildlife habitat to protect them from firewood gathering. Firewood gathering, for use in campsites, is allowed anywhere in the corridor, including campgrounds. The LRMP does not permit charge or free-use wood cutting except in designated areas to reduce hazards or meet other resource needs. The CTWS IRMP requires a minimum of 10 down logs per acre, all of which must be over 12" in diameter and 20' long.
Alternative 2	120 linear feet per acre is the minimum standard for down logs in areas where logs are managed such as recreation sites, firewood cutting areas, and vegetation management units. Outside these areas, natural processes determine log quantities.
Alternative 3, 4, 5	Same as Alternative 2
Wildlife Refuge	
Alternative 1	Metolius wildlife refuge extends from Head of the Metolius to Canyon Creek.
Alternative 2	Same as Alternative 1
Alternative 3	Same as Alternative 1
Alternative 4	Same as Alternative 1
Alternative 5	The Metolius wildlife refuge is expanded throughout the corridor upstream from Bridge 99.
Wildlife Damage Control	
Alternative 1	Administrative permits are required before control efforts take place. Interagency coordination is conducted. Few preventative measures are implemented.
Alternative 2	Administrative permits are required before control efforts take place. Interagency coordination is conducted. Preventative measures such as bear-proof trash containers and public education are emphasized to help avoid damage problems.
Alternative 3	Same as Alternative 2, except poisons are not used.
Alternative 4	Same as Alternative 3
Alternative 5	Same as Alternative 2

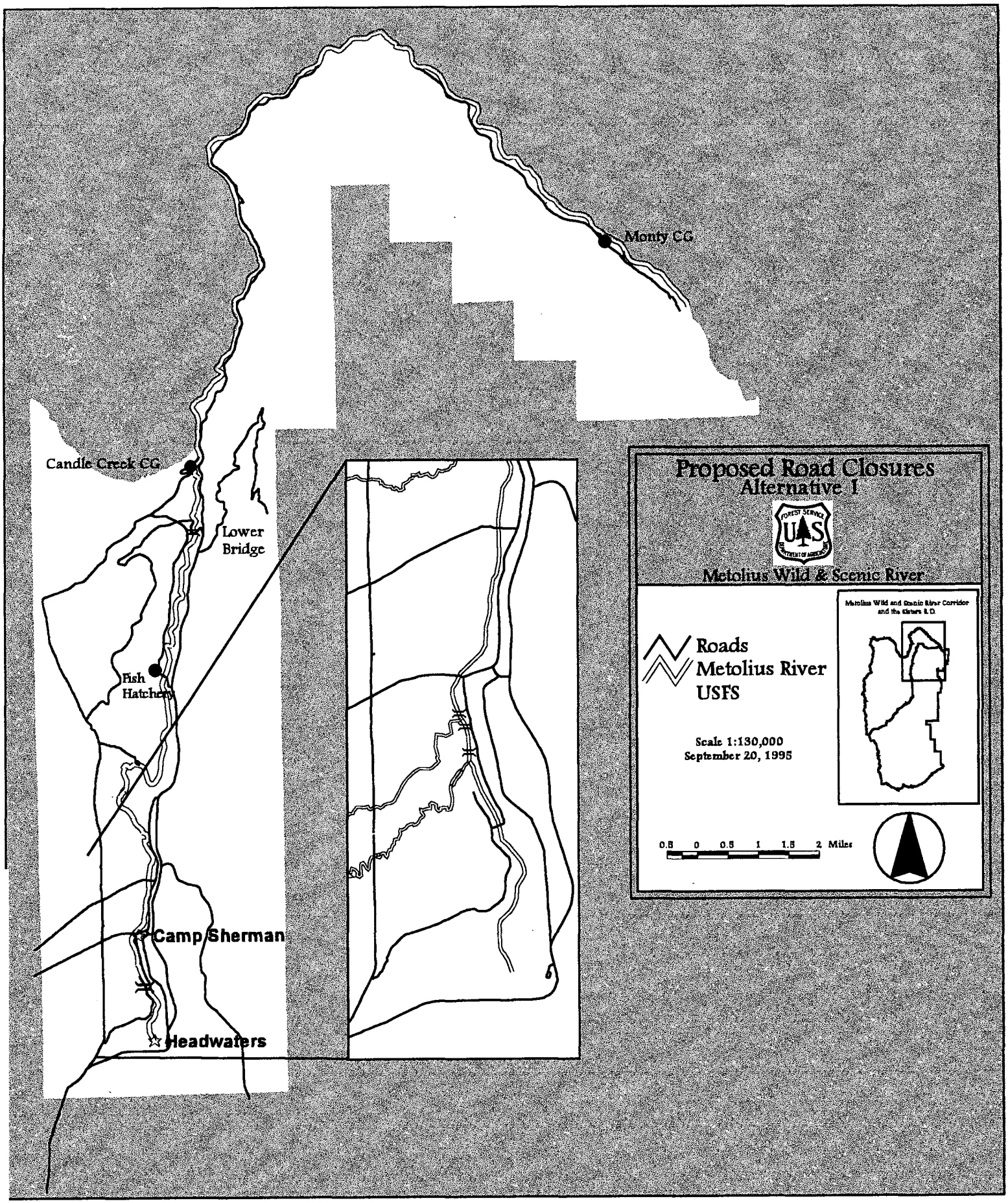
Issue #5: What should be done to protect and manage aesthetic qualities and retain the existing character of the river corridor?

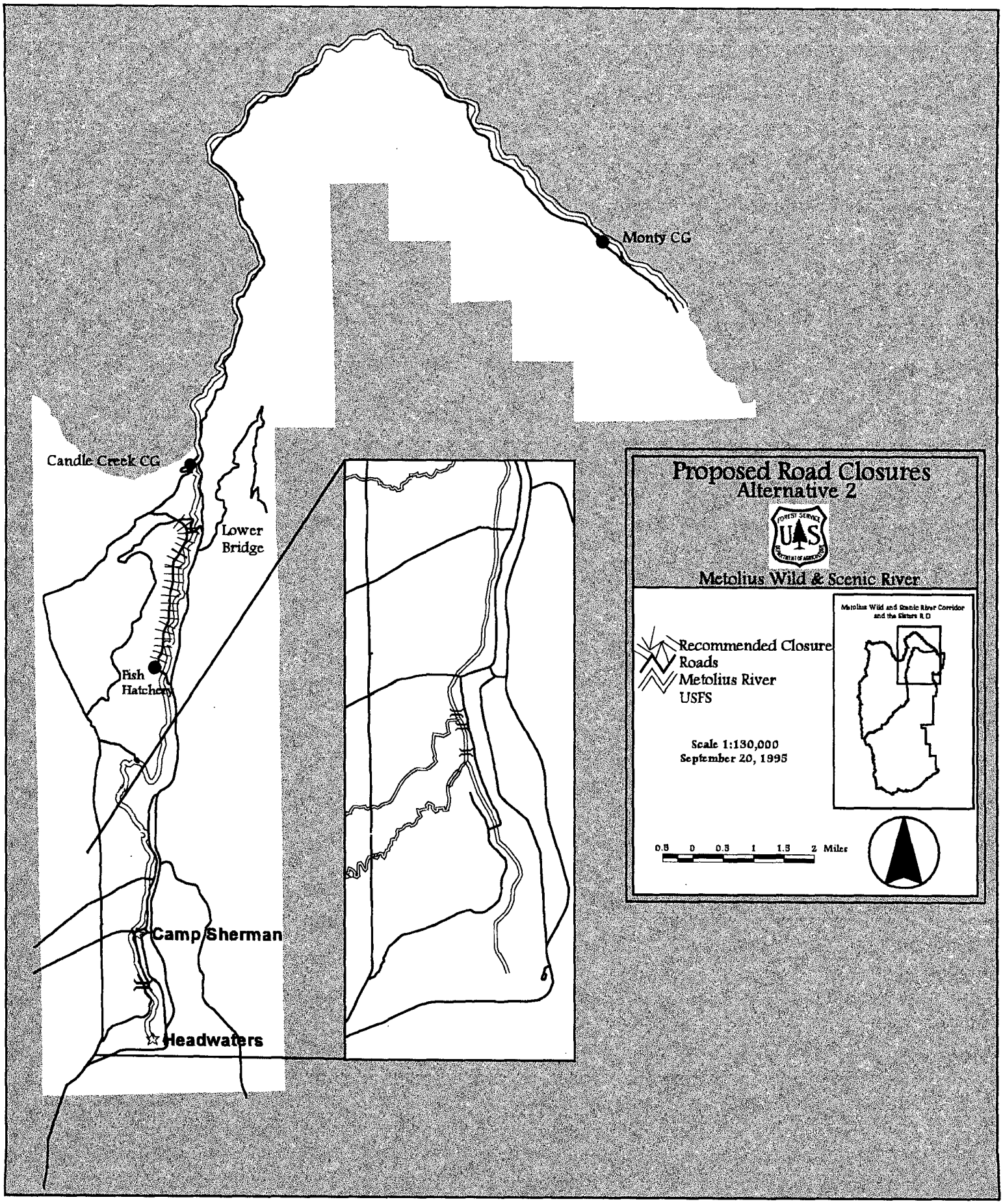
Scenic Quality	
Alternative 1	The Scenic Integrity Objective for the corridor relates directly to the Deschutes National Forest LRMP direction of High. Where areas are rehabilitated, non-local native species and materials are used whenever possible.
Alternative 2	The Scenic Integrity Objectives for the corridor are High and Medium upstream from Bridge 99 and High downstream. The Camp Sherman area including residences, store, bridge, and fish viewing platform is managed as a "cultural" rural class landscape to meet a Medium degree of scenic integrity. These standards are recommended to Jefferson County for adoption in their land use planning.
Alternative 3	The Scenic Integrity Objective for the corridor is High. The Camp Sherman area is managed as a "cultural" rural class landscape to meet a High degree of scenic integrity. Scenic easements on private lands that are important for the protection and enhancement of the ORVs are secured from willing sellers to ensure a high degree of scenic integrity. All structures are screened or have scenic composition representing the landscape character of the area. These standards are recommended to Jefferson County for adoption in their land use planning.
Alternative 4	Same as Alternative 3 except the Scenic Integrity Objective for the Camp Sherman area is managed as a "natural appearing" landscape and meets a High degree of scenic integrity. The corridor downstream from Lower Bridge campground is managed for a Very High degree of scenic integrity.
Alternative 5	Same as Alternative 2, except new recreation facilities and structures are screened or have scenic composition representing the landscape character of the area.

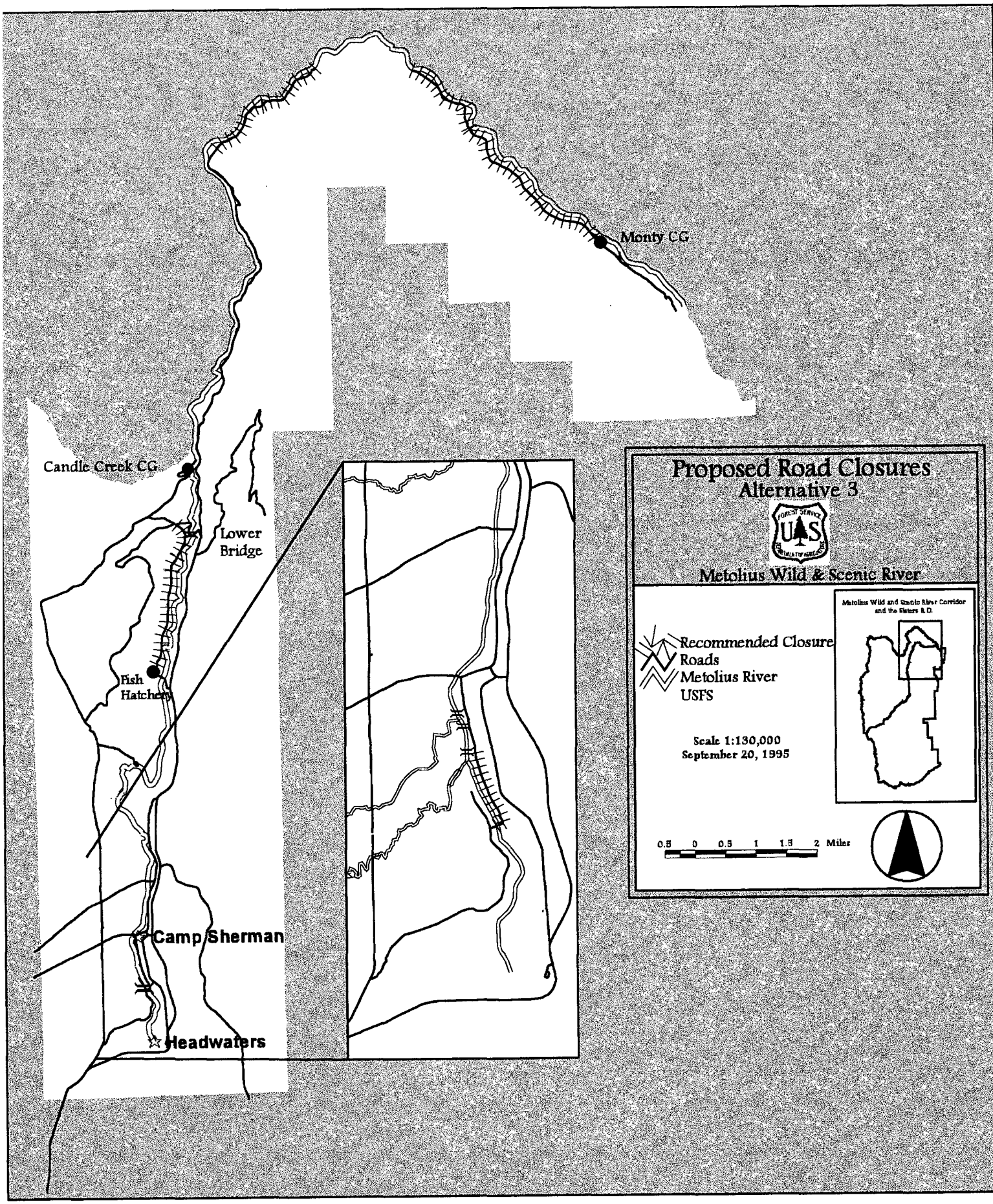
Land Use	
Alternative 1	Forest Service and State of Oregon review and comment on land use actions within the river corridor. Comments are based on achieving consistency with State Scenic Waterway Rules, Forest Service Recreation Residence policy, Metolius Tract Objectives, and the Metolius Wild and Scenic River's Outstandingly Remarkable Values.
Alternative 2	It is recommended that Jefferson County and the State of Oregon review "ordinances" and "rules of land management" for consistency with Forest Service Recreation Residence policy. It is further recommended that Jefferson County adopt guidelines similar to Forest Service Recreation Residence policy and Metolius Tract Objectives for rural development and review all land use proposals for compatibility with the Metolius Wild and Scenic River's Outstandingly Remarkable Values. Upzoning is not consistent with the ORVs. Guidelines established in this plan that address ground and surface water contamination caused by septic systems are recommended to the County for application to private development within the corridor.
Alternative 3	Same as Alternative 2.
Alternative 4	Same as Alternative 2, except it is further recommended that Jefferson County revise the density requirements to decrease the number of structures allowed per acre and strengthen zoning ordinances to limit new development.
Alternative 5	Same as Alternative 2.
Transportation Management	
Alternative 1	Roads receive routine maintenance to control erosion, siltation, and sedimentation where specific problems are identified. Motorized use off designated roads is regulated to prevent resource damage. Existing road bridges are maintained.
Alternative 2	Roads receive regular maintenance to control erosion, siltation, and sedimentation. Turbidity and sedimentation are controlled by actively maintaining and repairing erosion control structures and road drainages within the corridor. Motorized use off designated roads is prohibited. Transportation planning is coordinated with Jefferson County to develop an efficient road network and protect ORVs. A consistent sign theme, with the goal of consolidating, minimizing visual impact, and perpetuating a historic character, is developed in coordination with Jefferson County. Private access across National Forest lands is managed to reduce road density. No rights-of-way or easements are granted for new road construction on National Forest lands unless it is the sole means of access to private land or it has a significant benefit to an ORV. Existing road bridges are maintained but are evaluated for consolidation. No new road bridges are constructed.

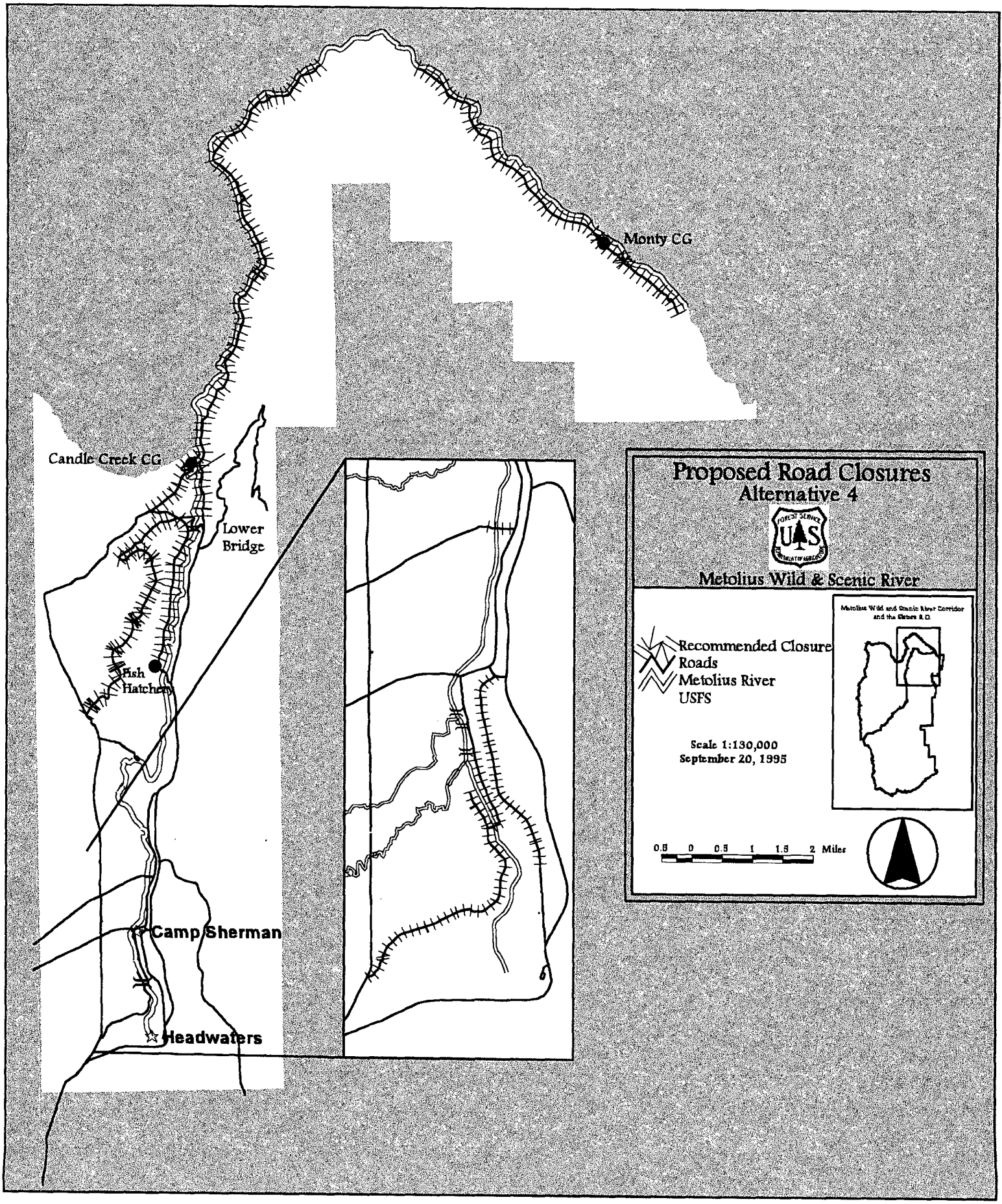
Alternative 3	Same as Alternative 2, except parallel roads are consolidated or designated for one-way travel. Rd 1419-900 is designated for one-way travel to reduce encounters, increase safety, and provide space for bicycle and pedestrian travel. Montgomery Road (Rd 64) is narrowed and realigned to reflect natural landforms. Parking outside of developed recreation sites is only allowed in designated parking areas which are established set-back from the river at Camp Sherman, Allingham, Wizard Falls, and Lower Bridge. Camp Sherman Bridge, Allingham Bridge, Wizard Falls Bridge, and Bridge 99 are maintained. Tract C bridge is closed to motor vehicles. Other road bridges are eliminated where alternate access exists.
Alternative 4	Same as Alternative 3, except designated parking areas are established within existing developed areas and parking is allowed only in these areas. Existing road bridges are eliminated except Camp Sherman Bridge, Wizard Falls Bridge, Bridge 99, and Livingston Bridge.
Alternative 5	Same as Alternative 3, except Rd 1419-800 is connected to the eastern side of the Tract C bridge which is open to motor vehicles. Some existing road-side-pullouts, which are set-back from the river, are hardened and designated for parking. Existing road bridges are maintained
Road Use and Closures	
Alternative 1	Road closures are implemented on a project-by-project basis and informally monitored to check for compliance.
Alternative 2	The following roads are closed: Rd 1298, spur roads immediately east of RD 1270.
Alternative 3	The following roads are closed and obliterated: Rd 64 at Monty Campground, Rd 1298, spur roads immediately east of RD 1270, Rd 1419-200 approaching the Tract C bridge, Rd 1419-700 at the Livingston bridge, and Rd 1499 north of the private property. Private property holders are granted access through closures only if it is their sole means of access.
Alternative 4	The following roads are closed and restored: Rd 64 at the National Forest/private property boundary (sec 19), Rd 1270, Rd 1200-980, Rd 1298, Rd 1419-200 approaching the Tract C bridge, Rd 1419-700 at the Livingston bridge, Rd 1419-800, and Rd 1499. Road closures are monitored to ensure their integrity. Private property holders are granted access through closures only if it is their sole means of access.
Alternative 5	The following roads are closed and rehabilitated: Rd 1298, spur roads immediately east of RD 1270, and Rd 1419-700 at the Livingston bridge.
Utilities	
Alternative 1	New utilities are constructed to minimize visual impacts to the greatest extent possible while protecting heritage resources and TES species. Preference is given to locating utilities underground and in existing rights-of-way.
Alternative 2	Same as Alternative 1.
Alternative 3	New and existing utilities are located underground or in transportation rights-of-way.

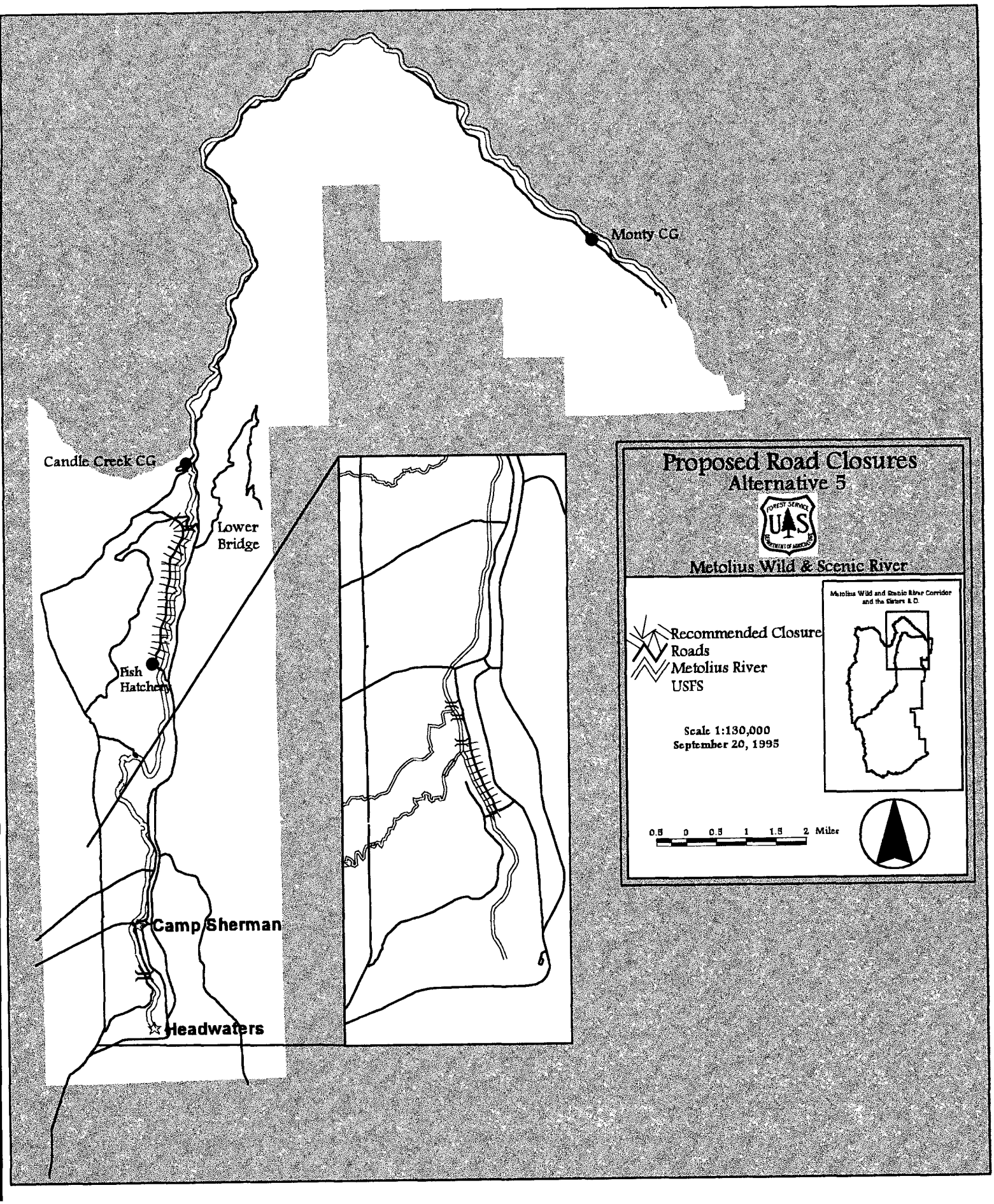

Monty CG
Candle Creek CG
Lower Bridge
Fish Hatchery
Camp Sherman
Headwaters
Proposed Road Closures
Proposed Action
Metolius Wild & Scenic River
Recommended Closure
Seasonal Closure
Roads
Metolius River
USFS
Scale 1:130,000
September, 1996
Metolius Wild and Scenic River Corridor and the Sisters R.D.
0.5 0 0.5 1 1.5 2 Miles


Monty CG
Candle Creek CG
Lower Bridge
Fish Hatchery
Camp Sherman
Headwaters
Proposed Road Closures
Alternative I
Metolius Wild & Scenic River
Roads
Metolius River
USFS
Scale 1:130,000
September 20, 1995
Metolius Wild and Scenic River Corridor and the Sisters R.D.
0.5 0 0.5 1 1.5 2 Miles


Monty CG
Candle Creek CG
Lower Bridge
Fish Hatchery
Camp Sherman
Headwaters
Proposed Road Closures
Alternative 2
Metolius Wild & Scenic River
Recommended Closure
Roads
Metolius River
USFS
Scale 1:130,000
September 20, 1995
Metolius Wild and Scenic River Corridor and the Sisters R.D
0.5 0 0.5 1 1.5 2 Miles


Monty CG
Candle Creek CG
Lower Bridge
Fish Hatchery
Camp Sherman
Headwaters
Proposed Road Closures
Alternative 3
Metolius Wild & Scenic River
Recommended Closure
Roads
Metolius River
USFS
Scale 1:130,000
September 20, 1995
Metolius Wild and Scenic River Corridor and the Sisters R.D.
0.5 0 0.5 1 1.5 2 Miles


Monty CG
Candle Creek CG
Lower Bridge
Fish Hatchery
Camp Sherman
Headwaters
Proposed Road Closures
Alternative 4
Metolius Wild & Scenic River
Recommended Closure
Roads
Metolius River
USFS
Scale 1:130,000
September 20, 1995
Metolius Wild and Scenic River Corridor and the Sisters R.D.
0.5 0 0.5 1 1.5 2 Miles


Monty CG
Candle Creek CG
Lower Bridge
Fish Hatchery
Camp Sherman
Headwaters
Proposed Road Closures
Alternative 5
Metolius Wild & Scenic River
Recommended Closure
Roads
Metolius River
USFS
Scale 1:130,000
September 20, 1995
Metolius Wild and Scenic River Corridor and the Sisters R.D.
0.5 0 0.5 1 1.5 2 Miles

Alternative 4	New and existing utilities are located underground in transportation rights-of-way.
Alternative 5	Preference is given to locating new utilities underground and in transportation rights-of-way. Existing utilities will be placed underground as opportunities allow.

Issue #6: How should the river's cultural values, including prehistoric sites, historic sites, and traditional uses, be protected and managed?

Prehistoric Resources	
Alternative 1	Forest Service manages prehistoric resources using general LRMP direction. Confederated Tribes manage under direction for Conditional Use Areas. There is no management direction for private lands. Inventory and evaluation of heritage resources are conducted when new projects are planned.
Alternative 2	Significant sites are managed to avoid damage or detrimental change. Data recovery is undertaken where damage or change cannot be mitigated or avoided. Inventories to locate previously unknown prehistoric resources are done as part of specific projects. Determination of cultural significance and eligibility for the National Register of Historic Places is coordinated with the Confederated Tribes of Warm Springs.
Alternative 3	Same as Alternative 2, except a heritage resource management plan is developed to address information needs, identify research and analysis priorities, and select 50% of known prehistoric resources to be preserved.
Alternative 4	Same as Alternative 3, except 75% of known prehistoric resources are selected to be preserved.
Alternative 5	Same as Alternative 3, except 25% of known prehistoric resources are selected to be preserved.
Historic Resources	
Alternative 1	Forest Service manages historic resources using general LRMP direction. Confederated Tribes manage under direction for Conditional Use Areas. There is no management direction for private lands. Inventory and evaluation of heritage resources are conducted when new projects are planned.
Alternative 2	Inventories to locate previously unknown historic resources are done as part of specific projects. All known historic structures and sites within the corridor are evaluated. All significant sites are monitored for damage and all significant structures have condition assessments to determine their stability and needed repairs. Data recovery or HABS/HAER recordation is undertaken where damage or decay cannot be avoided through mitigation or rehabilitation. Determination of cultural significance and eligibility for the National Register of Historic Places is coordinated with the Confederated Tribes of Warm Springs.

Alternative 3	Same as Alternative 2, except an inventory of the entire corridor is completed to locate previously unknown historic resources.
Alternative 4	Same as Alternative 3, except data recovery or HABS/HAER recordation is undertaken where damage or decay cannot be avoided through mitigation or rehabilitation or where removal is necessary for other resource reasons.
Alternative 5	Same as Alternative 3.
Traditional Uses	
Alternative 2	Traditional use plants are identified through project-specific plant inventories. Other traditional use resources are identified as deemed necessary by traditional resource users. Locations of traditional resources are maintained confidential and resource assessments are shared with known traditional users of specific resources.
Alternative 3	Traditional use plant populations are identified during systematic inventories of the river corridor. Other traditional use resources are identified systematically through consultation with traditional users coordinated by the Warm Springs Culture and Heritage Committee and other traditional use groups that may be identified. Traditional use resources are monitored on a regular basis depending on their condition or risks to the resource. All traditional resource information is shared with traditional use groups interested in that resource but are kept confidential from other public disclosure.
Alternative 4	Same as Alternative 3
Alternative 5	Same as Alternative 3, except traditional use resources in high demand or of limited availability will be managed for maintenance or expansion of the resource base.

Issue #7: What types of recreational activities and experiences should be managed for in the river corridor, and how can these activities and experiences be provided without degrading the natural resources on which they depend?

Developed Campgrounds	
Alternative 1	Campground facilities that fall below acceptable maintenance levels are replaced or brought up to standard as funding is available. Use in the campgrounds is monitored.
Alternative 2	Setbacks from riparian areas are established in campgrounds that show evidence of detrimental impact to riparian areas as evidenced by loss of vegetation. Use in campgrounds is monitored. Site capacities (numbers of people and cars per campsite) are established. Where use exceeds 60% of capacity over a season in a fee campground, initiation of a reservation system is considered.

Alternative 3	An integrated master plan which includes such elements as transportation (both vehicle and foot traffic), visuals, and vegetation is developed for each campground. Lower Canyon Creek, Allen Springs, Lower Bridge, and Candle Creek are designated for tent camping only to provide a camping experience without the noise and visual impacts of recreational vehicles. Tent pads are designated. Campsites are set back 50' from the river in campgrounds that show evidence of detrimental impact to riparian areas as evidenced by loss of vegetation. Lower Canyon Creek, Candle Creek, and Monty have designated campsites and camping is only allowed within the campground in these sites. In order to meet the desired, less-crowded recreation experience, density in tent-camping campgrounds and Pioneer Ford is reduced 10-25% from the existing density. Site capacities (numbers of people and cars per campsite) are established. A reservation system is implemented to reduce camping pressure and implement capacity guidelines.
Alternative 4	An integrated master plan is developed for each campground that includes such elements as transportation (both vehicle and foot traffic), visuals, and vegetation. All developed campgrounds, except Camp Sherman, Allingham, and Smiling River, are designated for tent camping only to provide a camping experience without the noise and visual impacts of recreation vehicles. Tent pads are designated. Campsites are set back 100' from the river to meet riparian protection standards. Lower Canyon Creek has designated campsites and camping is only allowed within the campground in these sites. Monty and Candle Creek campgrounds are closed to avoid recreation, snag, and wildlife conflicts. In order to meet the desired, less-crowded recreation experience, density in each campground is reduced 25-40% from the existing density. Site capacities (numbers of people and cars per campsite) are established. If use exceeds 60% of capacity over a season in any campground (including non-fee sites), a reservation system is initiated to reduce camping pressure.
Alternative 5	Each campground has an integrated master plan which includes such elements as transportation (both vehicle and foot traffic), visuals, and vegetation. Campsites are moved outside riparian zones (distance from the river varies) in campgrounds that show evidence of detrimental impact to riparian areas as evidenced by loss of vegetation. Tent pads are designated. Lower Canyon Creek, Candle Creek, and Monty have designated campsites and are upgraded so that fees can be charged. A new campground of 20-30 sites of a development level similar to existing campgrounds on the river is developed in an upland area of the river corridor upstream from Gorge campground to relieve use pressure on the river and replace campsites closed to protect riparian areas. Capacity is addressed in the master plan for each campground. Site capacities (numbers of people and cars per campsite) are established. A reservation system is implemented to reduce camping pressure and implement capacity guidelines. When use exceeds 60% of capacity over a season in all campgrounds in the corridor, an overflow campground outside of the corridor, but within one half mile of the river, is developed.
Day Use Facilities	
Alternative 1	Day use picnic areas are located at the Head of the Metolius and Lower Bridge.

Alternative 2	Better information, signs, and access are provided for existing day use areas, so that they may be more easily located by visitors in the corridor.
Alternative 3	Pine Rest Campground is converted to a day use facility. Better information, signs, and access are provided for existing day use areas, so that they may be more easily located by visitors in the corridor.
Alternative 4	Day use is encouraged over overnight use. Pine Rest Campground and 10% of other developed campsites are converted to day use facilities. Sites to be converted will generally be those which fall within 100' of the river (and therefore are closed to overnight use) but are not in riparian vegetation zones, those which have inadequate facilities for overnight use, or those which are closed to overnight use to provide greater privacy and site distance to remaining overnight sites.
Alternative 5	A new day use area is developed upstream from Gorge Campground. Better information, signs, and access are provided to existing day use areas, so that they may be more easily located by visitors to the corridor.
Trails	
Alternative 1	Mountain bike and horse use upstream from Candle Creek on the river trail is prohibited by signing, but not regulation. New trails may be constructed away from the river to provide more access for pedestrians, mountain bikes, and equestrians in accordance with the Deschutes National Forest LRMP. The conversion of roads or powerline rights-of-way to trails is considered first when developing new trails. Fishing access points are not regulated.
Alternative 2	Upstream from Wizard Falls, foot traffic is the only use allowed on the river trail. Between Wizard Falls and Candle Creek, hiking and mountain biking are allowed. Downstream from Candle Creek, hikers, mountain bikes, llamas, and horses are allowed, but no facilities such as corrals, loading ramps, or hitching rails are provided to accommodate stock use. The river trail is maintained, and damaged riparian areas are identified and rehabilitated. Where erosion or siltation is occurring, trails will be stabilized or rerouted. No new trails are constructed. Fishing access is not regulated.
Alternative 3	Upstream from Candle Creek, foot traffic is the only use allowed on the river trail. Downstream from Candle Creek, hikers, mountain bikes, llamas, and horses are allowed on trails and roads, but no facilities such as corrals, loading ramps, or hitching rails, are provided to accommodate stock use. Where erosion, siltation, or riparian damage is occurring, trails will be stabilized or rerouted. No new trails are constructed. Fishing access points are put to rest on a rotating basis to allow recovery of riparian vegetation. Riparian areas downstream from Candle Creek are closed during the winter.
Alternative 4	Upstream from Candle Creek, foot traffic is the only use allowed on the river trail. Downstream from Candle Creek, hikers, mountain bikes, llamas, and horses are allowed only on closed roads, but no facilities such as corrals, loading ramps, or hitching rails, are provided to accommodate stock use. All trails downstream from Candle Creek, including the river trail and the trail between Rd 1499 and Rd 64, are eliminated. Elsewhere, trails are eliminated or rerouted where erosion, siltation, or riparian damage is occurring. No new trails are constructed. Fishing access points and the river trail are closed on a rotating basis to allow recovery of riparian vegetation.

Alternative 5	Upstream from Wizard Falls, foot traffic is the only use allowed on the river trail. From Wizard Falls to Candle Creek, hikers, mountain bikes, and llamas are allowed on the river trail. Downstream from Candle Creek, hikers, mountain bikes, llamas, and horses are allowed, but no facilities such as corrals, loading ramps, or hitching rails, are provided to accommodate stock use. A footbridge is built near Gorge Campground to provide a new loop trail opportunity using the existing river trail. Upstream from Candle Creek, new upland trails are constructed to reduce pressure on the river trail, to provide more variety of trail experience, and to provide more access for mountain bikes and equestrians within the corridor. No new trails are constructed downstream from Candle Creek. The conversion of roads or powerline rights-of-way to trails is considered first when developing new trails. Where erosion or siltation is occurring, trails will be stabilized or rerouted. Fishing access points are designated and hardened. Some access points may be rested on a rotating basis.
Boating	
Alternative 1	Non-motorized boating is permitted anywhere on the river above Bridge 99. Below Bridge 99, the Confederated Tribes Council Resolution 8711 (August 1993) has closed the "Metolius River along the Reservation" from Jefferson Creek to Billy Chinook. No special use permits for outfitter/guides are authorized.
Alternative 2	No boating is allowed on the river above Canyon Creek. From Canyon Creek to Wizard Falls Bridge, boating is allowed from July 1 to September 10. Boating is allowed year-round from Wizard Falls Bridge to Bridge 99. No boating is allowed below Bridge 99. Motorized boating is prohibited on the river. No special use permits for outfitter/guides are authorized.
Alternative 3	No boating is allowed on the river above Wizard Falls Bridge. On the river segment from Wizard Falls Bridge to Bridge 99, there are no restrictions on boating. Boating is allowed below Bridge 99, but numbers are limited by such means as a permit system or regulation of launch times to insure a primitive boating experience. Modest boat launches are provided at Bridge 99 and Monty campground to minimize erosion and riparian impacts. Motorized boating is prohibited on the river. No special use permits for outfitter/guides are authorized.
Alternative 4	No boating is allowed on the river.
Alternative 5	No boating is allowed on the river above Camp Sherman bridge. To reduce interactions between anglers and boaters between Camp Sherman bridge to Wizard Falls bridge, boating is only permitted between 11:00 a.m. and 2:00 p.m. July 1 through September 10. On the river segment from Wizard Falls bridge to Bridge 99, there are no restrictions on the number, time, or season of boating. Boating is allowed below Bridge 99, but numbers are limited by a permit system utilizing a common pool for both commercial and non-commercial boaters that insures a semi-primitive boating experience. A seasonal closure to boating below Bridge 99 is in effect September 10 through November 15 to reduce potential impacts to bald eagles. Boat launches are provided at Bridge 99 and Monty campgrounds.

Dispersed Camping	
Alternative 1	Dispersed camping upstream from Bridge 99 occurs primarily in a few areas on the west side of river. Downstream from Bridge 99, dispersed camping is not regulated. Dispersed campsites are not designated. Dispersed campsites are inventoried.
Alternative 2	Dispersed camping is limited to designated sites. Designated sites are developed from existing dispersed sites that meet the following criteria. Dispersed camping is only allowed downstream from Bridge 99. No dispersed camping is allowed within 50 feet of the river. Sight guidelines between campsites are established according to recreation experience goals. No dispersed camping is allowed within ¼ mile of a bald eagle nest (January 1 to August 31) or an osprey nest (April 1 to August 31). No dispersed camping is allowed in elk winter range from December 1 to April 30. Roadways accessing dispersed campsites are hardened and proper drainage is provided. Fires are allowed only within established fire rings. Designated dispersed campsites are inventoried and monitored for use and impacts on resources. Dispersed campsites which become an unacceptable impact (as defined by the Limits of Acceptable Change process) on other resources are closed.
Alternative 3	Same as Alternative 2, except designated sites are not within 50' of the river. Some sites are walk-in from designated parking areas on Rd 1499 when roadway closures are desired to control vehicle access and limit erosion. Permits may be required for the use of these sites in order to gather information or control such things as season of use, total amount of use, duration of stay, etc. No dispersed camping is allowed in elk winter range from December 1 to May 15. Dispersed camping is not allowed within ½ mile of a bald eagle nest (January 1 to August 31) or ¼ mile of an osprey nest (April 1 to August 31). Dispersed sites which become an unacceptable impact (as defined by the LAC process) are closed and rehabilitated.
Alternative 4	Same as Alternative 3, except dispersed camping is limited to designated walk-in sites that are set back at least 100' from the river. Permits are required for the use of these sites in order to gather information or control such things as season of use, total amount of use, duration of stay, etc. Dispersed sites which become an unacceptable impact (as defined by the LAC process) are closed and restored.
Alternative 5	Same as Alternative 3, except no designated sites within 50' of the river unless site hardening methods are used to protect soils and vegetation. Dispersed campsites which become an unacceptable impact (as defined by the Limits of Acceptable Change process) on other resources are actively rehabilitated and closed if necessary for rehabilitation.
Recreation Experience Goals	
Alternative 1	Recreation Opportunity Spectrum experience levels are: Rural from the Headwaters to the House on the Metolius, Roaded Natural from House on the Metolius to Candle Creek, Semi-Primitive Motorized from Candle Creek to the end of Rd 1499, Semi-Primitive Non-Motorized in the non-roaded section between Rd 1499 and Rd 64, and Roaded Natural from the terminus of Rd 64 to Lake Billy Chinook.
Alternative 2	Same as Alternative 1.

Alternative 3	Same as Alternative 1, except Semi-Primitive Motorized is from Candle Creek to private land on Rd 1499; Semi-Primitive non-motorized is expanded from the private land boundary on Rd 1499 to the west parcel of private land on Rd 64; and Semi-Primitive Motorized from west parcel of private land on Rd 64 to Monty campground.
Alternative 4	Rural is limited to private land and the immediate vicinity of Camp Sherman Store. The remainder of the Recreation river segment is Roaded Natural. Semi-Primitive Motorized from Lower Bridge to Candle Creek. Semi-Primitive Non-Motorized from Candle Creek to the private land on Rd 1499. The area between the private lands on Rd 1499 and Rd 64 will be managed as Primitive. From the west parcel of private land on Rd 64 to the Eyerly property is Semi-primitive non-motorized.
Alternative 5	Same as Alternative 1.

Issue #8: How should the Scenic river segment be managed to provide a primitive recreation experience?

Details on alternatives considered for Scenic river segment management are contained in the following locations:

- Issue #2 - Upland Vegetation, Riparian Vegetation, Fire
- Issue #4 - Elk and Deer Range
- Issue #5 - Scenic Quality, Road Use and Closures

Issue #7 - Developed Campgrounds, Trails, Boating, Dispersed Camping, Recreation Experience Goals

Issue #9: What is the appropriate role of commercial and other special uses in the river corridor?

Commercial Development	
Alternative 1	The Camp Sherman Store is the only commercial development located solely on National Forest land. A few additional facilities, such as signs, roads, and septic systems, which provide support to commercial development on private land are permitted special uses on National Forest lands.
Alternative 2	No new commercial development is allowed on National Forest lands, except roads and signs which are associated with development on private land. Alterations to existing commercial development on National Forest land may be allowed on a case-by-case basis. Commercial development on private land is regulated by county zoning ordinances.
Alternative 3	Same as Alternative 2, except alterations to existing commercial development on National Forest land are allowed only for public health and safety or to meet standards and guidelines (scenic quality, transportation, vegetation, etc.) of the Wild and Scenic River Plan. Existing facilities may be repaired and maintained under the guidelines of the WSR plan.

Alternative 4	Commercial development on National Forest lands will be phased out through non-renewal of special use permits. Alterations to zoning which restrict commercial development on private land are recommended to Jefferson County.
Alternative 5	Same as Alternative 2
Other Special Uses	
Alternative 1	Outfitter/guides are not permitted in the river corridor, except an equestrian permit for the Metolius Windigo trail and occasional college classes. Recreation Events are permitted in limited numbers and sizes if they do not have a heavy impact on the river corridor. Forest Service-sponsored events and special activities are allowed under the same conditions without permits.
Alternative 2	No permits for outfitter/guides (other than fishing) are granted, except for educational organizations which may be granted temporary special use permits on a non-recurring basis. For guided fishing, the Metolius is included as a body of water available to fishing guides currently permitted on the Deschutes National Forest. No additional temporary or priority user days are allocated to these existing permits to accommodate the addition of the Metolius. Recreation Events may be permitted in limited numbers and sizes if they do not have resource impacts on the river corridor and they instill a sense of stewardship for the land or have some other resource benefit to the river. Cooperating agency-sponsored events and special activities are allowed under the same conditions. Commercial photography is only permitted in developed sites and must not interfere with recreation uses.
Alternative 3	Same as Alternative 2, except no fishing guides or commercial photography is permitted.
Alternative 4	Outfitter/guides, commercial photography, and recreation events are not permitted. Agency sponsored events, such as those for Wildflower Week, National Fishing Week and River Clean-up, are allowed in limited numbers and sizes if they are non-commercial, do not have a significant impact on the river corridor, and they instill a sense of stewardship for the land or have some other direct resource benefit to the river.
Alternative 5	Outfitter/guides and concessions are permitted where their services provide an opportunity to protect resources or aid in controlling use. Solicitation is made to allow no more than 400 user days of guided fishing within the river corridor under special use permit. Guided boating is allowed through an allocation system utilizing a common pool of permits. Boating permit holders have the choice of taking guided or private trips. Guides operate under special use permits. Recreation events may be permitted in limited numbers and sizes if they do not have resource impacts on the river corridor and they instill a sense of stewardship for the land or have some other resource benefit to the river. Cooperating agency-sponsored events and special activities are allowed under the same conditions. Commercial photography is permitted only in developed sites if it does not interfere with recreation uses and does not publicize the river by mentioning its name or location.

Issue #10: How should the 108 recreation residences be managed in a manner compatible with Wild and Scenic designation?

Recreation Residences	
Alternative 1	Remodeling and expansion of recreation residences is allowed, consistent with the Metolius Tract Objectives, Regional Forest Service Recreation Residence policy, and State Scenic Waterway Rules.
Alternative 2	Remodeling and expansion of recreation residences is permitted, consistent with the revised Metolius Tract Objectives, Forest Service Recreation Residence policy, State Scenic Waterway Rules, and County Ordinances. Revisions to the Tract Objectives will address remodeling issues and architectural style to provide specific guidelines under which remodeling is permitted.
Alternative 3	Recreation residences and associated structures lost to fire or other catastrophic events will not be rebuilt. No increase in square footage or exterior remodeling of recreation residences is allowed, though minimum alterations for health and safety may be permitted. Structural repairs of existing residences are allowed. Within this context, the Metolius Tract Objectives and Forest Service Recreation Residence policy are applied as management guidelines (listed respectively in order of hierarchy).
Alternative 4	Recreation residences are phased out when existing permits expire (2008). No improvements, remodeling, or expansion of residences are allowed pending removal. Within this context, the Metolius Tract Objectives and Forest Service Recreation Residence policy are applied as management guidelines.
Alternative 5	Same as Alternative 2, and when remodeling is undertaken, residences must be brought into compliance with all existing Tract Objectives and FS Recreation Residence policies.
Landscape Management	
Alternative 1	Opportunities for centralized yard debris burning are coordinated with the community and Sisters/Camp Sherman Rural Fire Department.
Alternative 2	Centralized yard debris burning is encouraged, but not required, and coordinated with the community and Sisters/Camp Sherman Rural Fire Department.
Alternative 3	The environmental impacts of recreation residences are mitigated or the residences removed when mitigation is not possible. Recreation residences must meet the goals of the Aquatic Conservation Strategy (ACS), as defined in the Riparian Vegetation alternatives, on portions of lots within 50' of the edge of riparian areas. Removal of residences in sensitive areas or due to inability to meet ACS goals is considered only after all other options are explored. Burning yard debris is prohibited on public land. Alternatives for reductions in yard debris and its disposal (such as composting, removal of non-native vegetation, transfer, and chipping) are coordinated between agencies.

Alternative 4	Recreation residences must meet the goals of the Aquatic Conservation Strategy (ACS), as defined in the Riparian Vegetation alternatives, on portions of lots within 100' of the edge of riparian areas. Native vegetation is restored with the removal of the residences.
Alternative 5	Recreation residences meet the goals of the Aquatic Conservation Strategy on portions of lots within riparian areas up to the point of removal of residence or permitted improvements. Yard debris burning is centralized and coordinated with the community and Sisters/Camp Sherman Rural Fire Department.
Off-Lot Improvements	
Alternative 1	No new waterwheels, platforms, or footbridges are allowed. Existing ones are not permitted, and their disposition is pending direction in the Metolius Wild and Scenic River Plan.
Alternative 2	No new waterwheels, platforms, or footbridges are allowed. Existing ones are permitted and properly maintained.
Alternative 3	Waterwheels, platforms, are footbridges are evaluated for historic significance. Only those which are determined to qualify for the National Register of Historic Places will be permitted. All others are removed. Footbridges are permitted if they protect resources such as stream banks, riparian vegetation, and wet areas.
Alternative 4	No water wheels, platforms, or footbridges are permitted. Existing ones are removed according to established historical resource procedures.
Alternative 5	No new water wheels or platforms are allowed. Existing ones are permitted and properly maintained. Footbridges are permitted only if they have important historic significance; protect sensitive resources such as stream banks, riparian vegetation, and wet areas; or facilitate the loop trail system.
Septic and Water Systems	
Alternative 1	Septic failures must be repaired or systems replaced according to county code.
Alternative 2	Water testing for fecal coliform, nitrates, and phosphates is required annually for all wells on National Forest lands. Septic system inspections are required in areas of positive test results and upon transfer of special use permits. Deficient septic systems are upgraded, repaired, or removed according to county or state code. All pit toilets are removed or converted to sealed vaults. No new septic systems which service development on private land are permitted.
Alternative 3	Water testing for fecal coliform, nitrates, and phosphates is required twice a year for all wells on National Forest lands. Septic system inspections are required in areas of positive test results. Where deficient septic systems are identified (through water testing or other means), septic systems will be upgraded to current county or state code. All new septic systems are setback a minimum of 100' measured horizontally from the Riparian Buffer boundary. All pit toilets are removed or converted to sealed vaults. No new septic systems which service development on private land or off-lot septic systems are permitted. A sewage treatment facility is considered. These guidelines are recommended to Jefferson County for adoption in their ordinances.

Alternative 4	Water testing for fecal coliform, nitrates, and phosphates is required at least twice a year for all wells on National Forest lands and may be required more frequently if warranted by water quality monitoring results. Septic system inspections are required in areas of positive test results. Where deficient septic systems are identified, they are put out of service and the associated use removed. No new septic systems are permitted. 100' horizontal setbacks from Riparian Reserve for all septic systems on private land are recommended to Jefferson County for adoption in their ordinances.
Alternative 5	Same as Alternative 3, and septic systems are upgraded to meet current county or state code upon transfer of special use permits.

Issue #11: How should the unique qualities and the management policies of the Metolius be shared with the public through education and interpretation?

Interpretation	
Alternative 1	Interpretation in the Metolius Basin is provided as funding and personnel are available. Programs are offered at sites that have concentrations of visitors, such as Head of the Metolius and the fish viewing platform. Occasional evening programs also occur at the Camp Sherman Community Hall. Interpretive maps and other materials are available at the District Office and at the Hwy. 20/Road 14 Kiosk. Watchable Wildlife sites are provided at Camp Sherman and Wizard Falls Fish Hatchery. Special projects, such as River Clean-Up Day, are promoted to instill a sense of stewardship.
Alternative 2	Same as Alternative 1, and an interpretive plan is developed to address themes, media, location, and timing in accordance with other resource objectives in the Metolius Wild and Scenic River Plan. Watchable Wildlife programs and sites are considered in the Plan. Heritage resource education and interpretive goals and opportunities related to prehistory, history, and traditional uses within the corridor are included in the interpretive plan according to Heritage Resource management goals.
Alternative 3	Same as Alternative 2, and a "campfire circle" near Allingham and brochures are among the media and facilities included in the plan. Emphasis is on interpretive mediums which do not include capital investment (i.e., brochures, personnel) versus signs and new facilities. Signs and permanent structures are used where continuous information is important for visitor safety, immediate resource protection, road signing, etc. Interpretation and education are integral in the resource management of the corridor. Interpretive themes stress resource protection, stewardship, and visitor responsibility.
Alternative 4	An interpretative plan is developed which encourages visitors to discover the area and interpretive themes for themselves. Interpretive personnel will not be present in the corridor. Media, including road signs, are generally limited to natural materials (wood and native rock). No new facilities are developed. Primarily general (rather than site specific) information will be provided. Interpretive themes stress resource protection and visitor responsibility.

Alternative 5	Same as Alternative 3, and a staffed entry station and interpretive trails are among the media and facilities included in the plan. Scheduled interpretive activities will be on-going during the summer months. Interpretation and education aid in the resource management and enhance the recreation experience found in the corridor.

Chapter 3

Metolius Wild and Scenic River Management Plan

Introduction

This chapter describes the existing physical, biological, social, and economic environment that may be affected by management activities proposed in the Alternatives. This information forms the baseline for measuring changes and comparing alternatives. Additional river value information is contained in the Metolius Resource Assessment. The Outstandingly Remarkable Values for which the Metolius River was added to the national Wild and Scenic River system were identified in the Resource Assessment and are noted in this chapter. More details about Outstandingly Remarkable Values and the Metolius Resource Assessment can be found in Appendix C.

Geology

The unique geology of the Metolius Basin creates the springs from which the river originates and shapes the river's course after it flows from the ground. The Metolius River area is used as an example of the interplay of faulting, volcanism, and groundwater hydrology in many college-level geology classes, and is listed in well-recognized field guides and geologic literature. Many groups use the Metolius as a stopping-place for geologic tours.

The Metolius area, situated on the eastern flank of the volcanic ridge of the High Cascades, is approximately 10 miles west of the crest. The river corridor is part of the High Cascade geomorphic province, a gently sloping, high plateau area containing scattered volcanic peaks composed of andesite and smaller cinder cones. The landform is dominated by immature soils developed from volcanic ejecta and soils with more developed profiles derived from glacially deposited materials (Franklin and Dyrness, 1973).

The Metolius Basin was formed when land west of Green Ridge dropped at least 2,000 feet. The ancient rivers and lakes of the basin disappeared, leaving thick deposits of silt and sand on the floor of the newly formed basin. During later ice ages, large outwash fans of sand and gravel were spread over these ancient sediments and volcanic piles by the sediment-laden water from the melting of the glaciers. The Metolius River has cut through these outwash fans, and in some places, into older sediments and lava beneath (Kovalchik, 1987).

The river area is mostly a gently east-sloping basin of generally low relief. At an elevation of approximately 3,000 feet, the basin is bounded on the south by Black Butte, a volcanic cone, and on the east by Green Ridge, a 12-mile long north-south trending ridge. Black Butte, formed by eruption of lava and ash from a central volcanic source, is 3,400 feet higher than the basin (elevation 6,346) and approximately four miles wide. Green Ridge rises 1,800 feet above the floor of the basin to the west. It was formed by movement along a north-trending, west-dipping fault that resulted in the land west of the fault being downdropped relative to the land east of the fault. The rocks of Green Ridge are thought to have been deposited as

OUTSTANDINGLY REMARKABLE VALUE

The **geologic features** of the Metolius River are determine to be **outstandingly remarkable**. The geologic condition of the area is unique within the region. The Green Ridge fault is the primary evidence for a large graben in the High Cascades and causes a large number of springs to develop, a condition unique to the Cascade Range.

Other rivers in the region such as Fall River and Spring River are spring-fed, but the springs on these rivers appear on the surface due to different subsurface geologic conditions than are found in the Metolius.

The Metolius River area is used as an example of the interplay of faulting, volcanism, and ground water hydrology in many college-level geology classes, and is listed in well-recognized field guides and geologic literature. Many groups use the Metolius as a stopping-place for geologic tours.

part of a basalt-andesite shield volcano that erupted in Pliocene times (approximately 1 to 5 million years ago).

The rock types exposed in the area are mostly volcanic flows or sediments. In the lower (eastern) portion of the basin, a cover of unconsolidated glacial drift and/or glacial outwash sediments up to 50 feet thick covers the volcanic rocks. The western, lower elevation portion of the basin is covered mostly by water-laid sediment that was deposited in the area downstream from a melting glacier. Near the Metolius River, the sediments are composed almost entirely of sands and silts.

The curving path of the river around the Horn of the Metolius is the effect of the river seeking the path of least resistance around the base of an ancient volcano. Castle Rocks, a Geologic Special Interest Area in the Deschutes National Forest LRMP, is the remnants of the vent of this volcano.

Groundwater

Precipitation over the project area contributes to recharge the abundant groundwater in the volcanic rocks and unconsolidated glacial deposits of the area. The groundwater flows generally east until it encounters the less permeable volcanic rocks on the west side of the fault that creates Green Ridge. Because the movement of groundwater toward the east is blocked by the lower permeability of the rocks west of the fault, the water is discharged to the surface from a number of springs, which collectively form the source of the Metolius river.

The plentiful groundwater in the project area provides the source for these springs. The elevation of the groundwater surface has been monitored by soundings of supply wells and by measurements in trenches dug to monitor water level. In the areas that have been monitored, the range of the depth to groundwater was up to five feet over a yearly cycle; after periods of heavy precipitation, depth to water was only 2-5 feet below the elevation of the land surface in some locations.

Because of the high porosity and permeability of the glacial drift that occurs throughout the area where water levels have been monitored, the elevation of the groundwater surface can vary greatly during times of high precipitation or meltwater runoff. Groundwater is used for domestic water supply in some parts of the project area. Some of the wells have been found to contain unacceptable levels of coliforms. The affected wells have been abandoned or decommissioned and new wells developed in deeper groundwater horizons.

Soils

Bottomlands, terraces, and gentle sideslopes are the predominant soil type along the majority of the Metolius River. The soils are often gravelly and subject to periodic flooding and washing. Slopes average 15 percent. These soils are stable with low to high (due to periodic flooding) surface erosion potential. Precipitation ranges from 20 to 45 inches per year, and the soils are poorly to moderately well drained. Vegetation consists of a wide variety of shrubs, sedges, grasses and forbs with tree species of white fir, Engelmann spruce, lodgepole pine, aspen, Douglas-fir, Pacific yew, cottonwood, and some ponderosa pine.

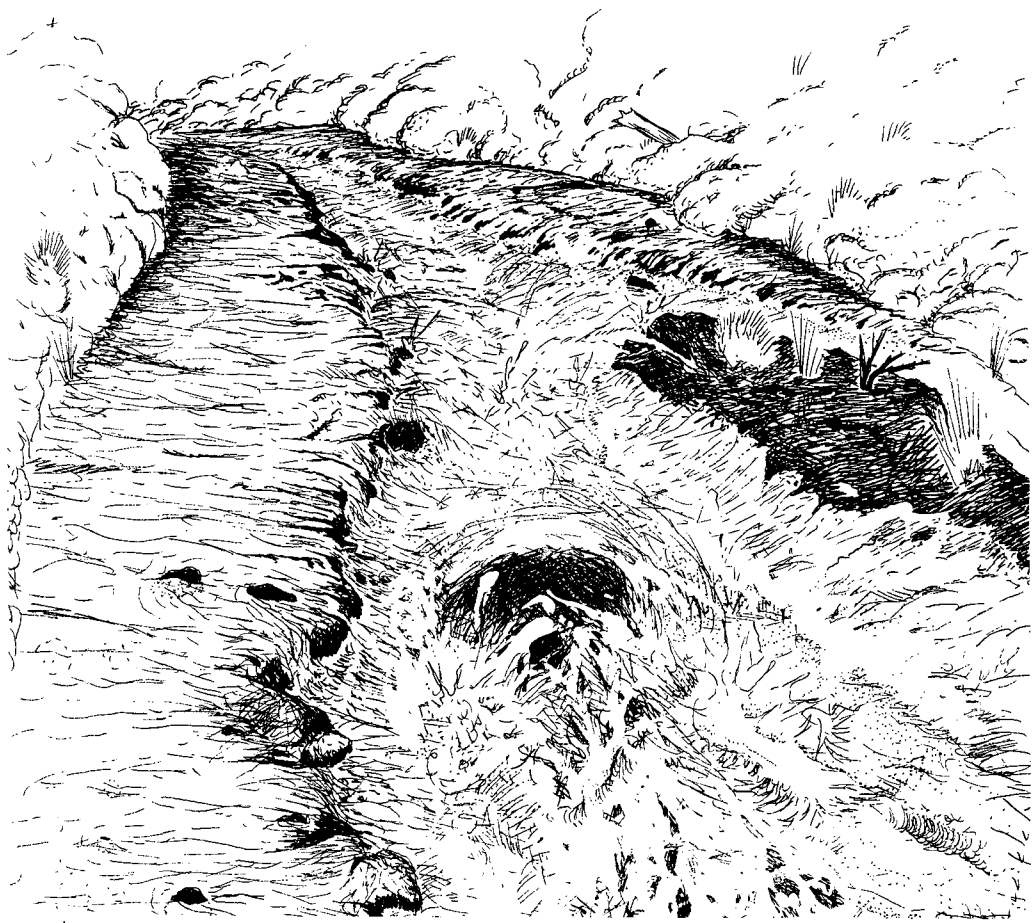
The soils in the vicinity of the springs at the base of Black Butte are mapped as wet meadows and are non-forested areas including depressions and swampy areas. Soils are generally wet most of the year, and range from sandy gravels to peat and are poorly to moderately well drained with low to moderate sedimentation yield potential. The slopes are gentle, averaging three percent with variable aspect. The soil is very stable and there is no probability of mass movement in this soil type. Vegetation consists of sedges, grasses, wetland forbs, mosses, willow, and alder.

Gently sloping uplands and benches also occur near the springs of the Metolius River. The soils are well drained and are derived from a thin to moderately thick layer of volcanic ash over residuum from andesites and basalts. The surface erosion and sedimentation yield potential are both low to moderate. Surface soils are typically sandy loams, and subsoils are loams. Permeability is rapid in the surface soil and rapid to moderate in the subsoil. The soil is very stable and there is no probability of mass movement in this soil type. Vegetation includes ponderosa pine and incense cedar, with some Douglas-fir over bitterbrush, manzanita, Idaho fescue, squaw carpet, cheatgrass, peavine, and arrowleaf balsamroot.

Small areas of soils occur on the steep side slopes of Green Ridge. The average slope is 30 to 60 percent with a western exposure, and the soils receive annual precipitation of 18 to 35 inches. The soils of this type are well to excessively drained and are derived from a thin to moderately thick layer of volcanic ash over residuum and colluvium on andesites and basalts. Surface soils are typically sandy loams and subsoils are loams. Permeability is rapid to very rapid in the surface soil and moderate to rapid in the subsoil. These soils are stable but can have small debris slides. They have a moderate surface erosion and sedimentation yield potential. Ponderosa pine, manzanita, bitterbrush, and sedges predominate the vegetation types.

Further north along the Metolius near the junctions of Jefferson and Sheep Creeks, the soils occur on toeslopes and benches of fault escarpments. The soils are well drained and moderately deep to deep, and formed from volcanic ash, residuum, and colluvium. Surface soils are typically sandy loams, and subsoils are sandy loams or loams. Permeability is rapid in the surface soil and rapid to moderate in the subsoil. Some slumping can occur in these soils, which are moderately stable to stable. Their surface soil erosion potential is low to moderate and sedimentation yield potential moderate. Vegetation is composed of mixed conifers, including Douglas-fir, white fir, ponderosa pine, larch, and incense cedar over snowbrush, manzanita, sedges, pinegrass, and a variety of forbs.

Toward the northern portion of Green Ridge in the Metolius Breaks area, the soils occur on very steeply sloping, highly dissected fault escarpments. Slopes range from 30 to 80 percent with variable aspects. Bedrock consists of stratified volcanic materials and waterlain sediments including platy andesites, basalts, ash flows, diatomaceous earth, and conglomerates, with tuffs and breccias being common. Soils range from shallow and very stony to medium-textured deep soils, and infiltration is moderate to rapid. These soils are moderately stable to unstable; slumps, debris slides and rockfalls are possible. The surface soil erosion potential is moderate to severe, and the sedimentation yield potential moderate. Vegetation is sparse except in protected sites of Douglas-fir, larch, ponderosa pine, incense cedar, and white fir.



Geology

Hydrology

Bubbling forth from springs near the base of Black Butte, the Metolius runs clear and cold to the north for 18 miles before flowing east around "The Horn" for another 10 miles to Lake Billy Chinook. Averaging about 50 feet wide, the Metolius is a fast moving stream with an average gradient drop of 35 feet per mile. The area drained by the Metolius River is 316 square miles (measured at USGS gauging station 14091500, located just upstream from Lake Billy Chinook). The river's excellent water quality and stable flow levels create a unique hydrological resource that was found to be one of the river's many outstanding values (USDA Forest Service, 1992).

The river is noted for its stable flow levels. Because it is spring-fed, and because the soils in the area are generally porous and absorb rainfall well, the river experiences very little fluctuation in flow levels. Mean monthly discharges vary somewhat and the effects of seasonal rain and snowmelt runoff are evident but infrequent. The effects of the drought since 1986 showed noticeable effects in the flow of the springs starting in 1991. Winter and early spring, flows near the headwaters were very low in 1995. Variation of flow is normally small from year to year; Metolius Springs, Cold Springs, and Heising Springs are the three largest springs found on the river, each contributing between 100-110 cubic feet per second (cfs). Mean monthly discharges of the Metolius range from about 1,100 cfs to a high of 2,500 cfs; the baseline flow in dry months is usually between 1,100 and 1,400 cfs (Figure 1).

Another significant feature of the Metolius' springfed hydrology is its cold water: the river springs from its origin at a constant 48 F, warms to highs of 56 F in the Camp Sherman area, and then becomes colder as cold water tributaries enter the river downstream. This characteristic is not common among most rivers or streams and is one of the qualities that make the Metolius an outstanding fisheries resource. Even in the heat of summer, maximum water temperature at Bridge 99 seldom exceeds 48 F. The cold temperature regime may limit rainbow trout growth but may be beneficial to species such as bull trout.

There is an abundant year-round reservoir of groundwater stored in the porous volcanic rocks and glacial sediments of the area that feed the springs. This reservoir is fed by rainfall and snow meltwater from the higher elevations. The river flows in a well-defined, stable channel because of its spring-fed sources and volcanic river bed, but its characteristics vary considerably over its length.

OUTSTANDINGLY REMARKABLE VALUE

The **hydrologic values** of the Metolius River have been determined to be **outstandingly remarkable**. The Metolius River has an extremely high quality of water over the full length of the river. While the spring-fed nature of the river is found on other rivers in the region, such as Cultus River, Fall River, and Spring River, these rivers do not maintain comparable quality over the length of the river. The Metolius River is the largest spring-fed river in the region, has the steepest gradient drop of the spring-fed rivers, and experiences a unique drop in downstream water temperatures. The consistent, sustained flows, and the stability of the Metolius River system are also unique when compared to other rivers in the region.

For analysis of physical characteristics, the river is usually divided into three reaches. The uppermost reach, from Metolius springs to the House on the Metolius (about 4 miles), goes from a broad, low gradient, shallow channel at the upper end to a narrow, confined gorge. Above the gorge, much of the substrate includes gravels suitable and preferable for spawning. The confinement near the gorge produces faster velocities and infrequent pools at scour points.

The middle reach extends from the U.S. Forest Service/private land boundary just upstream from Canyon Creek down to Jefferson Creek (about 7 miles). This reach generally is deeper, with fewer riffles, more glides, and a few pools. The substrate is coarser, dominated by cobbles, with few gravels. In the lower reach between Jefferson Creek and Lake Billy Chinook (about 16.6 miles), the river is generally more confined to its channel by steep valley walls. Therefore, a ready source of large sediments (rubble and boulders) exists so the lower reach has the appearance of being steeper because of the numerous long riffles and rapids created.

Several tributaries, many of which also are springfed, join the Metolius as it makes its way to the lake. All of the significant tributaries run into the Metolius from the west; Green Ridge, to

the east, drains virtually all precipitation eastward towards the Deschutes. The most significant tributaries to the Metolius are Lake Creek (and its tributary Cache Creek), First Creek, Jack Creek, Canyon Creek (and its tributaries Roaring Creek and Brush Creek), Abbot Creek, Candle Creek (and its tributary Cabot Creek), Jefferson Creek, and the Whitewater River.

Lake Creek, First Creek, and Jefferson Creek are mostly surface flow, draining areas of the Cascade mountains to the west; the rest are either heavily or entirely springfed. Cache, First, and Canyon Creeks have potentially the most effect on the hydrograph of the Metolius in terms of contributing peaks to the otherwise stable regime. These watersheds are not springfed and are the most susceptible to significant rain-on-snow events in late fall and early spring, as well as high intensity thunderstorm activity in late summer. Because of this, these watersheds are the major producers of sediments to the Metolius system.

Water Quality

Since 1988, the Metolius Basin Water Resources Monitoring Plan has called for monitoring water temperature and turbidity at 18 water quality monitoring stations on the mainstem and major tributaries. Currently, temperature is monitored from June through September and turbidity monitored during any significant discharge event; point sources of turbidity are traced back upstream and identified.

Currently, the Oregon Department of Environmental Quality (DEQ) conducts the only other monitoring of surface water quality, at Bridge 99. Sampling is done six times per year (although conducted more frequently in the recent past) and parameters monitored include pH, ammonia, nitrates, total phosphates, alkalinity, field alkalinity, field conductivity, total solids, total suspended solids, total organic carbon, bacteria (enterococci and coliforms), biological oxygen demand, and chemical oxygen demand, as well as temperature, turbidity, and dissolved oxygen. At present, this monitoring has not indicated any cause for concern about the quality of Metolius river water (Pettit, 1991).

Turbidity in the Metolius is typically very low (less than 1.0 NTU) when there is no precipitation, due to its springfed sources. Dissolved oxygen is not currently being monitored because accumulation of organics is not considered a problem in the Metolius.

There has been some concern about contamination of groundwater, especially in the areas around summer homes. Some drinking water wells tested positive for fecal coliforms, were capped and new, deeper wells were drilled. Monitoring has not indicated any problems, but there are many significant inflows to the river between the sources of domestic pollution and the water quality monitoring station at Bridge 99 which dilute possible contaminants and may be diluting pollution that could be a problem in the Recreation river segment.

Water Rights and Withdrawals

The total allotted legal rights to water from the Metolius and its adjacent springs is just under 26 cubic feet per second (Oregon Department of Water Resources, 1992). The largest diversion is at the Wizard Falls Hatchery, which has rights to divert 20 cfs from the Metolius, 10 cfs from a small unnamed tributary on the west side of the river, and 3.5 cfs from the water source developed on the east side of the river. Diverted water is returned to the river as hatchery effluent. There is little or no net flow loss, but some probable degradation of water quality occurs from this diversion.

All of the diversions from the Metolius basin, including all named and unnamed tributaries and springs, as well as those from the mainstem Metolius, total just over 65 cfs. The major diversions from the mainstem include diversions off Jack Creek (13 cfs) and Juniper Creek (5.75 cfs). Other, smaller diversions are typically for domestic, irrigation, and livestock use. There are also rights to maintain water levels in a few small reservoirs or ponds for recreational use or livestock use. Examples of these rights exist on Lake Creek.

The Confederated Tribes of Warm Springs hold an unquantified consumptive water right to waters of the Metolius River, the quantity of which is being negotiated at present with the state of Oregon and the federal government.

Vegetation & Ecology

The Metolius Basin is the major feature of the Low Flanks Cascades Physiographic Area, which is a transition zone between the higher elevation Cascades to the west and the lower elevation Columbia Basin to the northeast and the High Lava Plains to the southeast. This transition contributes to the complexity of plant communities found along the river.

The subalpine meadows and the mountain hemlock-dominated communities of the more mesic higher elevations in the Cascades give way to mixed conifer and ponderosa pine communities in the zone of middle elevations and moderate precipitation, which includes most of the Metolius Basin. The semiarid lower elevation zone to the east is dominated by steppe or steppe-shrub ecosystems with a mosaic of grassland, sagebrush, western juniper and sparse ponderosa pine communities. Lodgepole pine occurs in this region over a wide range of site conditions and elevations. Riparian and various wetland associations occur along the river and at numerous seeps and springs in the area.

Periodic fire is natural event in these forests. Prior to 1900, fire return intervals in ponderosa pine dominated forests were between 4-20 years, with a mean of 11 years. Fire intervals in fir communities generally were longer, with fire occurring every 50-100 years. These fires were lightning caused and generally were of low intensity in pine zones, creating open, park-like stands. In fir zones, a complicated interaction of low, moderate and high intensity fires created a variable and diverse pattern in mixed conifer forests. With the exclusion of fire, insects, and disease have taken a more prominent role as disturbance agents by thinning individual trees, pockets, and landscape areas (such as the defoliation and associated mortality caused by the spruce budworm in recent years).

OUTSTANDINGLY REMARKABLE VALUE

The **ecology** of the Metolius River is determined to be **outstandingly remarkable**. The presence of unique plants, vegetative associations, and habitats supports the identification of this resource as outstandingly remarkable. Some of the important ecological values identified include:

- Landscape level gradients of environmental factors as the river travels through a transition zone from forested Cascades to desert Great Basin;
- Disjunct populations of west-side species associated with Green Ridge;
- The epicenter of a rare endemic wildflower population, Peck's Penstemon, associated with the Recreation river segment, with possibilities of additional populations in the Scenic river segment;
- The historic records of Tall Agoseris and Water Lobelia along the Recreation river segment and the possibility of additional rare species along the Scenic river segment; and
- A variety of riparian habitats including unique vegetated islands in the river.

Most of the upper Metolius area is dominated by the ponderosa pine communities that have been classified as the pine/bitterbrush/fescue plant association. Other types of ponderosa pine association occur in the area. For example, the Metolius Research Natural Area includes at least two variants of ponderosa pine plant associations. Ponderosa pine/bitterbrush/squirrel tail-needlegrass is a fire climax community found on the flats on the western portion of the Metolius RNA. On steep slopes in the eastern half of the Metolius RNA, along Green Ridge, is another fire climax community: ponderosa pine- Douglas fir /greenleaf manzanita.

A primary characteristic of the Recreation river segment is the large, park-like stands of mature ponderosa pine. Although viewed as old growth, most of this is actually managed forest with a few mature (yellow-belly) trees. This forest differs from true old growth because many large old trees and snags have been removed by selective timber harvest. Because fire has been excluded from these stands for 80-90 years, brush layers are more dense than they would have been under a natural fire regime. Many dense thickets of pine and fir that would have been thinned by fire are present.

Mixed conifer forest dominated by Douglas-fir is the most common vegetation type of the lower corridor. Most of this area lies within the Metolius Wildlife Primitive Management Area and is part of a Critical Habitat Unit for the northern spotted owl (see Wildlife section). Historically these forests

burned periodically in large stand-replacement and moderate-severity fires. For example, in 1938 a fire on the Metolius Bench on the Scenic river segment burned 100,000 acres and was reported as the biggest fire in Central Oregon history at the time. Several large fires in the 1940's burned up and down Green Ridge and occasionally spotted across the Metolius River.

The geologic origin of Green Ridge as part of the Cascade Crest results in the occurrence of many non-typical, westside plant species (and possibly their vertebrate, invertebrate, and mycorrhizal counterparts) in the river corridor. The mixed conifer forests along the Scenic river segment contain plant species not commonly seen in eastside forests, such as ocean spray, honeysuckle, Pacific dogwood, big leaf maple and large Santiam lilies. This mixed conifer forest area supports the Northern spotted owl on the eastern edge of its range. A rare orchid on the Oregon Watch List, the Mountain Lady Slipper, grows along the Scenic river segment. Uncommon butterflies such as the Indra Swallowtail have been reported along the river and the rich Lepidopteran fauna may be attributable to the diversity of food plants and the many drainages and seeps. The Castle Rocks area is a complex of sites capable of supporting and protecting a variety of vegetation. Many ecotones, edges, and drainages are found adjacent to a large unroaded area on the north end of Green Ridge; therefore, the river corridor has many indicators that it may support a highly diverse biological community (rich in biodiversity) that has not yet been discovered.

Some fungi, lichens, bryophytes, mollusks, amphibians, and mammals are closely associated with old-growth habitats. Within the corridor, a number of such species exist. A rare truffle, Elaphamyces anthracinum, has been found associated with ponderosa pine. This is the only known site of this truffle within the range of the northern spotted owl. Additional potential habitat for this truffle exists within the corridor

Riparian Zones

The Metolius River and its tributaries support significant areas of riparian habitat, including wetlands. The nearly constant streamflow creates an unusual physical environment that has shaped the development of riparian vegetation adjacent to the river.

Riparian zones are a vital component of the ecosystem in the Metolius Basin, serving as a transition between the upland forest and aquatic environments. Riparian vegetation helps buffer adjacent aquatic systems from disturbance and supports a wide diversity of animal species. The structural characteristics of riparian vegetation help create essential habitat for a variety of resident and migratory species of wildlife. Riparian vegetation helps to maintain water quality by absorbing nutrient and retaining sediment, stabilizing banks and slopes, creating a favorable microclimate for wildlife, and maintaining appropriate habitat conditions for resident fish.

The islands found in the Recreation river segment and several of its tributaries may be unique in the region. Formed on a base of woody material, the islands slowly become vegetated and support False Hellebore/Graminoid plant associations highlighted with lush wildflowers.

One common riparian vegetation type found along the Metolius River is mountain alder-Douglas spirea. Other variants of mountain alder associations may also occur in the region. Plant associations dominated by willows are also found along the Metolius.

The Nature Conservancy Metolius Preserve, located on the west side of the river near Allen Springs Campground, contains several plant communities considered unique and worthy of protection and listed by the Oregon Natural Heritage Program. Plant communities identified on the property include Mixed Conifer River-Bottom Forest, Wheeler Bluegrass grassland islands, Mid-elevation Cascade Fen, Emergent Wetland, and Montane Sedge Wetland.

Several large sub-irrigated meadows are found near the headwaters, Allingham, and on private lands (House on the Metolius). These meadows were historically maintained in an open state by fire and grazing and some areas are now encroached on by trees and thick mats of grass. Along the Scenic river segment, there is a high probability of unusual riparian areas in areas where other water (tributaries) enters the River, and in areas where river channel topography creates still-water areas. The plant communities along the Scenic river segment have not been fully inventoried or mapped.

The major disturbance to riparian vegetation in the Metolius Basin appears to be trampling, soil compaction, and vegetation loss associated with recreational use of the river corridor. Riparian areas adjacent to campgrounds, dispersed sites, and popular fishing spots the most affected. Hiking trails along the river are often within riparian zones and in seasonally wet areas, multiple trails develop to bypass muddy spots. Historically, removal of riparian vegetation has also occurred adjacent to some recreational residences to improve river views.

Rare Plant Species

Four rare plant species have been reported to occur in or near the Metolius River corridor: water lobelia, tall agoseris, Sierra onion, and Peck's penstemon. These plants are on the USFS Regional Forester's Sensitive Plant List and require special consideration. Peck's penstemon is known to occur at a number of locations within and adjacent to the river corridor, but there are no recent observations of the first three species in the Metolius River corridor.

One of two records of water lobelia in Oregon is a 1930s herbarium specimen collected "in the water of the Metolius River." Recent efforts by Forest Service botanists to relocate plants in the upper Metolius have not been successful. Water lobelia was found in 1992 at a cold, clear lake within the Metolius watershed. The mountain lady slipper, Cypripedium montanum, is another species reported to occur along the river. Tall agoseris was reported on the river between Camp Sherman and Allingham Guard Station in July 1980. A few scattered individuals in fruit were observed and documented by photos and specimen collection. Tall agoseris has been recently found on Green Ridge. Sierra onion was found in 1992 at three sites on Green Ridge. There is suitable habitat for all three plants in the Metolius River corridor.

Peck's penstemon, a category 2 candidate for federal listing, is considered to be a state threatened species by the Oregon Natural Heritage Data Base. Endemic to the Metolius Basin, it is known only from an area of 27 miles by 14 miles (approximately 375 square miles) near Black Butte and Sisters in Deschutes and Jefferson Counties. The Species Conservation Strategy (1992) gives the current global population size for this species to be over 215,000 individuals. Eighty-three populations are documented at this time: five on non-federal lands (one on the Warm Springs Indian Reservation, one on the Nature Conservancy's Metolius River Preserve, one in Sisters city park, and two on private timber company land); and 48 on the Deschutes National Forest within the Sisters Ranger District.

Peck's penstemon is associated with perennially wet sites, drainages, meadows, and open or partly shaded areas in the ponderosa pine forest zone between 2000-4000 feet elevation. Its distribution may be tied to dispersal of the seed by water.

Four subwatersheds (Cache Creek, Lake Creek, Jack-First Creek, and Canyon Creek) converge in a five mile stretch along the upper Metolius River floodplain. Because of the opportunities for mixing of seeds from these four subwatersheds, this may be an especially important area for genetic exchange.

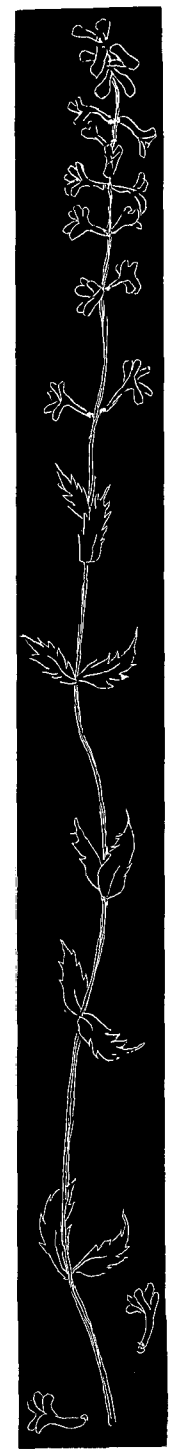
The two major threats to the continued viability of Peck's Penstemon populations are habitat fragmentation and habitat loss. Fragmentation of habitat may result from timber harvesting activities, private land development, recreational use (trampling and development), and through alteration of local hydrology (periodic flooding appears to be important). The Conservation Strategy suggests protecting 23 populations that occur on 1238 acres of Forest land (plus the one population on the Nature Conservancy's Preserve), which would result in protection of about 100,00 plants (approximately 50 percent of known individuals). Several of these designated "protected populations" are within the river corridor. Further studies of the plant's ecology, including experimental tests of management techniques, are needed to ensure the maintenance of a core group of populations. Such studies are performed outside "protected populations."

Non-native Plants

There is a growing concern about aggressive non-native plants, called "noxious weeds". Plants such as Spotted Knapweed, Dalmation Toadflax, Scotch broom, or Tansy Ragwort can invade and compete with native plant communities and reduce the quality of habitat. There are existing populations of noxious weeds along roadsides in the basin, in old timber units and near horse camps. Weed seeds are introduced by vehicle tires, heavy

equipment, contaminated hay, livestock manure, and possibly other animals. Road 14, along the river has populations of knapweed, St.John's Wort, and Dalmation Toadflax, which are being treated by manual and biological control. Prevention and early detection of weed problems is essential because control measures are difficult and costly and established weed populations can hamper the success of restoration activities.

The development of local, watershed specific, native plant stocks for use in revegetation activities is occurring with the assistance of Forest Service Nurseries. Native local plants are genetically adapted for local conditions and support complex relationships with other plants and animals, including fungi and invertebrates.



Fisheries

The river's cold, clean water (averaging between 45 and 48 degrees at the source) and stable flow levels provide for a productive fishery. Historical and current fish populations are noted for their size and diversity. The Wizard Falls fish hatchery is rated first in the state based on diversity of species produced. Bull trout, a candidate for potential listing by the U.S. Fish and Wildlife Service as threatened or endangered, has been increasing in number since 1986 in the Metolius/Lake Billy Chinook system. The Metolius has a regional and national reputation for fishing.

Populations

Historically, the Metolius River was primarily a producer of spring chinook salmon. Other species indigenous to the system include sockeye salmon, rainbow trout, bull trout, mountain whitefish, large scale sucker, bridgelip sucker, longnose dace, shorthead sculpin, torrent sculpin and paiute sculpin. Sockeye salmon traveled up Lake Creek to spawn in Link Creek, and used Suttle Lake for rearing. The kokanee population, the land-locked form of sockeye salmon, are thought to be a largely indigenous stock in Suttle Lake, although some other nonindigenous stocks of kokanee have been introduced to the lake in the past. By the 1940s, the sockeye run was reported to be extinct, although kokanee are still present in Suttle Lake.

Chinook salmon were eliminated from the river by the completion of the Round Butte Dam. Although adult passage was provided upstream over the dam, the runs quickly declined because juveniles were unable to find safe passage downstream through the reservoir and dam complex. By 1968 the adults no longer passed over the dam and collections of the adults for eggs for the hatchery at the Round Butte began. The spring chinook runs no longer exist in the Metolius River. A proposal for a feasibility study for construction of effective juvenile passage over Round Butte Dam has been submitted to the Northwest Power Planning Council and will be considered in the next few years.

After construction of the Round Butte Dam, an upper Columbia River stock of sockeye and other strains of kokanee were introduced into Lake Billy Chinook. Some kokanee from Suttle Lake and other upper Deschutes basin lakes may have moved downstream and mixed with the Lake Billy Chinook population. Feeding on the abundant zooplankton in the reservoir, the vast majority of kokanee from Lake Billy Chinook now spawn in the Metolius River and tributaries to complete their life cycle.

In one study above Camp Sherman, electrofishing was used to sample the fish populations and found that rainbow trout were most abundant (73 percent), brown trout were second (23 percent), and bull trout were least abundant (4 percent) (Fies and Robart, 1988). A few brook trout were also observed. These numbers are probably reasonable estimates, but should not be considered conclusive. Work was focused mainly on the reach of the river between the source and Camp Sherman which is used by the native rainbow trout for spawning and above most of the springfed tributaries used by bull trout for spawning.

OUTSTANDINGLY REMARKABLE VALUE

The **fisheries resource** of the Metolius River is determined to be an **outstandingly remarkable** value. Its natural qualities of spring-fed cold water with very stable flows make it a very productive river. The historical and present fish populations (in numbers and in the variety of species represented) are outstanding within the region and the state. The bull trout, a species which is threatened in other rivers within the state, is present and on the increase in the Metolius River. The popularity of the Metolius for angling is well known, both in-state and nationwide.

Mountain whitefish is the dominant game fish in the Metolius River, by number and weight. Whitefish may be an important food source for bull trout that reside in the river year-round. Brown trout and brook trout are introduced species and are caught infrequently, but can be locally abundant depending on habitat. Together, brown and brook trout make up less than 3% of the angler catch.

Rainbow trout are the most abundant species of wild trout and are most frequently caught in the Metolius River. More than 50% of rainbow in the river above Lake Creek are less than 6 inches in length. The Scenic river segment supports a fishery that allows the angler to catch wild rainbow between 12 and 16 inches (USDA Forest Service, 1992).

The Wizard Falls Fish Hatchery is located on the Metolius River at Wizard Falls. Managed by the Oregon Department of Fish and Wildlife, it was originally constructed to produce stock just for the Metolius River. The hatchery currently produces stock for use throughout the State of Oregon, including rainbow trout, brook trout, Atlantic salmon, kokanee and brown trout. The hatchery produced 3.1 million fish in 1989, ranking it among the top ten in the state. It is rated number one in the state hatchery system in terms of the variety of species that it produces.

The ODFW Wild Fish Management Policy requires that hatchery stocking programs not adversely impact wild fish through genetic exchange or competition. Recent ODFW studies involving genetic makeup, physical characteristics and disease resistance have indicated the hatchery and wild rainbows interacted on the spawning areas of the Recreation river segment. More recent snorkel observations have indicated that the interaction during much of the spawning period was inconsistent with the guidelines in the Wild Fish Management Policy that not more than 5% hatchery fish are permitted where a hatchery stock is distinctly different from wild stocks. The hatchery stock used in 1994 and prior is different from the wild Metolius stock in that the hatchery fish are susceptible to a parasite called Ceratomyxa shasta and the wild fish are resistant. Another study showed other genetic differences as well (Currens, unpublished data).

The extent of the interaction has not been evaluated. ODFW is currently developing a subbasin management plan for the upper Deschutes Basin, including the Metolius River, that will address alternatives for complying with the Wild Fish Management Policy. The stocking strategy of 1994 included keeping the uppermost stocking point in the system at Allingham Bridge and discontinued stocking in July to reduce the number of hatchery fish in the spawning areas during the peak spawning season.

Bull trout are indigenous to the Metolius River. In many areas of Oregon, bull trout have declined in number and distribution. The bull trout is listed as a Sensitive Species on the Regional Foresters Sensitive Species list and as a Category 1 Candidate Species for potential listing by the United States Fish and Wildlife Service as threatened or endangered.

The Metolius River/Lake Billy Chinook population has shown considerable increase since 1986 based on spawning counts in most of the known spawning areas. It appears that the population was at a dangerously low level as recently as the early 1980s but has been increasing in recent years. The population is the largest population in the southern part of its range. Remnant populations are found further south in the Malheur, Klamath and Jarbridge drainages.

In the 1930s, when bull trout were not distinguished from dolly varden, they were actually trapped and removed from several of the Metolius tributaries because of suspected predation on the eggs and juveniles of chinook salmon. The loss of the chinook salmon runs in the late 1960s may have also affected the bull trout by removing a large part of their food supply. The rising new kokanee population in Lake Billy Chinook may have substituted. Overharvest also may have contributed to the decline of bull trout. Another potential problem is that bull trout have been known to hybridize with brook trout in resident populations, although the Metolius bull trout have a fluvial (river) and adfluvial (lake) life history.

Bull trout provide a popular fishery both in the river and in the reservoir. The challenge of fly fishing for large bull trout is pursued by a determined minority of anglers on the Metolius River. The fishery in the reservoir has increased greatly in the past five years and many fish caught have set new Oregon state records, including one fish that weighed over 23 pounds and was 34 inches long. These same fish move up the Metolius River and spawn in the tributaries.

Regulation changes appear to have contributed to an increase in the spawning population of bull trout in the late 1980s. Catch-and-release regulations on wild fish were initiated in 1983 on the entire Metolius River, and tributaries have been closed to angling during the bull trout spawning season since 1988. Additional protection was provided in 1992 when the daily bag limit on Lake Billy Chinook was changed to allow only one bull trout per day.

Habitat

The river's hydrology creates a unique habitat for fish. The river's cold temperatures significantly reduce disease and parasite problems that are typically found in warmer rivers, a significant contribution to the success of the Wizard Falls Fish Hatchery. Fish habitat remains very stable because it is not disturbed by high flows or flooding. Undercut banks are allowed to develop and riparian vegetation along the streambanks hang over the water and provide cover for fish.

High quality spawning gravel that is suitable for rainbow trout is most abundant upstream from Gorge Campground. Lake Creek and First Creek have an important effect on the quality and quantity of spawning habitat above the gorge. Spawning habitat for bull trout is nearly exclusively provided by the tributaries. Springfed tributaries with abundant spawning gravel, undercut banks, side channels, and wood combine to form high quality bull trout rearing habitat. The tributaries also contain few other fish species that compete with bull trout, perhaps due to the cold water.

The aquatic invertebrate community of the river is high in diversity and species richness. Densities of invertebrates have been estimated as high as 8,000 organisms per square meter, with insects comprising more than half. The abundance and richness of species suggest that the low temperatures of the Metolius are not limiting the invertebrate production. The cold temperature regime influences the emergence of several caddisflies, stoneflies and mayflies, by extending the duration of the emergence, and delaying the timing of the peak emergence. The diversity, density and unique timing of emergence of insects in the river provide a diverse and abundant food source for fish over the entire year.

The cold temperatures so critical to bull trout slow the growth of rainbow trout, which benefit from temperatures of 55-65 degrees for optimum growth. As a result, rainbow trout may grow slower in the Metolius system, and those fish that are large are generally older fish.

Another limiting factor on the Metolius is lack of cover, especially that provided by instream wood. In the past, large wood shaped the fish habitat in the Metolius River. Stable flows allow the accumulation of trees that drop into the river. Large wood causes increased diversity and the formation of islands, side channels, overhead cover, and pools. Natural agents of wood input to the river include wildfire, wind storms, and stream flooding. Historical reports of severe wind storms in the Camp Sherman area give evidence to large quantities of blowdown trees. Accounts of boaters floating the river in 1938 described numerous log jams in the river from Canyon Creek downstream that no longer exist. Large blowdown events have been documented since then.

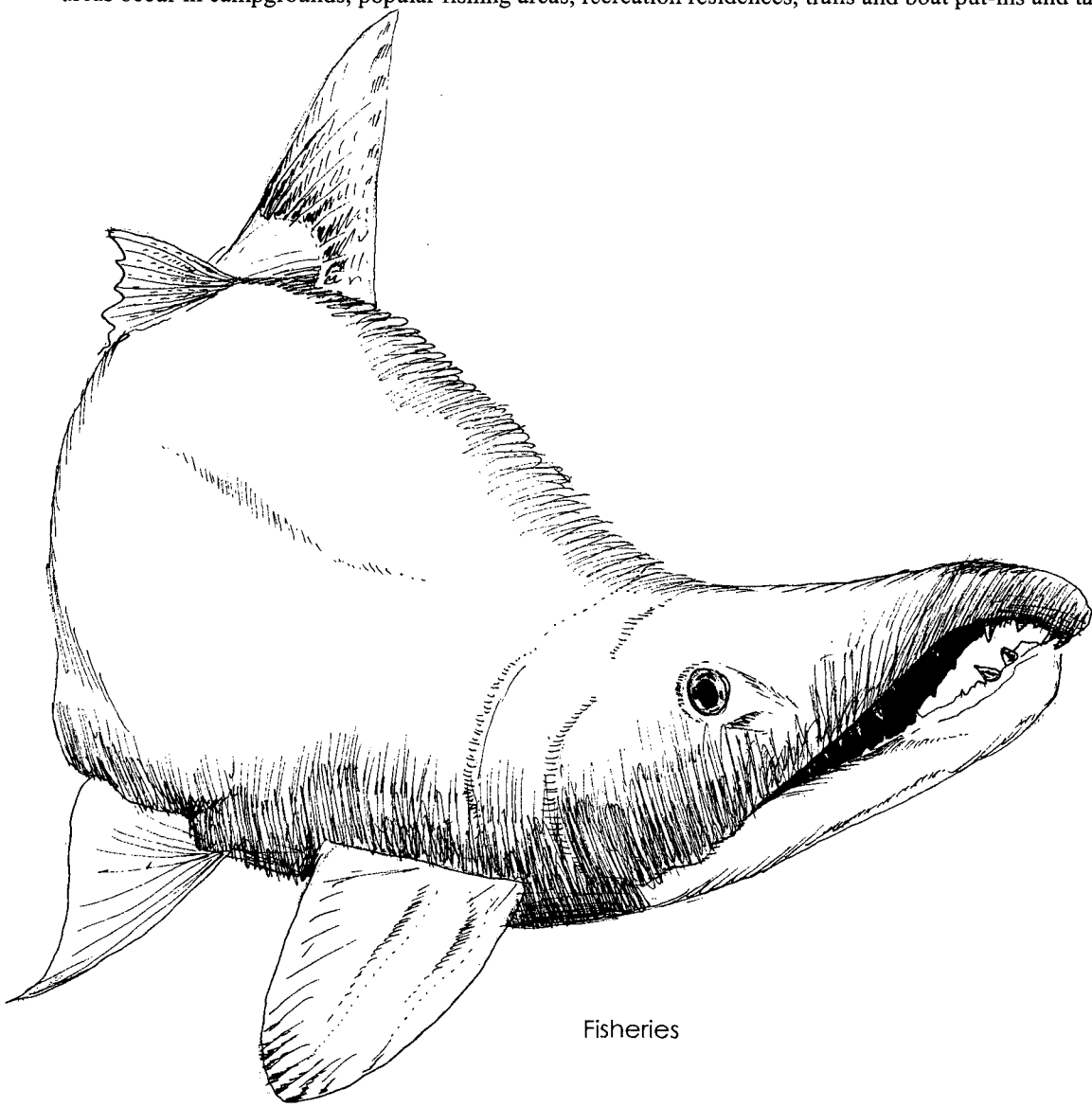
In the early 1900s, wood was removed from the river to float logs to saw mills on the Deschutes River. The Civilian Conservation Corps removed wood from the river with the intention of reducing erosion potential. Various salvage and hazard reduction operations have also removed wood from the river. The 100-year flood of 1964 naturally moved wood in the system and additional wood was removed during cleanup operations after the flood. Some logs have been removed to permit safer passage by floaters. A 1991 stream survey assessing fish habitat showed a density of 20 large logs per mile in the river below Candle Creek, 6 large logs per mile from Candle Creek to Canyon Creek, and 3 large logs per mile upstream from Canyon Creek. The densities of wood in the river, especially the Recreation river segment, are low compared to historic accounts.

An 1983 ODFW survey conducted upstream from Camp Sherman found that only about 5 percent of the area surveyed was suitable as trout cover. Something closer to 50 percent is more desirable for creating better trout-producing habitat. (Binns, 1982). It is likely that fish habitat has always been low by these standards, given the geology and stable hydrology of the region, but lack of cover is a primary limiting factor on the Metolius.

Work began in 1985 to try to restore fish habitat in the Metolius. In that year, the placement of rocks and wood began in the river above Camp Sherman. Complaints from some residents brought a halt to the project in 1987, when the Forest Service performed an Environmental Assessment. The majority of written responses to solicitations for public comments came out in favor of the habitat improvement project. In 1988, work resumed downstream from Allen Springs, where rocks were placed and trees were placed in the river. The last work was done in 1989; similar work was continued down to Bridge 99. Efforts at improvement brought available habitat up to about 6 percent of the area.

Streamside vegetation can provide stream cover by overhanging the river, by stabilizing overhanging banks, and by contributing leaves and wood that are used by aquatic organisms as food and cover to the river. This streamside vegetation, or riparian vegetation, is usually more dense and diverse than plant communities that grow on drier sites. This dense vegetation provides protection against erosion and sedimentation. It also serves as habitat for a variety of wildlife.

Riparian vegetation can also draw recreationists for shade and scenic diversity along the river. These areas where many visitors and residents recreate and live along the river are showing signs of overuse in the form of bare soil areas, reduced shrubs and eroded banks, primarily in the Recreation river segment. These high use areas occur in campgrounds, popular fishing areas, recreation residences, trails and boat put-ins and takeouts.



Wildlife

The Metolius River corridor supports a variety of resident and migratory wildlife species. Complex vegetation layers found within the riparian zone and associated ecotone, contribute to habitat and wildlife species diversity. Mature and old growth habitat components and riparian habitats provide habitat connectivity throughout the entire river corridor. This unique arrangement of habitats (old growth and riparian) enhances species diversity and richness. The habitat value of the area to wildlife species extends beyond the corridor to the adjacent landscape.

The river corridor is within a Late-Successional Reserve (LSR) as identified in the Northwest Forest Plan. LSRs are managed to provide habitat for late-successional wildlife species. The corridor also falls within a Key Watershed.

While the Scenic river segment is managed as a primitive wildlife area, it is not devoid of human alterations. Portions of this area have roads, trails, private land with recreational housing, evidence of past logging activities, and areas affected by wildfire suppression.

The Confederated Tribes of Warm Springs have designated tribal lands along the Scenic river segment through the Integrated Resource Management Plan (IRMP) as a Conditional Use (CU) zone which is virtually the equivalent to wilderness designation on National Forest lands. In addition, the tribes have allocated the Scenic river segment reach adjacent to Conditional Use as a Wildlife & Long Term Productivity (LTP) emphasis zone for wintering big game, spotted owls, eagles, and biological diversity.

The Forest Service and Oregon Department of Fish and Wildlife have cooperated to develop a Refuge Contract for the upper portion of the river corridor. The purpose of the contract is to provide a refuge for watchable wildlife animals.

Threatened, Endangered, and Sensitive Species

Although comprehensive inventories have not been completed to determine all of the state or federal listed or candidate species that actually inhabit the area, the Metolius River corridor provides habitat to a variety of threatened, endangered, or sensitive (TES) species. Two federally listed threatened birds are known to occur in the river corridor: the northern spotted owl and the northern bald eagle. One endangered species, the peregrine falcon, has been observed in the area but there are no confirmed nesting sites. The peregrine falcon was observed prior to 1984 near Castle Rocks but has not been observed in recent years.

Bald eagles are viewed all year long throughout the entire river corridor. Several bald eagle nest sites are located immediately adjacent to the Scenic river segment and potential nest sites occur throughout the river corridor. Eagles also use the Scenic river segment year-round for roosting and feeding.

The Metolius river is west of the spotted owl range line except for the last mile before entering Lake Billy Chinook. The Record of Decision for the Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl has established Late-Successional Reserves that include the Forest Service portion of the Metolius River corridor. Several northern spotted owl

OUTSTANDINGLY REMARKABLE VALUE

The **wildlife resource** of the Metolius River is determined to be **outstandingly remarkable**. The quality and diversity of habitat and species, and the presence of several federally listed species supports this conclusion. The important wildlife values identified include:

- The presence of federally listed threatened and endangered species such as the northern spotted owl and bald eagle on the Scenic river segment.
- The river-related habitat diversity resulting from ponderosa pine and mixed conifer old growth, riparian, meadow, riverine, and aquatic habitats.
- The corridor provides an important east/west link between winter and summer ranges for mule deer and elk, and a contiguous habitat link for other animals.

activity centers which include reproductive pairs have been documented adjacent to the Scenic river segment.

Most of the lower Metolius corridor also lies within the northern spotted owl Critical Habitat that was designated by USFWS in January, 1992. No particular management regime was prescribed by USFWS for Critical Habitat, but the Forest Service "will prevent the adverse destruction or modification of Critical Habitat" (USDA Forest Service 1992). Any proposed action in Critical Habitat will be evaluated for its appropriateness through consultation with USFWS, as required under section 7(a) of the Endangered Species Act. The Warm Springs Reservation side of the Scenic river segment which is Conditional Use is also allocated for northern spotted owl habitat management to link spotted owl habitats between the reservation and the Forest Service.

Comprehensive surveys for amphibians have not been completed in the river corridor. There is a possibility that the red-legged frog, a Category 2 sensitive species, occurs in the river corridor.

Townsend's big-eared bats, a Category 2 sensitive species, have been observed day roosting in the corridor. It is possible that undiscovered caves occurring in the corridor provide winter hibernaculum for this species.

Big Game

The Metolius River corridor lies within the Oregon Department of Fish and Wildlife Metolius Management Unit, which supports populations of elk, deer, cougar, and black bear. Roosevelt elk and mule deer are common in the corridor. Big game movement between the Forest Service and Warm Springs Reservation are common.

Elk can be found in the corridor throughout the year. The entire Metolius Unit has a benchmark population management objective of 200 wintering elk. This population number has increased since the 1990 Deschutes National Forest LRMP established a population management objective of 100. The Metolius Unit supports a population of approximately 6,200 wintering mule deer. The Metolius River corridor supports approximately 500 deer during the winter and 200 deer during the summer.

The river corridor is within the Metolius Mule Deer Winter Range. This portion of the winter range is used by both wintering deer and elk. Generally, animals utilize this portion of the winter range in early winter until snow accumulations drive the animals east through the Scenic river segment (Candle Creek and Lower Bridge Area) and the saddle between Black Butte and Green Ridge. The Eastern portion of the Metolius winter range that does not include the river corridor generally supports the highest numbers of wintering deer and elk.

A portion of the river from Pioneer Ford Campground to the Metolius Horn is identified in the 1990 Deschutes Land and Resource Management Plan as a Key Elk Habitat Area. This area is used as a travel corridor, and an estimated 60-70 animals wintering in this area. The majority of three years (1989-1991) of telemetry information was collected on several of the elk herds utilizing the river corridor. The telemetry project was a cooperative effort between Rocky Mountain Elk Foundation, Warm Springs Indian Reservation, Deschutes National Forest, and Oregon Department of Fish and Wildlife. The project documented the movement of elk between the river corridor and the Warm Springs Reservation. In addition, elk movement from the corridor to adjacent Forest Service land was identified.

Other Species

In addition to big game and threatened, endangered and sensitive species, there are a variety of other wildlife species in the corridor. There is a rich diversity of amphibians, reptiles, small mammals and birds in the corridor and adjacent lands.

The northern goshawk, a species on the US Fish and Wildlife Service Notice of Review, has been observed nesting along the Metolius River and in other areas adjacent to the river corridor. Goshawk nesting, foraging, and roosting habitat occurs throughout the river corridor.

Portland General Electric, in coordination with the Sisters Ranger District, Oregon Department of Fish and Wildlife, and the Confederated Tribes of Warm Springs Reservation, has conducted intensive osprey surveys from Lake Billy Chinook to the Head of the Metolius. Over 20 nest sites have been documented within the river corridor and several nest sites occur immediately adjacent to the corridor. The highest number of osprey nest

sites is found where the river enters Lake Billy Chinook. The nest sites are surveyed annually to determine reproductive success.

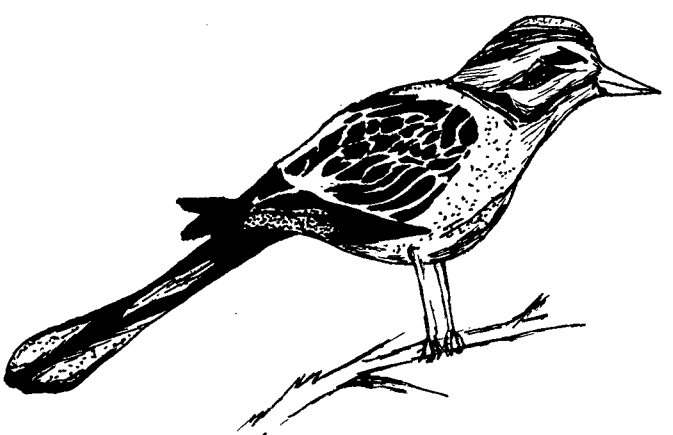
A variety of cavity nesters, such as the white-headed, pileated, and hairy woodpeckers are known to occur within or near the river corridor. A study of white-headed woodpecker habitat use has been completed in the Metolius Basin, including portions of the river corridor. Preliminary results indicate that white-headed woodpeckers have a strong affinity to large-diameter ponderosa pine trees.

There is a variety of amphibian habitats within the corridor. Wetlands, bogs, small streams, seasonal wet areas and the river all provide habitat for amphibian species. Cascades and tailed frogs and western toads have been located within tributaries of the Metolius river and may occur along the mainstem of the Metolius. Many amphibian species reproduce in the tributaries of the Metolius and the offspring then move or are washed down stream to the river corridor. Other reptiles and amphibians, including western fence lizard, common garter snake, rubber boa, and western skink occur in the corridor. There is a low probability that spotted frogs may occur in the river corridor.

A number of small mammal species occur in the river corridor. Pine marten, muskrat, raccoon, mink, porcupine, flying squirrel, ground squirrel, deer mouse, woodrat, and beaver have been observed in the corridor. In addition, bobcat and mountain lions have also been observed.

A number of passerine bird species, including neotropical migrants, are found in the corridor. Many of these bird species are considered uncommon or rare because they are generally found in low population numbers. In addition, a number of migrating raptor species can be found in the corridor area in early spring and fall. Birds in the area include saw-whet, great-horned owls, red-tailed hawk, blue and ruffed grouse, turkey, quail, hairy woodpecker, brown creeper, winter wren, hermit thrush, ruby crowned kinglet, MacGillivray's warbler, great blue herons, savannah sparrow, mallard ducks, mergansers, Cooper's hawk, and sharpshinned hawk.

The Merriam turkey was introduced to the Metolius River area in the 1950's. Three re-introductions of the turkey have occurred, including the Rio Grande turkey. One of these re-introductions occurred within the corridor and two outside. The current population levels are considered low, probably due to high mortality from predators.



Visual Resources

The scenic beauty and aesthetic qualities of the Metolius River have attracted people to the area for centuries. The clear rushing water, cool breezes, and shade from yellow-barked ponderosa pines offer visitors a reprieve from the hot, dry summers of eastern Oregon. The Metolius River is one of the most visually sensitive rivers within the region, and was rated as one of the top 5 of 117 viewsheds analyzed for visual sensitivity on the Deschutes National Forest (USDA Forest Service, 1992).

The river area is primarily "natural appearing," with enclaves of "cultural" landscapes (i.e., summer homes , recreation facilities, and the Camp Sherman area). The rustic, historic, "cultural " landscape character of these settings relate well with the "natural appearing" landscape character.

Natural Appearing Landscape

Landscape Character and Context

The Metolius River flows out of the northern base of Black Butte on the eastern flank of the High Cascades. Nestled between Mt. Jefferson to the west, the Warm Springs Indian Reservation to the north, and Green Ridge to the east, this spring-fed river exhibits outstanding scenic qualities due to the unique natural processes and resources that form the landscape and the high value people place on the river and its surrounding environment.

The Metolius River corridor is surrounded by a diversity of dramatic and unique landforms, including gentle sloping lava fields, steep ridges and bluffs, and distant jagged mountain tops. These landforms represent thousands of years of geological processes entailing fault-blocking, volcanic eruptions, and glacial and water erosion.

To the south of the Metolius, directly behind the headwaters, Black Butte rises nearly 4,000 feet above the river. This forested, symmetrical cinder cone is in marked contrast to the fairly flat, chaparral-covered plains that surround it, creating a regional focal point in the central Oregon landscape. In recognition of the scenic importance of Black Butte, the Forest Plan created the Black Butte Scenic Management Area to perpetuate its unique scenic qualities.

Approximately 10 miles west of the Metolius lies the Cascade mountain range. Formed by volcanic eruptions, the dark, rugged, and often snow-covered peaks of the Cascades provide dramatic distant views from the river corridor. Distant views of the Cascade peaks are framed by foreground views of forest and river landscapes.

At the northern end of the river, the Metolius winds between the Metolius Bench to the north and the slopes of Castle Rock to the south. The Metolius Bench, a steep, unvegetated ridge nearly 1,000 feet high, trends in a northwest-southeast direction. The slopes of Castle Rock are remnants of a collapsed volcanic cone. These two landforms confine views in the river corridor to foreground viewing.

The east side of the Metolius River is also confined by a steep ridge. The 1,200 foot-high Green Ridge, about a mile from the river, is north-south trending. This west facing ridge was created by block-faulting activity which resulted in the foundation of the Metolius Basin.

The Metolius River's landscape context has a high degree of integrity. It is visually perceived to be "complete" relative to

OUTSTANDINGLY REMARKABLE VALUE

The **scenic resource** of the Metolius River is determined to be an **outstandingly remarkable** value. The extent and context of the foreground landscape within a ponderosa pine forest is unique within the region and the state. The diversity of views over the length of the river is unique when considered in the context of its relatively short length. The lack of significant modifications of the view over the full length of the river is also unique. The rustic character of the existing buildings blend with the elements found in the natural landscape and are subordinate to the overall strength of the surrounding landscape. The visual prominence of the Metolius River is a well-known scene for many visitors throughout the State and the nation.

the description of the landscape character. No negative alteration is observed. The overall landform appears to be intact.

Water Forms

Gushing from the southern base of an old volcanic cone at Black Butte, the Metolius has cut its path of least resistance along the western flank of Green Ridge and continues around the northwest base of an old volcanic cone now known as the "Horn of the Metolius."

Most of the water in the Metolius comes from springs. Runoff from the High Cascades flows through the porous lava fields of the eastern flank until it hits the impervious graben of Green Ridge. Here the water is forced to the surface, creating numerous springs on the west side of the river, some of which contribute as much as 100 cfs to flows in the river.

The spring-fed nature of the Metolius results in a unique appearance compared to most streams. The springs provide relatively constant flows that are unsusceptible to seasonal weather patterns, and therefore create relatively constant flows in the river throughout the year. Water quality in the Metolius is also outstanding due to the springs. Because little surface water drains into the Metolius, the river usually lacks the turbidity, even during storm events, common to surface-fed streams.

The distinct water form element has a very high degree of visual integrity throughout the entire river corridor. The crystal-clear water is not altered in quantity or quality and is fully intact.

Vegetation and Wildlife

The vegetation of the Metolius river corridor provides a diversity of habitats for wildlife and contributes to the contiguous habitat conditions of the Metolius Basin. Vegetation in the corridor consists of riparian plant communities, ponderosa pine forests along the upper reaches of the river, and mixed conifer forests in the lower sections of the river. The habitats created by this vegetation support a diversity of wildlife, including some rare and endangered species such as the bald eagle and spotted owl, as well as big game species of mule deer and elk. Numerous bird species such as grouse, quail, osprey, and owls, and small animals including squirrels, beaver, river otter, and bobcats are also present in the corridor.

Seasonal diversity is an important part of the scenic qualities of the river. In spring and summer, vegetation is lush and green. Fall provides a variety of colors as western larch and deciduous shrub species turn red and gold. The winter provides a landscape dominated by brown tones, contrasting the deep green of the conifers.

The vegetation in the corridor has a moderate degree of integrity. The general appearance of the vegetation is consistent with the landscape character but there are areas of alteration due to concentrated human use patterns, especially in the riparian zone. The scenic discordance is subordinate to the dominant scenic impression.

Cultural Landscape

Structure

The majority of the cultural landscape character is located in the Recreation river segment (above Bridge 99). The upper Metolius is a recreational river; therefore, a cultural landscape character is expected. People, vehicles, recreational residences, resorts, commercial development, ranches, and recreational facilities often dominate but relate and interact with the "natural appearing" landscape. In general, these enclaves of cultural landscape have a high degree of integrity. The harmony, composition, and consistency of the cultural settings blend with and are complimentary to a "natural appearing" sense of line, form, color, and texture. Deviations such as contemporary architecture (forms), high chroma paint (color), urban/manicured grounds (line and texture) are not very evident.

Sense of Place

The visual appearance of the corridor is only one of the many components which contribute to its aesthetic "sense of place". The Metolius river corridor is held in high reverence by many people from various perspectives such as historical, spiritual, cultural, traditional, and experiential. Such components contribute to the integrity or wholeness of an area. Special places such as the Head of the Metolius, the Camp Sherman Store complex, Tribal lands, Wizard Falls Fish Hatchery, and Allingham have high scenic integrity which is intact.

Viewshed

The upper portion of the Metolius River, from its headwaters to the Gorge, is viewed by large numbers of forest visitors each year, and is a nationally recognized scenic destination. The area is the most heavily visited segment of the river due to the concentration of residential, commercial, and recreational development in the vicinity of Camp Sherman. In the middle section of the river, from the Gorge to Bridge 99, there are several developed campgrounds and day use areas on both sides of the river that receive substantial amounts of use; however, there is no residential or commercial development. Downstream from Bridge 99 the character of the river changes dramatically. This area, known as the Horn of the Metolius, is very remote and inaccessible. There are no paved roads through the area and it is more than one hour's drive to the nearest highway.

Views of most of the Metolius Wild and Scenic River corridor are confined primarily to immediate foreground landscapes, although a few opportunities exist for expansive, distant views. Foreground views in the upper and middle stretches of river are characterized by strips of riparian vegetation and flat open stands of ponderosa pine forests, interspersed with limited residential and recreational developments. The upper and middle sections of the Metolius are separated by the Gorge. This short stretch of river is fairly remote, and seen primarily from the river where views are contained to the immediate foreground due to confining rock walls of the narrow gorge.

Downstream from Bridge 99, the river has carved a large, deep canyon around what is known as the Horn of the Metolius. This northern section of the river is fairly remote, with limited vehicular access. Most views are from the river and consist of lush riparian vegetation and steep canyon slopes.

Expansive views of more distant, scenic landforms such as Green Ridge, Black Butte, and the Cascade Range are also available from select locations within the corridor. Of particular interest is the spectacular view of Mt. Jefferson which can be seen from the headwaters of the Metolius. Renowned for its scenic quality, the view of Mt. Jefferson from the headwaters is one of the most photographed sites in the state of Oregon.

Heritage Resources

Archaeological Resources

Overall, it is known that there was extensive use of the Metolius River area during prehistory. Little is known about the dates of use, the users, the specific uses, and how and why uses may have varied over time.

Cultural resource inventories in the river corridor have been conducted in response to a variety of projects including timber sales (Davis and Rumble 1984; Swift 1986, 1987a), construction (Swift and De Klyen, 1988), improvement of fish habitat (Swift and De Klyen, 1990b), development of recreation facilities (Swift 1987b; Swift and De Klyen 1990a), and Wild and Scenic River planning (Oetting et al, 1992). Much of the river corridor, from the Head of the Metolius to the confluence with Candle Creek, has been inventoried on National Forest land as a result of these surveys. The intensity and reliability of these inventories varies. One inventory (Oetting et al, 1992), included a sample of the river corridor between Candle Creek and Lake Billy Chinook on both National Forest and Tribal lands. No inventories of private land within the corridor are known.

A total of 43 prehistoric sites are recorded in a quarter mile of the river. The vast majority of the sites (37) are between the Head of the Metolius and Candle Creek because most inventories have taken place in this area. Six sites have been recorded between Candle Creek and Lake Billy Chinook.

Of the 43 known sites, 4 are rock shelters and the remainder are open lithic scatters. Very little information has been collected from most of these sites., and little analysis of recorded or recovered materials has been conducted. The only dates from these sites are from projectile point types and stratigraphic association of artifacts. Projectile points indicate the presence of people along the Metolius sometime between 7,000 and 1,000 years ago. The stratigraphic association in one site included artifacts found beneath a Mazama ash layer which would predate the eruption of Mt. Mazama 6800 years ago.

Source information collected for some obsidian artifacts found within one site indicates that the material came from Obsidian Cliffs northwest of the North Sister. No faunal or floral material has been collected from prehistoric sites within the river corridor. Open lithic scatters are generally believed to be the remains of short-term camp sites, but no conclusive evidence to support this theory has been recovered.

OUTSTANDINGLY REMARKABLE VALUE

The **prehistoric values** of the Metolius River are determined to be **outstandingly remarkable**. Sites with evidence of occupation and use pre-dating the eruption of Mount Mazama and other geologic episodes, and evidence of use by more than one cultural group are criteria which contribute to the significance of archeological properties within a regional perspective and meet National Register evaluation criteria. Based on the programmatic Memorandum of Agreement between the Forest Service, State Historic Preservation Office and the Advisory Council on Historic Preservation, all known lithic scatter sites within the River corridor are considered eligible for the National Register of Historic Places.

The **traditional use values** of the Metolius River are determined to be **outstandingly remarkable**. Traditional uses have been established through time immemorial, were recognized through Treaty and Tribal Code. Traditional use continues in present day.

Historic Resources

The Metolius River, though remote from early exploration and settlement, has an interesting and well-documented history. The region mirrors several larger themes of American history.

Fur trappers such as Peter Skene Ogden and his Hudson's Bay Company brigades passed through the Deschutes watershed in the 1820s. Nathaniel J. Wyeth, a fur trapper, provides the earliest description of what is probably the Metolius River from his explorations during the winter of 1834-35. Major figures such as John C. Fremont (1843), Robert Stockton Williamson (1855), and Henry L. Abbot (1855) explored this region for a railroad route. They prepared maps, kept diaries, and collected scientific specimens.

The implementation of federal Indian policy in Oregon in 1855 led to the creation of the Warms Springs Indian Reservation. That land remains in "trust" for the Confederated Tribes to the present and is bounded by the lower Metolius River.

In the post-Civil War era (1860s), Congress awarded land-grant subsidies for road construction. Investors established and built the Cascade Mountain and Willamette Valley Wagon Road via the South Santiam River and Santiam Pass. The road passed near the Head of the Metolius. This route and the transitory occupation of Camp Polk in 1865-66 provided access and information about the region to other parts of Oregon and the nation. By the 1870s, homesteaders began filing on lands in the area, and a number took title in the 1880s and 1890s

OUTSTANDINGLY REMARKABLE VALUE

The **historic values** of the Metolius River are determined to be **outstandingly remarkable**. The distinct historical themes of early exploration by trappers and engineers, homesteading, early recreation use, CCC use and early Forest Service administration are unique within the region. In the corridor, there is an eligible site for the National Register of Historic Places, and the possibility of additional unevaluated sites or areas.

The withdrawal from public entry of the Cascade Forest Reserve in 1893 slowed the pace of settlement but enhanced the preservation of the Metolius and fostered its allure as a recreational area. In the 1910s residents of Sherman County began camping along the Metolius, and by 1917 they had established a seasonal community known as Camp Sherman. On patented land and tracts leased from the Forest Service, they erected residences and resorts. The Forest Service encouraged this use of the public domain and in the years 1933-42 mounted numerous Civilian Conservation Corps construction projects to improve recreation sites in the region from a camp on the Metolius.

Most of the historic structures, features, and sites remaining on the Metolius today are related to the development of recreation along the river with a few remains of early homesteads. Most of these items of historic interest are private property. The CCC camp, Camp Sisters, and several structures in campgrounds are public facilities on National Forest land. No historic remains are known within the Reservation portion of the river corridor. Historic remains are in conditions ranging from well maintained to scattered debris. No historic sites within the Metolius corridor have been evaluated for historic significance or qualification for the National Register of Historic Places.

Recreation

The many outstanding natural resources in the Metolius corridor, long a recreational destination for regional residents, attract visitors from throughout the country. The area's popularity stems directly from its natural qualities and depends on their continued protection and enhancement. Visitors surveyed by the Forest Service in 1990 said that the most important factor influencing the quality of their visit was the natural setting of the river.

The spectacular scenery, including the nationally-known view of Mt. Jefferson from the popular Head of the Metolius viewing area, attracts sightseers, whether passing through on Highway 20 or stopping to spend a few days at the river.

The river's clean, cold water and abundant fishery attract many anglers, and the river has a fine reputation among fly anglers who fish for rainbow trout, bull trout, and other species. Many visitors come to catch a glimpse of the corridor's wildlife, including elk, deer, bear, smaller mammals, and birds.

The primitive character of the Scenic river segment, coupled with a fast current and lively but not intimidating rapids, provides a unique, year-round opportunity for rafting, kayaking, and whitewater canoeing well-suited for day trips. People also float shorter portions of the Recreation river segment in canoes, innertubes and a variety of other craft, while kayakers play in the waves in two short canyon sections.

The big ponderosa pines, remarkable wildflower displays, and rustic character of the Recreation river segment provide great viewing along the trails in the Recreation river segment; although the Recreation river segment is developed in places, less-accessible canyons and undeveloped areas provide opportunities for hiking and mountain biking both along and away from the river. Hikers along the Scenic river segment may not see another person for much of their trek.

People also participate in less active pursuits. The atmosphere of the Recreation river segment, and more-primitive Scenic river segment, provide ample opportunities for relaxing, listening to the river, and watching it flow through the landscape.

During the hot, dry summer months, the river corridor provides a cool oasis frequented by visitors who spend a night or longer along the river. Many Forest Service campgrounds are located on several miles of the Recreation river segment. Undeveloped campsites along the Scenic river segment offer a chance to get away from the more heavily used areas. The 108 summer homes maintained under special use authority on National Forest lands provide opportunities for private use, as well as contributing to the rustic character of the Recreation river segment. The Metolius is a special place not only for local residents but for people who return year after year; the 1990 Forest Service survey of visitors found that 45 percent of the respondents had been visiting the river for more than 10 years.

OUTSTANDINGLY REMARKABLE VALUE

The recreation values of the Metolius River area are determined to be **outstandingly remarkable**. The visitors who come are then able to participate in a full spectrum of recreational opportunities. The rich mix of both dispersed and developed recreational opportunities that is available in the upper 8-10 miles of the river, combined with the change in character to a dispersed primitive setting on the lower portion of the river, is unique to the region. Other rivers in the region offer recreational opportunities, but these opportunities are not as concentrated nor as diverse as the Metolius River.

Managed as a primitive area by the Confederated Tribes of the Warm Springs Reservation, few people visit the Reservation side of the Scenic river segment. Visiting without permission from the Tribes is considered trespassing.

Use Patterns

Forest Service figures show that campgrounds in the corridor were used by an estimated 65,041 visits in 1992; 63,629 visits in 1993; and 61,525 visits in 1994. Use figures in the campgrounds are based on fees collected. Overnight use in the campgrounds seems to be declining, especially mid-week.

Two of the more popular day use sites in the corridor are the fish viewing platform at Camp Sherman, which received an estimated 81,000 visits in 1993 and 76,000 in 1994, and the

Head of the Metolius, with about 126,000 visits in 1993 and 130,600 visits in 1994. The Wizard Falls Fish Hatchery, operated under special use permit by the Oregon Department of Fish and Wildlife, attracts many visitors to its fish viewing ponds and provides interpretive information about the fishery in the Metolius River. Day use along the Metolius appears to be increasing (the decline at the fish viewing platform may be the result of fewer fish for viewing).

The 1990 Forest Service visitor survey found that fishing, hiking, sightseeing, and viewing wildlife were the most frequently engaged-in day-use activities among respondents. Other activities less frequently mentioned included bicycling, taking pictures, picnicking, swimming, and boating. The following sections describe some of the primary opportunities in greater detail.

Camping

Camping or staying overnight is popular along the Metolius; opportunities range from remote, tent-oriented areas to resorts and cabins. The opportunity for a developed recreation experience is provided by 12 developed campgrounds. Campgrounds along the Recreation river segment provide a developed recreation experience within a predominantly natural appearing setting. The campgrounds located along the Scenic river segment provide fewer facilities and a more primitive setting and experience. Camping outside of developed campgrounds (called dispersed camping) is most common, especially on holiday weekends, along the Scenic river segment below Lower Bridge campground. Most of the Scenic river segment dispersed campsites are very well established. Dispersed camping in the Recreation river segment is limited to occasional walk-in use from Rd 1298 on the west side of the river.

The following table displays acres, the number of units, and capacity in Persons At One Time (PAOT) for all the campgrounds in the corridor as of 1994.

	Total Acres	# of Units	PAOT
Fee Campgrounds			
Allen Springs	6	17	90
Allingham	3	10	70
Camp Sherman	4	15	85
Gorge	8	18	120
Lower Bridge	8	12	65
Pioneer Ford	13	20	90
Pine Rest	2	8	40
Smiling River	16	37	235
Non-Fee Campgrounds			
Candle Creek	2	5	45
Lower Canyon Creek	3	4	50
Monty	10		
Riverside	3	16	190
TOTAL	78	162	1080

The 1990 Forest Service survey of recreation visitors found that a large majority of the respondents were spending at least one night along the Metolius (15 percent were staying one night, 26 percent two nights, 20 percent three nights, 10 percent four nights, and 18 percent five nights or longer). The survey found that more respondents who were camping did so in RVs than tents (57 percent were camping in RVs and 43 percent in tents). Campers who responded to the survey also said that being able to camp next to the river was an important influence on the quality of their trips, and said that the ability to see and hear the river was very important among factors influencing their selection of a campsite. They also valued privacy and the quietness of

the campground. Less important factors were proximity to Camp Sherman store and developments and access to good fishing.

Campground amenities were rated as not very or only slightly important by a majority of those surveyed. The Forest Service survey asked people whether they would support or oppose several options for managing campgrounds. In general, the respondents supported developing areas for tent camping only, spreading out sites within existing campgrounds, and limiting the use of generators. They strongly opposed increasing the size of some campsites to allow larger groups, and views were divided on whether to move existing campgrounds back from the river to protect river banks and whether to establish a reservation system at some campgrounds. Survey respondents were generally opposed to adding additional facilities to the campgrounds. Many of the respondents were vocal in their opposition to new amenities, saying, "leave it the way it is."

Hazard trees are identified and managed in developed campgrounds. Each year a number of trees have to be removed. In 1992 there were 73 hazard trees identified in Metolius Basin campgrounds; in 1993 there were 120 hazard trees; in 1994 there were 71 hazard trees; and in 1995 100 hazard trees have been identified. Most of the hazard trees identified are less than 12" dbh (71%); 15% percent are between 12" and 20" dbh; and 14% percent are over 20" dbh.

Fishing (and Fish Viewing)

The 1992 Central Oregon Vacation Guide published by the Central Oregon Recreation Association described the river's attraction to anglers:

The Metolius, and its famed full-river springs at the base of Black Butte, is a premier flyfishing trout stream. The pine-lined meadows, hills, and canyon offer a quality experience, and portions are open the entire year. The Metolius is bordered mainly by public lands, with plentiful camping.

Fly fishing is popular, particularly on the Recreation river segment. Anglers have spent many hours volunteering their time to work on river projects, a testimony to their devotion to the Metolius.

Angler surveys conducted by the Oregon Department of Fish and Wildlife indicate that a majority of anglers fish for an average almost four hours per day. The remainder of the day is typically spent in other recreational activities within the Metolius corridor. Respondents to the 1990 Forest Service survey rated catching and releasing wild fish as a very important aspect of their visit, while rating catching hatchery fish to keep as much less important. Few anglers said they were fishing specifically for bull trout.

While most of the river is designated fly fishing only, a 1/4-mile segment along Lower Bridge campground is open to bait fishing. The Recreation river segment has been open for year-round fishing for the last three years. The merits of this action are debated; during public scoping many favored closing the stream in the winter to give the resource a rest, while many anglers requested leaving it open, commenting that this provided a more quiet, peaceful opportunity to fish the river than during the other seasons.

The Metolius also provides opportunities to view fish. A platform over the river near the Camp Sherman store provides opportunities to see bull trout and other species; several interpretive signs describe the fish and their habitat. As mentioned above, viewing and feeding the fish at the Wizard Falls hatchery is another popular activity.

Sightseeing

It's hard to imagine any Metolius visitor not engaging in sightseeing, given that the river and surrounding landscape is the area's primary attraction. The headwaters area is just a short drive from Highway 20, an extremely popular tourist route, and signs on the highway inform travelers that they are entering the Metolius Recreation Area. Informational signs located at the junction of Highway 20 and Road 14, the primary access to the river corridor, provide the visitor with detailed maps of the Metolius corridor and the public and private recreation opportunities available.

Sightseers frequent the Head of the Metolius, one of the most frequently visited sites in the river corridor (126,000 visits in 1993 and 130,600 visits in 1994). In 1969, Samuel Johnson deeded a .79-acre parcel of land adjacent the springs to the Forest Service, and donated an additional acre as a scenic easement to provide the public with an opportunity to see this magical place where the river springs from the ground. The site has been hardened to accommodate public use, including construction of a parking area, rest rooms, picnic table, interpretive signs, benches, a paved trail to provide barrier-free access, and fencing to minimize trespassing and impacts to private land.

Viewing wildlife is a popular activity; the 1990 survey found that about half of respondents said this was a very important factor influencing the quality of their visits, second only to the natural setting of the river.

Interpretation

The Forest Service began a small interpretive program in the Metolius Basin in 1993. This program includes interpretive walks, historical interpretation, a roving interpreter at the Head of the Metolius, and evening interpretive presentations. Administrative limitations have kept the program small. The goal of the program is to instill a sense of stewardship among visitors to the basin so they become responsible users and help to take care of the river and basin's unique attributes. The program educates visitors about the uniqueness and sensitivity of the area's values.

Boating

The Congressional Record accompanying the Act designating the Metolius stated, "Excellent kayaking and rafting opportunities exist in the study area." The best-known opportunity for whitewater floating is on the Scenic river segment, boatable year-round due to the relatively constant flow levels. The Scenic river segment's characteristics are: a relatively long (17 miles) stretch that is typically run as a day trip; a remote-feeling, nearly undeveloped shoreline; challenging Class II-III whitewater runnable by diverse craft; hydrology which makes the river runnable year-round, every year; excellent chances to view abundant, diverse wildlife; and low boating use levels, creating a truly primitive opportunity.

The river's main hazards to floaters do not stem directly from the rapids: the water is very cold; the banks are dense with brush; logs paralleling the bank angle into the river and occasionally span the river channel; there are few good eddies that allow pull-outs or rest stops; and the fast-water take-out can be missed resulting in a long flat water trip to the nearest public boat access on Lake Billy Chinook.

Poor access to much of the Scenic river segment, especially on the Reservation side, makes search and rescue operations difficult and potentially impactive to the river's natural resources. The potential for trespass, human-caused wildfires, and litter has been a major concern expressed by the Confederated Tribes of the Warm Springs Reservation. Based on these and other concerns, the Tribal Council banned boating on the Metolius downstream from Jefferson Creek in the summer of 1993.

Prior to the ban, boating use levels were relatively low due to the river's remoteness, the safety considerations mentioned above, and the length of the shuttle (relatively long for a day trip--about three hours). A study conducted by the Forest Service from June through mid-September of 1992 is the only data available on Scenic river segment boating use. Total use during this study period was approximately 500 people and 250 boats. Rafts were used less often (45% of the time) than other types of boats (55%) of which kayaks were the vast majority. More use occurred on weekends (55%) than during the week (45%). The average number of parties on weekend days was less than 2, and party size averaged less than 3 boats and 6 people.

The Recreation river segment also receives some floating use in a variety of craft, including innertubes, small rafts, and kayaks. Most of the Recreation river segment is fast moving, but without any significant rapids. Class III whitewater in the canyon downstream from Lower Canyon campground and in the gorge downstream from Gorge campground attracts kayakers and other whitewater enthusiasts. The Class I water between Allen Springs campground and Bridge 99 is popular for "family-oriented" trips seeking a safe river experience. Much of the Recreation river segment is shallow, replete with instream wood, narrow, and heavily used by anglers. Low bridges and private property complicate boating upstream from Canyon Creek.

Hiking

Opportunities for hiking exist on public land throughout the river corridor. The river trail, frequented by anglers and hikers, parallels much of the river. Some segments of the trail, such as the one below Canyon Creek, provide visitors with the chance to get away from the hustle and bustle of the campgrounds and Camp Sherman area. Loop trail opportunities exist between Camp Sherman and Allingham bridges and Wizard Fall and Bridge 99. Private land upstream from Camp Sherman bridge and downstream from Gorge Campground interrupts the river trail.

In the Scenic river segment, the river trail continues to Candle Creek campground on the west side of the river and fairly quickly disappears on the east side of the river downstream from Bridge 99. A primitive trail connects Rd 1499 and Rd 64. Road 1499 provides opportunities for many trail-type uses and for vehicle access to the less-developed Scenic river segment, as well as access to trails on Green Ridge.

Hunting

Hunting use along the Recreation river segment is limited by the amount of development present, although hunting takes place along the Scenic river segment. The area is included in ODFW's Metolius Big Game management unit. The Forest Service estimated that in 1991 just 345 visitor days of big game hunting, 102 of small game hunting, and 48 of waterfowl hunting occurred in the river corridor, compared to about 6,500 visitor days of wildlife viewing.

Mountain Biking

Mountain biking is quickly becoming a favorite outdoor recreation activity for an increasing number of people, and the use of mountain bikes on National Forest land is increasing each year. The Metolius River corridor and adjacent lands contain many roads and trails becoming popular with mountain bikers.

Most mountain biking activity takes place along the dirt, gravel, or paved roads of the Metolius River corridor. A gravel, off-road trail was constructed by the Forest Service and Jefferson County to connect the resort and residential development on Rd 1419 with the Camp Sherman commercial core. Some unauthorized mountain bike use occurs on the river trail upstream from Gorge campground.

Guiding and Outfitting

The river is one of only a few rivers having high-quality fishing and floating opportunities in the Wild and Scenic Rivers system on which the Forest Service does not currently permit fish or boating outfitter/guides.

Land Use

The unique quality of the Metolius Basin was recognized by the Forest Service creation of the Metolius Conservation Area, which includes 86,000 acres and encompasses Black Butte, the Metolius Basin between the wilderness boundary on the west and Green Ridge on the east, and the Horn of the Metolius. The Wild and Scenic corridor is within the Metolius Conservation Area. Land uses in the corridor and vicinity include forestland and open space, recreation, resort residential, commercial, and agricultural uses. There is also an active fish hatchery operated by ODFW in the river corridor.

Forest Land and Open Space.

The predominant land use in the Metolius area is forest land and open space. Of the 8300 acres in the interim 1/4 mile Wild and Scenic River corridor, 64% is National Forest land, 31% is Reservation land, and 5% is private land. Some recreational development occurs on National Forest land, so its proportion of the corridor is not solely forest land. Even with that consideration, well over 90% of the river corridor falls into the land use category of Forest Land and Open Space. The 1,300-acre Metolius Research Natural Area and the 77-acre Nature Conservancy site are unique parcels set aside to preserve examples of naturally occurring ecosystems for research and education. The Metolius Research Natural Area, created in 1931, is located on the east side of the Metolius River between Camp Sherman and Bridge 99, opposite lower Canyon Creek. The Nature Conservancy's Metolius River Preserve is located about one mile upstream from Bridge 99 on the west side of the river.

Resort and Residential

There is approximately 375 acres of private land within the Metolius river corridor. Most of the private land parcels are fairly large in size and predominantly undeveloped. At the southern boundary of the corridor is the Johnson Family property (163 acres) where the headwaters of the Metolius is located. This parcel of land does not fall within the federal Wild and Scenic River designation, but is a part of the state Scenic Waterway. The Forest Service manages deeded land on the Johnson's property to provide public access to the headwaters area.

In the middle of the river corridor is a 285 acre parcel of private property known as the "House on the Metolius" which is a ranch and resort. There are also several smaller parcels adjacent to the House on the Metolius property. Another large parcel of private land, 77 acres owned by the Nature Conservancy and managed as a research natural area, is one mile upstream from Bridge 99 on the west side of the river. Across the river from the Nature Conservancy property are several recreational homes. Other properties within the corridor include numerous small lots in the community of Camp Sherman and four isolated parcels below Bridge 99.

The community of Camp Sherman is located approximately 2 miles downstream from the headwaters of the river. The community of Camp Sherman contains 250 or so private residences. A number of these residences are located within the corridor. A 150-acre parcel located outside of the corridor was subdivided and developed into a 141-unit residential subdivision called Metolius Meadows. 108 recreational residences are permitted on 41 acres of National Forest land. The collective average user days reported for the recreation residences are between 29,000 and 32,000 per year.

Commercial Uses

The Camp Sherman area contains private resorts with cabins, motel type accommodations, and camping spaces for river recreationists. The eight traveler accommodations in the area accommodate a substantial number of visitors each year. Supporting, commercial services such as the Camp Sherman Store and Gas Station and the Kokane Cafe are located in the Camp Sherman commercial core. Also located in the area are a post office, church, community hall, fire hall, elementary school, and abandoned fish hatchery.

Agricultural Uses

The only grazing permitted on National Forest lands within the Metolius Basin is a 60 acre special use permit for pasture. It is located adjacent to private land on the north fork of Lake Creek. A number of the larger parcels of private land in the Recreation river segment are grazed. Grazing is not prohibited on Reservation land along the Metolius, but topography makes it impractical.

Wizard Falls Fish Hatchery

Oregon Department of Fish and Wildlife (ODFW) operates the fish hatchery on 38 acres of national forest land under special use authorization. The hatchery was built in 1947 and contains both operational facilities and residential buildings.

Socioeconomics

The Metolius River project area is located in Jefferson County, but its "influence area" includes neighboring Deschutes County. This section presents a socioeconomic overview of both Jefferson and Deschutes Counties because management decisions on the Metolius River project area could affect people and the economy outside of the unincorporated community of Camp Sherman. Workers often commute long distances, and the limited availability of housing in some areas puts pressure on conversions of summer homes to year-round occupancy.

Population

The 1990 U.S. Census listed total population counts for Deschutes County as 74,958 and for Jefferson County as 13,676. Between 1980 and 1990, Deschutes County grew by 12,816 people or nearly 21 percent. In contrast, Jefferson County increased by 2,077 or nearly 18 percent. The following data is from the 1990 Census:

	Deschutes County	Jefferson County
Total Population	74,958	13,676
Population <18 years	19,325 (25.8%)	4,282 (31.3%)
Population 65+ years	10,398 (13.9%)	1,701 (12.4%)
Median Age	35.9	31.4
Total Households	21,202	4,744
Persons per Household	2.54	2.84
Total Housing Units	35,928	6,311
Vacant Units	6,711 (18.7%)	1,567 (24.8%)
Seasonal Units	4,492 (12.5%)	1,238 (19.6%)

Population forecasts prepared by the Center for Population Research & Census (CPRC 1986) indicate the following:

	Deschutes County	Jefferson County
Population Forecast		
1990	75,846	13,992
1995	88,774	15,466
2000	102,072	16,928
% Growth (1990-2000)	34.6%	21%

Economy

The Central Oregon economy is dominated by wood products manufacturing, tourism and recreation, agriculture, and retail sales.

In Jefferson County, a growing lumber and wood products industry, plus rising employment in other types of manufacturing, a stable agriculture base, and a growing tourism and recreation industry enhance the county's

economic stability. Tribal business has been a major impetus behind local economic development. The Warm Springs Tribes are the county's largest employer through their Kah-Nee-Ta Resort and Convention Center and the major lumber and wood products firm (OED 1990).

Deschutes County has experienced expansion in recreation/vacation activity and residential growth, while agriculture declined in importance during the 1970s. Government employment also grew substantially. Lumber and wood products continues to be the county's principal manufacturing industry. Recent gains have come from a wide variety of light manufacturing enterprises including high tech. The Bend-Redmond area has become a regional shopping center (OED 1990).

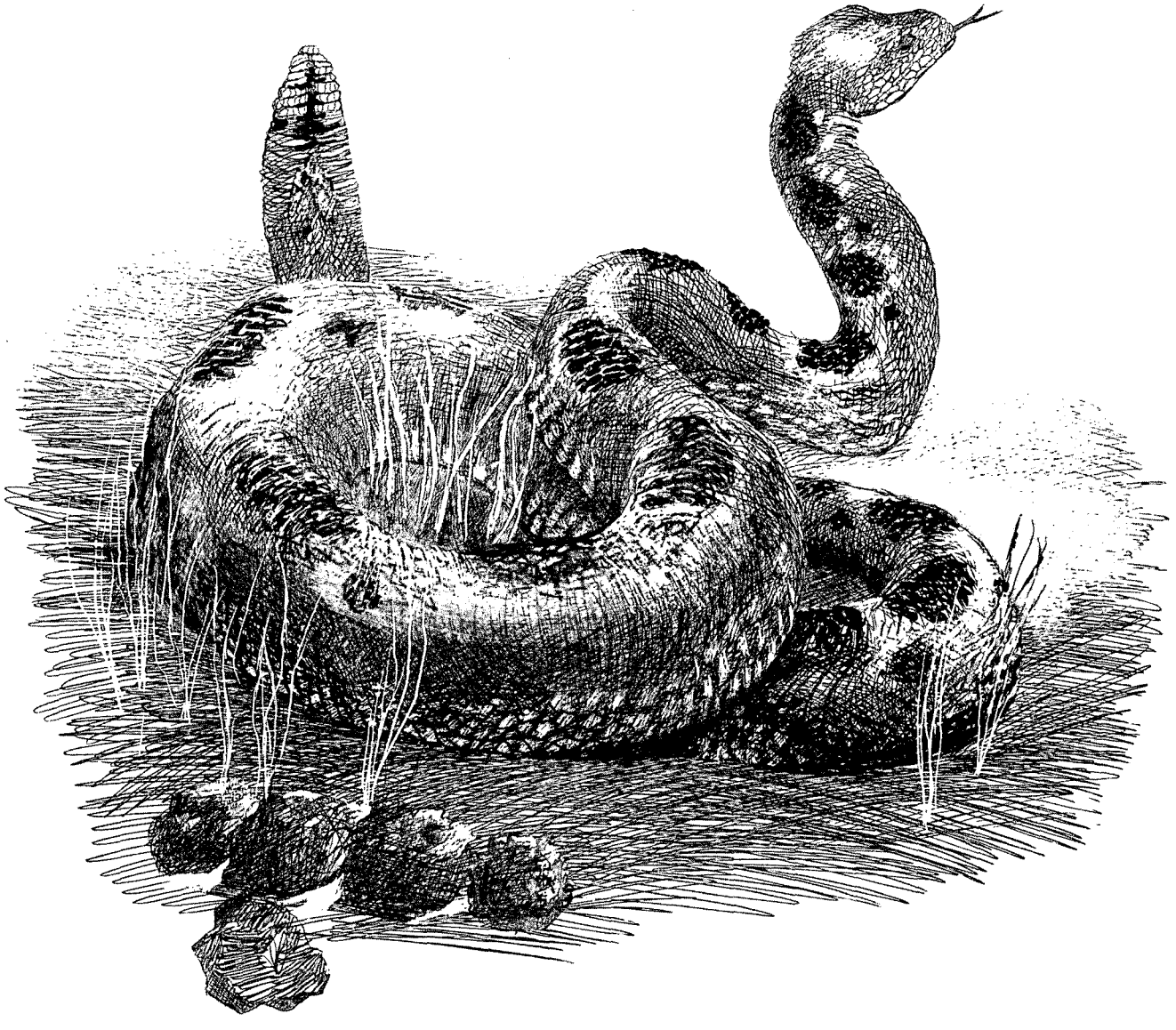
Labor force participation increased significantly during the 1980s; Jefferson County's rate was 82.1 percent compared to Deschutes County with 69.9 percent, increases attributed to the entrance of women and youth into the labor pool (COIC 1990).

Visitors represent an important component of the Central Oregon economy. Travel expenditures for 1989 are estimated at $149,786,000 for Deschutes County and $19,188,000 for Jefferson County. These expenditures by travelers to the area are augmented by associated payroll and employment as well as local and state tax revenues to indicate travel impacts on the local economy. Together, the two counties generated $168,974,000 in travel expenditures, more than 7 percent of travel expenditures in Oregon in 1989.

Studies of the economic benefits of tourism and recreation for the Deschutes River in Deschutes County are applicable to the Metolius River (Deschutes County 1985). In summary, Central Oregon has a competitive advantage in travel and tourism, and the visitor industry is growing; for example, Deschutes county contains 17 18-hole golf courses. The Deschutes River attracts high proportions of both visitors and residents for recreation purposes, and it is likely that the same situation applies to the nearby Metolius. The significance of the rivers will increase over time in large part due to increasing urbanization in Jefferson and Deschutes counties which is expected to increase recreation demand in the local market area.

Chapter 4

Metolius Wild and Scenic River Management Plan



Chapter 4 - Environmental Consequences

Introduction

This chapter identifies, summarizes, and compares the environmental impacts projected to occur as a result of implementing the management alternatives. General or indirect impacts are discussed first. They display relationships or outcomes that are consistent (to varying degrees) across all the action alternatives. Direct impacts that result from specific actions in the alternatives are displayed under the alternative headings.

The table in the middle bridges the direct, indirect, and cumulative effects into a relative comparison of the alternatives. An ordering is established amongst the alternatives. A rating of 1 implies the most beneficial effects, the greatest quantity, or the highest level of attainment of "protection and enhancement" for the single resource being discussed; a rating of 6 implies the least beneficial of the 6 alternatives. No consideration is given in this rating to the trade-offs or other resources affected. The cumulative effects on a resource that result from the displayed management activities are reflected in the "OVERALL" rating.

Impacts are considered to be the same for both the short term and long term unless stated otherwise. Comparisons of change in the alternative discussion are made relative to the existing condition unless stated otherwise.

Air

Impacts to air quality can result from three primary sources: woodsmoke from campfires, wood stoves, prescribed burning, and wildfire; dust from native roads, trails, and ground-disturbing construction activities; and exhaust from automobiles and other internal combustion engines.

The Metolius basin rarely has any air quality problems. Short periods of air stagnation can occur, particularly in winter, and cause accumulation of wood smoke. Prescribed burning is timed to minimize impacts, but can cause short-term pollution. Wildfires in the basin in recent years have been small, and smoke has not been an impact.

Wood smoke can affect human health, mainly that of people who already have respiratory ailments. Particulates that are approximately 10 microns in size, known as PM-10, are of greatest concern because they are too small to be filtered or expelled by normal respiratory processes and large enough to adversely affect respiratory function. In prescribed burning, an average of 25 lb. of PM-10 are produced for each ton of wood burned. Woodstoves and campfires in the corridor produce less than 9000 lb. of particulate per year. A typical 100 acre prescribed burn produces 17,500 lb. A wildfire of the same size may produce as much as seven times this amount, because of the higher burn intensity and greater consumption of fuels. Particulates can also have undesirable effects on visibility by forming haze.

Increasing the amount of prescribed burning in all action alternatives would increase the amount of smoke. The exact amounts would vary by alternative and the relative differences are displayed in the "Relative Effects" table. It is assumed that 300 acres per year of prescribed burning is a likely maximum.

Air quality impacts of wildfires (based on PM-10 emissions) are roughly 7 times that of prescribed burning, acre for acre. Using prescribed burning and other vegetation management to reduce fuel loading and stand density decreases the size and intensities of wildfire and reduces associated air quality impacts. Tthis reduction and the increase in smoke due to prescribed burning in all alternatives will result in no substantial changes in air quality.

None of the alternatives propose changes to recreation residences or campgrounds that would result in substantial changes to the amount of woodsmoke. Actions that decrease the number of recreation residences and/or campsites would result in slight decreases to woodsmoke from these sources.

Closing roads decreases dust pollution. This reduction may have noticeable impacts in small, localized areas. Constructing new roads, trails, and other facilities would result in short-term dust impacts.

Pollution from automobile exhaust will not change substantially in any alternative. Closing roads will eliminate some vehicle use, but also could increase trip lengths. Reductions in recreational opportunities may also reduce numbers of vehicles in the corridor. Converting some of the available developed campsites to tent-only use would reduce the amount of exhaust from gasoline generators used by recreational vehicles.

Relative Effects to Air Quality from Managing:

	Prop Act	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Fire	3	1	2	3	2	2

Fire reflects the relative differences between the alternatives in the amounts of prescribed burning.

Water

Establishing water quality standards which exceed state standards (Proposed Action & Alt 1) protects the existing high water quality and cold temperatures by detecting any changein quality and defining actions to be taken to stop degradation. Because existing water quality is so high, adhering to existing state standards could allow for some loss in quality. No actions in any alternative will result in substantial improvement of water quality, but increased protection of water quality may result.

Maintaining existing flows and transferring water rights to instream flow protects the stable flows and existing level of the river. Because existing flows are stable and water removal is very minimal, no actions in any alternative will result in any substantial improvement to water quantities, but increased protection may result.

Improvements in riparian vegetation protect water quality by increasing sediment filtration, stabilizing erosive soils, and providing shade which protects the river's cold temperatures.

Maintaining roads to control erosion, siltation, and sedimentation reduces risks to water quality. Closing roads allows for riparian vegetation recovery and reduces sediment input. For roads that have direct effects on water bodies obliterating or rehabilitating is generally most beneficial to protect water quality.

Requiring septic systems to be additionally set back from the river (Alt 3 &4), to be upgraded to meet current standards upon transfer of special use permits (Alt 5), or to be inspected for proper function (Prop. Action) provides protection against potential contamination for both surface and groundwater. Removing or converting pit toilets to sealed vaults (all action Alts) also provides protection for water quality.

Relative Levels of Protection for Water from Managing:

	Prop Act	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Water	1	2	2	2	1	2
Riparian Veg.	2	5	4	2	1	3
Roads	2	4	3	2	1	3
Septic Systems	2	5	4	3	1	3
OVERALL	**2**	**6**	**5**	**3**	**1**	**4**

Water reflects the relative effects of exceeding State standards vs meeting them.

Riparian Veg reflects the indirect effects on water quality of restoring riparian areas. The alternatives vary in the amount of restoration proposed - more restoration implies greater benefit to water quality.

Roads reflects the indirect effects on water quality of closing roads.

Septic Systems reflects the benefits of different standards of septic system monitoring and upgrades.

Soils

Impacts to soil quality and productivity can result from three categories of activities: roads, trails, and parking; recreation development; and vegetation management, including riparian rehabilitation.

Areas of significant soil impact include Road 700 upstream from Camp Sherman (fill slopes and road cinders erode directly into the river), Road 1499 (erosion from the unmaintained road bed and pioneered roads running down to the river), the river trail (trail located in wet areas, erosion, loss of overhanging banks), parking and pull outs on the river side of Road 1419-900 (erosion and bank loss), and developed campgrounds and dispersed campsites (compaction and erosion). Closing Rd 1419-700 (Alt 3-5 & Prop. Action), reducing motorized access on Rd 1499 (Alt 3, 4 & Prop. Action), rehabilitating or rerouting the river trail (to different extents in all action alternatives).

The primary concerns about soil quality include compaction, displacement, and erosion. These impacts change soil structure and function, reduce available habitat for important mycorrhizae and soil invertebrates, and reduce amounts of organic matter and nutrients. Changes in soil quality can result in loss of vegetative growth potential and productivity and increased soil movement and sediment delivery (soil stability). Loss of vegetation can reduce soil stability and cause bank wasting and loss of overhanging bank habitat.

Managing vegetation (except by natural processes as in Alt 4) would result in impacts to soil from mechanical equipment associated with thinning, skidding, and fuel treatment. Impacts would be mitigated by limiting mechanical equipment to already impacted soils, by active soil rehabilitation, and by long periods of recovery (50-100+ years) between treatments.

Closing roads would improve soil quality by either allowing long term rest and recovery of soil compaction and organic matter, or by actively rehabilitating soils through road obliteration or restoration. Using deactivated roads as trails would have a lesser benefit to soils.

Rehabilitating highly and moderately impacted soils associated with recreation use in riparian areas would repair individual locations of soil erosion and bank wasting. Repairing only highly impacted areas (Alt 2) allows some erosion and bank loss to continue. Closing the river trail seasonally or permanently below Bridge 99 (Alt 3 & 4) would allow riparian vegetation recovery which improves soil stability and reduces bank wasting.

Moving utility lines underground in existing road corridors would cause additional short term soil disturbance (Alt 4 &5).

Pulling developed campsites back from the river (to various degrees in each alternative as displayed in the table) would result in decreased compaction and soil displacement caused by continual use in the riparian areas. Effects of repairing highly and moderately impacted soils associated with developed sites would be the same as discussed above. Reducing campsite densities, designating campsites in previously uncontrolled campgrounds (Monty, Lower Canyon Creek, and Candle Creek) (Alt 3-5 & Prop. Action), or closing campgrounds (Alt 4) would reduce the amount of impacted soils in campgrounds and allow recovery of vegetation and soil structure. Additional compaction and soil displacement results from construction of the new campground and day use site (Alt 5) on approximately 10-15 acres.

Pulling dispersed campsites back from riparian areas allows recovery of compacted soils and soil stabilizing vegetation to varying degrees by alternative. Designated sites are monitored and closed if necessary to protect soil and bank stability (all action Alts). Maintaining (Alt 2,3,5 & Prop. Action) or permanently closing roads (Alt 3,4 & Prop. Action) that access dispersed sites would reduce impacts from erosion and allow for recovery of compacted soils and soil stabilizing vegetation.

Encouraging recreation residence owners to maintain and restore vegetation on lots in and adjacent to riparian areas (Alt 3-5 & Prop. Action) would help to stabilize soils and reduce compaction. Removing all recreation residences (Alt 4)would allow vegetation and soil recovery of 20 acres.

Relative Effects to Soils from Managing:

	Prop Act	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Vegetation	3	1	2	3	2	3
Roads	2	5	4	2	1	3
Trails	2	4	3	2	1	2
Campgrounds	2	5	3	2	1	4
Disp. Camping	2	4	3	2	1	3
Rec. Residences	2	3	3	2	1	2
OVERALL	**2**	**4**	**3**	**2**	**1**	**4**

Vegetation reflects the difference in each alternative in the amounts of vegetation management proposed.

Roads reflects the different amounts of road closures in each alternative

Campgrounds reflects the differences in campground management, including number of sites, amount of site rehabilitation, location of sites in relation to ripatian areas, and new construction.

Disp. Camping reflects the differences between alternatives in the numbers of available sites, the location of sites in relation to riparian areas, the amount of site rehabilitation, and the amount of motorized access available.

Rec Residences reflects the varying amounts of vegetation recovery and rehabilitation.

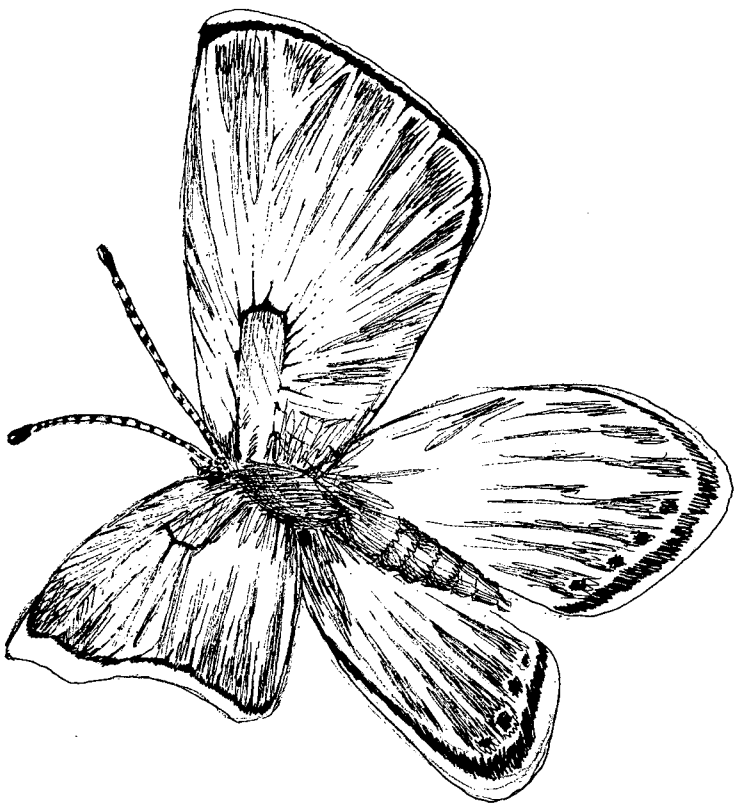
Biodiversity

Maintaining or restoring desired upland vegetation conditions increases potential habitat for some rare vascular plants.

Prescribed burning restores an important habitat factor for fire-dependent species.

Closing and obliterating roads increases potential habitat for many species.

Developing campground vegetation plans protects and restores potential and known plant habitats.



Upland Vegetation

Constructing new facilities impacts upland vegetation by removing small trees and shrubs, damaging large tree roots, and compacting soil, which reduces the function of roots of remaining vegetation.

Prohibiting motorized use off of existing roads eliminates impacts to forest vegetation from pioneered roads and trails.

Proposed Action

Managing vegetation to maintain or restore natural disturbances and desired vegetation conditions creates healthier and more resilient stands. Focusing vegetation management on areas that are moderately or significantly outside the range of desired conditions restores stand health and resiliency throughout the corridor.

Using prescribed burning and prescribed natural fire to accomplish vegetation management objectives reduces fuel loading and stand density. Other vegetation management activities facilitate the widespread use of fire under prescription.

Permitting mushroom and other special forest product harvest only in designated areas helps protect the reproduction of mycorrhizae that have a beneficial relationship with upland vegetation and helps achieve vegetative management objectives.

Obliterating closed roads allows for upland vegetation recovery on more than 9 acres. Constructing a new road to connect the Tract C bridge with Rd 1419-800 results in the loss of 14,000 sq. ft of upland vegetation.

Developing vegetation plans for each campground protects and improves upland vegetation on 80 acres. Designating sites in Lower Canyon Creek, Candle Creek, and Monty Campgrounds and designating tent pads in all campgrounds limits disturbance and allows recovery of forest shrubs and forbs.

Designating dispersed camping sites and establishing standards for limiting size and associated disturbance substantially improves upland vegetation in all sites. Upland vegetation recovery is increased in the sites where motorized access is eliminated.

Rerouting trails out of the riparian area creates new upland vegetation disturbance.

Construction of a campfire circle near Allingham impacts 500-1000 sq. ft of upland vegetation.

Alternative 1 (No Action)

Continuing to suppress natural disturbances (fire, insect, and disease) allows stand densities and fuel loading to increase which increases the risk of large scale loss of upland vegetation to disturbances that can not be predicted or controlled.

Alternative 2

Managing vegetation to maintain or restore natural disturbances and desired conditions creates healthier and more resilient stands. Focusing vegetation management on areas of high risk restores stand health and resiliency in a portion of the corridor. Using prescribed burning to accomplish vegetation management objectives reduces fuel loading and stand density.

Managing vegetation to provide effective cover in Key Elk area from Pioneer Ford to Whitewater River requires greater stand density than is desired for stand resiliency but may be less than what currently exists.

Grazing benefits some species that are adapted to light disturbance by mimicking the effects of low intensity fire without the associated risk.

Designating dispersed camping sites only downstream from Bridge 99 allows the recovery of upland vegetation in 6-10 sites upstream from Bridge 99 and limits impacts in sites downstream from Bridge 99.

Expanding recreation residences creates new upland vegetation disturbance.

Alternative 3

Managing vegetation to maintain or restore natural disturbances and desired conditions creates healthier and more resilient stands. Focusing vegetation management on areas that are moderately or significantly outside the range of desired conditions restores stand health and resiliency throughout the corridor.

Using prescribed burning to accomplish vegetation management objectives reduces fuel loading and stand density. Other vegetation management activities enable the widespread use of fire under prescription.

Managing vegetation to provide effective cover in Key Elk area from the Nature Conservancy to Lake Billy Chinook requires greater stand density than is desired for stand resiliency but may be less than what currently exists.

Not permitting mushroom harvest helps protect the reproduction of mycorrhizae that have a beneficial relationship with upland vegetation.

Grazing benefits some species that are adapted to light disturbance by mimicking the effects of low intensity fire without the associated risk.

Obliterating closed roads allows for upland vegetation recovery on 9 acres.

Locating utilities underground increases the disturbance of upland vegetation.

Designating sites in Lower Canyon Creek, Candle Creek, and Monty Campgrounds and designating tent pads in all campgrounds limits disturbance and allows recovery of forest shrubs and forbs. Reducing density in Allen Springs, Pioneer Ford, and Lower Bridge recovers 5-12 sites or 2500-12000 sq. ft of upland vegetation.

Designating dispersed camping sites only downstream from Bridge 99 allows the recovery of upland vegetation in 6-10 sites upstream from Bridge 99 and limits impacts in sites downstream from Bridge 99. The number of designated sites is less than in Alternative 2.

Rerouting trails out of the riparian area creates new upland vegetation disturbance.

Construction of a campfire circle near Allingham impacts 500-1000 sq. ft of upland vegetation.

Alternative 4

Managing vegetation to maintain or restore natural disturbances and desired conditions and eliminate all areas outside of these conditions creates healthier and more resilient stands throughout the corridor. Managing vegetation primarily through natural processes allows the continued increase in the intensity of natural disturbance. In the long-term, 300-500 years, scale and intensity stabilize and desired vegetation conditions may be achieved.

Using prescribed burning and prescribed natural fire throughout the corridor reduces fire danger and stand density. Stand conditions limit the amount of burning done under prescription.

Managing vegetation to provide effective cover in Key Elk area from Wizard Falls to Lake Billy Chinook requires greater stand density than is desired for stand resiliency but may be less than what currently exists.

Not permitting mushroom harvest helps protect the reproduction of mycorrhizae that have a beneficial relationship with upland vegetation.

Rehabilitating closed roads allows upland vegetation recovery on 15 acres.

Locating new and existing utilities underground in transportation rights of way creates a small amount of new upland vegetation disturbance.

Designating sites in Lower Canyon Creek campground and designating tent pads in all campgrounds limits disturbance and allows recovery of forest shrubs and forbs. Reducing density in all campgrounds 25-40%

recovers 40-60 sites or 20,000-60,000 sq. ft of upland vegetation. Closing Candle Creek and Monty campgrounds allows the recovery of 6 acres of upland vegetation.

Designating dispersed camping sites only downstream from Bridge 99 allows the recovery of upland vegetation in 6-10 sites upstream from Bridge 99 and limits impacts in sites downstream from Bridge 99. The number of designated sites is less than in Alternative 3 and recovery of upland vegetation is increased by eliminating vehicle access.

Rerouting trails out of the riparian area creates new upland vegetation disturbance.

Removal of recreation residences allows recovery of 20 acres of upland vegetation.

Alternative 5

Managing vegetation to maintain or restore natural disturbances and desired conditions creates healthier and more resilient stands. Focusing vegetation management on areas that are moderately or significantly outside the range of desired conditions restores stand health and resiliency throughout the corridor.

Using prescribed burning to accomplish vegetation management objectives reduces fuel loading and stand density. Other vegetation management activities enable the wide spread use of fire under prescription.

Managing vegetation to provide effective cover in Key Elk area from Pioneer Ford campground to Whitewater River requires greater stand density than is desired for stand resiliency but may be less than what currently exists.

Not permitting mushroom harvest helps protect the reproduction of mycorrhizae that have a beneficial relationship with upland vegetation.

Grazing benefits some species that are adapted to light disturbance by mimicking the effects of low intensity fire without the associated risk.

Constructing a new road to connect the Tract C bridge with Rd 1419-800 results in the loss of 14,000 sq. ft of upland vegetation.

Locating utilities underground increases the disturbance of upland vegetation.

Managing for traditional use plants results in altered distribution of other plant species and creates short-term impacts to localized populations from management activity.

Designating sites in Lower Canyon Creek, Candle Creek, and Monty Campgrounds and designating tent pads in all campgrounds limits disturbance and allows recovery of forest shrubs and forbs. Moving campsites that fall within the riparian setback to forest areas impacts 500-1000 sq. ft for each site. Construction of a new campground and day use area impacts 10-15 acres of upland vegetation.

Designating dispersed camping sites only downstream from Bridge 99 allows the recovery of upland vegetation in 6-10 sites upstream from Bridge 99 and limits impacts in sites downstream from Bridge 99. The number of designated sites is less than in Alternative 2, but more than Alternative 3.

Rerouting trails out of the riparian area creates new upland vegetation disturbance. New trail construction creates upland vegetation disturbance if suitable closed roads and utility corridors aren't available.

Construction of a campfire circle near Allingham impacts 500-1000 sq. ft of upland vegetation.

Riparian Vegetation

Managing for stable flows will benefit riparian vegetation by providing consistent water supply.

Managing upland vegetation to maintain or restore desired vegetation condition increases stand health and large tree characteristics which shade riparian areas and eventually contribute coarse woody material. Coarse wood is a source of soil nutrients and provides a barrier to trampling. Coarse wood also provides a foundation for island and overhanging bank formation.

Prescribed burning benefits riparian vegetation by creating desired upland vegetation conditions. Escaped burns pose a risk to riparian vegetation and soils.

Increasing the quantity of instream wood and falling hazard trees into the river benefits riparian vegetation by increasing the amount of coarse woody material in riparian areas.

Managing with similar objectives and regulations for development on private and National Forest lands would increase the amount of riparian vegetation retained.

Prohibiting motorized use off existing roads reduces impacts to riparian vegetation from pioneered roads and trails.

Riparian figures are based on data collected in a 1989 survey that was conducted from Candle Creek to the Johnson property boundary. The survey measured trampled and devegetated areas between the river and the river trail. Figures on disturbed areas do not include impacts downstream from Candle Creek. Private lands were also not included. Some assumptions were made to extrapolate overall riparian impacts from this data:

- Impacts have increased by up to 25% since 1989 (no actual data exists, this is most likely a high figure that was chosen to be inclusive).
- The amount of disturbed areas from the river to the trail is equal in area to the amount of riparian impacts upland from the trail.
- 90% of the devegetated areas and 25% of the areas with trampled vegetation are "highly disturbed areas."
- 10% of the devegetated areas and 75% of the areas with trampled vegetation are "moderately disturbed areas."

Proposed Action

Managing riparian vegetation to meet objectives in the Northwest Forest Plan and rehabilitating areas that are moderately or significantly outside of desired vegetative conditions (about 3 acres) maintains excellent ecological condition outside of developed areas. Managing existing uses and activities according to special objectives provides additional protection to riparian vegetation.

Closing Rd 1419-700 promotes riparian vegetation recovery over .5 mile of river where trail use and pull-out parking have created impacts. Allowing parking only in designated parking areas and pull-outs allows rehabilitation on 5% of riparian areas which are currently outside of desired conditions.

Defining, hardening, replanting, relocating, or closing the river trail and fishing access point which have unacceptable impacts on riparian vegetation contributes to the rehabilitation of 25% of the riparian area which is outside of desired condition. Hardening sites involves the commitment of riparian area to developed use.

Establishing riparian objectives and vegetation plans in campgrounds and designating campsites in Lower Canyon Creek, Candle Creek, and Monty campgrounds protects the investment in rehabilitation work and reduces the likelihood of impacts recurring in 35% of the rehabilitated sites and decreases risk of new disturbance. Establishing a 100' strip in which no more than one quarter is in a developed condition aids in the rehabilitation and protection of 75% of riparian area on 1.5 miles of river.

Designating limited numbers of dispersed campsites which are setback from the river limits the site sizes, closes sites, and converts some sites to walk-in uses. These actions protect the investment in rehabilitation work and

reduce the likelihood of impacts recurring in 30% of rehabilitated riparian sites and decrease risk of new riparian disturbances occurring.

Allowing instream barriers to boating passage results in portages that trample and damage riparian vegetation in the Scenic river segment. Constructing modest boat landings at Bridge 99 and Monty Campground commits 400 sq. ft of riparian area to developed use and allows recovery of as much or more riparian vegetation.

Establishing riparian vegetation objectives for recreation residence lot areas within 100' of the river protects riparian vegetation from new disturbance in excess of 25%. Gradually as vegetation impacted in excess of the objective is restored, 75% of the riparian area in recreation residences tracts or about 2 miles of the river is protected or improved.

Alternative 1 (No Action)

Generally (70% of the time), the extent of the riparian area in the Recreation river segment is less than 100' from the river and less than 50' quite often (35% of the time). Those riparian zones which exceed 100' tend to be quite large (300+' more than half of the time).

In the 28.7 mile river corridor there are an estimated 700 acres of riparian areas. Of the 700 acres, about 280 acres are upstream from Candle Creek. Approximately 3 acres of riparian area upstream from Candle Creek is disturbed (either devegetated or trampled vegetation). It is not known how much is developed.

Riparian disturbance will continue to grow, even at existing levels of use, because people want to recreate in riparian areas. As disturbed areas become unattractive or difficult to use, there is a tendency for use to move from these areas to unimpacted area.

Outside of localized disturbed areas, excellent ecological conditions area maintained. Trail and fishing use does result in localized impacts that increase as described above.

Alternative 2

Rehabilitating highly disturbed areas results in the recovery of approximately 1.3 acres of riparian vegetation. Moderately disturbed areas continue to degrade and some additional riparian vegetation is lost.

Stabilizing and rerouting trails protects the investment in rehabilitation work performed in 25% of the riparian highly disturbed area and reduces the likelihood of impacts recurring.

Establishing setbacks in campgrounds protects the investment in rehabilitation work and reduces the likelihood of impacts recurring 35% of the riparian highly disturbed area, reduces degradation of moderately disturbed areas, and decrease risk of new disturbance.

Moving dispersed campsites from riparian areas, closing some dispersed campsites, and hardening access roads to dispersed campsites protects the investment in rehabilitation work and reduces the likelihood of impacts recurring, enables the rehabilitation of 30% of the riparian highly disturbed area, reduces degradation of moderately disturbed areas, and decreases risk of new disturbance.

Expansion of recreation residences could result in loss of some riparian vegetation.

Alternative 3

Managing riparian vegetation in developed areas to achieve fair ecological condition maintains these areas in current condition, which is a lower standard than surrounding areas. The goal of good ecological condition outside of developed areas could allow some reduction in the quality of existing riparian habitat. Rehabilitating high and moderately disturbed areas results in the recovery of about 3 acres of riparian vegetation.

Moving sites in developed campgrounds rather than falling large hazard trees into the river results in riparian habitat recovery.

Closing Rd 1419-700 promotes riparian vegetation recovery over .5 mile of river where trail use and pull-out parking have created impacts. Allowing parking only in designated parking areas eliminates 23 roadside

pullouts or about 8000 sq. ft of riparian hazard areas. Eliminating one road bridge allows the recovery of 1000 sq. ft of riparian area.

Stabilizing and rerouting trails protects the investment in rehabilitation work performed in 25% of riparian highly disturbed area and reduces the likelihood of impacts recurring. Resting fishing access points on a rotating basis allows for the recovery of some riparian vegetation, but new sites may develop as a result. Closing riparian areas in the Scenic river segment during the winter generates limited seasonal recovery.

Establishing setbacks in campgrounds and designating campsites in Lower Canyon Creek, Candle Creek, and Monty campgrounds protects the investment in rehabilitation work and reduces the likelihood of impacts recurring 35% of the riparian highly and moderately disturbed area, reduces degradation of moderately disturbed areas, and decreases risk of new disturbance. Establishing a 50' setback in all campgrounds aids in the protection of 50% of riparian area on 1.5 miles of river.

Removing dispersed campsites from riparian areas, closing some dispersed campsites, and hardening access roads to dispersed campsites protects the investment in rehabilitation work and reduces the likelihood of impacts recurring 30% of the riparian highly and moderately disturbed area and decreases risk of new disturbance. There is a greater benefit than in Alternative 2 because more sites are closed and sites are rehabilitated.

Allowing instream barriers to boating passage results in portages that trample and damage riparian vegetation. Constructing modest boat landings at Bridge 99 and Monty Campground commits 400 sq. ft of disturbed riparian area to developed use and allows recovery of as much or more riparian vegetation.

Establishing riparian vegetation standards for recreation residence lot areas within 50' of the river, protects or improves 50% of riparian area in recreation residence tracts or about 2 miles of river.

Alternative 4

Managing riparian vegetation throughout the corridor to achieve excellent ecological condition improves vegetation conditions in developed areas and maintains the existing excellent condition found outside of developed areas. Rehabilitating all riparian disturbance results in the recovery of about 3 acres of highly and moderately disturbed area and some additional acreage of lightly disturbed areas, but improvements are attained more slowly than in Alternative 3 because they rely primarily on natural processes.

Removing sites from developed campgrounds rather than falling medium or large hazard trees into the river results in riparian habitat recovery.

Closing Rd 1419-700 promotes riparian vegetation recovery over .5 mile of river where trail use and pull-out parking have created impacts. Allowing parking only in designated parking areas eliminates 23 roadside pullouts or about 4600 sq. ft of disturbed riparian areas. Eliminating four road bridges allows the recovery of 4000 sq. ft of riparian area.

Trail elimination and rerouting provides the most enduring improvement in riparian vegetation and protects the investment in rehabilitation work performed in 25% of the disturbed riparian area and reduces the likelihood of impacts recurring. Resting fishing access points on a rotating basis allows for the recovery of some riparian vegetation, but new sites may develop as a result. Eliminating trails in the Scenic river segment allows substantial riparian recovery on 3.2 miles of trail or 5280 sq. ft of riparian area.

Establishing setbacks in campgrounds, designating sites in Lower Canyon Creek, and closing Candle Creek and Monty campgrounds allows for more recovery of riparian vegetation than Alternative 3. It also protects the investment in rehabilitation work and reduces the likelihood of impacts recurring 35% of the disturbed riparian area and decreases the risk of new disturbance. Establishing a 100' setback in all campgrounds aids in the protection of most of the riparian area on 1.5 miles of river.

Removing dispersed campsites from riparian areas, closing some dispersed campsites, and providing only walk-in access allows riparian recovery over approximately .75 mile, protects the investment in rehabilitation work, reduces the likelihood of impacts recurring, enables the rehabilitation of 30% of the disturbed riparian area, and decreases the risk of new disturbance. There is a greater benefit than in Alternative 3 because sites are walk-in only and closed sites are restored.

Establishing riparian vegetation standards for recreation residence lot areas within 100' of the river, allows substantial riparian recovery in the interim before recreation residences are removed and riparian recovery reaches natural potential on 2 miles of river.

Alternative 5

Managing riparian vegetation in developed areas to achieve fair ecological condition maintains these areas in current condition, which is a lower standard than surrounding areas. The goal of good ecological condition outside of developed areas could allow some reduction in the quality of existing riparian habitat. Rehabilitating high and moderately disturbed areas results in the recovery of about 3 acres of riparian vegetation.

Moving sites in developed campgrounds rather than falling large hazard trees into the river results in riparian habitat recovery.

Closing Rd 1419-700 promotes riparian vegetation recovery over .5 mile of river where trail use and pull-out parking have created impacts. Allowing parking only in designated parking areas and hardened pull-outs eliminates some roadside pullouts or 2000 sq. ft of riparian hazard areas.

Stabilizing and rerouting trails protects the investment in rehabilitation work performed in 25% of the disturbed riparian area and reduces the likelihood of impacts recurring. New trail construction and trail hardening may reduce pressure on riparian and streambank habitat, but increasing developed camping facilities will attract more people to the area and increase the pressure, resulting in a net outcome similar to Alternative 3. Designating and hardening fishing access points improves riparian vegetation in over 30 sites. This does more to reduce new disturbance than resting sites on a rotating basis as in Alternative 3, but it involves the commitment of riparian area to developed use.

Establishing setbacks in campgrounds and designating campsites in Lower Canyon Creek, Candle Creek, and Monty campgrounds protects the investment in rehabilitation work and reduces the likelihood of impacts recurring 35% of the highly and moderately disturbed riparian areas, reduces degradation of moderately disturbed areas, and decreases risk of new disturbance. Setbacks do less to protect riparian areas than in Alternative 3.

Removing dispersed campsites from riparian areas, closing some dispersed campsites, and hardening access roads to dispersed campsites protects the investment in rehabilitation work and reduces the likelihood of impacts recurring 30% of the highly and moderately disturbed riparian area and decreases the risk of new disturbance.

Allowing instream barriers to boating passage results in portages that trample and damage riparian vegetation. Constructing boat landings at Bridge 99 and Monty Campground commits 600 sq. ft of disturbed riparian area to developed use and allows recovery of some riparian vegetation.

Establishing riparian vegetation standards for recreation residence lot areas within the riparian zone, protects or improves 90% of riparian area in recreation residence tracts or about 2 miles of river.

Fire

Increases in wildfire occurrence, intensity, or scale increases the risk to life, property, and resources. Prescribed burning reduces fuel loading, stand density, and wildlife danger, but involves the risk of escape and subsequent resource impacts.

Closing roads reduces motorized access for fire suppression vehicles, increases response time, and could result in larger wildfires.

Proposed Action

Managing vegetation to achieve desired conditions and eliminate areas that are moderately or significantly outside the range of desired conditions reduces the intensity and scale of wildfire throughout the corridor. Using prescribed burning and prescribed natural fire as the primary means to accomplish vegetation management objectives reduces fuel loading and stand density.

Closing Rd 1298 and portions of Rd 64 and Rd 1499 decreases the risk of human-caused wildfire.

Designating dispersed camping sites and allowing campfires only in established fire rings decreases human-caused fires.

Alternative 1 (No Action)

Continuing to suppress natural disturbances (fire, insect, and disease) allows stand densities and fuel loading to increase, which increases the intensity and scale of wildfires.

Alternative 2

Managing vegetation to restore desired conditions and eliminate areas significantly outside of desired range reduces the intensity and scale of wildfire in a portion of the corridor. Using prescribed burning to accomplish vegetation management objectives reduces fuel loading and stand density.

Managing vegetation to provide effective cover in Key Elk area maintains stand densities which pose a fire risk in this areas.

Closing Rd 1298 decreases the risk of human-caused wildfire.

Designating dispersed camping sites and allowing campfires only in established fire rings decreases human-caused fires.

Providing opportunities for centralized yard debris burning reduces the risk of escapes from residences.

Alternative 3

Managing vegetation to restore desired conditions and eliminate high and moderate risk areas reduces the intensity and scale of wildfire throughout the corridor. Using prescribed burning to accomplish vegetation management objectives reduces fuel loading and stand density.

Managing vegetation to provide effective cover in Key Elk area maintains stand densities which pose a fire risk in this area.

Closing Rd 1298 and portions of Rd 64 and Rd 1499 decreases the risk of human-caused wildfire.

Locating utilities underground decreases the risk of powerline fires and reduces suppression complexity.

Designating dispersed camping sites and allowing campfires only in established fire rings decreases human-caused fires.

Prohibiting yard debris burning eliminates the risk of escapes for residences.

Alternative 4

Managing vegetation to restore desired conditions and eliminate all areas outside of these conditions reduces the intensity and scale of wildfire throughout the corridor. Using prescribed burning and prescribed natural fire to accomplish vegetation management objectives reduces fuel loading and stand density. Managing vegetation primarily through natural processes allows continued increase in stand density and fuel loading on those acres not burned.

Managing vegetation to provide effective cover in Key Elk area maintains stand densities which pose a fire risk in this area.

Closing Rd 64, Rd 1298 and Rd 1499 decreases the risk of human-caused wildfire.

Locating utilities underground decreases the risk of powerline fires and reduces suppression complexity.

Designating dispersed camping sites and allowing campfires only in established fires rings decreases human-caused fires.

Prohibiting yard debris burning eliminates the risk of escapes.

Alternative 5

Managing vegetation to restore desired conditions and eliminate high and moderate risk areas reduces the intensity and scale of wildfire throughout the corridor. Using prescribed burning to accomplish vegetation management objectives reduces fuel loading and stand density.

Managing vegetation to provide effective cover in Key Elk area maintains stand densities which pose a fire risk in this area.

Closing Rd 1298 decreases the risk of human-caused wildfire.

Locating utilities underground decreases the risk of powerline fires and reduces suppression complexity.

Designating dispersed camping sites and allowing campfires only in established fires rings decrease human-caused fires.

Requiring centralized yard debris burning reduces the risk of escapes from residences.

Weeds

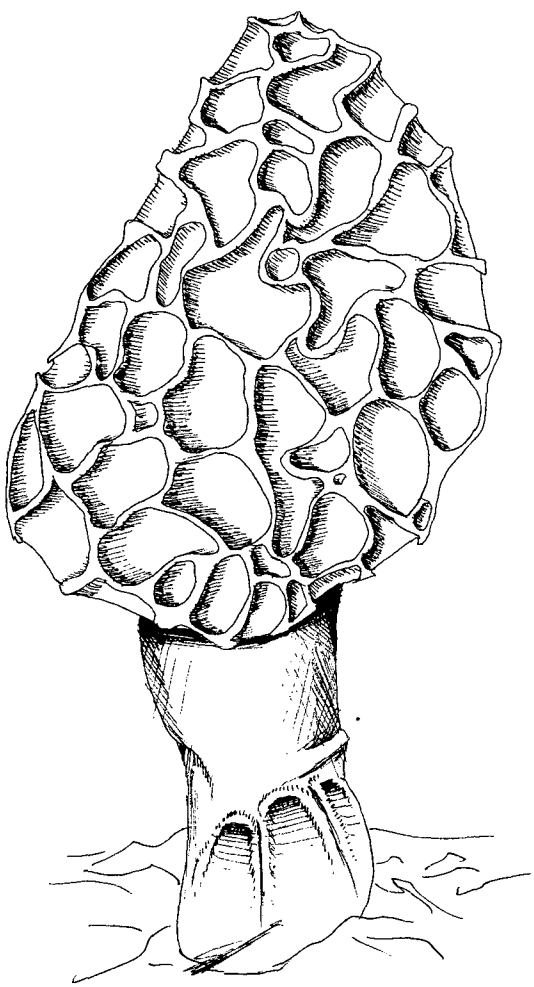
Improving forest and riparian vegetation conditions reduces the amount of disturbed area and curbs weed spread.

Coordinating weed control with Oregon Department of Agriculture and Jefferson County reduces the spread of weeds at ownership interfaces. Emphasizing weed prevention provides the most effective weed control (Alt 3-5 & Prop. Action). Prohibiting the use of chemical herbicides (Alt 4) makes weed control more expensive and less effective.

Livestock grazing and use on trails could introduce weeds.

Maintaining roads increases the introduction and spread of weeds. Prohibiting motorized use off roads, closing roads, and reducing road density reduces the introduction and spread of weeds to varying degrees in all action alternatives. Obliterating or rehabilitating roads (Alt 3-5 & Prop. Action) provides an opportunity for weed introduction and spread.

Ground-disturbing activities such as burying utilities, replacing septic systems, and constructing new structures or recreation facilities increase the likelihood of weed introduction and spread, especially in Alt 5 where new ground disturbance is greatest.



Fisheries

Impacts to fisheries can result primarily from changes to water quality, instream and riparian habitat, and the management of wild and introduced fish population.

Providing high water quality and stable water quantity is beneficial to fish.

Cold temperatures substantially reduce disease and parasite problems in fish. Fish habitat in the Metolius is very stable because it is not disturbed by high flows or flooding. High quality spawning gravels, found in greatest abundance upstream from Gorge Campground, can be affected by erosion and sedimentation which will silt over these critical spawning areas.

Cover for fish is provided by instream wood, undercut banks, and overhanging riparian vegetation. Lack of cover is a primary limiting factor for fish on the Metolius. Enhancements to riparian vegetation increase cover, stabilize streambanks, allow for the formation or protection of undercut banks, and improve shading which keeps water temperature low.

Managing fish populations under the Upper Deschutes Basin Fish Management meets direction set in the state Wild Fish Management Policy and will protect and enhance wild fish in the Metolius.

Proposed Action

Maintaining existing flows and transferring water rights to instream flows protects stream margins resulting in high quality habitat for juvenile fish.

Managing riparian vegetation in developed areas to achieve fair ecological condition maintains these areas in current condition, which is a lower standard than surrounding areas. The goal of good ecological condition outside of developed areas could allow some reduction in the quality and quantity of existing streambank habitat. Rehabilitating moderately or significantly disturbed areas results in the recovery of 50-100 sites or 500-750 of streambank fish habitat.

Restricting the season of instream work protects migrating and spawning adults and developing embryos from sediment and other direct impacts of instream work. Habitat enhancement work increases cover from 4% to nearly 10%. Island formation creates new rearing habitat. Instream wood adjustment for minimum safe boating passage between Gorge campground and Bridge 99 improves streamside cover, though improvements to habitat complexity from log jams, island formation, flow modification, and pool formation doesn't reach full potential because they are limited to the streamsides. No instream wood adjustment for boating on the remainder of river allows natural recruitment and recovery. Boater education reduces unauthorized or emergency wood manipulation.

Falling hazard trees in the river speeds recruitment and instream habitat recovery beyond natural rates.

Road maintenance reduces erosion and sediment delivery to spawning and rearing areas. Closing Rd 64 at Monty Campground reduces the poaching of bull trout. Closing Rd 1419-700 stabilizes streambanks where heavy fishing use and pull-out parking have eroded banks and deposited sediment into critical spawning and rearing habitat. Allowing parking only in designated parking areas reduces the amount of erosion and sedimentation in the Recreation river segment and protects the river's prime spawning and rearing habitat.

Defining, hardening, replanting, relocating, or closing the river trail and fishing access points improves streambank habitat and reduces a minor amount of siltation which protects spawning and rearing areas.

Establishing vegetation management objectives in campgrounds and designating sites in Lower Canyon Creek, Candle Creek, and Monty campgrounds results in the recovery of at least 75% of riparian vegetation in a 1.5 mile stretch of river. Sediment filtering and streambank cover increase in over 20 sites.

Removing dispersed campsites from riparian areas, closing and rehabilitating some dispersed campsites, and hardening access roads to dispersed campsites allows riparian recovery over approximately .5 mile and reduces sediment input primarily in the Scenic river segment.

Establishing riparian vegetation objectives for recreation residence lot areas within 100' of the river, protects riparian vegetation from new disturbance in excess of 25%. Gradually, as vegetation impacted in excess of the objective is restored, 75% of the riparian area in recreation residences tracts or about 2 miles of the river is protected or improved.

Alternative 1 (No Action)

Cover recovers slowly from past wood management and removal which has resulted in current levels around 4%.

Localized riparian impacts continue to grow, even at existing levels of use, and streambank fish habitat is lost. Outside of heavily used areas, riparian vegetation maintains bank stability and cover for fish.

Alternative 2

Maintaining existing flows protects stream margins resulting in high quality habitat for juvenile fish.

Rehabilitating significantly impacted areas results in the recovery of 40-50 sites or 400-500 feet of streambank fish habitat. Moderately impacted areas continue to degrade and some additional streambank cover is lost.

Restricting the season of instream work protects migrating and spawning adults and embryos from sediment and other direct impacts of instream work. Instream wood adjustment only for minimum safe boating improves streamside cover, though improvements to habitat complexity from log jams, island formation, flow modification, and pool formation do not reach full potential because they are limited to the streamsides.

Falling hazard trees into the river allows for faster recovery of habitat complexity and cover.

Road maintenance reduces erosion and sediment delivery to spawning and rearing areas.

Trail stabilization and rerouting improves streambank habitat and reduces a minor amount of siltation which protects spawning and rearing areas.

Establishing setbacks in campgrounds improves riparian vegetation which increases cover and streambank stability.

Removing dispersed campsites from riparian areas, closing some dispersed campsites, and hardening access roads to dispersed campsites allows riparian recovery over approximately .5 mile and reduces sediment input primarily in the Scenic river segment.

Alternative 3

Maintaining existing flows and transferring water rights to instream flows protects stream margins resulting in high quality habitat for juvenile fish.

Managing riparian vegetation in developed areas to achieve fair ecological condition maintains these areas in current condition, which is a lower standard than surrounding areas. The goal of good ecological condition outside of developed areas could allow some reduction in the quality and quantity of existing streambank habitat. Rehabilitating moderately and significantly impacted riparian areas results in the recovery of 50-100 sites or 500-750 feet of streambank fish habitat.

Restricting the season of instream work protects migrating and spawning adults and embryos from sediment and other direct impacts of instream work. Habitat enhancement work increases cover from 4% to nearly 10%. Island formation creates new rearing habitat. No instream wood adjustment for boating allows natural recruitment and recovery. Boater education reduces unauthorized or emergency wood manipulation.

Moving sites in developed campgrounds rather than falling large hazard trees into the river results in riparian habitat recovery, but does not speed recruitment and instream habitat recovery beyond natural rates.

Road maintenance reduces erosion and sediment delivery to spawning and rearing areas. Closing Rd 64 at Monty Campground reduces the poaching of bull trout. Closing Rd 1419-700 stabilizes streambanks where

heavy fishing use and pull-out parking have eroded banks and deposited sediment into critical spawning and rearing habitat. Allowing parking only in designated parking areas reduces the amount of erosion and sedimentation in the Recreation river segment and protects the river's prime spawning and rearing habitat.

Trail stabilization and rerouting improves streambank habitat and reduces a minor amount of siltation, which protects spawning and rearing areas. Resting fishing access points on a rotating basis allows for the recovery of some streambank habitat, but new sites may develop as a result.

Establishing 50' setbacks from the river in campgrounds results in the recovery of 75% of riparian vegetation in a 1.5 mile stretch of river. Sediment filtering and streambank cover increase in 20 sites. Designating sites in Lower Canyon Creek, Candle Creek, and Monty campgrounds allows recovery of riparian vegetation which provides cover and sediment filtration.

Removing dispersed campsites from riparian areas, closing and rehabilitating some dispersed campsites, and hardening access roads to dispersed campsites allows riparian recovery over approximately .5 mile and reduces sediment input primarily in the Scenic river segment. There is a greater benefit than in Alternative 2 because more sites are closed and sites are rehabilitated.

Establishing riparian vegetation standards for recreation residence lot areas within 50' of the river allows 75% riparian recovery in recreation residence tracts along 2 miles of the river.

Alternative 4

Establishing water quality standards which exceed existing state standards protects cold water-dependent species. Maintaining existing flows and transferring water rights to instream flows protects stream margins, resulting in high quality habitat for juvenile fish.

Managing riparian vegetation throughout the corridor to achieve excellent ecological condition improves streambank conditions in developed areas and maintains the existing excellent condition found outside of developed areas. Rehabilitating all riparian areas results in the recovery of over 100 sites or over 750 feet of streambank fish habitat, but is attained more slowly than in Alternative 3 because it relies primarily on natural processes.

Allowing primarily natural processes for restoration of instream wood results in long-term (60+ years) recovery from past wood removal. Areas of poor recruitment remain low until streamside trees grow or mature to sufficient size and quantity to provide natural levels of wood recruitment.

Removing sites from developed campgrounds rather than falling medium or large hazard trees into the river results in riparian habitat recovery, and falling small hazard trees into the river provides a minor enhancement to natural recruitment and instream habitat recovery beyond natural rates.

Road maintenance reduces erosion and sediment delivery to spawning and rearing areas. Closing Rd 64 at the Eyerly property reduces the poaching of bull trout. Closing Rd 1419-700 stabilizes streambanks where heavy fishing use and pull-out parking have eroded banks and deposited sediment into critical spawning and rearing habitat. Allowing parking only in developed recreation facilities eliminates a substantial amount of erosion and sedimentation in the Recreation river segment and protects the river's prime spawning and rearing habitat.

Trail elimination and rerouting provides the most enduring improvement to streambank habitat and reduces siltation, which protects spawning and rearing areas. Resting fishing access points on a rotating basis allows for the recovery of some streambank habitat, but new sites may develop as a result.

Establishing 100' setbacks from the river in campgrounds results in the recovery of nearly 1.5 miles of riparian areas to provide fish cover and streambank stability. Designating sites in Lower Canyon Creek and closing Candle Creek and Monty campgrounds allows for more recovery of riparian vegetation which provides cover and sediment filtration than in Alternative 3.

Removing dispersed campsites from riparian areas, closing and restoring some dispersed campsites, and hardening access roads to dispersed campsites allows riparian recovery over approximately .5 mile and reduces

sediment input primarily in the Scenic river segment. There is a greater benefit than in Alternative 3 because sites are restored.

Establishing riparian vegetation standards for recreation residence lot areas within 100' of the river allows substantial riparian recovery in the interim before recreation residences are removed and riparian recovery reaches natural potential.

Alternative 5

Same as Alternative 3, except:

Instream wood adjustment only for minimum safe boating improves streamside cover, though improvements to habitat complexity from log jams, island formation, flow modification, and pool formation do not reach full potential because they are limited to the streamsides.

Falling any size hazard trees into the river speeds recruitment and instream habitat recovery beyond rates expected in Alternative 3.

New trail construction and trail hardening may reduce pressure on riparian and streambank habitat, but increasing developed camping facilities will attract more people to the area and increase the pressure resulting in a net outcome similar to Alternative 3. Designating and hardening fishing access points improves bank structure in over 30 sites. This does more to protect fish habitat than resting sites on a rotating basis as in Alternative 3.

Setbacks from the river in campgrounds do not provide as much riparian and streambank improvements as in Alternative 3.

Establishing riparian vegetation standards for recreation residence lot areas within riparian zones allows 90% riparian recovery in recreation residence tracts along 2 miles of the river which is greater than Alternative 3.

Wildlife

Vegetation management actions which maintain or restore the variety of successional stages of stands in the corridor benefit a broad range of wildlife species. The reintroduction of fire increases sustainability and resiliency, benefiting fire-adapted, late-successional habitat and dependent wildlife species. Consequent reductions in stand densities and quantity of multi-story stands reduces optimum habitat for other late-successional species, such as spotted owls.

Actions which improve the condition of riparian areas are most beneficial to riparian-dependent wildlife. They also enhance species diversity and abundance.

Reintroduction of anadromous fish or the increase in resident fish populations increases the forage base for fish-dependent wildlife such as bald eagles, osprey, otters, and bear. Improvements in instream habitat improve conditions for wildlife by increasing the forage base and providing foraging and perching areas. Instream structures that create pools or shallows provide prime forage areas for eagles and osprey.

Large diameter snags are most beneficial for osprey and eagles. Smaller diameter snags improve watchable wildlife in developed areas. Loss of snags in developed areas does not cause loss of viability or downward population trends because these areas do not contribute substantially to overall snag densities.

Allowing the natural accumulation of down logs provides habitat and species diversity. Establishing a standard for managed areas provides an increase in down log habitat and protects this habitat in areas where management activities will occur in the future.

Closing roads improves wildlife habitat by reducing disturbance and increasing habitat quality and connectivity. The larger the area affected by road closures the greater the wildlife benefit.

Proposed Action

Maintaining the Key Elk and deer winter area boundaries from the Pioneer Ford campground to White Water River has little impact on big game because this does not reflect the actual area of actual big game high use.

Felling hazard trees reduces the amount of snags for cavity nesters and roosting opportunities for osprey and eagles in developed areas. Implementing hazard tree operations in a way that assists in wildlife habitat improvements lessens the effect of removals.

Closing and obliterating roads converts roads back to cover and forage for wildlife. Closing Rd 1499 above Candle Creek and closing Rd 64 at Monty and seasonally at the Eyerly property increases the size of the unroaded area to over 2500 acres, which reduces disturbance to eagles, osprey, and big game and provides seasonal protection for eagles and osprey using nesting and roosting trees above Monty. Closing Rd 1298 and spur roads east of Rd 1270 increases habitat effectiveness for big game in 640 acres. Closing Rd 1419-700 provides protection and habitat improvement for riparian-dependent species.

Closing Monty campground seasonally reduces disturbance to big game, eagles, and osprey.

Establishing setbacks from osprey and eagle nests for dispersed campsites reduces nesting failures and abandonment due to prolonged human presence.

Alternative 1 (No Action)

Not managing vegetation maintains habitat for certain late-successional species such as spotted owls, but increases the risk of catastrophic loss from large scale disturbance.

Felling hazard trees over 14" only as a last resort provides slight improvements in roosting opportunities for osprey and eagles in developed areas.

Key Elk area from Pioneer Ford campground to White Water River does not reflect the extent of actual big game use.

Managing Monty Campground for year-round, unregulated use continues disturbance to bald eagles.

Road densities and use disturb wildlife throughout the corridor with the exception of 2 miles in the Scenic river segment. This provides an unroaded area of about 320 acres.

Alternative 2

Maintaining the Key Elk and deer winter area boundaries from Pioneer Ford campground to White Water River has little impact on big game because this area does not reflect the extent of the actual area of big game high use.

Felling hazard trees over 14" only as a last resort provides slightly more roosting opportunities for osprey and eagles in developed areas than those which would be provided under existing hazard tree removal guidelines.

Closing Rd 1298 and spur roads east of Rd 1270 increases habitat effectiveness for big game in 640 acres.

Closing the river to boating below Bridge 99 eliminates the watercraft disturbance to eagle foraging on spawning kokanee in the fall.

Establishing ¼ mile setbacks for dispersed campsites from eagle and osprey nests reduces nesting failures and abandonment due to prolonged human presence. Seasonally prohibiting dispersed camping in elk winter range reduces winter mortality resulting from increased energy expenditure caused by human presence or disturbance.

Alternative 3

Extending the Key Elk and deer winter area boundaries from the Nature Conservancy property to Lake Billy Chinook has little impact on big game because this area does not reflect the extent of the actual area of big game high use. Prohibiting the use of poisons for wildlife damage control eliminates the risk of secondary poisoning of raptors and other predators.

Felling hazard trees over 14" dbh only as a last resort in the Recreation river segment provides slightly more roosting opportunities for osprey and eagles in developed areas than those which would be provided under existing hazard tree removal guidelines. Retaining large hazard trees in the Scenic river segment provides some benefit for osprey and eagles in limited areas.

Closing and obliterating roads converts roads back to cover and forage for wildlife. Closing Rd 1499 at the private property and closing Rd 64 at Monty and seasonally at the Eyerly property increases the size of the unroaded area to over 1600 acres, which reduces disturbance to eagles, osprey, and big game and provides seasonal protection for eagles and osprey using nesting and roosting trees above Monty. Seasonally closing Rd 1200-980 improves winter protection for calving, fawning, and migrating elk. Closing Rd 1298 and spur roads east of Rd 1270 increases habitat effectiveness for big game in 640 acres. Closing Rd 1419-700 provides protection and habitat improvement for riparian-dependent species.

Limiting boating use in the Scenic river segment to provide a primitive boating experience reduces the watercraft disturbance to eagle foraging on spawning kokanee in the fall by limiting numbers of boaters, but does not do as much as total closures in Alternatives 2 and 4 or seasonal closure in Alternative 5.

Closing Candle Creek and Monty campgrounds seasonally reduces disturbance to big game, eagles, and osprey.

Establishing ¼ mile setbacks from osprey nests and ½ mile setbacks from eagle nests for dispersed campsites reduces nesting failures and abandonment due to prolonged human presence. Seasonally prohibiting dispersed camping in elk winter range reduces winter mortality resulting from increased energy expenditure caused by human presence or disturbance.

Alternative 4

Emphasizing vegetation management through natural processes maintains the existing quantity of habitat for late-successional species in the short term and increases the risk of large-scale habitat loss in the long-term.

Extending the Key Elk and deer winter area boundaries from Wizard Falls bridge to Lake Billy Chinook reflects the extent of the actual area of big game high use and benefits big game by reducing disturbance and

maintaining habitat. Prohibiting the use of poisons for wildlife damage control eliminates the risk of secondary poisoning of raptors and other predators.

Retaining large hazard trees throughout the river provides some benefit for osprey and eagles in more areas than in any other alternative.

Closing and restoring roads provides the greatest recovery of all the alternatives for wildlife forage and cover. Closing Rd 1499 and closing Rd 64 at the Eyerly property increases the size of the unroaded area to over 3000 acres which reduces disturbance to eagles, osprey, and big game and provides protection for eagles and osprey using nesting and roosting trees above Monty. Closing Rd 1200-980 improves protection for calving, fawning, and migrating elk. Closing Rd 1298 and spur roads east of Rd 1270 increases habitat effectiveness for big game in 640 acres. Closing Rd 1419-700 provides protection and habitat improvement for riparian dependent species. Closing Rd 1419-200 and Rd 1419-800 decreases disturbance and improves habitat effectiveness in 160 acres of the Recreation river segment.

Closing the river to boating below Bridge 99 eliminates the watercraft disturbance to eagles foraging on spawning kokanee in the fall.

Closing Candle Creek and Monty campgrounds reduces disturbance to big game, eagles, and osprey.

Establishing ½ mile setback from osprey and eagle nests for dispersed campsites reduces nesting failures and abandonment due to prolonged human presence. Seasonally prohibiting dispersed camping in elk winter range reduces winter mortality resulting from increased energy expenditure caused by human presence or disturbance.

Alternative 5

Extending the Key Elk and deer winter area boundaries from Pioneer Ford campground to Whitewater River has little impact on big game because this area does not reflect the extent of the actual area of big game high use. Expanding the Metolius Wildlife Refuge throughout the Recreation river segment has no substantial impact on wildlife or habitat, though it does provide protection for waterfowl and small furbearing mammals.

Felling hazard trees over 14" only as a last resort in the Recreation river segment provides slightly more roosting opportunities for osprey and eagles in developed areas than those which would be provided under existing hazard tree removal guidelines. Retaining large hazard trees in the Scenic river segment provides some benefit for osprey and eagles in limited areas.

Closing and rehabilitating converts roads back to cover and forage for wildlife. Closing Rd 1298 and spur roads east of Rd 1270 increases habitat effectiveness for big game in 640 acres. Closing Rd 1419-700 provides protection and habitat improvement for riparian dependent species.

Limiting boating use in the Scenic river segment to provide a semi-primitive boating experience with a closure from September 10 to November 15 substantially reduces the potential watercraft disturbance to eagles foraging on spawning kokanee in the fall, but not as much as total closures in Alternatives 2 and 4.

Establishing ¼ mile setbacks for dispersed campsites from eagle and osprey nests reduces nesting failures and abandonment due to prolonged human presence. Seasonally prohibiting dispersed camping in elk winter range reduces winter mortality resulting from increased energy expenditure caused by human presence or disturbance.

Natural-Appearing Scenery

Protecting water clarity has a positive affect on the natural-appearing scenery.

Restoring upland vegetation reduces the visual contrast between natural landscapes and highly impacted areas.

Improving riparian vegetation conditions results in lusher-appearing riparian areas with more shrubs and fewer visibly damaged or devegetated sites. Views of the river may be partially obscured by shrubs and trees.

Controlling the location and timing of harvest or prohibiting the removal of special forest products and the picking of wildflowers protects visual elements which provide variety in the foreground landscape.

Using prescribed fire for vegetation management highlights large trees which are a characteristic visual feature of the area. The short-term effects of blackened ground and red needles are natural, but negative to some viewers.

Restoring fish habitat and promoting natural recruitment increases large wood in the river and contributes to the formation of new islands, which are a characteristic visual feature of the Metolius.

Closing roads (various amounts in each Alt) and designating parking (Alt 3-5 & P.A.) areas reduces visible impacts and discordant elements within the natural landscape.

Placing new or existing utilities underground (Alt 3-5 & P.A.) removes discordant elements. Placing new or existing utilities in transportation rights-of-way (Alt 3,5 & P.A.) locates them in the foreground of significant viewer locations, if not buried.

Managing trails to address damaged areas (all Alt to differing extents) reduces the contrast of highly impacted areas.

Improving the condition of riparian and upland vegetation in developed and dispersed camping areas and recreation residences screens these areas as viewed from other viewer locations and improves the natural appearance of the foreground and middle ground landscape as viewed from within these areas.

Removing recreation residences, waterwheels, footbridges, road bridges, and commercial development (Alternative 4) eliminates dominant discordant elements in the natural appearing landscape.

Limiting signs to native materials (Alternative 4) blends them with the natural landscape.

Cultural Scenery

Managing with similar objectives and regulations for development on private and national forest lands provides consistency in the cultural landscape.

Establishing a consistent sign theme fits with the cultural landscape (Alt 2-5 & P.A.) and connects cultural features throughout the corridor.

Protecting and managing historic structures enhances the cultural landscape. Removing road bridges, footbridges, waterwheels, recreation residences, and commercial development (Alt 4 and some in Alt 3) results in the loss of valued cultural landscape features.

Establishing design standards for the remodeling and expansion of recreation residences (Proposed Action) protects and enhances the existing culture landscape.

Prehistoric Resources

Ground disturbance from managing vegetation, obliterating of roads, constructing new roads, relocating utilities, constructing new trails or recreation facilities, expanding recreation residences, and upgrading or replacing septic systems may damage prehistoric resources by destroying or removing artifacts and disturbing site context.

Managing prehistoric resources through a heritage resource management plan which identifies a certain percentage of known sites to be preserved protects the most significant sites and allows the loss or damage of unprotected sites. Performing data recovery where damage to resources is unavoidable provides scientific data but eliminates the site.

Historic Resources

Removing road bridges eliminates historic features.

Phasing out existing commercial development (Alt 4) would result in the loss of the historic Camp Sherman Store.

Remodeling and expanding recreation residences which change the appearance or construction of the structure results in the loss of historic character and context. Providing guidance for alterations which addresses historic character and documentation of existing structure (Proposed Action) aids in protecting historic character and context. Removing recreation residences (Alt 4) results in the loss of many potentially historic structures.

Permitting existing waterwheels, footbridges, and platforms protects historic structures. Evaluating these structures and removing only those which are determined to not be historically significant (Alt 3) has no adverse affect on historic resources. Removal of all waterwheels, footbridges, and platforms (Alt 4) results in the loss of historic structures.

Constructing a campfire circle at some locations in the vicinity of Allingham (Alt 3, 5, & P.A.) could affect the setting of the historic guard station.

Native Americans

Maintaining the very high water quality of the Metolius respects tribal spiritual values associated with the river.

Improving fish populations benefits Native Americans by providing greater numbers and healthier, larger fish for both food and spiritual purposes.

Managing vegetation and reducing disturbances in big game habitat may protect big game populations and improve hunting opportunities for tribal members. Prescribed burning reduces fuel loading, thus, reducing the risk of fire to adjacent tribal lands and improving habitat for cultural food plants.

Involving the Confederated Tribes of Warm Springs in heritage resource evaluation protects tribal interests in these resources. Assessing traditional use resources and maintaining the confidentiality of gathering areas helps protect cultural plants for traditional users. Managing known cultural plant populations (Alt 5) provides a substantial increase in food gathering opportunities.

Closing Rd 64 (Alt 3, 4, & P.A.) protects Tribally-owned lands from vandalism and trespass. Reducing motorized access and dispersed camping in the Scenic river segment is congruent with traditional values and uses and IRMP management objectives for adjacent Reservation lands.

Closing Rd 1200-980 and Candle Creek Campground (Alt 4 and seasonally in Alt 3) reduces trespass onto Reservation lands across Jefferson Creek.

Closing the river to boating below Bridge 99 (Alt 2 & 4) is congruent with existing tribal ban and reduces trespass, vandalism, and risk of fire on Reservation lands. Managing boating below Bridge 99 (Alt 3, 5, & P.A.) limits trespass, vandalism, and risk of fire on Reservation lands.

Motorized Access

Closing roads eliminates motorized access to corresponding areas in the river corridor and increases the walking distance for users who access these areas. Some users may not be physically able to access these areas once motorized access is eliminated.

Prohibiting motorized use off roads restricts motorized vehicles to existing roads where they must be street legal. This would eliminate most off-highway vehicle use and the opportunity for youth to recreate on motorized vehicles.

Managing for reduced road density by consolidating private land access and permitting new access roads only when no other options exist results in longer trip lengths for some private land owners.

Proposed Action

Road closures eliminate 20.5 miles of existing roads. The Scenic river segment between Candle Creek and Monty campground has no public motorized access.

Joining the Tract C bridge to Rd 1419-800 and closing Rd 1419-700 slightly increases the travel distance between Tract C and the Camp Sherman store. Users are denied .5 miles of riverside driving opportunity.

Restricting parking to designated parking areas and roadside pull-outs provides approximately 40 spots spread throughout the corridor. Closing some spots currently used may slightly increase walking distances for some day users accessing the river.

Managing the roads in the Camp Sherman core to reduce congestion improves safety and facilitates access through this area.

Alternative 1 (No Action)

Motorized access is available to all of the river except a 2 mile segment in the Scenic river segment and the area between Lower Canyon Creek campground and Wizard Falls.

Rd 64 beyond Monty Campground and Rd 1499 are not maintained or suitable for passenger vehicles, though all sorts of vehicles do use these roads.

Closing roads on a case-by-case basis will gradually reduce access in the corridor. Lack of maintenance on some roads will also result in gradual reductions in access.

Parking continues to be unlimited in quantity (over 75 spots are currently in regular use) and location. New parking places are pioneered for user convenience.

Alternative 2

Road closures eliminate 2.5 miles of existing roads.

Alternative 3

Road closures eliminate 14 miles of existing roads. The Scenic river segment between west and east end private properties has no motorized access.

Designating Rd 1419-900 as a one-way road results in an inconvenience to and greater trip length for users accessing the river between Camp Sherman and the Gorge. Closing the Tract C bridge eliminates through travel between Tract C and the Camp Sherman store. Users are denied .5 miles of riverside driving opportunity and Tract C residents lose an emergency evacuation route.

Restricting parking to designated parking areas provides approximately 40 sites in four centralized locations which notably increases walking distances for day users accessing the river.

Alternative 4

Road closures eliminate 34 miles of existing roads. The Scenic river segment has no motorized access.

Designating Rd 1419-900 as a one-way road increases trip length for users accessing the river between Camp Sherman and the Gorge. Closing Rd 1419-700 from the Tract C bridge to the Livingston bridge eliminates .5 miles of riverside driving opportunity. Closing the Allingham bridge results in longer trip lengths for some users and increases congestion on the Camp Sherman bridge.

Restricting parking to existing developed recreation sites provides a small amount of parking (20 spots) spread along the river and slightly increases walking distances for day users accessing the river. The limited quantity of parking may produce competition or lack of availability.

Alternative 5

Road closures eliminate 3 miles of existing roads.

Designating Rd 1419-900 as a one-way road increases trip length for users accessing the river between Camp Sherman and the Gorge. Joining the Tract C bridge to Rd 1419-800 and closing Rd 1419-700 slightly increases the travel distance between Tract C and the Camp Sherman store. Users are denied .5 miles of riverside driving opportunity.

Restricting parking to designated parking areas and roadside pull-outs provides approximately 60 spots spread throughout the corridor and may slightly increase walking distances for some day users accessing the river.

Campers

Increased vegetation in campgrounds and around dispersed campsites provides a more natural-appearing setting, greater privacy, increased wildlife viewing opportunities, more shade for cooling, and dust control. The loss of some open space resulting from increased vegetation limits some activities.

Changes in scenic quality affect the camping experience. The appearance of campgrounds and surrounding areas can create the sense of a primitive experience or increase the "charm" of the historic setting.

Road closures affect access to dispersed camping opportunities. In areas where roads are closed, camping may remain for walk-in users. A small amount of walk-in dispersed camping currently exists, but most dispersed camping currently takes place in roaded areas below Bridge 99.

Camping is a recreation use that often involves other activities (angling, hiking, hunting, etc.), so campers may be affected by changes that affect these activities.

Relative Effects to Camping Quantities:

Type of Camping	Prop Act	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Developed	3	2	3	4	5	1
Dispersed	3	1	2	4	5	2
RV	3	2	3	4	5	1
Tent	2	4	4	1	3	3
Motorized	3	2	3	4	5	1
Walk-in	2	5	5	3	1	4

Proposed Action

Allowing firewood gathering and cutting only in designated areas limits firewood availability, eliminates gathering in the campgrounds, and inconveniences campers who desire campfires. Permitting a firewood concession provides a convenience to campers not currently available, increases the ease of acquiring firewood, and compensates for the limits imposed by designated firewood gathering and cutting areas.

Managing hazard trees in campgrounds to reduce the risk of falling trees allows existing campsites and uses to remain unaffected. Not managing hazard trees outside these areas results in a reduced number of dispersed campsites designated.

Closing portions of Rd 64 and 1499 converts dispersed campsites from motorized to walk-in.

Establishing vegetation objectives for campgrounds results in the reduction in size of some campsites and the removal of others. Managing vegetation improves the natural setting of the campgrounds. Designating sites in Lower Canyon Creek, Candle Creek, and Monty reduces camping capacity, reduces the opportunity for large groups, and improves parking areas, vegetation, privacy, and screening. Charging fees at these sites eliminates developed, non-fee camping and provides a higher level of facilities and service. Conversion of Candle Creek to tent camping increases the opportunity for exclusive tent camping but reduces availability for RVs. Converting a portion of Smiling River to a day-use facility eliminates five tent camping sites. Closing Monty from September 30 to Memorial Day displaces early and late season users, especially hunters. Initiating a reservation system in campgrounds when total campground use exceeds 60% capacity inconveniences some users and guarantees campsites to reservation holders.

Limiting dispersed camping to designated sites would result in the loss of campers' freedom of choice and reduce the number of sites and total dispersed camping capacity of the corridor. The restrictions placed on

where sites may be designated result in fewer dispersed campsites than Alternative 2 and more of those which are designated are walk-in. Requiring permits for dispersed camping is a slight inconvenience to campers.

Converting all pit toilets to sealed vaults provides better quality facilities and improves handicapped accessibility in Candle Creek Campground.

Alternative 1 (No Action)

There are over 162 developed campsites within the corridor. Of these, many are in riparian areas (or typically within 100 feet of the river). Sixteen campsites are designated for tent camping and eight are for car/camper camping (RVs and trailers not allowed). There are no clear trends which would indicate increasing use. Current levels fluctuate around 60,000 to 65,000 visits.

Lower Canyon Creek, Candle Creek, and Monty campgrounds are non-fee. Minimal facilities and management in these areas provide the opportunity for large groups and fairly unstructured camping.

Continuing to allow campsites within riparian areas maintains the existing camping capacity. The vegetation and natural setting of campgrounds continues to decline, even at existing levels of use, because people want to recreate in riparian areas and there is a tendency for use to move from impacted areas to unimpacted areas.

Alternative 2

Allowing firewood gathering and cutting only in designated areas would limit firewood availability, eliminate gathering in the campgrounds, and inconvenience campers who desire campfires.

Establishing setbacks from riparian areas in campgrounds eliminates a few campsites and reduces the size of some others.

Limiting dispersed camping to designated sites below Bridge 99 would result in the loss of campers' freedom of choice and reduce the number of sites and total dispersed camping capacity of the corridor.

Converting all pit toilets to sealed vaults provides better quality facilities and improves accessibility in Candle Creek Campground.

Alternative 3

Allowing firewood gathering and cutting only in designated areas would limit firewood availability, eliminate gathering in the campgrounds, and inconvenience campers who desire campfires. Permitting a firewood concession provides a convenience to campers not currently available, increases the ease of acquiring firewood, and compensates for the limits imposed by designated firewood gathering and cutting areas.

Moving campsites to allow for the retention of large snags will gradually reduce the quantity and affect the location of campsites. Retaining large hazard trees in the Scenic river segment reduces the number of dispersed campsites designated.

Designating Rd 1419-900 as a one-way road changes the travel route to or from five campgrounds, requiring a longer drive to the Camp Sherman store, bridge, and Highway 20. Average daily traffic (ADT) counts on this road will be reduced (traffic reductions will be the greatest on the southern portion of the road and traffic will increase somewhat on the northern portion of the road). Traffic impacts on campsites near the road change relative to the change in ADT. Closing roads in the Scenic river segment converts dispersed campsites from motorized to walk-in.

Establishing a 50 foot setback from the river in campgrounds eliminates some campsites and reduces the size of others. Designating sites in Lower Canyon Creek, Candle Creek, and Monty reduces camping capacity, reduces the opportunity for large groups, and improves parking areas, vegetation, privacy, and screening. Conversion of Lower Canyon Creek, Allen Springs, Lower Bridge, and Candle Creek to tent camping increases the opportunity for exclusive tent camping but reduces availability for RVs. Reducing the density of Pioneer Ford by 10-25% eliminates two to five campsites and provides more privacy at remaining sites. Converting Pine Rest to a day-use facility eliminates eight tent camping sites. Closing Monty from September 15 to June 30 displaces early

and late season users, particularly hunters. Initiating a reservation system in campgrounds when total campground use exceeds 60% of capacity inconveniences some users and guarantees campsites to reservation holders.

Limiting dispersed camping to designated sites downstream from Bridge 99 would result in the loss of campers' freedom of choice and reduce the number of sites and total dispersed camping capacity of the corridor. The restrictions placed on where sites may be designated result in fewer dispersed campsites than Alternative 2 and more of those which are designated are walk-in. Requiring permits for dispersed camping is a slight inconvenience to campers.

Converting all pit toilets to sealed vaults provides better quality facilities and improves accessibility in Candle Creek Campground.

Alternative 4

Allowing firewood gathering and cutting only in designated areas would limit firewood availability, eliminate gathering in the campgrounds, and inconvenience campers who desire campfires.

Closing campsites to allow for the retention of large snags will reduce the quantity of campsites. Retaining large hazard trees in the Scenic river segment reduces the number of dispersed campsites that can be designated.

Designating Rd 1419-900 as a one-way road changes the travel route to or from five campgrounds, requiring a longer drive to the Camp Sherman store, bridge, and Highway 20. Average daily traffic (ADT) counts on this road will be reduced (traffic reductions will be the greatest on the southern portion of the road and traffic will increase somewhat on the northern portion of the road). Traffic impacts on campsites near the road change relative to the change in ADT. Closing Rd 1200-980 and Rd 1499 converts all dispersed campsites from motorized to walk-in.

Establishing a 100 foot setback from the river in campgrounds eliminates numerous campsites and reduces the size of some others. Designating sites in Lower Canyon Creek reduces camping capacity, reduces the opportunity for large groups, and improves parking areas, vegetation, privacy, and screening. Conversion of Gorge, Lower Canyon Creek, Allen Springs, Pioneer Ford, and Lower Bridge to tent camping increases the opportunity for exclusive tent camping but reduces availability for RVs. Converting Pine Rest and 10% of existing campsites in all other campgrounds to day-use eliminates 24 camping sites. Closing Monty and Candle Creek eliminates approximately 15 campsites. Initiating a reservation system in campgrounds when total campground use exceeds 60% capacity inconveniences some users and guarantees campsites to reservation holders.

Limiting dispersed camping to designated sites downstream from Bridge 99 would result in the loss of campers' freedom of choice and reduce the number of sites and total dispersed camping capacity of the corridor. The restrictions placed on where sites may be designated result in fewer dispersed campsites than Alternative 3 and all of those which are designated are walk-in. Requiring permits for dispersed camping is a slight inconvenience to campers.

Alternative 5

Allowing firewood gathering and cutting only in designated areas would limit firewood availability, eliminated gathering in the campgrounds, and inconvenience campers who desire campfires. Permitting a firewood concession provides a convenience to campers not currently available, increases the ease of acquiring firewood, and compensates for the limits imposed by designated firewood gathering and cutting areas.

Retaining large hazard trees in the Scenic river segment changes the location of some dispersed and developed campsites, but results in no net loss of capacity.

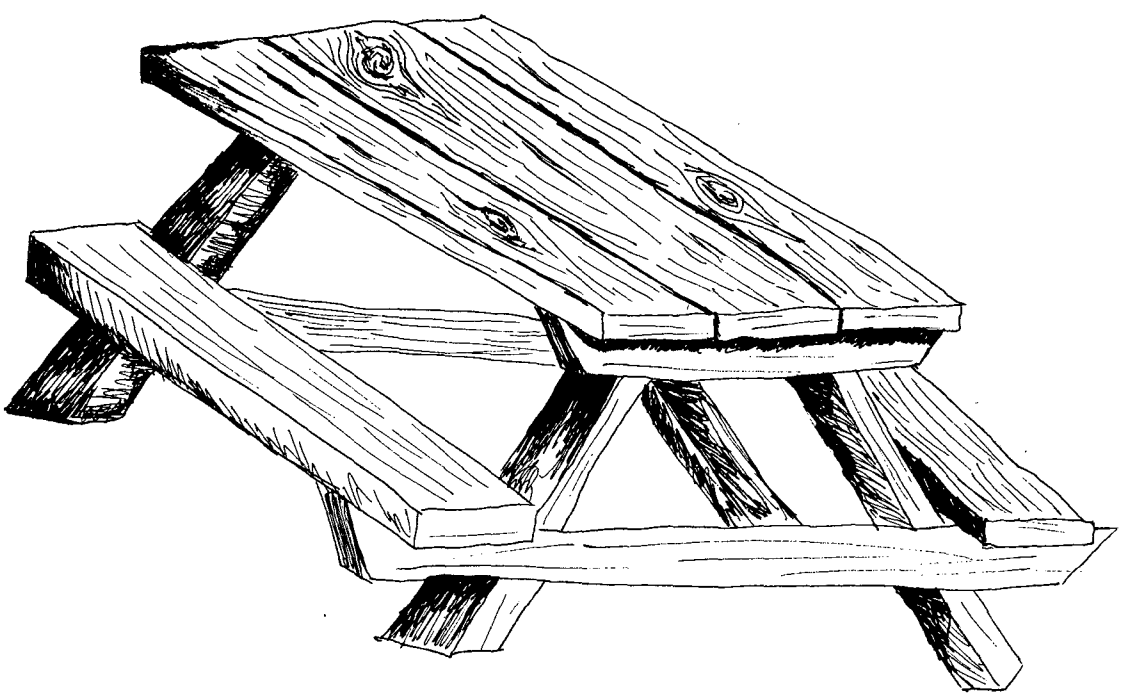
Designating Rd 1419-900 as a one-way road changes the travel route to or from five campgrounds requiring a longer drive to the Camp Sherman store, bridge, and Highway 20. Average daily traffic counts on this road will be reduce (traffic reductions will be the greatest on the southern portion of the road and traffic will increase

somewhat on the northern portion of the road). Traffic impacts on campsites near the road change relative to the change in ADT.

Establishing a setback from riparian areas in campgrounds eliminates a some campsites and reduces the size of many others. Upgrading Lower Canyon Creek, Candle Creek, and Monty and charging fees results in a loss of developed, non-fee camping and improves the services and facilities provided at these campgrounds. Developing a new campground increases the number of campsites in the corridor by 15-20, which expands the total camping capacity and may increase availability of sites. Initiating a reservation system inconveniences some users and guarantees campsites to reservation holders.

Limiting dispersed camping to designated sites downstream from Bridge 99 would result in the loss of campers' freedom of choice and reduce the number of sites and total dispersed camping capacity of the corridor. The restrictions placed on where sites may be designated result in the most dispersed campsites of any action Alternative, but fewer than the existing.

Converting all pit toilets to sealed vaults provides better quality facilities and improves accessibility in Candle Creek Campground.



Trail Users

Rehabilitating riparian areas by stabilizing or hardening the trail improves trail conditions for users and enhances the natural setting and experience.

Closing roads provides double-track trail (and single track where obliterations or rehabilitation are done and a trail is maintained) opportunities for non-motorized uses without the impacts of motorized use such as dust, exhaust, noise, and safety hazards.

User conflicts often result on trails where a variety of uses are combined. Bikes, stock, and pedestrians move at different rates of speed and impede or pass one another on the trail. This generates user safety and resource damage concerns. Some uses may loosen the trail surface and create more dust than others. Stock manure on the trail surface can raise a stink with other users.

It is assumed that trail users, especially those outside of developed areas, are seeking a natural setting and experience. Enhancements to the natural surroundings are considered a benefit to trail users. Quantity of trail opportunities is the other criteria which factors into relative ratings. Riparian and streamside trail opportunities are assumed to be preferred by trail users over forest trail opportunities.

Proposed Action

Rehabilitating damaged riparian areas improves trail conditions, though users will be temporarily inconvenienced by restoration activities. Restoration projects will alter trail locations in some sites which slightly increases walking distances and decreases the amount of streamside trail experience. Improving vegetation conditions along the trail enhances the natural setting and experience for trail users.

Using hazard trees for fish habitat restoration projects may inconvenience trail users by blocking the river trail and making users go over or around.

Closing Rd 1298, Rd 1419-700, and portions of Rd 64 and Rd 1499 provides 21 miles of non-motorized use.

Designating the river trail for only foot traffic reduces user conflicts, increases safety for pedestrians, and provides an enforcement mechanism for existing policy. Designating the river trail as a maintained Forest Service system trail improves trail conditions for users, as well as the river and riparian area. Below Lower Bridge, trail management provides an opportunity for non-motorized users on existing roads. Maintaining trails to protect riparian areas imposes greater controls on users and provides better trail conditions.

Permitting existing footbridges maintains trail access to islands. Constructing footbridges in wet areas to protect riparian resources provides easier, safer crossings.

Alternative 1 (No Action)

Maintaining only the system portion of the river trail (6 miles from Lower Canyon Creek campground to Candle Creek campground on the west side of the river) results in the gradual degradation of the non-system portions of the river trail. User conflicts persist on the river trail where posting restricts use to only hikers, but regulations to enforce this policy are not in place.

Alternative 2

Managing riparian areas to maintain existing conditions means no new trails are built that provide a streamside experience.

Felling hazard trees into the river may block the river trail and users would have to go over or around.

Closing Rd 1298 provides 2.5 miles of non-motorized trail.

Designating the river trail upstream from Wizard Falls for only foot traffic reduces user conflicts, increases safety for pedestrians, and provides an enforcement mechanism for existing policy. Allowing mountain bikes on

the river trail from Wizard Falls to Bridge 99 provides more opportunities for bike use, but could generate some user conflicts. Downstream from Bridge 99, trail management provides an opportunity for a wide variety of users consistent with current conditions. Maintaining trails to protect riparian areas imposes greater controls on users and provides a more stable, well maintained trail tread.

Permitting educational organizations to operate as outfitter/guides may result in additional encounters for other trail users.

Permitting existing footbridges continues to allow trail access to some islands.

Alternative 3

Rehabilitating riparian areas improves trail conditions, though users will be temporarily inconvenienced by restoration activities. Restoration projects will alter trail locations in some sites which slightly increases walking distances and decreases the amount of streamside trail experience. Improving vegetation conditions along the trail enhances the natural setting and experience for trail users.

Felling hazard trees into the river may block the river trail and users would have to go over or around.

Closing Rd 1298, Rd 1419-700, and portions of Rd 64 and 1499 provides 12 miles of non-motorized trail. Designating Rd 1419-900 as a one-way road increases safety for non-motorized users.

Designating the river trail upstream from Bridge 99 for only foot traffic reduces user conflicts, increases safety for pedestrians, and provides an enforcement mechanism for existing policy. Below Lower Bridge, trail management provides an opportunity for a wide variety of users consistent with current conditions. Maintaining trails to protect riparian areas imposes greater controls on users and provides a more stable, well maintained trail tread.

Permitting educational organizations to operate as outfitter/guides may result in additional encounters for other trail users.

Permitting only existing footbridges which protect resources results in the removal of bridges and trail access to islands.

Alternative 4

Restoring riparian areas results in trail rerouting or elimination which will increase walking distances, inconvenience users, and take away streamside experiences. Trail elimination in the Scenic river segment displaces users and provides only cross-country access to most areas.

Felling only small hazard trees into the river slightly inconveniences users by blocking the river trail and making users go over or around.

Closing Rd 64, Rd 1298, Rd 1419-700, and 1499 and rehabilitating where not needed for access to private land provides 15 miles of non-motorized use. Designating Rd 1419-900 as a one way road increases safety for non-motorized users.

Designating the trail upstream from Bridge 99 for only foot traffic reduces user conflicts, increases safety for pedestrians, and provides an enforcement mechanism for existing policy. Below Lower Bridge, trail elimination provides only roads for non-motorized users.

Eliminating existing footbridges eliminates trail access to islands.

Alternative 5

Rehabilitating high and moderate hazards in riparian areas improves trail conditions, though users will be temporarily inconvenienced by restoration activities. Restoration projects will alter trail locations in some sites which slightly increases walking distances and decreases the amount of streamside trail experience. Improving vegetation conditions along the trail enhances the natural setting and experience for trail users.

Felling hazard trees into the river may inconvenience trail users by blocking the river trail and making users go over or around.

Closing Rd 1298 and Rd 1419-700 provides 3 miles of non-motorized use. Designating Rd 1419-900 as a one way road increases safety for non-motorized users.

Designating the river trail upstream from Wizard Falls for only foot traffic reduces user conflicts, increases safety for pedestrians, and provides an enforcement mechanism for existing policy. Allowing bikes and llamas on the river trail from Wizard Falls to Bridge 99 increases opportunities for these trail uses and increases user conflicts. Below Lower Bridge, trail management provides an opportunity for a wide variety of users consistent with current conditions. Construction of new trails and a new footbridge expand trail opportunities in the Recreation river segment for all users and may reduce encounters and numbers of users on the river trail. Maintaining trails to protect riparian areas imposes greater controls on users and provides a more stable, well maintained trail tread

Permitting existing footbridges maintains trail access to islands. Constructing footbridges in wet areas to protect riparian resources provides easier, safer crossings.

Trail User

Boaters

Actions that allow for the accumulation of wood in the river increase safety risks to boaters particularly where manipulation is not done to provide minimum passage.

Actions that regulate boating via seasonal or segment closures, limits on party size, or other limits on user numbers may inconvenience boaters or reduce or eliminate some bnoating opportunities.

Proposed Action

Managing wood for minimum safe passage between Gorge campground and Bridge 99 increases the occurrence of wood in the river but also allows provide passage. Not adjusting instream wood for passage downstream from Bridge 99 results in the increased likelihood of river-spanning wood which requires portages or take out. This makes boating more difficult and dangerous. Eventually, stretches of river may become unboatable. Educating and informing boaters of river conditions and management policies may help keep risks and boating accidents from increasing. Restricting the season of instream work to one which corresponds with the summer boating season could generate conflicts or result in closures to boating.

Allowing boating year-round between Wizard Falls and Bridge 99 provides a flatwater boating experience suitable for most boat types and abilities. Constructing modest boat landings at Bridge 99 and Monty Campground provides easier put-in and take-out for boaters.

Alternative 1 (No Action)

The existing Tribal ban on boating below Jefferson Creek, the undetermined status of title navigability, and the lack of consistent wood management policy continue the uncertainty and risk of boating on the river.

Numbers of Scenic river segment boaters, prior to the Tribal ban, were estimated to be 350 during the summer season.

Alternative 2

Managing wood for minimum safe passage upstream from Bridge 99 increases the occurrence of wood in the river but does provide passage. Restricting the season of instream work to one which corresponds with the summer boating season could generate conflicts or result in temporary closures to boating.

Closing the river upstream from Canyon Creek curtails boating through a section of river enjoyed by some boaters, particularly kayakers. Limiting the season of use between Canyon Creek and Wizard Falls eliminates 8 ½ months of potential boating use. Allowing boating year-round between Wizard Falls and Bridge 99 continues to provide a flatwater boating experience suitable for most boat types and abilities. Closing the river to boating below Bridge 99 eliminates 17.8 miles of whitewater boating.

Alternative 3

Not adjusting instream wood for passage in areas where boating is allowed results in the increased likelihood of river-spanning wood, which requires portages or take-out. This makes boating more difficult and dangerous. Eventually, stretches of river may become unboatable. Restricting the season of instream work to one which corresponds with the summer boating season could generate conflicts or result in temporary closures to boating.

Closing the river upstream from Wizard Falls eliminates boating through a 5 mile section of river enjoyed by some boaters, particularly kayakers. Allowing boating year-round between Wizard Falls and Bridge 99 continues to provide a flatwater boating experience suitable for most boat types and abilities. Limiting boating use in the Scenic river segment to maintain a primitive boating experience allows a limited number of boaters (300-500) to experience 17.8 miles of whitewater boating. Constructing modest boat landings at Bridge 99 and Monty Campground provides easier put-in and take-out for boaters.

Closing Monty Campground seasonally eliminates vehicle access to the take-out between September 15 and July 1, making boaters pack out or paddle flat water to the next public access at Perry South Campground.

Alternative 4

Closing the river to boating eliminates all boating access and use.

Alternative 5

Managing wood for minimum safe passage downstream from Camp Sherman Bridge increases the occurrence of wood in the river but does provide passage. Managing log jams and other passage barriers where portages can be established increases the difficulty and risk of boating and inconveniences boaters by interrupting floats. Restricting the season of instream work to one which corresponds with the summer boating season could generate conflicts or result in temporary closures to boating.

Closing the river upstream from Camp Sherman eliminates a minor amount of water play and non-technical boating. Limiting boating between Camp Sherman and Wizard Falls by season and time of day reduces some boating opportunities and inconveniences boaters by restricting times of use. Limiting boating use in the Scenic river segment to provided a semi-primitive boating experience allows a limited number of boaters (500-1000) to experience 17.8 miles of whitewater boating. Closing boating in the Scenic river segment between September 10 and November 15 eliminates the fall boating season. Constructing boat landings at Bridge 99 and Monty Campground provides easier put-in and take-out for boaters.

Permitting guided boating provides opportunities for people who are not experienced boaters to experience the river. Guided boating may increase safety for some users. The commercial use would displace a commensurate number of private boaters.

Anglers

Alternatives which benefit fish, benefit anglers by providing more, healthier, larger fish and thereby enhancing the fishing experience (see Fisheries).

Adopting the Upper Deschutes Basin Fish Management Plan for the Metolius will have the following impacts:

- Managing the river for wild fish only while providing an off-river hatchery fishing opportunity creates an instream fishery popular with experienced anglers and shifts pressure for a novice experience elsewhere.

Reductions in access from closing roads results in further walking distances for anglers who fish respective stretches of river. Anglers can expect fewer encounters in these areas.

Angling is a recreation use that may involve other activities (hiking, camping, etc.), so anglers will also be affected by changes that affect these activities.

Proposed Action

Road closures reduce motorized access and increase walking distances for anglers between Lake Creek and Spring Creek (Rd 1419-700 closure), downstream from Wizard Falls on the west side of the river (Rd 1298 closure), and in the Scenic river segment from Candle Creek to Monty (Rd 1499 and Rd 64 closures). These closures also reduce encounters in these areas and increase opportunities for a more primitive fishing experience.

Defining, hardening, replanting, relocating, and closing fishing access points which are unacceptably impactive increases the ease and safety of use of some spots. The total number of access points and anglers' freedom to choose some fishing locations are reduced.

Not managing wood for boating passage upstream of Gorge campground may reduce boating and conflicts between anglers and floaters in areas of high fishing use.

Alternative 1 (No Action)

There are no changes which would result from inaction or continuing trends that will have an effect on anglers.

Alternative 2

Closing Rd 1298 increases walking distance to some fishing spots on the west side of the river between Wizard Falls and Bridge 99.

Fishing access points are not designated, so there is no change from the current situation.

Boating on the river continues the potential for conflicts between anglers and floaters.

Permitting fishing guides on the river provides an opportunity for a guided fishing experience amounting to 225 to 700 user days.

Alternative 3

Road closures reduce motorized access and increase walking distances for anglers between Lake Creek and Spring Creek (Rd 1419-700 closure), downstream from Wizard Falls on the west side of the river (Rd 1298 closure), and in the Scenic river segment from Camp Creek to Monty (Rd 1499 and Rd 64 closures). These closures also reduce encounters in these areas.

Resting fishing access points on a rotating basis results in traditional fishing spots not being available during riparian vegetation recovery periods. Closing riparian areas in the Scenic river segment during the winter eliminates fishing opportunities.

Banning boating on the river upstream of Wizard Falls eliminates conflicts between anglers and floaters in this high-use fishing area.

Alternative 4

Road closures reduce motorized access and increase walking distances for anglers between Lake Creek and Spring Creek (Rd 1419-700 closure), downstream from Wizard Falls on the west side of the river (Rd 1298 closure), and the entire river corridor downstream from Bridge 99 (Rd 1200-980, Rd 1499, and Rd 64 closures). These closures also reduce encounters in these areas.

Resting fishing access points on a rotating basis results in traditional fishing spots not being available during riparian vegetation recovery periods. Removing trails in the Scenic river segment makes fishing access very difficult.

Banning boating on the river eliminates conflicts between anglers and floaters.

Alternative 5

Road closures reduce motorized access and increase walking distances for anglers between Tract C Bridge and Spring Creek (Rd 1419-700 closure). This closure also reduces encounters in this areas.

Designating and hardening fishing access points increases the ease and safety of use of these spots. Anglers' freedom to choose fishing locations is reduced. Building a footbridge near Gorge campground to provide a loop trail between Allingham and Gorge improves access to popular fishing waters.

Limiting boating on the river upstream of Wizard Falls by season and time of day slightly reduces the conflicts between anglers and floaters in this high-use fishing area. Throughout the remainder of the river, potential conflicts remain.

Permitting fishing guides on the river provides an opportunity for a guided fishing experience for 400 user days.

Anglers

Hunters

Increases in game populations can improve hunting success. Enhancing habitat for game species is beneficial to population numbers. Management actions which have a beneficial impact on wildlife are generally beneficial to hunters, one exception being the expansion of the Metolius Wildlife Refuge (Alternative 5).

Closing roads reduces motorized access for hunting and increases primitive areas for hunting opportunities on foot. Reducing access tends to reduce hunting pressure and disturbance which may increase the success of remaining hunters.

It is assumed that the majority of hunters in the corridor rely on road access; therefore, reductions in access are evaluated as a negative impact to hunters. It is also assumed that road closures have a greater impact on most hunters by reducing access than by increasing hunting success due to reduced wildlife disturbance.

Relative Effects to Hunters from Managing:

	Prop Act	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Wildlife	2	4	3	2	1	4
Roads	4	1	2	3	5	2
OVERALL	2	1	1	2	2	3

Wildlife reflects the benefits of habitat enhancement to wildlife. Increasing game animal populations will increase hunter success and satisfaction.

Roads reflects the loss of access by hunters that result from varying amounts of road closures.

Recreation Residents

Recreation residents participate in a variety of activities (hiking, angling, etc.), so they will be affected by changes that affect these activities.

Meeting the down log standard of 120 linear feet per acre results in more down logs in recreation residence landscape and a slightly increased fire danger.

Proposed Action

Closing Rd 1419-700 reduces traffic impacts on recreation residents in Tract E and F. Noise and dust will be reduced in the portion of Tract C north of the Tract C bridge. Connecting Rd 1419-800 to the Tract C bridge maintains a second access for Tract C and slightly increases trip length to the Camp Sherman core.

Permitting remodeling and expansion allows residences to be better maintained and improved. Establishing design standards limits owners' freedom of choice regarding exterior appearance of alterations and protects the historic character of the tracts. Requiring that all remodeled or expanded residences be brought into compliance with Tract Objectives and FS policies increases the construction costs of alterations. Not allowing the expansion of the footprints within 100 feet of the river prohibits some residents from expanding outward.

Establishing a landscape management objective for vegetation within 100 feet of the river will change the character of on-lot landscapes, provide more screening for residences, may obscure views of the river, and slightly increase risk to structures from fire. The extent of these impacts is dependent on the extent of alteration to existing vegetation and will be unique to each lot.

Permitting existing waterwheels, platforms, and footbridges results in issuance of new permits, and associated fees cost residents. Testing water and septic systems annually costs residents and helps ensure the quality of domestic water supplies. Removing pit toilets or converting them to sealed vaults results in inconvenience and expense to a few owners.

Inventorying and inspecting existing septic systems requires time and may incur some cost for recreation residents. Upgrading non-functioning systems is a substantial expense for some owners.

Alternative 1 (No Action)

108 recreation residences continue to occupy approximately 40 acres of land within the corridor. No lots contain river frontage. Riverside lot lines fall from 15 to over 150 feet from the river and do include some riparian areas.

There are no impacts which would result from inaction or trends that will have an effect on recreation residents. Interim policies (those which are in place pending the completion of the Wild and Scenic River Plan) unique to the Metolius would not continue, but would revert to existing Forest Service management direction.

Alternative 2

Permitting remodeling and expansion allows residences to be better maintained and improved. Permitting existing waterwheels, platforms, and footbridges results in issuance of new permits and residents pay associated fees. Testing water and septic systems annually costs residents and helps insure the quality of domestic water supplies. Removing pit toilets or converting them to sealed vaults results in inconvenience and expense to a few owners.

Alternative 3

Closing Rd 1419-700 reduces traffic impacts on recreation residents in Tract E and F. Noise and dust will be reduced in the portion of Tract C north of the Tract C bridge. Closing the Tract C bridge eliminates one of two accesses for Tract C, increases trip length to the Camp Sherman core, and inhibits emergency access and evacuation.

Relocating existing utilities underground or in transportation rights of way will levy substantial costs on recreation residents.

Protecting 50% of prehistoric sites according to a Heritage Resource Management Plan substantially reduces constraints and cost for recreation residents who do not have protected sites on their lots when undertaking ground-disturbing activities. Those with protected sites face substantial data recovery costs for all ground-disturbing activities.

Permitting minimum alterations and structural repairs to primary residences allows for the continued use of existing buildings. Not allowing the reconstruction of structures lost to fire or other catastrophic events means that some permittees permanently lose their residences and associated use.

Prohibiting vegetation manipulation within 100 feet of the river changes the character of on-lot landscapes, provides more screening for residences, may obscure views of the river, and slightly increases risk to structures from fire. The extent of these impacts is dependent on the existing vegetation condition, though they are more extensive than in the Preferred Alternative.

Removing existing waterwheels and platforms which do not qualify for the National Register of Historic Places requires residents to bear the cost of evaluation. Permitting those that qualify results in issuance of new permits, and associated fees cost residents. Permitting only the footbridges which protect resources results in the removal of all bridges which access islands.

Testing water and septic systems twice annually costs residents and helps ensure the quality of domestic water supplies. Establishing a 150 foot setback from the river for new septic systems may limit on-lot options for septic replacement to sealed vaults, sand filtration, or some other type of self contained system. Owners will incur greater expenses for these systems. Removing pit toilets or converting them to sealed vaults results in inconvenience and expense to a few owners.

Alternative 4

Eliminating recreation residences in the year 2008 takes away 108 recreation residences which contribute 40,000 visitor days (one person for one day) to the river. Residents lose long-standing use. The financial and sentimental impacts are significant.

Impacts for the interim period are the same as Alternative 3.

Alternative 5

Closing Rd 1419-700 reduces traffic impacts on recreation residents in Tract E and F. Noise and dust will be reduced in the portion of Tract C north of the Tract C bridge. Connecting Rd 1419-800 to the Tract C bridge maintains a second access for Tract C and slightly increases trip length to the Camp Sherman core.

Relocating existing utilities underground as the opportunity arises will levy additional costs on recreation residents.

Protecting 25% of prehistoric sites according to a Heritage Resource Management Plan substantially reduces constraints and cost for recreation residents who do not have protected sites on their lots when undertaking ground-disturbing activities. Those with protected sites face substantial data recovery costs for all ground-disturbing activities.

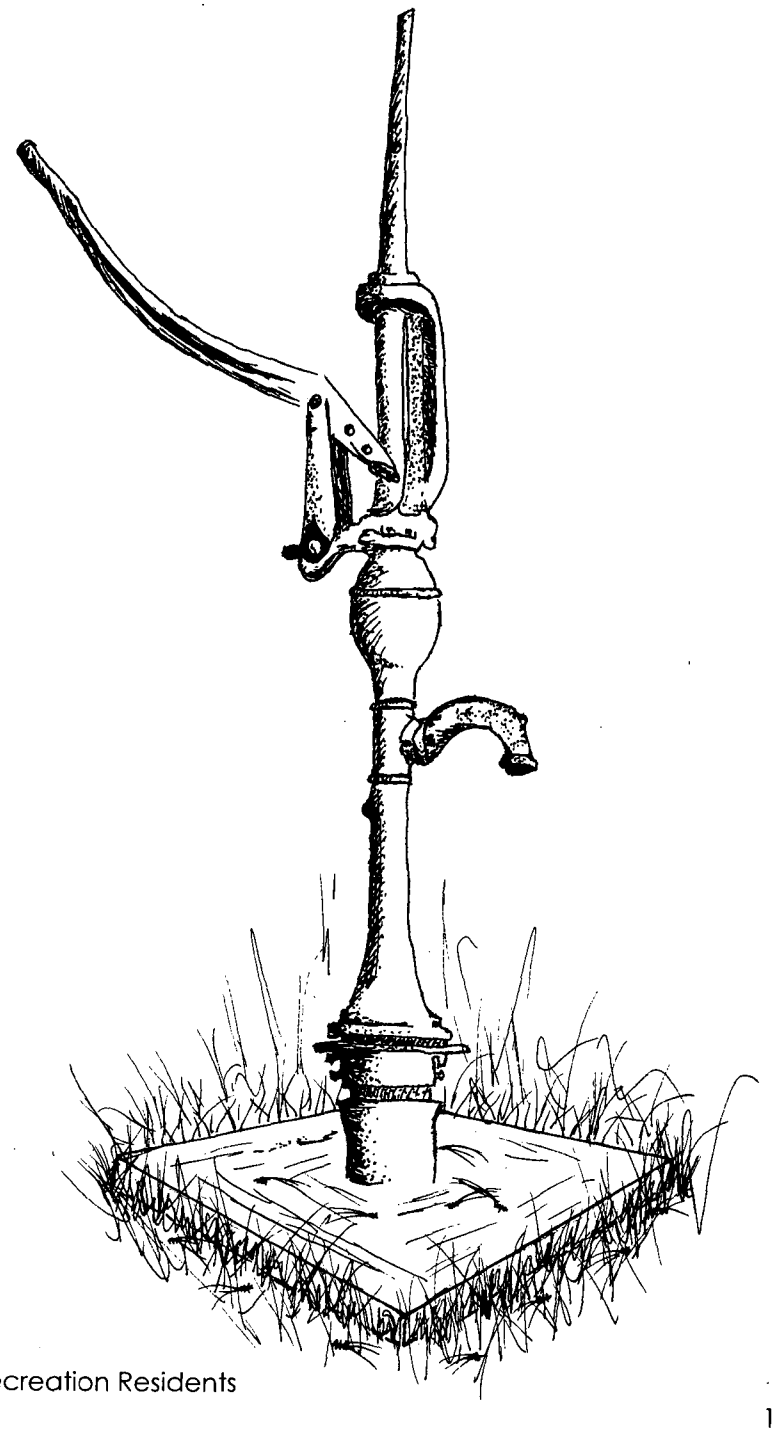
Permitting remodeling and expansion allows residences to be better maintained and improved. Bringing facilities into compliance with Tract Objective and FS policies substantially increases construction costs.

Prohibiting vegetation manipulation within riparian areas changes the character of on-lot landscapes, provides more screening for residences, may obscure views of the river, and slightly increases risk to structures from fire. Each lot is affected uniquely. Many are not affected at all and a few are more affected than in Alternative 3, especially those in low-lying areas.

Permitting existing waterwheels and platforms results in issuance of new permits, and associated fees cost residents. Permitting only footbridges which are historically significant requires residents to bear the cost of

evaluation. Permitting those that qualify results in issuance of new permits and the payment of associated annual fees. Removal is required of those that do not qualify.

Testing water and septic systems twice annually costs residents and helps ensure the quality of domestic water supplies. Establishing a 100 foot setback from the river for new septic systems may limit on-lot options for septic replacement to sealed vaults, sand filtration, or some other type of self contained system. These limitation are not as likely as in Alternative 3. Owners will incur greater expenses if special septic systems are required. Upgrading septic systems to meet current county code upon transfer of the special use permit increases cost of new ownership or lessens the selling value of recreation residences. In cases where conventional septic systems do not meet setback requirements, the cost of upgrade is increased. Removing pit toilets or converting them to sealed vaults results in inconvenience and expense to a few owners.



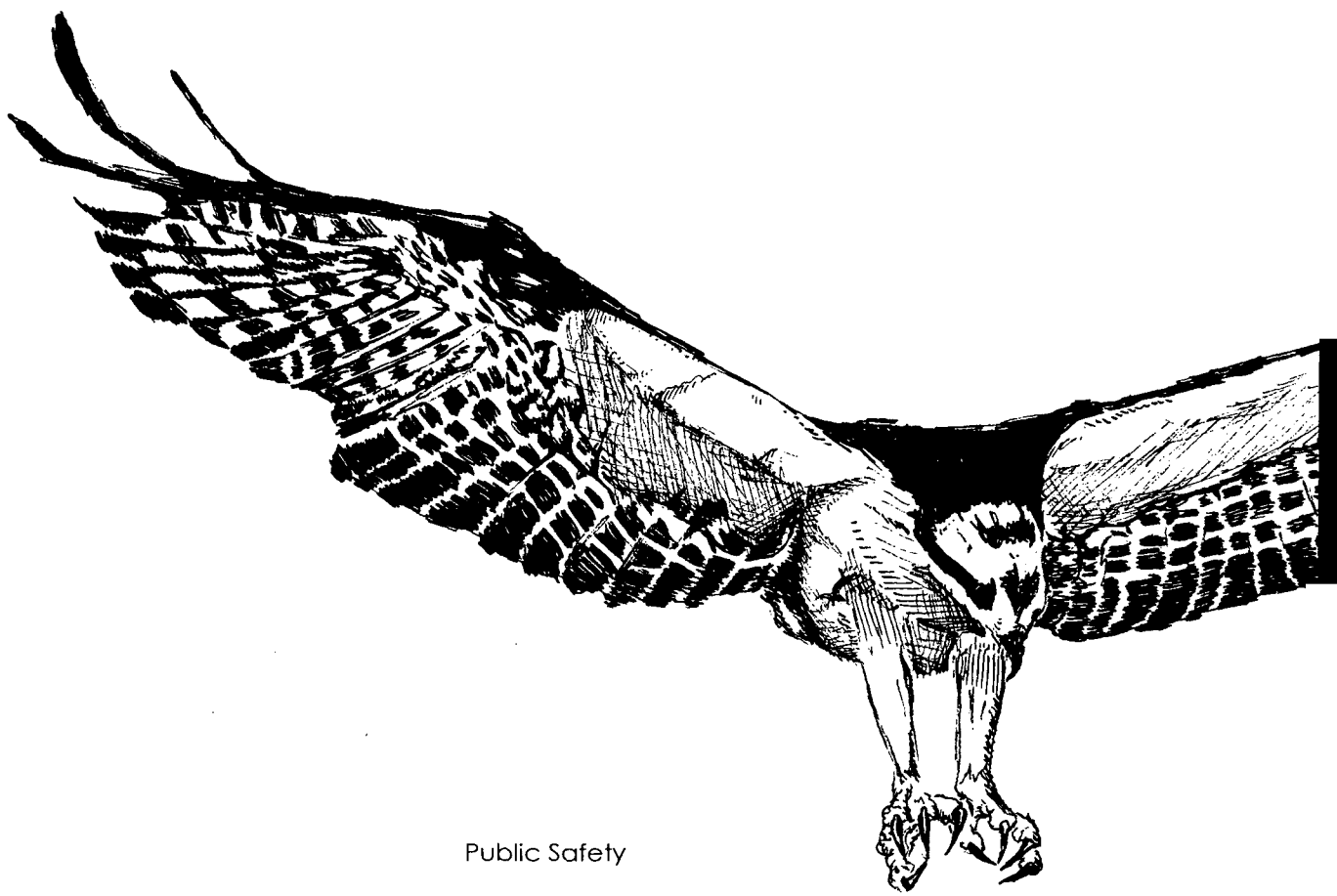
Recreation Residents

Public Safety

Closing roads decreases access and increases the difficulty and risk of emergency or rescue operations. Designating 1419-900 as a one way road (Alternative 3-5) increases safety for substantial numbers of motorists, pedestrians, and bicyclists. Closing the Tract C bridge (Alternatives 3) eliminates one of two accesses for Tract C and inhibits emergency access and evacuation.

Designating portions (Alternatives 2,3,5) or all (Alternatives 4 & P.A.) of the river trail for only foot traffic increases the safety of hikers on the trail.

Managing boating and instream wood has safety considerations that only impact to boaters and those performing boating rescue operations (see Boaters).



Socioeconomics

Vegetation restoration work will create jobs and economic opportunities.

Limiting the location, quantity, and timing of special forest product removal will restrict economic benefits from the harvest and sale of these materials.

Managing recreation opportunities impacts local residents who are recreation users of the Metolius. It also impacts local residents in an experiential way by increasing or decreasing the number of other people and people-related impacts in the area.

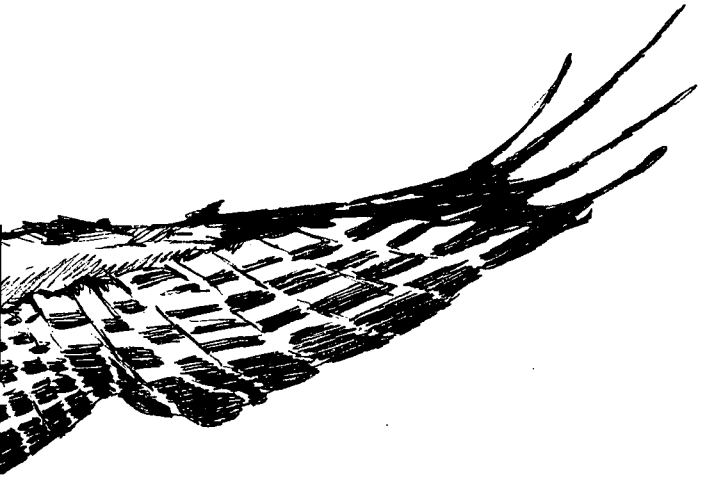
The change in recreational facility capacity or the mix of recreational opportunities will have minor effects on the Camp Sherman economy. With the exception of the store and one restaurant, the Camp Sherman economy is based primarily on overnight accommodations. All alternatives will either maintain or increase demand for lodging. There will be no economic effects outside of the immediate area.

Not allowing new commercial development eliminates potential economic opportunity and restricts the services available in the Camp Sherman area. Phasing out existing commercial development on National Forest land (Alt 4), most notably the Camp Sherman Store, would eliminate some jobs and an important social center for the community. Local residents and users would be inconvenienced by longer trip lengths to obtain supplies and groceries.

Permitting outfitter guides, particularly fishing (Alt 2 & 5) and boating (Alt 5) guides, creates a new economic opportunity.

Removing recreation residences (Alt 4) would alter the social and civic composition of Camp Sherman. It would also reduce county property tax base by approximately $13.5 million.

	Prop Act	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Economic Oppt	2	3	2	2	4	1



Required Disclosures

Threatened, Endangered, and Sensitive Species

Managing the river corridor may have effects on a variety of Threatened, Endangered, and Sensitive plant and animal species. The managing agencies will consult with the U.S. Fish and Wildlife Service to ensure that no management action in the final plan will adversely impact any candidate species to the point of causing it to become listed as threatened or endangered. Consultation has occurred on the Preferred Alternative and a "No Affect" determination was made. There are no differences between the Preferred Alternative and the Proposed Action that would result in a change in the determination.

Energy Requirements and Conservation Potential

Energy consumption in the corridor is related to management activities and recreational and residential uses. Increases in energy consumption would result from increased management activities, and closing roads and facilities that would create longer trip lengths. Road closures also decrease motorized use and associated fuel consumption. The energy conservation potential is not affected by any alternative.

Effects on Wetlands and Flood Plains

Wetland and flood plain values are protected by the alternatives. Activities that would adversely affect wetlands and flood plans would not be consistent with the alternatives or the Wild and Scenic River designation. No reduction in wetland or flood plain acreage will occur.

Effects on Prime Farmland, Forest Land, and Rangeland

According to applicable definition, there are no prime farmlands or rangelands in the corridor. The effects on prime forest lands within the corridor are the same as those discussed in the Upland Vegetation section.

Effects on Minorities and Women

The primary effect of the alternatives on minorities and women would be through changes in job, outdoor recreation, and educational opportunities. Forest Service policies ensure employment, contracting, and recreational opportunities for people without regard to race, color, religion, national origin, sex, age, or physical/mental disability.

Mitigation

There are no mitigation measures proposed that are not contained as management actions in the alternatives. Some mitigation activities may be involved in site-specific analysis and implementation.

Conditions Unchanged by the Alternatives

River resources and users may be affected by management activities outside of the corridor and on private land. While the plan strives for consistency with the management of surrounding areas and between ownerships, some differences exist which may be apparent within the corridor.

Geologic features such as volcanism, faulting, and groundwater hydrology of the Metolius were determined to be outstandingly remarkable. The natural evolution of theses features will be unaffected by the alternatives.

Irreversible or Irretrievable Commitment of Resources

Areas committed to facilities and roads constitute an irretrievable loss of vegetation. There are no irreversible commitment of resources.

Short-Term Use and Long-Term Productivity

Soil impacted by the construction of new roads, trails, and facilities will reduce long-term productivity on a site specific basis. Closing roads, performing trail work, and removing facilities will increase long-term soil productivity on a site-specific basis.

Vegetation management in all alternatives is performed for the long-term maintenance or improvement of riparian and upland vegetation. The alternatives vary as to the amount of short-term impacts proposed to accomplish long-term conditions.

Fire suppression for the protection of life, property, and resources has a long-term affect which alters vegetation species composition, stand density, and fuel loading. Fire suppression increases the scope and intensity of wildfire in the long-term.

Recreation experiences and opportunities are changed in the short-term for the long-term human enjoyment and protection of the outstanding recreational environment.

Probable Adverse Environmental Impacts that Cannot be Avoided

Soil displacement will result in areas where ground-disturbing activities are implemented.

Vegetation management will have short-term visual impacts in the corridor. Prescribed burning will temporarily affect air quality. Fire suppression which is necessary to protect human life and property will eliminate, or reduce, if prescribed natural fire is allowed, a natural disturbance factor. Vegetation will be lost in areas where ground-disturbing activities are implemented.

Scenic quality will be impacted by vegetation management, instream wood, restoration work, and construction activities.

The alteration of some recreational uses and experiences will be necessary to manage other recreational uses and experiences and the environment on which they depend.

Consistency of Alternatives with Federal, Tribal, State, and Local Plans

The Deschutes National Forest Land and Resource Management Plan (LRMP) identifies the Metolius Wild and Scenic River as a land management allocation. The Wild and Scenic River Plan will amend the plan to provide direction for this Management Area. This river corridor falls within the Metolius Conservation Area which is a portion of the Deschutes National Forest set apart to be managed differently than other lands. The alternatives support the goals and themes of the Metolius Conservation Area. They also incorporate forest-wide Standards and Guidelines which result in consistency with the LRMP.

The alternatives are consistent with Northwest Forest Plan Standards and Guidelines for Late Sucessional Reserves and the Aquatic Conservation Strategy objectives. These elements of the plan provide for the protection of riparian resources and late-successional habitat. Lands within the Wild and Scenic corridor were considered in the Metolius Late-Successional Reserve Assessment (May, 1996). The objectives for reducing risk and enhancing late-successional habitats are the same in the WSR corridor as in the rest of the LSR. Vegetation management activities in the Proposed Action are consistent with the LSR strategy reviewed and approved by the Regional Ecosystem Office.

Because the Metolius is designated as a Key Watershed, lands adjacent to the river are designated as Riparian Reserves. In the Metolius Watershed Analysis (October, 1995), Reserve boundaries were established and objectives for maintaining and restoring riparian function were developed. The objectives of the Wild and Scenic River Plan, and activities in the Proposed Action for maintaining and enhancing water quality, riparian vegetation, and insteam habitat are consistent with the objectives of the Aquatic Conservation Strategy.

The state of Oregon's Wild Fish Management Policy and Upper Deschutes River Basin Fish Management Plan apply to the Metolius River. Management actions in the alternatives are fully consistent with the State's fisheries management.

The Metolius River from the headwaters to Candle Creek is a designated State Scenic Waterway. This planning effort is the basis for development of the Metolius Scenic Waterway Rules, so the two will be consistent with one another and the State Scenic Waterway Rules.

Jefferson County's Camp Sherman Comprehensive Plan is currently being reviewed and revised. Inconsistencies are not foreseen, but once the plan is final, this will be verified.

A Cooperative Management Agreement with the Confederated Tribes of Warm Springs will be an outcome of this planning process. This agreement will provide consistency between federal Wild and Scenic River designation and tribal Wild and Scenic River designation under their Integrated Resource Management Plan.

Glossary

Metolius Wild and Scenic River Management Plan

Glossary

Biodiversity: a. Variety of life and its ecological processes.; b. The variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of genera, families, and still higher taxonomic levels, includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live.

Candidate Species: A species being considered for listing as a federally endangered or threatened species.

Climax Community: a. The final or stable biotic community in a developmental series (sere); it is self-perpetuating and in equilibrium with the physical habitat.; b. The final or stable biotic community in a successional series which is self-perpetuating and in dynamic equilibrium with the physical habitat; the assumed end point in succession.; c. The culminating stage in plant succession fora given environment, the vegetation being conceived as having reached a highly stable condition.; d. A plant community of the most advanced type capable of development under, and in dynamic equilibrium with, the prevailing environment.

Community: a. An aggregation of living organisms having mutual relationships among themselves and to their environment.; b. An assemblage of populations of plants and/or animals in a common spatial arrangement.; c. Any assembly of organisms living together, no particular ecological status being implied.; d. An assemblage of organisms living together.; e. An integrated group of species inhabiting a given area.

Composition: The specific elements that make up an interacting system, i.e., plant and animal species, microorganisms, soil type, landform, and climate regimes.

Conservation Strategy: A plan for the long-term protection and conservation of resources and species. A course filter approach proposes that maintaining ecosystem and landscape structure and composition also conserves known and unknown species and processes within those landscapes. A fine filter approach proposes direct action in response to risk or hazard to specific ecosystems, processes, or species.

Corridor: a. The lands identified for inclusion in the Metolius Wild and Scenic River Management Area. b. Route that permits the spread of species from one Ecoregion or Province to another.; c. A linear strip of land which has ecological, technical, economic, social, or similar advantages over other areas for the present or future location of transportation or utility rights-of-way within its boundaries.

Corridors, Landscape: The landscape elements that connect similar patches through a dissimilar matrix or aggregation of patches.

Cumulative Effects Analysis: An analysis of the effects on the environment which results from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal), or person undertakes such other actions (40 CFR 1508.7).

Desired Future Condition: A portrayal of the land or resource conditions which are expected to result if goals and objectives are fully achieved (draft 36 CRF 219).

Desired Future Vegetation: The composition and structural characteristics of the plant community on a site or an ecological unit which meets forest plan or other management objectives.

Developed Campsite: Campsite within a developed campground specifically established and constructed for public use. Commonly includes amenities such as picnic tables, restrooms, and water.

Dispersed Campsite: Campsites outside of developed areas, usually established and maintained by users, and usually not containing any amenities.

Diversity: a. The condition of being different; the distribution and abundance of plant and animal species and communities in an area (26 CFR 219).; b. The distribution and abundance of different plants and animal communities within an area.; c. The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

Diversity, Structural: The variation in sizes and shapes of landscape elements, as well as diversity of pattern (heterogeneity).

Ecology: a. From Greek oikos, meaning "house" or "place to live"; literally the study of organisms at home. Also, the science of the interrelationships or organisms or group of organisms with their environment. Odum.; b. The science of the interrelationships between organisms and their environments.; c. The study of the interrelationships of organisms with their environment.; d. The study of plants and animals in relation to their environment.; e. The science that deals with the interrelations of organisms and their environment.

Ecological Processes: The actions or events that link organisms and their environment, such as predation, mutualism, successional development, nutrient cycling, carbon sequestration, primary productivity, and decay (from Webster's dictionary adapted to ecology).

Ecological Status: The degree of similarity between the existing vegetation (all components and their characteristics) and existing soil conditions compared to the potential natural community and the desired soil condition a site.

Environment: a. The complex of climatic, soil and biotic factors that act upon an organism or ecological community and ultimately determine its form and survival.; b. The sum of all external conditions that affect an organism or community to influence its development or existence.; c. All the biotic and abiotic factors of a site.

Forest Canopy: The cover of branches and foliage formed collectively by tree crowns.

Habitat: a. The place where an organism lives.; b. The environment in which an organism lives.

Habitat type: The collective land area which one association occupies, or will come to occupy as succession advances.

Hazard Areas - Low, Moderate and High: Areas where there is a risk of unwanted impacts to ORVs and/or long-term ecosystem diversity and productivity.

Hazard Tree: A tree that is inspected for disease, rot, or other damage using a formal evaluation process (The Deschutes Hazard Tree Rating Guide) and determined to be likely to break off or blow down with resulting risk to human life or facilities.

Historic Range of Natural Variability: Natural ecosystems are subject to many disturbance processes (fire, insects and disease, succession, etc) that result in change over time as well as a range of conditions and successional stages across the landscape at any given time. When postulating a historic landscape or a desired future landscape, it is more accurate to refer to a range of conditions that occurred naturally rather than trying to determine a specific condition at a fixed point in time.

Instream (Diack) Flows: Water rights that are assigned to remain in the stream and not allocated to other uses. The Diack decision said, that before new water rights can be allocated, the State Water Resources Commission must find that recreation, fish, or wildlife resources will not be impaired. Minimum stream flows are established for all streams and must be maintained.

Landscape: a. A view or prospect of scenery, more or less extensive, such as comprehended within the scope or vision from a single point of view. Webster's Dictionary. Also, watershed, basin or other physiographic feature viewed from a point.; b. An area composed of interacting and interconnected patterns of habitats (ecosystems), that are repeated because of the geology, land forms, soils climate, biota, and human influences throughout the area (adapted from Forman and Godron 1986). Landscape structure is formed by patches (stands or sites), connections (corridors and linkages), and the matrix. Landscape function is based on disturbance events, successional development of landscape structure, and flows of energy and nutrients through the structure

of the landscape. A landscape is composed of watersheds and smaller ecosystems. It is the building block of biotic provinces and regions.

Lower River: The portion of the river corridor downstream from Bridge 99.

Management Direction: A statement of multiple-use and other goals and objectives, the management prescriptions, and the associated standards and guidelines for attaining them.

Management Indicator Species: Species defined in a Forest Plan or other planning document as representative of a larger habitat or community. Management impacts and effects on other members of the community are assumed to be indicated by the selected species.

Mitigation: rectifing an impact by avoiding, minimizing, repairing, rehabilitating, restoring, compensating for, or substituting for, the affected environment

Monitoring: To watch, observe, or check, especially for a specific purpose, such as to keep track of, regulate, or control.

Natural Conditions: a. Natural communities and their environment, particularly the soil, are natural resources. When they are destroyed or modified, they may reappear only after a long period of time or, with extreme disturbance, their appearance may even be impossible.; b. Plant and animal communities where people have not directly impacted either the plant community or the soil by such activities as logging, grazing, or cultivation. Indirect activities, such as fire suppression and air quality are part of the current environment and part of natural succession.

Non-Native Species: Species which occur in a given place, area, or region as the result of direct or indirect, deliberate or accidental introduction of the species by humans, and for which introduction has permitted the species to cross a natural barrier to dispersal.

Plant Association: a. A potential natural plant community of definite floristic composition and uniform appearance.; b. A basic unit of vegetation classification based on the climax plant community; a distinctive combination of vascular plants at climax.; c. Stands of vegetation with similar combinations of species united into abstract types; a basic unit in plant community classification.; d. An arbitrary grouping of plant communities into a type within environmental gradients and the distribution of populations along the gradients.; e. An association is a subdivision of Formation, the highest level of plant community classification. It is divided into three more lower units, the lowest, location, is the basic unit in plant community classification.

Population: A group of individuals with common ancestry that are much more likely to mate with one another than with individuals from another such group.

Potential Natural Community: a. The biotic community that would be established if all successional sequences of its ecosystem were completed without additional human-caused disturbances under present environmental conditions. Grazing by native fauna, natural disturbances such as drought, floods, wildfire, insects, and disease, are inherent in the development of potential natural communities which may include naturalized nonnative species.; b. The vegetation that would become established in an area in the absence of man under present climatic and site conditions but without an assumption that it was a return to climax conditions existing prior to human disturbance.

Potential Population Levels: Maximum population levels are the number of individuals of a wildlife species that can exist if the constraints of food, water, and habitat are removed; the greatest number that can exist without losses from social strife (Thomas, 1979).

Programmed Timber Harvest: The amount of timber scheduled for harvest, based on supply, demand, funding, growth rates, and other resource considerations. Programmed harvest levels are based on amounts availalble in specific Forest Plan allocations ("in the timber base"), not on the entire forested landbase (some allocations are "not in the timber base").

Processes (Ecosystem Functions): The major processes of ecosystems that regulate or influence the structure, composition and pattern. These include nutrient cycles, energy flows, trophic levels (food chains),

diversity patterns in time/space development and evolution, cybernetics (control), hydrologic cycles and weathering processes.

Rehabilitation: Short-term protection of a resource so that further degradation does not occur. Beginning the process of returning the resource to productivity, including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values.

Rest: Removing a damaging use so that rehabilitation or restoration can begin.

Restoration: Return to natural processes, conditions, and productivity after a land disturbance.

Riparian Ecosystem: a. Ecosystems transitional between terrestrial and aquatic ecosystems. Also, streams, lakes, wet areas and adjacent vegetation communities and their associated soils which have free water at or near the surface.; b. Those assemblages of plants, animals, and aquatic communities whose presence can be either directly or indirectly attributed to factors that are water-influenced or related. Interacting system between aquatic and terrestrial situations, identified by soil characteristics, and distinctive vegetation that requires or tolerates free or unbound water.

Riparian Zone: An area of vegetation adjacent to an aquatic ecosystem. It has a high water table, certain soil characteristics, and some vegetation that requires free (unbound chemically) water or conditions that are more moist than normal. This zone is transitional between aquatic and upland zones.

Salvage: The removal of dead, dying, damaged, or susteptible trees to capture economic value, to prevent the spread of disease or insects, or to reduce the risk of high intensity fire.

Seral: a. A biotic community which is a developmental, transitory stage in an ecologic succession; b. Any community that is not at potential; c. Refers to species or communities that are eventually replaced by other species or communities within a sere; d. A transitory community in succession.

Site: a. An area of land with specific soil characteristics such as water-holding capacity and available nutrients. (9); b. The classification of land area based on its climate, physiographic (physical geography), edaphic (soil), and biotic factors that determine its suitability and productivity for particular species and silvicultural alternatives. (10); c. In ecology, an area described or defined by its biotic, climatic, and soil conditions as related to its capacity to produce vegetation; an area sufficiently uniform in biotic, climatic, and soil conditions to produce a particular climax vegetation.

Special Forest Products: Forest resources (plants, fungi, boughs, Christmas trees, firewood) other than timber and minerals demanded by people for commercial or personal use.

Special Habitats: Unique, and usually limited, habitat types such as rock outcrops, seeps, bogs, or meadows, that support species or communities that may not occur elsewhere.

Species: A population or series of populations of organisms that are capable of interbreeding freely with each other but not with members of other species.

Stabilization: Reducing the range of variation that results from diturbance or other changes in conditions; to make resistant to sudden changes of condition.

Stand Composition: The representation of tree species in a forest stand, expressed by some measure of dominance (e.g., percent of volume, number, basal area, cover).

Stewardship: A conservation philosophy that requires the protection and care of resources that belong to all present and future generations.

Structure (Ecosystem): The physical arrangement of the various components. Also, trophic structure; measured in standing crop or energy fixed per unit area per unit time. May be pyramids of numbers, biomass, or energy flows.

Suitability: The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone.

Sustainability (Ecosystem): a. capable of keeping up. Especially capable of keeping up without interruption, diminution, or flagging. Management of ecosystems so that the desired mix of values and resources are tempered to ensure that their capabilities and suitabilities are not compromised for future generations. b. (Ecosystem): The ability to sustain diversity, productivity, resilience to stress, health, renewability, and/or yields of desired values, resource uses, products, or services from an ecosystem while maintaining the integrity of the ecosystem over time.

Thinning: Removal of a part of a forest stand to accelerate growth in the remaining trees; or by selection, to modify form of the trees or structure of the stand that remains.

TES Species: Threatened, Endangered, or Sensitive species. **Threatened Species:** A species determined by the US Fish and Wildlife Service as having its existence threatened in a localized area because its habitat is at risk of destruction or other severe modifications. **Endangered Species:** A species designated by USFWL as having its continued existence threatened over its entire range. **Sensitive Species:** A species not formally listed as endangered or threatened, but thought to be at risk, and on a State or Federal list for consideration as endangered or threatened.

Traditional Uses: Places, objects, or resources that are associated with a particular activity or group of people by repeated use through generations.

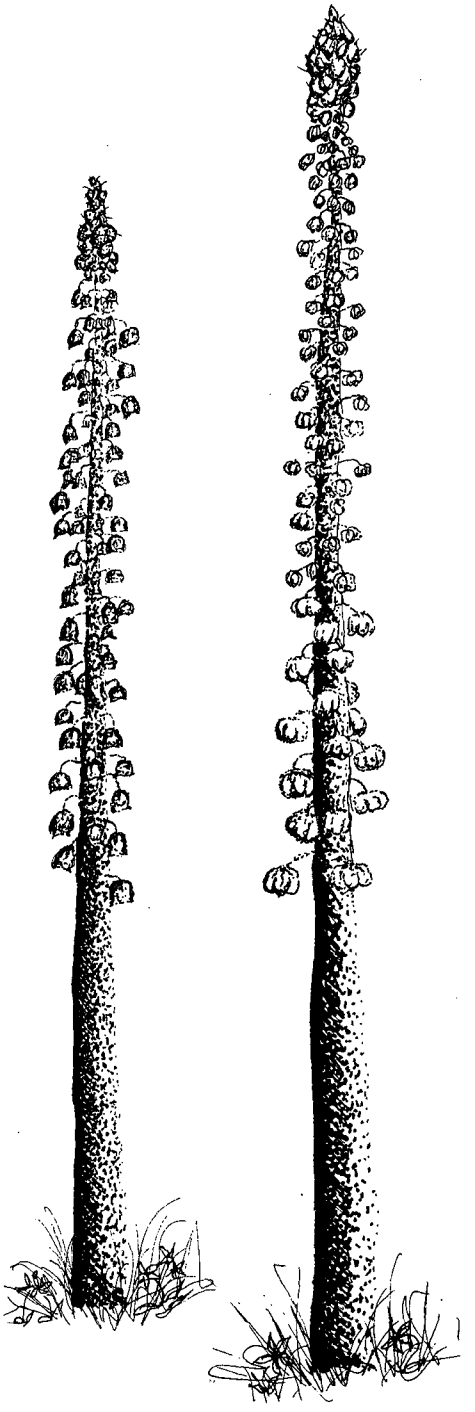
Upland Vegetation: Vegetation in the corridor that is not riparian.

Upper River: that portion of the Wild and Scenic River corridor which is located upstream from Bridge 99.

Vegetation Management: Removal or other modification of vegetation to reach a desired structure or composition.

Index

Metolius Wild and Scenic River Management Plan



A

air quality • 100
alternatives • 1, 4, 9, 10, 69, 79, 99, 100, 101, 102, 103, 114, 121, 143, 144, 145, 150, 166, 175, 176, 177, 195, 215
amphibians • 14, 15, 75, 83, 84
anadromous fish • 20, 119
anglers • 79, 90, 136
angling • 6
Aquatic Conservation Strategy • 5, 15, 16, 65, 66, 145, 232
archaeology • 28
artifacts • 28

B

bald eagle • 22, 62, 82, 119, 120
banks • 7, 14, 16, 18, 21, 23, 33, 34, 35, 43, 66, 75, 80, 81, 92, 93, 102, 115, 117, 170, 178, 194, 195
Best Management Practices • 3
big game • 119
bikes • **33**, 56, 60, 90, 94, 131
biodiversity • 14, **46**
boating • 7, 20, 21, 30, **35**, 50, **61**, 64, 90, 93, 109, 115, 124, 134
boats • 7, 93, 215
Bridge 99 • 2, 9
bridges • **26**, **55**, 122, 123
bull trout • 5, 20, 78, **79**

C

campground • 32
campgrounds • 31, **58**, 91, 102, 105, 107, 108, 110, **127**
campsites • 22, 27, 29, 31, 32, 33, 37, 38, 52, 53, 59, 60, 62, 90, 91, 92, 100, 102, 107, 108, 109, 110, 111, 115, 116, 117, 119, 120, 121, 127, 128, 129, 130, 158, 159, 169, 175, 187, 190, 191, 192, 193, 219
ceded lands • 18, 28
commercial • 3, 4, 7, **40**, 49, 63, 86, 87, 94, 95, 122, 123, 135, 143, 150, 167, 168, 169, 171, 172, 173, 180, 220, 221, 222, 223
Coordination Group • 10, 227
cultural resources • 28

D

dams • 2, 3, 78
day use • 32, **59**
deer • 22, **51**, 83, 119
Deschutes National Forest • 1, 2, 4, 5, 6, 8, 10, 70, 76, 83, 85, 145, 167, 168, 173, 174, 216, 217, 232, 233, 227, 228
development • 24, **40**, **63**, 122, 123
disease • 15, 74, 105
dispersed camping • 31, 36, 37, 62, 91, 102, 105, 106, 107, 108, 110, **127**, 128, 218, 219
drainfield • 12

E

easements • 25, 54
economics • *See* socioeconomics
economy • 97
education • 16, 19, 36, 39, **44**, 51, 67
elk • **51**, 62, 83, 106, 112, 113, 119, 120
Endangered Species Act • 5, 20, 83
environmental consequences • 9, 10, 151, 227
equestrian • 64
erosion • 12, 16, 18, 25, 26, 28, 31, 32, 36, 55, 60, 61, 62, 70, 71, 80, 81, 85, 101, 102, 115, 116, 117, 169, 170, 172, 177, 178, 184, 190, 225, 226

F

fecal coliform • 12, 43, 66, 67, 164, 225, 228, 229
fire • 14, 16, **17**, 18, 23, 28, 29, 31, 37, 42, 47, **48**, 62, 65, 74, 75, 95, 104, 105, 106, 107, **112**, 113, 119, 122, 124, 139, 140, 145, 148, 149, 150, 168, 169, 170, 171, 172, 173, 182, 183, 188, 215, 216, 219, 224, 225, 226, 227, 234
firewood • 18, 23, 41, 49, 52, 53, 127, 128, 129, 150, 220
fish • **21**, **50**, **78**, **115**, 136
fishing • 14, 20, 30, 64, 81, 92, 108, 110, 115, 136
flows • 13, 20, **45**, 78, 80, 101, 115
footbridges • 43, 66, 122, 123, 131, 139, 227
forest health • 14
fungi • 14, 15, 75, 77, 150

G

geology • **69**, 144
goshawk • 83
grazing • 12, **18**, 47, **48**, 75, **96**, 106, 114, 149, 164, 167, 168, 169, 171, 172, 173
ground water • **69**
groundwater • 12, 13, 42, 43, 55, 69, **70**, 72, 73, 101, 144, 166

H

hatchery • 6, 20, 73, 78, 79, 92, 95, 96, 136, 164, 165, 175, 176, 177, 184
hazard trees • 21, 22, 30, 31, 46, **52**, 53, 92, 108, 109, 110, 111, 115, 116, 117, 118, 119, 120, 121, 127, 128, 129, 131, 132, 133, 177, 179
hazardous material • 12, 45
herbicides • 19, 50
heritage resoure • 123
hikers • 60, 131
hiking • 90, 94
historic • 14, 18, 24, 25, 26, 28, 29, 42, 43, 46, 47, 48, 55, 57, 58, 66, 74, 80, 85, 89, 122, 123, 127, 139, 148, 165, 167, 169, 170, 177, 180, 183, 188, 224, 227, 230, 231
horse • 12, 60, 131
hunting • 6, 23, 28, 29, 30, 94, 124, 127, **138**, 183
hydrology • **12**, 72, 80

I

insects • 14, 15, 46, 74, 80, 105
instream • 4, 6, 7, 12, 13, 20, 21, 35, 36, 39, 43, 46, 50, 51, 52, 53, 80, 93, 101, 108, 109, 110, 111, 115, 116, 117, 118, 119, 134, 135, 136, 142, 145, 165, 166, 177, 194, 224, 225, 226, 228
instream wood • 21, 50, 115, 116, 118, 177
Interagency Interdisciplinary Team • 10
interpretation • 39, **44**, 93
invertebrates • 21, 22, 77, 80
irrigation • 7, 46, 73
islands • 17, 75, 80, 108, 115, 118
Issue #1 • 12
Issue #2 • 14
Issue #3 • 20, 35, 50

J

Jefferson County • 6, 7, 10, 94, 97, 98, 114, 162, 164, 174, 181, 183, 184, 185, 189, 229, 227, 228

L

Land and Water Associates • 10, 228
land use • **25**, 54, **55**, **95**
landscape • 24, 32, 37, 85, 122
Late-Succession Reserve • 17
Late-Successional Reserves • 5, 82
Late-Sucessional Reserve • 82
lichens • 15, 18
Limits of Acceptable Change • 39, 62
llama • 131
llamas • 60
logging • 12, 82, 149, 167, 168, 169, 171, 182, 215, 216
logs • 16, 21, **23**, **53**, 119

M

Metolius Windigo trail • 41
mining • 3
moss • 18
mosses • 15
mushroom • 49
mushrooms • 18, 49, 106
mycorrhizae • 102, 105, 107

N

National Environmental Policy Act • 1, 8
Native Americans • 6, 124
navigable • 7
non-native plants • 16, 42, 54, 76
Northwest Forest Plan • 15, 16, 108, 145

O

off-highway vehicle • 24, 125
off-highway vehicles • 30
old growth • 15, 17, 22, 74, 82
Oregon • 1, 2, 3, 6, 7, 10, 13, 20, 21, 23, 25, 34, 35, 45, 50, 55, 73, 75, 76, 79, 80, 82, 83, 85, 87, 89, 91, 92, 96, 97, 98, 114, 157, 161, 162, 163, 165, 166, 171, 175, 176, 189, 224, 228, 231, 232, 233, 227, 228
osprey • 62, 83, 119, 120
outfitters and guides • 7, **40**, 94, 137
Outstandingly Remarkable Value • 20
Outstandingly Remarkable Values • 8, 11, 13, 17, 35, 46, 55, 69, 165, 166, 234

P

parking • **26**, 32, 108, 109, 125, 126
Peck's Penstemon • 14, 76
peregrine falcon • 82
picnic • 59
pine • 14, 24, 30, 51, 70, 71, 74, 75, 76, 82, 84, 85, 86, 87, 92, 170, 171, 226
plant communities • 74
pollution • 3, 12, 73, 100
population • 97
powerlines • **27**
prehistoric • 27, **28**, 57, 88, 123
prescribed burning • 16, 17, 24, **48**, 100, 105, 106, **112**, 122, 124
prescribed fire • 16, 17, 18, 23, 47, 48, 122, 168, 170, 172, 173, 234
primitive • 2, 16, 17, 24, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 61, 63, 82, 90, 91, 93, 94, 120, 121, 127, 134, 135, 136, 138, 187, 191, 192, 215, 216, 217, 218, 220, 222, 231
private land • 6, 12, 24, **25**, 26, 38, 39, 40, 57, 95, 122, 125

private property • 2, 3, 17, 24, 26, 39, 56, 89, 93, 95, 120, 164, 180, 181, 182, 187, 194, 195, 215, 217
Proposed Action • 9, 10, 101, 105, 108, 112, 115, 119, 122, 123, 125, 131, 134, 136, 139, 144, 167, 169, 170, 172, 173, 177, 179, 182, 183, 185, 187, 188, 216, 217, 218, 224, 225, 226, 230, 231, 234
public involvement • 8, 10
Purpose and Need • 4

R

rainbow trout • 6, 20, 21, 72, 78, 79, 80, 90
rare plants • 14, 76
Record of Decision • 1, 5, 9, 82
Recreation Opportunity Spectrum • 33, 38, **62**
recreation residences • 17, 22, **42**, 47, 55, **65**, 76, 95, 109, 116, 123, 139
refuge • *See* wildife refuge
registration • 33, 36, 39, 189, 190, 215, 216, 217, 219
reptiles • 83
Research Natural Area • 74
reservoirs • 3, 78
riparian • 4, 5, 6, 31, 74, 75, 76, 80, 81, 82, 86, 87, 101, 102, 103, 105, 106, 107, 108, 109, 110, 111, 114, 115, 116, 117, 118, 119, 120, 121, 122, 128, 130, 131, 132, 133, 136, 137, 139, 140, 145, 151, 167, 169, 170, 172, 173, 179, 184, 186, 187, 190, 191, 192, 194, 196, 215, 216, 217, 218, 219, 220, 224, 225, 226, 227, 233
riparian area • 14, 30, 108, 109, 110, 111, 116, 169, 190, 225, 226
Riparian Reserves • 5, 15, 16, 217
riparian vegetation • 14, 17, 21, 31, 33, 37, 42, 43, **47**, 51, 60, 65, 66, **75**, 76, 102, 108, 109, 110, 111, 115, 116, 117, 122, 170, 190, 225, 226
river trail • 17, **33**, 115, **131**
road closures • 22, 27, 103, 119, 138, 182, 183, 187, 189
road construction • 26, 55, 89
roads • **26**, 38, **55**, 105, **125**

S

salmon • 20, 21, 78, 79, 175, 176
salvage • 17, **46**, **48**
scenery • 24, 122
Scenic Integrity Objectives • 24
scenic quality • **24**
Scenic Waterways Program • 3
septic • 12, 41, 42, 43, 55, 63, 66, 67, 101, 114, 123, 139, 140, 141, 165, 180, 181, 227, 228, 229, 232, 233
shrubs • 17, 18, 70, 81, 105, 106, 107, 122, 225, 226, 227
signs • **26**, 44, 60, 67, 92, 122
smoke • 17, 24, 100
snags • 16, **22**, **52**, 119
socioeconomics • 97, 143
soils • 18, **25**, **69**, **70**, 72, 102, 108
special forest products • **18**, 122
special use • **40**, 48, 101
Special Use Permits • 4, 225, 226
special uses • 41, 222
spotted owl • 1, 5, 22, 74, 82, 119
springs • 70, 72, 73, 86
spruce budworm • 14, 74
State Scenic Waterway Rules • **25**, 65, 146
State Scenic Waterways • 1, 3, 6, 8
stewardship • 44, 67
structures • 25, 28, 54, 139
subsoiling • 16

T

thinning • 16, 47, 51, 74, 102, 171, 172, 173
timber • 3, 6, 14, 17, **18**, 47, **48**, 74, 76, 88, 149, 150, 167, 168, 169, 171, 172, 217
traditional use • 6, 88, 107, 124, 188
traditional uses • **28**, 29, **58**, 88
trails • **33**, **60**, 76, 106, 107, **131**
transportation • **25**, **55**
Treaty of 1855 • 6, 28
treaty rights • 18, 28, 49
trespass • 31
tributaries • 2, 5, 12, 13, 15, 20, 21, 45, 72, 73, 75, 78, 79, 80, 84, 164, 166, 169, 172, 177, 228, 232

U

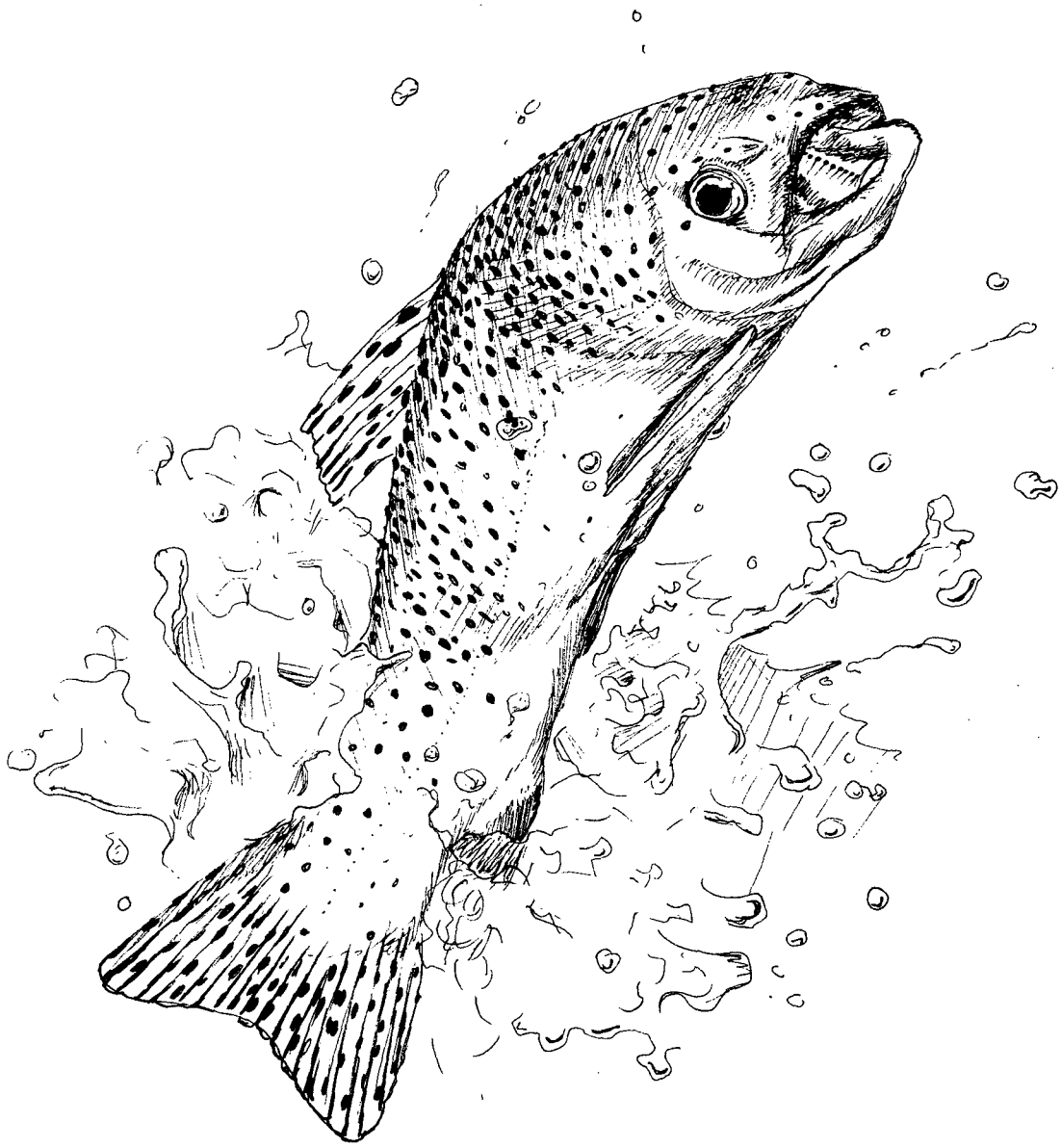
upland vegetation • 15, 16, 37, 42, 104, 105, 106, 107, 108, 122, 145, 168, 169, 225, 226
utilities • **27**, **56**, 102, 106, 122

W

Warm Springs • 1, 2, 3, 5, 6, 8, 10, 13, 20, 21, 23, 28, 29, 31, 34, 38, 40, 45, 57, 58, 73, 76, 82, 83, 85, 90, 93, 98, 124, 146, 163, 166, 188, 216, 227, 228
water quality • 7, 12, 37, **45**, **73**, 101, **115**, 124
water rights • 2, 7, 12, 13, **46**, 73, 101, 115, 116, 117, 148, 165, 166
waterwheels • 43, 66, 122, 123, 139, 227
weeds • **18**, 19, **49**, 76, 77, 114, 173, 174, 226, 227
wells • 12, 43, 66, 67, 70, 73, 139, 225, 228, 229
wetlands • 5, 7, 15, 16, 75, 144
Wild and Scenic River • 1, 2, 3, 4, 5, 6, 9
Wild and Scenic River Act • 38
Wild and Scenic Rivers Act • 2, 7
wild fish • 20, 21, 79, 80, 92, 115, 136, 175, 176, 177
Wild Fish Management Policy • 20, 50, 79, 115
wildfire • 17, 37, **48**, 100, 112
wildflowers • 18, 49, 75, 90
wildlife • **119**
wildlife damage control • 53, 120
wildlife refuge • **23**, 53, 82, 138
woody material • 21

Appendices

Metolius Wild and Scenic River Management Plan



Comment Summary

A ninety day public comment period followed the release of the DEIS in November, 1995. Over 700 copies of the DEIS were distributed to the public and interested agencies. From December to February 1996, a series of public meetings were held to discuss the analysis and help people formulate their comments in effective ways. By the end of the comment period on February 16, 1996, we received 104 written, faxed, E-mail, and oral comments.

Origin of Response	Number
Central Oregon	35
Other Oregon and Washington	62
Other U.S	7

The Sisters Ranger District received a total of 104 responses to the Metolius Wild and Scenic River Draft Environmental Impact Statement. Of those the majority (60%) came from Oregon and Washington outside of Central Oregon. Thirty-four percent of the comments came from residents of Central Oregon, concentrated in Bend, Sisters, and Camp Sherman. Six percent were respondents from other areas in the U.S. including non-resident owners at Black Butte Ranch, national rafting interest groups, and visitors from out of state.

Type of Respondent	Number
Individuals	68
Interest Groups	17
Government	2
Commercial Business	4
Recreation Residents	11

The largest group of respondents were individuals (64%), with many of them having ties to interest groups. In the analysis those who indicated that they were recreation residence owners were tallied separately. Interest groups included homeowners associations, fishing, boating and environmental groups among others. Government respondents included Environmental Protection Agency and a coordinated input from the state of Oregon through Governor Kitzhaber's office.

We responded to a total of 544 comments. The general nature of these comments are summarized below.

Issue #1 - Hydrology	
Water Quality 4%	The comments we received were largely supportive of the actions we were taking to monitor and protect water quality. *"Firstly, we fully agree with the Forest Service and the Preferred Alternative regarding the monitoring of water quality and inventory of septic systems in ANY and ALL areas of the Metolius River."* Others felt that the Plan did not go far enough. ***"The draft plan proposes utilizing 'existing water quality' as the standard to be achieved on the river. That is not good enough. Phosphate and nitrate levels, for example, must be reduced."***
Issue #2 - Vegetation & Ecology	
Upland Vegetation Timber Mgmt Fire Grazing	A body of commentors suggested the grazing, commercial timber harvest and herbicides were not appropriate tools for the Metolius. ***"Ban grazing & commercial logging in the river corridor."*** These same comments and others were supportive of hand thinning and prescribed burning to manage

10%	vegetation. ***"I agree with hand thinning and some prescribed burning from below."*** Concern for care and safety in the application of prescribed fire was expressed.
Riparian Vegetation 1%	Few comments were received about riparian vegetation in general. Specific comments about the management of recreational use often referenced riparian impacts. These comments are discussed under the related activity.
Issue #3 - Fisheries	
Fish Populations 3%	A large amount of discussion was presented about Oregon Department of Fish and Wildlife's Upper Deschutes Basin Fish Management Plan and how it related to the mandate of the Wild and Scenic River Plan. ***"I believe the plan is unacceptably vague on the fisheries...Too much weight has been given to ODFW's basin plan which is of unknown status. This river plan needs to have specific population goals written into it."*** The issue of fish stocking was discussed by both sides. ***"Wild fisheries must take precedence over hatchery fish"*** and ***"Fish planting should be encouraged around the campsites and possibly increased."***
Instream Wood 1%	Comments about fish habitat were largely about conflicts between instream wood and boaters. They are discussed in the boating section.
Issue #4 - Wildife	
Snags Down Logs 1%	Snag comments questioned the need to cut hazard trees in campgrounds or the limitation of recreation residents latitude to address safety hazards around their homes. The same questions were asked about down log standards.
Issue #5 - Aesthetics and Character	
Transportation Management 2%	***"I strongly support the prohibition of off-road use by motorized vehicles and the requirement that parking outside campgrounds be in designated spots only."*** Many others espoused this sentiment. There were no comments to the contrary.
Road Closures 7%	Road closures were well supported. Some supported the overall strategy of reducing road densities but objected to one or more specific closures. A few objected to the closure of any road and any loss of motorized access.
Rd 1419-900	Converting Rd 1419-900 to a one-way route was debated: ***"We are in favor of making Rd 1419-900 one-way to increase bicycle and pedestrian safety, and to reduce the potential of bicyclists using the hiker trails."*** and ***"...Road 1419-900 would cause more traffic on the road where Allingham Bridge is, 1419, and 1420. This could cause a bigger traffic safety problem."***
Rd 1499	Many of those who objected to our proposal for closing Rd 1499 believed we fell short by not closing the road at Lower Bridge. ***"Road 1499 must be closed at Lower Bridge Campground and continue no further north."*** One comment supported the closure as proposed. ***"I would definitely favor closing the dirt road below Bridge 99. I would keep it open for around 1-2 miles, then close it with a trailhead for backpacking and horse travel only."***
Issue #6 - Prehistoric and Historic Resources	
	There were only a few comments about cultural resources, mostly seeking clarification of specific actions or language.
Issue #7 - Recreation	
Developed Campgrounds 5%	There was a range of comments regarding developed camping. Several commentors objected to the closing of Pine Rest. Most were concerned about impacts in campgrounds, especially to riparian areas and hazard trees. There were diffferences of opinion about the need for and effects of a reservation system: ***"I believe a reservation system will attract more people. I believe that a reservation system will cause more out-of-stater's to make***

	reservations; then, Oregonians will still come to the area and eventually find somewhere to camp (some at non-approved sites), thus, increasing overall usage". and ***"A reservation system needs to be put in place, giving the Forest Service the ability to close and restore sites as necessary, without conflict, and to begin to move campsites and trails further away from the river"***.
Day Use Facilities 1%	Many commentors recognized the role of day use facilities in providing appropriate places for visitors to go. Some had suggestions for facilities. Others were concerned about day use facilities increasing overall use in the basin.
Trails 3%	Most commentors recognized that there were conflicts between different types of trail users and supported efforts to segregate use. Some thought restricting the river trail to hikers only was unfair, particularly to equestrians. Some wanted more hiking opportunities: ***"Loop trails are few and far between."*** and ***"The large private sections should be opened up to hikers."*** Others were concerned about potential for tresspass***: "Trails should be routed and signed to discourage tresspass***..." Most supporters of road closures also supported plans to make closed roads available to cyclists and horses.
Boating 30%	More people commented about some aspect of boating than all the other issues combined. Almost half of the letters we received addressed only or primarily boating concerns. In general, boaters were concerned that the Preferred Alternative limited boaters illegally, unfairly, and/or unjustifibly: ***"the current DEIS prevents the river from being enjoyed by boaters. In doing so, the Forest Service does not satisfy the above mandate of the Wild and Scenic Rivers Act and does not fulfill its duty to hold the river in trust for the public***" and ***"should anglers be favored over boaters? If you truely want to enhance the fishery, why don't you prohibit fishing***?" and ***"I feel there is no field data to support limiting the numbers now floating the river and before rafting is limited, this data needs to be included."*** Some commentors, including some boaters supported the plan: ***"I have kayaked the lower river and believe it needs and deserves preservation.... I believe the plan of limiting boaters is very good."*** Many commentors thought the plan did not limit boaters enough: ***"Your plan to allow boating on the Lower River under permit seems unwise. This plan element gives boaters the expectation of continued access, which access would have deleterious effects on river banks, on wildlife population, on freedom from wildfire, and on avoiding trespass on Reservation land, all conditions that defeat the principle of maintaining a primitive condition there."***
Issue #8 - Lower River Primitive Area	
General 7%	General comments were concerned about defining and maintaining the desired primitive experience. Some pointed out what they viewed as conflicts: ***"The private residences, proposed boater rest stop, increase in biking traffic, logging, and historical alterations are all in conflict with the "primitive area" concept"***. Many thought the plan did not go far enough in maintaining the primitive mandate: ***"If our hearts and minds are truly dedicated to protecting and rehabilitating the Metolius River then I demand that this area be declared a wilderness area."***
Issue 9 - Commercial Development	
5%	Most commentors wanted more outright limitations on commercial development of all kinds, and thought the plan did not go far enough. Many were concerned about the language used to define "demonstrated need***":***

	"The language, 'demonstrated need (not merely demand)' seems to me not clear enough to prevent irretrievable mistakes. Let's make sure we have no golden arches in Camp Sherman." Similar concerns were expressed in regard to Special Use Permits: *"I am worried about vagueness and lack of clarity that often appears; 'What is the appropriate role of commercial and special uses in the river corridor?' How is 'special' specifically defined? It could mean anything."* Several commentors thought there was a role for thoughtful and sensitive outfitter/guide services.
Issue #10 - Recreation Residences	
8%	While we received many comments from both individual rec residence lease holders and others, most of the comments in this section are from an excellent and comprehensive response developed by the Board of the Metolius River Forest Homeowners Association. Most other organizations would be fortunate to have such dedicated representation. MRFHA commented on issues of language and definition as well as interpretation and feasibility of actions that affected their uses. Commentors not identified as recreation leaseholders usually were concerned about impacts of recreation residences on the river, particularly on water quality and riparian vegetation.
Issue #11 - Interpretation and Education	
1%	There were few commentors regarding this issue specifically, althought many commented about interpretation and education in relation to other issues. Most commentors were in favor of the plan's approach and offered suggestions for programs, sign design, and stewardship messages.

Once the comments were identified, they were reviewed with the following questions in mind:

1. Does the comment provide new information pertaining to the preferred alternative or any other alternative?
2. Does the comment identify a new issue or expand upon an existing issue?
3. Does the comment identify a different way to meet the underlying need (e.g., does it propose a new alternative)?
4. Does the comment provide an opinion regarding one or more alternatives, including the basis or rationale for that opinion?
5. Does the comment point out a specific flaw in the analysis?
6. Does the comment identify a different source of credible research which, if used in the analysis, could result in different effects?

Based on these questions, comments resulted in two possible outcomes:

1. Comments that suggest modification of the documentation or analysis (modify the Preferred Alternative, develop new alternatives, supplement the analysis, correct factual errors).
2. Comments that evoke no further response for several possible reasons: they raise points that are outside the scope of the analysis; they discuss issues or facts that have already been discussed in the documentation; they lack sufficient specificity to support a change in the document or to permit a meaningful response; they draw conclusions from the analysis; or they "vote" for an alternative or action without giving supporting rationale.

Sources of Comments

Comment #	Source of Comment	Address
01	Alexander, Mrs. Dan	Elstmonage Island, WA
02	Allen, A.C. & Marsha	Sisters, OR
03	American Whitewater Affiliation	Silver Spring, MD
05	Ashlock, Kent	Sublimity, OR
06	Babson, Collette & James	Tacoma, WA
07	Beague, Mike	Silverton, OR
08	Bebout, Steven	Springfield, OR
09	Berkeley, Steve, et al	Seal Rock, OR
10	Burr, John & Katherin	Salem, OR
11	Central Oregon Flyfishers	Bend, OR
12	Churchill, Vicki	Sisters, OR
13	Cross, Bill	Ashland, OR
14	Dakin, Willard & Gretchen	Sisters, OR
15	Delp, James	Bend, OR
16	Duffy, William	Portland, OR
17	Eastside Protection Project	Bend, OR
18	Eddie, William & Marion	Saratoga, CA
19	Eixenberger, Don	Salem, OR
20	Ervin, Robert & Judith	Gladstone, OR
21	Friends Of The Metolius	Camp Sherman, OR
22	Frochen	Milwaukie, OR
23	Gripp, Gary	Sisters, OR
24	Hanson, Richard	West Linn, OR
25	Hogan, Ted	Newmark, OR
26	Holscher, Bill & Bette	Hillsboro, OR
27	Holzman, Irwin	Camp Sherman, OR
28	House On The Metolius	Camp Sherman, OR
29	Inkster, Jim	Bend, OR
30	Johnson, Elizabeth	Scappoose, OR
31	Johnson, Mrs. Samuel	Redmond, OR
32	Judy, John	Camp Sherman, OR
33	Kern, Charles & Jean	Woodburn, OR
34	Killen, Ronald	Gresham, OR
35	King, Jim	Camp, Sherman, OR
36	Kirkaldy, Anita	Sisters, OR
37	Kucharski, Stephen	Brookings, OR
38	Knapp, James	Sisters, OR
39	Knapp, Walter	Beaverton, OR
40	Knox, Scott	Ashland, OR

Comment #	Source of Comment	Address
41	Krohn, Philip	Camp Sherman, OR
42	Lafollette, Rick	Bend, OR
43	Leitheiser, Michael	Lake Oswego, OR
44	Livingston, Justyn	Camp Sherman, OR
45	Livingston, Katherine	Camp Sherman, OR
46	Lund, Kenneth J.	McMinnville, OR
47	Mann, Charlie	Fallen, NV
48	Mather, Judy & Craig	Ashland, OR
49	Mathisen, Len	Bend, OR
50	Mauldin, Diane	
51	McIntosh, Stu	Roseburg, OR
52	McKenna	Bend, OR
53	Metolius River Forest Homeowners Assoc.	Portland, OR
54	Miller, Gary	Ellensburg, WA
55	Moore, James	Ashland, OR
56	Mullong, Bob	Bend, OR
57	National Organization For Rivers	Portland, OR
58	Native Plant Society	Bend, OR
59	The Nature Conservancy	Bend, OR
60	NW Rafters Association	Colorado Springs, CO
61	Olsen. Russell	Sisters, OR
62	Oregon, State Of	Salem, OR
63	Oregon Natural Resources Council	Bend, OR
64	Oregon Trout	Portland, OR
65	Ostertag, George & Rhonda	Wilsonville, OR
66	US Environmental Protection Agency	Seattle, WA
67	Pickard, Bob	Bend, OR
68	Prince, Steve & Joan	Bend, OR
69	Ratcliffe, Robert	Salem, OR
70	Rice, Robert	Salem, OR
71	Road District 18	Jefferson County
72	Robins, Dick & Arlene	Severa Park, MD
73	Robinson, Rod	Portland, OR
74	Russell, John Wright	Portland, OR
75	Scharf, Andrea	Yachats, OR
76	Schay, Pete	Salem, OR
77	Schuaneveldt, Diane	Roseburg, OR
78	Sheythe, John	Milwaukie, OR
79	Sisters Forest Planning Committee.	Bend, OR
80	Smith, Dennis	Bend, OR
81	Smith, Mary	Sisters, OR

Comment #	Source of Comment	Address
82	Spencer, Mary	Menlo Park, CA
83	Sterling, Don	Portland, OR
84	Summers, David & Kendra	Tualatin, OR
85	Suppah,. Delson Sr.	Warm Springs, OR
86	Swart, Tom	Vancouver, WA
87	Tamiesie, Sandy & Enyart, Carol	Portland, OR
88	Thomas, Greg	Sisters, OR
89	Thuemmel, Bob & Mary	Wilsonville, OR
90	Volk, Carol	Port Orchard, WA
91	Webb, Steve & Trudy	Jefferson, OR
92	Wilderness Watch	Portland, OR
93	Willamette Kayak & Canoe Club	Corvallis, OR
94	Zapf, Ernest	Portland, OR
95	Zimmerman, David	Bend, OR
96	Lague, Rich	Corvallis, OR
97	Cochran, Kent	Oregon City, OR
98	Speckmann, John	Bend, OR
99	Brenden, Harold	Stayton, OR
100	Brody, Celest	Tualatin, Or
101	Solberg, Gary	Portland, OR
102	Riggs, Tom	Hillsboro, OR
103	Collins, Jim	Portland, OR
104	Hickney, Michael	Portland, OR
105	Kish, Gary	Portland, OR

Responses to Comments

Issue 1		
Water Quality		
17a	The monitoring program for water quality on the River needs to be greatly improved upon. Money should be allocated to establish a baseline. Stations should be set up all the way from Suttle Lake to Bridge 99 (including the fish hatchery) and tested at regular intervals	The Plan includes a specific water quality monitoring program which establishes station locations (Bridge 99 (DEQ); Gorge; mouth of Lake Creek; above Lake Creek for coliform, ortho phosphorus, total phosphorus, nitrates, and nitrites; Bridge 99 & Gorge for temperature; Canyon Creek & Bridge 99 for turbidity), and establishes elements to be monitored, standards that are set or to be established, timing, frequency, and agency roles. Water quality is the sum of many elements. Some elements of existing water quality may be as high as could possibly be achieved. All elements (except phosphorus) well exceed state water quality standards. Further study and monitoring is necessary to determine natural levels and fluctuations and establish the appropriate baseline for the primary water quality indicators (orthophosporous, nitrates, and fecal coliform). Where improvements in water quality are possible, standards will be set to exceed these baselines. Otherwise, standards will be established to reflect the existing high water quality. Results of water quality monitoring will trigger management actions where standards are not being met and the source of problem can be identified or addressed (LAC process).
18a	Critically important to the preservation of the Metolius are all the various feeder streams and springs which comprise the tributary system. Lake Creek, flowing out of Blue and Suttle Lakes and through private land requires necessary regulations and zoning to eliminate pollution from sewage, pesticides, herbicides, and pressure of grazing. Anything which negatively effects Lake Creek will hurt the entire system. Sewage regulation in the Blue Lake Resort area and Suttle Lake Resort areas should be very strict and well enforced.	On National Forest lands, Northwest Forest Plan provides standards and guidelines for maintaining water quality in the tributaries of the Metolius. Current county zoning and state water quality standards regulate pollution and development on private land in the Metolius Basin.
18d	Water quality in the main stem of the Metolius River and all feeder streams is of utmost importance and monitoring of water quality should be well defined in the Plan.	see 17a
19d	the preferred alternative standard should be to **exceed**" existing water quality"	see 17a
21b	Using "existing water quality" as the standard seems to make the assumption that there are no problems with the water quality currently, an assumption that is unwarranted, particularly given the unanswered questions about phosphate levels and coliform counts.	see 17a
21c	The Preferred Alternative must speak more specifically to an enhanced monitoring program, with both more testing sites and a greater frequency and with some regular public reporting of the results and actions being taken to deal with any problems. It should address responsibility for such an expanded program among the Forest Service, the Confederated Tribes, the logical state agency (presumably DEQ), and Jefferson County. It should consider private property as well as recreation residences as potential sources of water quality problems.	see 17a
30j	Existing water quality standards may not be adequate to protect the water from pollution, contamination and sedimentation.	see 17a

32a	A component should be developed suggesting that current water quality is the minimum acceptable standard and a plan to aggressively improve that water quality should be created.	see 17a
41b	The plan does not call for significant improvements in water quality (which is to say that water quality is good enough today)..... It does not call for the elimination of herbicide/pesticide use, nor the use of fertilizers by homeowners. Much of these toxic fertilizers end up in the river after passing through heavily watered "lawns." There should also be controls established over the kinds of soaps and detergents people put in their drains, and drain fields. Not to mention the poisonous anti-freeze people poor down their drains in the autumn and winter.	see 17a. Existing guidelines regulate the use of herbicides, pesticides, and fertilizers on National Forest lands, including recreation residence lots. The use of household products is outside the scope of this plan, though opportunities may exist to heighten awareness of their potential impact on the river.
44d	III. WATER QUALITY. Since water quality is one of the most important ORVs of this river, and is the best indicator of the basin's general health, I feel water testing needs to be often (more than once a year, say bi-annually or quarterly), and should be placed in strategic places to monitor domestic water and potential septic contamination. I believe there should be monitoring sights at Lake Creek (above and below C.S. road), at the confluence of Spring Creek, at the Store and Allingham bridges, and again at bridge 99.	see 17a
64b	Recent studies by the Portland General Electric Company indicate high phosphate levels in water entering Lake Billy Chinook from the Metolius River. These issues need further study to find the sources of these water quality problems.	see 17a
73c	It would seem that in order to meet or exceed existing water quality a very clear plan for testing should be documented in the plan... I think it would be wise to make an issue of this possible problem and see if (DEQ) could do their testing in the upper river maybe at the Gorge Campground or other sites that would give a better monitoring of possible contamination. It would seem like the hatchery should monitor the water quality in their part of the river.	see 17a
79x	The draft plan proposes utilizing "existing water quality" as the standard to be achieved on the river. That is not good enough. Phosphate and nitrate levels, for example, must be reduced.-	see 17a
Water Quantity		
30p	I am concerned that insufficient attention has been focused on the declining flow of the river. We've had one major spring completely dry up in the past decade.	Managing the source of the water for the springs is outside of the corridor and the scope of this plan. Determining baseline flows will aid in identification of impacts from activities outside the corridor which affect water quantity in the corridor.
59b	Water quantity - Preferred Alternative (hereafter "PA") statement. Established baseline flows from existing data and using data for making water stability decisions falls short of establishing a quantitative baseline below which water extraction can no longer occur. We support establishment of a workable but "hard line" in this area. Otherwise, it would be possible to establish stability (i.e., an equilibrium) but at a substantially lower level than currently exists.	Water quantity baselines are not necessarily existing flow levels, but the baseline will be established from data on existing and historic conditions.
Water Rights		
59c	Why not adopt a more proactive posture in relation to acquisition of instream water rights? It might be possible to utilize an existing land trust for this purpose. It seems a more forthright and assertive approach is more likely to achieve the desired outcomes. The existing statement refers to acquiring rights "on the basis of need." Who's need? Are there better ways to set priorities?	Oregon water law allows for the new instream rights or conversion of existing consumptive rights only on the basis of need to protect an ORV which must be established through a needs assessment. Under Oregon law, only the Departments of Fish and Wildlife, Environmental Quality, and Parks and Recreation may apply to the Water Resources Department for instream water rights. Instream water rights may be issued for a number of public values, some of which

		are identified as Outstandingly Remarkable Values. For example, recreation, aquatic and fish life, wildlife, fish and wildlife habitat, and navigation are among the values for which instream water rights may be granted. The appropriate agencies will cooperate on identifying the need and applying for any additional instream water rights.
62p	The Water Right section on page 13 does not provide adequate information and consequently leads to an inappropriate preferred alternative. The following changes are proposed **A minimal amount of consumptive** surface and groundwater rights exist within the **Metolius Basin (67 cubic feet per second, half of which are for fish and wildlife uses).** Managing the impacts of these and future uses on flow levels is important. The Confederated Tribes of Warm Springs **are claiming** an unquantified consumptive right to waters of the Metolius River, the quantity of which is being negotiated with the State of Oregon and the federal government. **It is not anticipated that the consumptive rights of the Tribes will be quantified at a figure larger than 50 cfs.** **The Oregon Department of Fish and Wildlife has applied for eleven instream water rights on the Metolius River and the following tributaries: Abbot Creek, Candle Creek, Canyon Creek, Fly Creek, Jack Creek, Lake Creek, Link Creek, and Spring Creek. Additionally, the Water Resources Commission has identified State Scenic Waterway (Diack) flows to protect fish and recreational flows, Under Oregon law, only the Departments of Fish and Wildlife, Environmental Quality, and Parks and Recreation may apply to the Water Resources Department for instream water rights. Instream water rights may be issued for a number of public values, some of which are identified as Outstandingly Remarkable Values. For example, recreation, aquatic and fish life, wildlife, fish and wildlife habitat, and navigation are among the values for which instream water rights may be granted.**	Noted
62q	If additional instream water rights are needed to protect one or more of the unique ORVs, then the specific value which needs protection (recreation, aquatic and fish life, wildlife, fish and wildlife habitat, and navigation, or other) should be indicated.	Noted
62r	In previous conversations with your office, I described the total water rights in the Metolius Basin (based on primary diversions, groundwater, surface water and reservoir rights). Here is that list again: Irrigation: 9.97 cubic feet per second (cfs) and 71.40 acre-feet (aft), Fish and Wildlife: 33.57 cfs and 12.00 aft, Agriculture: 0.01 cfs and 65.60 aft, Industrial: 19.00 cfs, Domestic: 4.47 cfs, Recreational: 0.13 cfs and 1,000.00 aft, Total: 67.14 cfs and 1,149.00 aft. The "Water Right and Withdrawal" section (p. 73) should be modified to reflect this information.	Noted and corrected
62s	The list of alternatives on pages 45 and 46, incorrectly lists instream and "Diack" Flows as the same. State Scenic Waterway Flows ("Diack" Flows) are data developed to assist the Water Resources Commission to make findings required under ORS 390.835 (1). These data consider information from a variety of different sources and compile them to reflect instream needs for recreation, fish and wildlife. "Diack" Flows are only data for the Commission to consider during the application review process and do not have any implication for regulation of junior water rights. Instream water rights differ in that these have impact on both the application process and potentially on regulatory actions.	Noted and corrected

Issue 2		
Biodiversity		
21s	Should "course filter" strategy (p. 15) be exemplified? It may be understood in house, but the definition here is insufficient to make the strategy clear, even when it is defined as "conserving landscape patterns and processes?	see Glossary
42c	Page 15 refers to 'coarse filter' which is meaningless to me.	see 21s
58a	Need to incorporate more consideration for peck's penstemon (pepe) in the plan. You should refer to the habitat conservation plan for pepe and offer compliance with it. .....You inadequately analyze grazing and recreation and logging impacts on this species.	The Habitat Conservation Strategy for Peck's Penstemon is higher level direction for the entire range of the species. The strategy requires fine filter analysis of project-specific impacts to the species. Project specific effects are not within the scope of this Plan.
59d	Rare Plants - Description p. 14. Habitat degradation is also a principle cause for the demise of rare organisms.	Noted
59e	Biodiversity - PA statement. The Conservancy has employed the "coarse filter/fine filter approach to ecosystem management for the past 20 years. Our experience suggests overemphasis on either end of the scale is misguided. In this instance, a coarse filter orientation is well advised. However, it will be essential to continue to employ a fine filter approach for individual organisms that either do not fit tidily into coarser filters, carry legal or social requirements that more attention be directed toward them, or have biological requirements that require a high scale of resolution.	Due to higher level management direction, we will continue to use a fine filter approach to survey and protect habitat during project level analysis for TES species and Northwest Forest Plan Survey and Managed species.
53r	**MRFHA is concerned about the use of scientific terminology which may not be understood by all (e.g. "coarse filter").** We recommend that the Biodiversity Preferred Alternative be written using terminology that is understood by all. (Page 15, paragraph 3 and PA and related references:)	see Glossary
53s	**MRFHA is concerned about the omission in the Preferred Alternative regarding survey, identification, and protection of rare plants.**	see 59e
92a	The biodiversity approach is weak. Management that only slows significant downward trends is a formula for failure. Your objective needs to be to protect and enhance biodiversity so you must reverse all current and predicted downward trends.	There are many factors that effect populations. Species diversity or habitat capability are outside the scope of this plan and beyond anyone's abilities to change. Also consideration and management of one resource may limit opportunities to reverse downward population trends.
Upland Vegetation		
21h	We are concerned that the Plan tolerates such management tools as grazing, commercial timber harvest, and herbicides to accomplish these goals... we would not want economic or political circumstances, for example, to become "emergencies" and excuses for unwise management that have undesirable side effects	***The following changes were made to the Proposed Action to address this concern:*** Grazing is not an essential or appropriate tool for managing vegetation in the corridor. To the very limited extent that it is an enduring traditional or historic use (one existing pasture permit), it will be permitted. When necessary for the utilization of out-of-the-corridor grazing allotments, crossing may be permitted. These uses will be managed to protect corridor resources, especially riparian related, under existing range management direction. Herbicides will be used only where biological and manual control is impractical or ineffective in preventing degradation of native plant habitat. Its application will be selective, site-specific, and in accordance with an Integrated Weed Management Plan (scheduled to be developed for the Deschutes National Forest).

		The thresholds for identifying stands that are outside the range of desired conditions where timber harvest might be considered as a tool are found in the LAC portion of the Monitoring section under Upland Vegetation. An appendix to the Plan has been added which provides descriptions of the existing stand conditions in the corridor, desired conditions, and treatment strategies for areas where existing is not desired.
21w	Is the limit on timber harvest, grazing, and harvest of special products to meet specific vegetative goals sufficient to exclude management acquiescence to large-scale commercial exploitation?	see 21h
23e	It seems to me highly unlikely that streamside grazing is going to help the river, or commercial cutting in the corridor, or the use of dangerous herbicides. Why don't we just cleanly rule those out as options, and come up with more creative ways of dealing with river health.	see 21h. Creative means of dealing with river health which are consistent with the river plan will be wholeheartedly embraced. Site-specific project planning will offer many opportunities to explore creative management options. To categorically ban commercial timber harvest and herbicide use may unnecessarily limit the ability to respond to serious situations.
39a	Please note that these comments apply to the Metolius Basin in its entirety, and not just the river corridor. *Active management* is generally preferable to a passive, "hands-off," approach. Many of the vegetation problems within the basin can be attributed to overly-dense stands of trees and late-successional species and structures. The results are forests that are vulnerable to major loss from insect attack and wildfire. These effects are clearly identified and described in the DEIS. Failure to actively manage the area will place the river corridor at great risk to major resource loss and disruption. *DEIS: The preferred alternative emphasizes the use of prescribed fire as the primary means of restoring desired vegetative conditions. The use of timber harvest as a tool, either alone or in conjunction with managed fire is allowed but not given adequate emphasis.* *Active management* does not necessarily mean logging and other activities on all areas. High-priority treatment stands should be identified. The most critical resource areas should be avoided or managed with highest sensitivity. *The DEIS describes the need to identify areas that are outside of the range of desired conditions. This is an excellent approach, and will require a landscape analysis that considers all lands in the basin.* **Active management** should only be undertaken to move the area toward the desired condition. Clear statements of the desired condition need to be included in the management plan. Further, the desired condition must be realistic and achievable. *DIES: Timber harvest [and salvage] will only be undertaken if beneficial to protecting or enhancing ORVs.* The Deschutes National Forest has described a *range of desired conditions*, rather than a simplistic average condition. This concept is ecologically supportable for the Metolius area. *The DEIS supports this approach for management of the river basin. The preferred alternative describes the desired condition in terms that can be used to develop prescriptions for treatment of the vegetation.*	Public opinion does not support an emphasis on timber harvest in the corridor, and the Plan is responsive to this while recognizing that there are risks associated with this approach.
39c	The role of *natural succession* as stated in the DEIS mat not be consistent with other statements and goals. *The DEIS states that "upland vegetation restoration outside of*	Including both "natural succession" and "disturbance processes" in the statement recognizes that disturbance processes, primarily fire in this case, influence successional pathways and that influence is desired to avoid unhealthy,

	the developed areas is achieved primarily through natural succession and disturbance process.... " As worded, this suggests that late sucessional species, such as Douglas-fir and the shade-tolerant true firs, represent the desired condition. It is generally recognized that these species and the stand structures they represent are responsible for many of the unhealthy, unsustainable conditions now present in the forest. Also, additional clarification is needed to encompass all planned, managed disturbances, natural as well as human.	unsustainable conditions.
79w	The draft plan includes vague provisions allowing commercial timber and grazing in the river corridor. The whole idea of protecting the river from commercial exploitation and degradation can be turned on its head by using these "tools" of grazing and commercial logging ostensibly for ecological reasons... Compaction of soils, erosion and sedimentation are reason enough not to have these activities along the river... At page 154 (MTFV-2), you propose what may be a very active timber program to restore upland vegetation in areas that are only "moderately" outside a range of desired conditions which are hard to define. We can't picture or locate what you're talking about and how much there is.... There is absolutely no reason to allow any grazing or commercial logging there	see 21h.
79a	On page 16 there is mention of areas of excessive stand densities and high fuel loads. We would like to know where they are so we could understand what you are talking about	see 21h
79b	On page 17 you refer to restoring structure and composition towards the historic range of variability. The problem is that you do not define that historic range of variability or explain where a stand currently exists within that range	see 21h
Riparian Vegetation		
11c	For developed campgrounds and recreational residences, the Preferred Alternative allows up to 25% of riparian areas within 100 feet of the river to be "lost" (hardened, landscaped, developed). "Losing" 25% of riparian areas within 100 feet of the river in campgrounds and recreational residences removes about 14% of the Forest Service managed riparian areas upstream from Gorge Campground.	***The Proposed Action has been changed to address concerns about riparian management in campgrounds and recreation residences.*** No riparian area will be "lost", unacceptable conditions will be rehabilitated, and the amount of developed area will be reduced.
20a	Nowhere in the plan is the effect of year-round fishing related to the riparian area.	The Plan addresses riparian impacts in ways that do not require differentiation of the sources of impacts.
23a	Regarding tributaries to the Metolius such as Canyon and Jack Creeks: Legal protection from riparian degradation is allowed for under W&S, but none is explicitly provided in the Plan.... I see many instances of human-caused riparian degradation to the lower reaches of Jack and Canyon Creeks, and I guess I'd like some sort of written assurance that these problem areas were going to be taken care of. I'm talking specifically about campsites, fire rings, and access roads, plus various "improvements," much too close to the water's edge, on Jack Creek between 1420 an the 12 road.	Riparian impacts on tributaries are outside the corridor and outside the scope of the Plan. The district is currently monitoring and assessing affects on the tributaries under the Riparian Reserve guidelines of the Northwest Forest Plan.
23b	My own experience with rehabilitation efforts convinces me that prevention is the key. The results of rehab work are always iffy, can absorb large quantities of human effort, and take years to show results. Prevention is preferable by far.	It is the intent of the Plan to emphasize prevention.
59f	How will you determine the species to be targeted for restoration? their distribution, abundance and microhabitat? From a genetic perspective, it is important to use native stock, that is from genetic material taken within the drainage basin.. You further state that you will ". . .maintain and restore habitat to support well distributed populations. " The implications of this statement are unclear. Does this mean planting willows to create wildlife habitat? If so, guidelines or other sideboards	***The following addition was made to the Proposed Action to address this concern about native plant stock:*** Plantings should be predominantly of native stock, preferably from within the watershed, or short-lived non-native stock.

	need to be referenced in the text that make it clear that new habitat will not be created. Rather, that former (degraded or lost from a specific site) habitat will be restored. Our concern here relates to establishing limits on the extent of this proposed activity.	
59g	Does early seral vegetation include patches of exotic (non-native) plants? Does it include noxious weeds? Or does it only extend to patches dominated by early seral native species?	Desired early seral species are native.
62e	Parts of the monitoring section are very general. For example, the management standards to be used for riparian vegetation, spawning areas, etc., will be set at a desired level after "baseline monitoring" establishes 'thresholds". Does baseline mean the status quo, the historic range of variability, or something else? Also, under riparian conditions, there needs to be monitoring and evaluation of soil conditions and hydrologic features independent from riparian vegetation. Riparian vegetation is obviously critical but does not by itself indicate the overall level of riparian function or how stable that level may be in the foreseeable future.	Baseline incorporates both the status quo and historic range of variability. Other riparian considerations such as soil erosion, compaction, and breakdown of overhanging banks are addressed in the trail monitoring section.
84b	I assume the Tribe could enforce the same regulations to regenerate the riparian areas within its grasp like on the other side, but have elected not to [on the Deschutes River]. Will this same type of management strategy follow into your final plan for the Metolius?	This plan guides the management of tribal lands included in the Wild and Scenic River corridor.
Fire		
21t	Should "prescribed fire" (p. 16) and "Prescribed natural fire": (p. 17) be clearly distinguished?	see Glossary
21u	Does the reference to a Fire Management Plan (p. 17) to guide the use of fire refer to one to be developed or to one already existing which need only be consulted? Should parameters and limits for this plan be included in this management plan for us to inspect and evaluate?	The plan is to be developed. Guidelines currently exists for development of Fire Management Plans for all areas where natural fires will be used under prescription. This plan will be developed with public comment.
59h	In the mid- and long-term, it will be important to incorporate more fire season (especially September-October) prescribed burning in your program; especially in ponderosa pine stands being managed for biodiversity maintenance or restoration.	Agreed. The Fire Management Plan should address such long-term objectives.
41t	I am extremely concerned however by the way the slash is burned. The piles are too big and burn too hot. They tend to sterilize the soil at their center. On the best tree "farms" I've visited, they do a combination of dispersing slash (making sure it is in contact with the ground and can rot), leaving it in piles as wildlife structure (also good for ants and other small micro-decomposers), and burning in very small piles that each tend to create a ring of mineral rich soil where seeds like to germinate. I have looked extensively at the burns conducted on the Metolius. They look good but for one thing. Flagging. There is more tape littering those sites than litter on the entire rest of the river. It not only looks like the Forest Service doesn't care-and a bit like a well flagged harvest site-but it sets a bad example for other users.	Pile burning should be performed in a manner that protects soils. This is a project-level planning and implementation consideration. Flagging in the burns on the Metolius is associated with a research project. The Metolius burns were in the Research Natural Area and follow-up studies are being conducted.
59i	Explicitly state that you intend to utilize prescribed fire, not just "fire", as a restoration technique.	Noted . The use of prescribed fire could include the management of natural fire within prescribed limitations.
53q	MRFHA is very concerned about wildfire in the Metolius corridor and supports the intention of this alternative. We ask that this alternative emphasize safety and prevention of escaped fire. (Page 17, "Fire" PA)	This concern is addressed in project-level planning and will be an important consideration in the development of a Fire Management Plan.

Timber Management		
15k	Logging practices as done on the south part or Green Ridge must never ever be tolerated again. There must now be set a date when "salvage" and "protective" logging must be stopped. Once forest health is restored, such logging only causes harm. This must happen when the forest is rehabilitated by prescribed burning and other efforts	see 21h under Upland Vegetation.
17d	To allow commercial logging in the corridor would speak to the incentives of the timber companies not the real needs of the area and that would be devastating to the River.	see 21h .Some of the real needs of the area include reducing the number of small trees so that the remaining trees can grow larger or to reduce competitive stress on the larger old growth trees.. A commercial timber sale is one viable alternative to large portions of the basin becoming dense thickets of stunted trees. Nature's way of managing these stands is with large scale insect and disease attacks or stand-replacing wildfire. These solutions, though natural, may not be desirable in the populated portions of the corridor.
21v	Does "dying" in reference to the trees which may be salvaged (p. 17) include <u>all</u> trees, since from early on, all living things can be construed to be dying?	Salvage of damaged, dying, or dead trees applies only to those trees that, by virtue of their condition, contribute to the overall risk to the remainder of a stand.
28c	There is no discussion in the DEIS regarding vegetation management issues on private lands in the river corridor. The HOM manages its property as a tree farm on a long term sustained yield basis. We intend to continue managing our lands in this way, in full compliance with the Oregon Forest Practices Act. The DEIS and the plan should expressly recognize that commercial timber harvesting in accordance with Oregon Forest Practices Act rules will continue to be permitted in the corridor.	Vegetation management on private land within a quarter mile of the river must also comply with State Scenic Waterway Rules.
36g	Please <u>prohibit all commercial logging and grazing</u> in the river corridor. Hand thinning and controlled burning can be implemented, if necessary, to thin thickets and limit fuel debris.	see 17d
39b	*A reasonable range of management tools* should be available to accomplish vegetation management objectives and move toward the desired condition. Prescribed fire alone is not likely to be a viable or safe tool in areas where large volumes of fuel have accumulated. Silvicultural interventions will also be needed. Silvicultural prescriptions for the area will need to be innovative, and must have a high probability of success. *The DEIS discusses thinning and salvage as tools to be considered in the management of vegetation. However, the DEIS seems to avoid explicit terms relating to timber harvest, perhaps recognizing that some of the words were unpopular or inflammatory to segments of the public. A more clear definition of management tools and actions is called for.* *Commercial timber harvest* should be a viable option, but not an objective. There should be no programmed harvest for the river corridor. *The DEIS does a good job of making this clear. However, since there is no programmed harvest planned for the area, it may be difficult to obtain financing for timber management. It will be necessary to find other means for program support.* *Involvement of interested publics* should be a part of prescription development *and implementation.*	see 17d
41r	The preferred alternative needs to say that no commercial logging of any kind will be permitted, even to defray costs of "vegetative management" that is deemed necessary to maintain Ponderosa pine and other stands. Taking all commercial incentive out of cutting insures that cutting will be looked at only for the purpose of promoting forest health, which would	see 17d

	only mean light thinning of small trees.	
44c	In addition, I do not feel pesticides or commercial timber harvest, should be used in any scenario. It seems to me we do not know enough about the long term effects the chemical changes might bring. And I believe it is detrimental to encourage commercial timber harvest for 'hazard' trees or 'vegetative management'. In the case you feel there are necessary tools (limited grazing and herbicides) to include in the plan, please make the statements clear and concise as to when and where they are appropriate. Perhaps even getting as specific as to what kind of herbicide and how many animals may graze in a given area.	see 17d
55b	Restrict the removal of timber to understory only. (Removal of large overstory trees limited to that prescribed by compliance with OSHA or other regulations related to health and safety need). Eliminate the word "Salvage" from the discussion.	see 17d
72a	Hand thinning of the Forest should be used whenever possible!	see 17d
Grazing		
41q	I can not imagine a situation that would rightfully call for livestock entry..... The language may seem like it will protect the basin from non vegetative management types of permits. But we know how times change, personnel changes and language gets manipulated. For existing livestock, including llamas and horses, all pastures should be fenced away from the river and all of its tributaries. Water quality is being adversely affected by grazing on at least Lake and Spring creeks. There's no riparian vegetation and plenty of mud-and manure.	To address this concern, the following change has been made to the Proposed Action: Grazing is limited to crossing permits for out-of-corridor allotments and the existing special use pasture permit in the corridor and is not used as a management tool to achieve desired vegetation conditions.
44c	I am not convinced however that grazing is necessary tool to be included. Domestic animal grazing can increase damage to riparian areas while attempting to disturb soils in place of the healthy affects of prescribed fire. In my opinion, they do not create a good replacement.	see 41q
55a	Based on historical data the increased soil compaction and loss of natural vegetation, as well as the potential for Non-point Pollution by live stock grazing far overshadows the limited benefits. I recommend that you re-evaluate and eliminate all grazing at the earliest possible date	see 41q
59j	While livestock grazing can reduce "residual" grasses, improve habitat for a few wildlife species and "maintain" meadow habitats, we feel this oversimplifies the possible ecosystem effects. From an ecosystem maintenance perspective, grasses are not "residual" in the sense of being left over or underutilized. There are means other than grazing to contain the invasion and spread of woody species in wet meadows (cutting, fire). The linkage suggested that grazing benefits wildlife can be supported for some species in some instances. However, we maintain that entire assemblages of native species are substantially modified through ongoing grazing activities. We appreciate your inclusion regarding potential negative impacts of grazing, and suggest that it be expanded to include (beyond "changes in species composition") reference to it's potential to create habitat for invasion of noxious weeds and other exotic species (such as exotic pasture grasses - *Poa pratensis, Agrostis a/be, Dactylus gromerafa, Fesfuca arundinacea, Phalaris arundinacea, Anthoxanthum odoratum, Holcus lanatus, and Arrenafherum elatius.*)	see 41q
62f	Grazing is also a major potential contributor to contamination, erosion and sedimentation problems. Recommendation: add livestock grazing in upland and riparian areas to the list of	see 41q

	activities contributing to water quality problems.	
62g	Because the preferred alternative calls for grazing only to meet specific vegetation management objectives, the plan must be very clear and definite as to what those objectives are and how grazing contributes to them. Unfortunately this section and the rest of the plan are somewhat vague as to what those objectives are, and there is a complete disconnect as to how grazing may contribute to achieving those objectives.... Specify exactly which vegetation objectives are expected to be achieved by livestock grazing.	see 41q
62h	Distinguish the ecological role of fire and grazing in meadow ecology. Either substantiate the description of grazing as a beneficial tool for maintaining wet meadows or delete it. Also, acknowledge the role of livestock grazing as at least a potentially major source of trampling, soil compacting, and vegetation removal in the river corridor.	see 41q
62i	Page 96...The discussion of livestock grazing in riparian areas located on private and Reservation lands gives no indication whether this activity has a significant impact on river values, is a threat to those values, or, if a threat, can be mitigated.	There are no known significant impacts due to grazing on private or tribal lands. Water quality monitoring in the Plan should detect significant impacts.
62j	Page 105...This is an inaccurate and unnecessary oversimplification of the fundamental role livestock grazing plays in plant community dynamics... The implication of this section that fire has an associated risk and grazing does not is completely false.	Noted
62k	In addition to introducing weeds, continued livestock grazing can increase the cost and reduce the effectiveness of subsequent weed control efforts. In some cases, livestock grazing can be used to limit weed infestations. Recommendation: Note that livestock grazing can also have a beneficial or detrimental effect on weed control efforts.	Noted
Special Forest Products		
41f	Commercial activities that encourage off-road use should be eliminated entirely in the basin. Commercial mushroom permitting for example should be discontinued. We've seen the damage. Fire wood collecting also must be permitted with serious restrictions on off-road access to sites throughout the district.	The Plan restricts motorized vehicles to open roads.
41n	No special forest product permits should be granted. Firewood gathering might be allowed in areas where thinning is occurring or where it can be carefully controlled to prevent the removal of critical woody down-fall and snags. Nothing else should be removed from the forest. There should no longer be "products" to take from the forest.	Limiting commercial harvest of special forest permits to designated areas protects desired forest resources while allowing their use if there is need to meet specific vegetation management goals.
59k	Your reference to commercial harvest being permitted only "in designated areas" to accomplish vegetation management goals "or meet other resource needs" is too open ended. In our opinion, no direction or vision of the extent of these activities is provided.	***The following change has been made to the Proposed Action to address the concern about open-ended language:*** Commercial harvest of special forest products is permitted only in designated areas to restore desired vegetative conditions, enable the efficient use of prescribed fire, or protect surrounding stands which are at risk from high intensity disturbance.
Noxious Weeds		
17e	There is no place for chemical herbicides on a River, let alone a Wild and Scenic River. Weed control should be limited to manual, mechanical and biological methods.	***The following change has been made to the Proposed Action to address this concern:*** Herbicides will be used only where biological and manual control is impractical or ineffective in preventing degradation of native plant habitat. Its application will be selective, site-specific, and in accordance with an Integrated Weed

		Management Plan (scheduled to be developed for the Deschutes National Forest).
53t	**MRFHA is concerned about adequate safeguards to ensure that herbicides be used only in extreme situations.** MRFHA is very concerned about the use of herbicides. To clarify the intention of this preferred Alternative, we believe that it must be stressed that herbicides be used only in extreme cases where all other methods fail. This preferred alternative must be stated in the strictest terms possible to prevent possible unnecessary or careless use of herbicides. (Page 19, "Weed Control, PA & related references)	see 17e
59l	It is worth pointing out that weeds can also be dispersed by hikers.	Noted
59m	Emphasize the need for early detection and control of weeds. Failure to address more the just agricultural noxious weeds will directly and negatively affect your ability to achieve biodiversity goals. Numerous exotic plant species not on the Jefferson County noxious weed list have the ability to degrade the biological quality of the ecosystem. The narrow scope of existing noxious weed lists ignores the many "environmental weeds" which inhabit and are spreading across our landscapes. The reference to exotic pasture grasses above is just a small sampling of perennial grasses, annual grasses, perennial forbs, biennial forbs, and annual forbs that also can pose serious problems for ecosystem management. We want to further stress that we are not talking about targeting all exotic species, but only those that have a demonstrated or plausible potential to spread and persist in areas managed for ecological values. It should also be evident, that some species (e.g., pasture grasses) need to be viewed from the perspective of the goals and objectives of a specific area.	The presence of non-native species is identified as one of the vegetative conditions which is outside the range of desired conditions to be restored.
92b	What are your weed control objectives? You need LAC's for changes in natural vegetation due to weed invasion.	see 59m

Issue 3		
Fish Populations		
07a	How will fish migrate in both directions through the two dams on the Deschutes? Are you talking about trucking them beyond the dams or building fish passage facilities for each? I would definitely be interested in your answers.	These decisions are outside the scope of this planning process. The plan considers anadromous fish by addressing the needs of resident and migratory fish while maintaining options for the reintroduction of anadromous fish through habitat management.
11e	The Preferred Alternative states that the Hatchery Alternative in the Upper Deschutes Basin Plan "protects and enhances the Fisheries ORV" even though the Hatchery Alternative may reduce the wild Metolius redband population... Central Oregon Flyfishers recommends that the DEIS and prescriptions for the Preferred Alternative be revised to emphasize restoration of wild Metolius redband trout and trout habitat upstream from Gorge Campground.	Fish population management is done by Oregon Department of Fish and Wildlife. A Memorandum of Understanding defines ODFW's role in managing fish populations and the Forest Service's role in managing habitat. All ODFW alternatives in the Upper Deschutes Basin Fish Management Plan must meet the ODFW Wild Fish Management Policy to protect wild fish populations. To question the effectiveness of the ODFW Basin Plan in protecting the wild fish ORV is to question the effectiveness of the Wild Fish Management Policy, which is not within the scope of the Wild and Scenic River Plan.
17f	Healthy fish runs mean a healthy river and vice versa. Wild fisheries must take precedence over hatchery fish	The plan targets management of habitat for healthy wild fish populations and healthy riverine ecosystems. Fish stocking is a role of Oregon Department of Fish and Wildlife. Comments regarding fish stocking will be referred to ODFW because they are outside the scope of this plan.
18h	Fish planting should be encouraged around the campsites and possibly increased for the following reasons. a- Planted trout rarely breed and always die in the winter months. b- Young and old campers who do not wade or invest in $1,000.00 fly gear still should be able to have an excellent fishing experience on the river. It really need not be reserved for fishing purists. c- Fish planting would be done along all campsites and not just at Allingham Bridge. Time should be taken to 'distribute" fish along the stream between campsites so people do not congregate in one area.	see 17f
19a	The lack of draft alternatives for fish management is a most serious flaw in the plan.... The only recourse is to submit a revised draft of the plan describing alternatives for fish and the overall integration with all of the ORV's	The ODFW Basin Plan alternatives will not have an effect on any other ORV. Affects to other ORVs could only result from anglers and not fish in the river. There is no basis for assuming that stocking or not stocking fish in the river will result in a noticeable change in angler numbers or behaviors. There are standard and guidelines in the Alternatives that address angler access and impacts. Therefore, there is no need to analyze or integrate individual fish management alternatives as they relate to the non-fish ORVs
20b	Fish population seems to be another area of concern. It only seems logical to give the river an annual "rest" to allow self-rejuvenation of the fish populations and food supply contained in the river. It is indeed unfortunate the downstream dams do not allow for the safe migration of indigenous salmon and steelhead which were so prevalent years back. The Metolius River no longer can lay claim to its name source. What a shame.	Fishing regulation are managed by ODFW. See 11e
30r	All options should be kept open regarding wild fish promotion and recovery in the Metolius.	see 11e
32l	I think the Forest Service is evading its responsibility in not commenting more extensively on this issue... Additionally there is no language in the plan that defines what is happening with fish management. I would suggest that, lacking comment from the Forest Service as to which of the alternatives provided	see 11e

	in the Basin Plan would be preferred, at a minimum the language of the department's wild fish policy should be adopted into the plan. It says repeatedly in the plan that all alternatives in the basin plan comply with wild fish policy. It is further an Oregon administrative rule that the plan will comply with the policy. Why not then place the policy in the wild and scenic plan - saying all alternatives comply with this rule? At least that would provide some substance to the plan.	
37a	Every effort should be made to reintroduce Salmon to the Metolius River and related system.... The opponents to hatchery production contend that hatchery fish unfairly compete with so-called "wild fish." A more accurate name for wild fish might be gravel spawned salmon. No longitudinal studies exist to prove hatchery produced salmon compete at any level with gravel spawned fish.....Opponents to production/reinstatement of Salmon suggest the hatchery salmon are not the same species as gravel spawned fish. This argument is not true. There are no genetic differences (D.N.A.) between gravel spawned and hatchery fish. An analogy comes to mind with the California condor. If the California condor eggs were not helped and raised in hatch boxes this great bird would not fly today. Existing technologies were used for the betterment of the species. The same can be done with salmon....Please make every effort to allow the Salmon to swim and live in the waters of the Metolius and related river systems again.	see 07a, 11e, and 17f
43a	The draft plan is seriously flawed in that there are no draft alternatives for fish management... This is inadequate for a number of reasons. Fish and specifically the wild rainbow in the Metolius are designated as an ORV.	see 11e
55c	The elimination of hatchery fish from the equation would seem natural under the auspices of a Wild and Scenic stream habitat. As you mention, there is already evidence of inbreeding between native and hatchery fish. We can preserve what is left only by eliminating the source of contamination. the elimination of hatchery fish from the equation would seem a natural under the auspices of a Wild and Scenic stream habitat. As you mention, there is already evidence of inbreeding between native and hatchery fish. We can preserve what is left only by eliminating the source of contamination.	see 11e
61a	However, I strongly urge that the Metolius become a wild fish only river, that anadromous fish be re-introduced, and that the natural habitat of the river be undisturbed	see 07a and 11e. The plan takes actions to reduce disturbance to the natural habitat of the river.
62l	Pg. 79, Para 3 - ...not more than 5% hatchery fish are permitted. Actual criteria is: ...hatchery fish that spawn at the same time and place as the wild population shall comprise no more than 10% of the total number of naturally spawning fish (10% dissimilar fish).	Noted
64a	The scenic river management plan needs to articulate the fish management alternatives that ODFW is considering. Given the fact that the native fish resources of the river are one of the primary outstandingly remarkable values for which the Metolius River was designated in the first place, we believe that the management plan should pick a preferred fish management alternative from the ODFW draft plan.... Oregon Trout supports the ODFW alternative that would terminate all future hatchery stocking of trout in the Metolius River system	see 11e
73a	There is no evidence that hatchery fish are any easier for novice anglers to catch than wild fish in the Metolius River. I think that these statements about novice and expert anglers should be removed from your plan unless they can be substantiated.	Noted and changed in Chapter 4.

73b	I would also like to see the three draft alternatives as they are in the ODFW basin plan presented in your plan . This would help to explain how the OUTSTANDINGLY REMARKABLE VALUE of the fisheries resource is being addressed. In the preferred alternative for fish populations it is stated that all three of the proposals made in the ODFW basin plan are in compliance with the ODFW's WILD FISH Management Policy. I would think that it would be valuable to explain how the alternative that includes the continued planting hatchery fish would comply with the policy. The actions needed to comply with the WILD FISH Management Policy could have long term effects on how the Scenic River Plan is implemented and the quality of the fishing experience.	see 11e and 19a. It is unclear what actions are being referenced that would have long-term effects on the implementation of the Wild and Scenic River Plan.
98a	The river gets so much pressure. It's good to let things rest. Closing the river to fishing for 5 years will help wild fish populations to come back.	see 20b
105a	I believe the plan is unacceptably vague on the fisheries...Too much weight has been given to ODFW's basin plan which is of unknown status. This river plan needs to have specific population goals written into it. I understand the Forest Service uses limits of acceptable change on the fisheries with out having baseline information and goals and those numbers should be quantified and in the plan	see 11e. The Plan includes LAC related to fish habitat. Fish population LAC standards would come from ODFW.
General Fish Habitat		
11d	The overall effect of the Preferred Alternative only increases cover from 4% to nearly 10% when "something closer to 50% is more desirable for creating better trout-producing habitat" and past practices have caused "lack of cover to be a primary limiting factor for fish on the Metolius."	10% may seem low, but the Metolius is a wide river where expected cover would be a lower percentage than smaller streams such as the tributaries of the Metolius. Even small streams rarely achieve 50% cover. The larger the system, the lower the percentage that shoreline cover contributes.
15m	Constant trampling of the stream-bed causes silt erosion and loss of habitat for the insects that live under the undisturbed rocks and silt. This stream-bed disturbance destroys an important food source for the fish.	Fish food in the waded portion of the river is not a concern at this time. Aquatic insect populations are high. Preventing siltation is an important objective, but instream wading does not appear to be a significant source of siltation.
24a	Past fish habitat enhancement projects have been done poorly, and many have dramatically changed the historic, natural appearance of the river, forever. Fish habitat enhancement projects should only be done as a last resort, if at all. **General Fish Habitat:** *Suggested rewording of the **Preferred Alternative** (page 21)for above concerns*: Fish habitat enhancements results primarily from natural processes. Fish habitat restoration projects **will be done only when natural processes are proven to be inadequate, and then will be done only in such a manner that the results appear comparable to the natural appearance resulting from natural processes.** Instream work, **if necessary**, including fish habitat restoration, is only performed between 5/1 and 8/1 to protect gravels for rearing embryos and fall spawners.	***The following change has been made to the Proposed Action to address this concern:*** Fish habitat enhancements results primarily from natural processes. Fish habitat restoration projects will be done only in areas where natural infall processes are altered (such as hazard trees removed from the bank or wood manipulated for boating passage or developed areas where trees have been replaced) and only in a manner that appears comparable to habitat formed from natural processes. Instream work, including fish habitat restoration, is only performed between 5/1 and 8/1 to protect gravels for rearing embryos and fall spawners.
62o	Pg. 117, Preferred Alternative, Para 2 - ...500-750 of stream bank fish habitat. What are the units of measure? feet?	Feet
92c	Fish habitat enhancement must be done in a way that mimics natural processes and does not effect what would be the natural free flowing nature of the river.	see 24a. River-spanning wood is a part of the natural, free-flowing nature of the river.
Instream Wood		
17f	Instream wood must be planted and retained wherever possible (to the exclusion of boating).	see 24a

33a	In stream wood can be a hazard for children walking out and attempting to break off limbs that are upright If they fall . upstream they will be washed under the log. Limbing top side will help.	There are many naturally-occurring situations that pose safety risks. We do not attempt to manage all forest hazards.
33b	4 logs have been dropped in at Smiling River changing water flow-erodes opposite banks. Enough! What are your limits? Log jams in time of heavy rain can cause flooding.	In campgrounds and developed areas, much of the potential infall (standing trees near the river) has been removed to make room for facilities or for safety reasons. Habitat restoration projects are designed to function as natural infall processes would have, if they were not altered. Bank erosion, in some instances, is part of the natural outcome on infall.

Issue 4		
Snags		
15h	The constant removal of "'hazardous" trees which are often ancient forest must be halted. The effect at some of the leased properties and campgrounds is just devastating, Those who visit or live in the area must be required to accept any such risk to themselves or their property by law or by signing a proper waiver.	The public has an expectation that campgrounds, residential leases, and other areas where recreation use is focused and encouraged are managed to be "safer" than the surrounding forest. Current agency policy supports that expectation, as long as there is no more than minimal impacts to wildlife populations and riparian resources, and we manage these areas to minimize risk to users. No legal framework exists that would allow waiving of responsibility or acceptance of risk by a user.
41s	Hazard trees should be cut only when there's certainty that they will drop on and kill someone in a campground-and only then if the campground can not be moved to accommodate the tree's natural fall many years down the road, after it's done an excellent job of being a snag-and they should never be sold or removed under any circumstances.	Under current management, hazard trees are assessed for risk of failure and the likelihood of that failure resulting in damage or injury. There is no way to establish any certainty that a hazard tree will actually cause injury. Some trees become hazardous due to age, others because of human impacts..
53u	**MRFHA is very concerned about standard for "Snags" on recreation residence lots which refers to "removing the human use" as a way to manage risk.** Although MRFHA does not believe that the intention of the paragraph is to infer that the removal of a cabin would be a solution to minimize the risk of hazardous trees, the possibility exists that this might be misconstrued as a viable option in the future.	The reference to "removing the human use" only appears in the issue statement to explain that it is one of several ways to address safety related concerns about snags. It is not a part of the Proposed Action.
79e	At page 23, you refer to snag levels being linked to that provided in the Northwest Forest Plan. It would be helpful too if you defined what those are. Also, at page 154 you refer to habitat sufficient for the viability of dependent species. Again, what does that mean? Shouldn't we also be aiming for something higher than just viability of dependent species in a Wild and Scenic River Corridor?	***The following change has been made to the Proposed Action to address this concern:*** In areas where hazard trees are not managed, but snag levels may be affected by vegetation treatments or other management, snags are maintained to provide at least 100% maximum potential population levels for dependent species. Maximum population potential simply means that there is habitat available for the maximum number of individuals that are likely to use an area. Populations are limited by other factors besides habitat, including the availability of food and water, and territorial range sizes. This standard is significantly higher than that considered necessary to maintain "viable" population levels.
Down Logs		
33c	Do we now have 120 linear ft?(Smiling River)	It is unknown, but the standard was developed to guide management of areas where shortages are identified.
53v	**MRFHA is very concerned about the lack of clear standards for "Down Logs" on recreation residence lots.** MRFHA suggests that the PA for "Down Logs" be clarified to indicate the "120 linear feet per acre" refers to an average of the entire landscape ("landscape scale") and is not a strict lot-by-lot standard. (Page 23, "Down Logs" PA)	***The following change has been made to the Proposed Action to address this concern:*** In developed areas, down logs will be retained whenever possible. Retention is not expected if the log poses an immediate safety hazard or it falls on or across an existing improvement or area of established use. When removing a segment of a log addresses the safety hazard or clears the area of established use, this is preferable to removal of the entire log. No specific standard will be applied to developed areas.
Wildlife Damage Control		
17g	I am against Wildlife Damage Control. The Wildlife along the Metolius River is an integral part of the corridor. I have been going there since I was born and I have never run into a wildlife "conflict".	There have been conflicts in the corridor. The Plan does not propose any direction beyond that which currently exists for managing these conflicts.

Issue 5		
General		
17h	Development must be controlled There is no question that too much human development degrades natural resource values thus inhibiting human aesthetics as well. Land use must be limited to what impacts the natural area can withstand. This can only be achieved with lots of careful monitoring and enforcement. We must distinguish between "needs" and "wants". The Metolius cannot be all things to all people. There will come a time soon where we will have to limit the sheer amounts of people who want to use this area.	The intent of managing development in the corridor is to emphasize the integrity of the natural and historical setting over new commercial or social amenities. The Plan limits the effects of development by managing impacts to resources from use and by limiting the capacity of facilities. This approach was taken rather than setting arbitrary limits on numbers or types of users.
53y	**MRFHA is very concerned about the lack of recognition of recreation residents as principle stewards of this area.** Given our heritage and contributions to the Camp Sherman and Metolius corridor, MRFHA views itself as a principle steward of this area. We have long maintained involvement and cooperation with the Forest Service in the management and preservation of the area associated with the 108 residences. (Page 25, Paragraph 5)	MRFHA is one of many groups or individuals that desire recognition as principle stewards of the Metolius.
Scenic Quality		
41u	I can't find anything in the plan that discussed lights (maybe it's there and I'm missing it). Security and other lights around Camp Sherman are a terrible pollution as they are right now. There are too many, they are too bright and they are not shaded to focus light down instead of to the sides. There are not supposed to be security lights on summer home tracts yet some exist. I feel the plan should call for their removal and make a strong recommendation that lights on private property be maintained consistent with that character of a natural outdoor environment. The plan does this with architecture and it could go further and discuss subtle, low level lighting as well.	The Plan failed to address lights as a significant issue. Current Forest Service direction for recreation residences provides some avenues for controlling lights by prohibiting automatic safety lights, but further direction could be provided through architectural standards and review that will accompany proposals for expansion or remodeling of recreation residences.
53z	**MRFHA is very concerned about the lack of clarity in reference to screening lots and residences.** Since the cabins are in the rural area and are inherent to the cultural makeup of this area, these structures are part of the scenery. The Tract Objectives will be revised to deal with the appropriate way they should appear in this setting. (Page 26, last sentence of Scenic Quality PA)	Structures are supposed to be screened or have scenic composition representative of the landscape character. In the Camp Sherman core, historic-appearing structures are an expected part of the scenery. Where structures can not achieve a historic appearance consistent with the landscape character, they should be screened. Elsewhere in the corridor, the desired landscape character is natural-appearing; therefore, structures should be screened or have scenic composition (color, texture, form, etc.) that represents the natural setting.
Land Use Patterns		
21y	What is the operative concept in the land use statement (p. 26) Consistency, maybe? If so, how is consistency to be achieved? Who is to do what? Who is to judge? What does "across ownership" mean?	Different agencies manage similar uses on adjacent public and private lands ("across ownership"). Confusion can arise when different standards are applied to these uses. The intent of the Plan was to establish consistency as an important goal for all future management. Managing agencies will continue to seek consistency as new rules are adopted
24c	It is also important to manage development, including on private land, so that the river corridor across ownership has a consistent appearance. We do not want to allow development that would attract a higher volume of users to the area, or would put more pressure on the use of the corridor. **Land Use:** *Suggested rewording of the **Preferred Alternative** (page 26) for above concerns:* The river corridor is managed for the greatest consistency across ownership as is possible in the application of all objectives of this plan. **To ensure this, the Final**	Noted

	Environmental Impact Statement and the Final State Scenic Waterway rules will be written as consistently and as clearly as possible, especially as related to: Hydrology, Vegetation & Ecology, Fisheries, Wildlife, Aesthetics & Character, Recreation, Development on Private Land, Recreation Residences, Landscape Management, and Septic and Water Systems.	
28f	The description of land use contained at pages 95-96 is inadequate. There is no description of the Jefferson County Zoning Ordinance and how it applies to private lands in the area. The DEIS should describe current zoning, particularly any special provisions related to protection of designated state and federal scenic rivers. This lack of information about the current local zoning makes it difficult to understand or state an opinion on the preferred alternative regarding land use at page 26. What does it mean to private landowners to say in this plan that "The river corridor is managed for the greatest consistency across ownership as is possible in the application of all objectives of this plan"? This suggests that this plan will affect private land use. You need to explain if this is true and what it means in terms of the existing local land use plan.	At the time this is written, Jefferson County zoning ordinances for Camp Sherman are either undergoing modification or Periodic Review. Some proposed ordinances, such as minimum lot sizes, are being appealed. County zoning ordinances do not contain any provisions regarding Wild and Scenic River protection, except to note that the State Scenic Waterways Rules provide additional standards and review for some land use actions on private lands. The Federal role in State Scenic Waterway rules is limited to review to ensure that resource values n federal lands are not compromised. For further explanation of consistency see 21y.
53w	**MRFHA strongly agrees with the idea that additional development could threaten the river's existing balance of aesthetic qualities.** Fine-tuning existing laws and guidelines could ensure the preservation of the ambiance of the river. Laws and guidelines should be consistent and strictly enforced for dwellings on both public and private lands. (Page 25, paragraph 3 of DEIS. Also refer to MRFHA Response to DEIS Chapter 6).	Noted
53aa	**MRFHA is concerned about a possible lack of consistency of rules for private landowners and recreation homeowners.** For the best possible protection of the Metolius corridor, management of public and private land must strive for consistency. Additionally, the public often does not know where public land and private land boundaries are, further supporting the need for consistent regulations. (Page 26, Land Use. Also, refer to MRFHA Response to DEIS Chapter 6)	see 21y
92d	The Secretary of Agriculture has the ultimate responsibility to assure that the objectives of the Wild and Scenic Rivers Act are met on the private lands within the river corridor. This responsibility should be stated here.	Noted. See the Wild and Scenic Rivers Act, Section 12a. The limits of that responsibility are not clear , but have not been interpreted to supersede private property rights or the jurisdictional authority of another agency.
Transportation Management		
21z	What does "minimum standard" re roads (p. 27) suggest? Is standard some objective set of preexisting engineering specs in the agency file?	Road maintenance levels and construction standards are defined in existing FS manuals.
24d	You need to make sure that enough appropriate parking is provided in the right places. I am concerned that you are concentrating parking (i.e. "Centralized parking") too much in too few areas, and that vehicles will have no alternative but to pull off in undesignated areas causing unwanted destruction of the roadside and native vegetation. *Suggested rewording of the **Preferred Alliterative** (page 27)for above concerns,* Parking outside of developed recreation sites is only allowed in designated parking areas. Parking **areas are** established, set back from the river, at Camp Sherman, Allingham, Wizard Falls, and Lower Bridge. **In addition, to ensure that motor vehicles have sufficient approved locations to park along the river, a number of** roadside pullouts, hardened or relocated set back from the river, **are developed throughout the corridor** to	The plan captures these concerns by establishing centralized parking areas and designated pull-out parking sites.

	be used as designated parking.	
28g	The House on the Metolius is concerned about the implications for the on-going operations of its facilities under MTTP-4 and MTTP-9 related to bridges and road closures. The description of the current environment in Chapter 3 of the DEIS does not describe the current transportation situation. Without this explanation, it is difficult to understand the basis for the preferred alternative. Road and bridge closures are very serious decisions. The DEIS does not even contain traffic count information on current road use. Without such basic information, the decisions contained in the preferred alternative are insupportable. What problems are caused by existing bridges? What benefits do they provide? How heavily used are the various roads? Who uses them and during what season of the year? None of these questions are addressed in the DEIS. The specific concern of HOM is the statement in MTTP-4 that "reconstruction is authorized only when it is the sole means of access. " There has been a bridge on HOM property for many years. It is used as an integral part of our ranch operations, not just to access various parts of our property. If the bridge needs to be rebuilt, we want to make sure that it can be, even if other road access remains available to our property on both sides of the river. Please revise this management standard to allow reconstruction of bridges when they are the sole means of access or when they are needed for on-going resource management activities on private property.	The standards established in the Plan regarding bridges and roads do not apply to those on private land. The standards do apply to private bridges on National Forest lands and public bridges. MTTP-4 should read: No new road bridges are constructed, and reconstruction of private bridges on National Forest lands is authorized only when it is the sole means of access.
30a	There should be an absolute prohibition on the use of off-road vehicles (motorcycles, motorized bikes, recreational all-terrain vehicles, etc.)	Motorized use is prohibited off of open roads. This would not prohibit the use of such vehicles as motorcycles and ATVs on open roads.
30b	Speed limits should be enforced for allowable vehicular traffic.	Speed limits are enforced by Jefferson Count Sheriff
30c	Parking should occur only in designated areas.	The Plan requires this - See Proposed Action, Page 27.
41v	I encourage a cohesive sign plan for the corridor and a coordinated interagency effort to manage roads. Signs should be unobtrusive and in keeping with the natural setting. While there should not be a glut of signs, there should be adequate signage to inform people of rules and to protect resources. Signs bother human eyes, but they don't disturb wildlife and other ORVs.	The portions of the Proposed Action which address coordinated transportation planning and sign themes addresses this comment.
53bb	**MRFHA is very concerned about the lack of emphasis on safety in "Transportation Management."** MRFHA generally agrees with the goals of this Preferred Alternative. We are concerned, however, that transportation safety is mentioned in the preamble (last sentence of page 26), but is not stressed in the Preferred Alternative. In addition to the mention of safety in paragraph 4 of the Preferred Alternative, MRFHA recommends additional emphasis of safety in last paragraph. (Page 26-27, Transportation Management)	A greater emphasis on safety will be included in the Plan.
59n	In your discussion on private access across National Forest lands, you state that one possibility for granting a right-of-way or easement is if it "has a significant benefit to an ORV." Does this mean any benefit that an ORV user can point to justifies an easement? This is too open ended. A set of "environmentally friendly" criteria needs to be developed to guide decision making and inform prospective applicants.	ORV in this instance refers to Outstandingly Remarkable Value and not Off-Road Vehicle. The intent is to allow new rights-of way or easements when they improve resource protection.
79v	We support your ban on all off-road vehicles along the entire river.	see 30a
Road Use and Closures		
41e	All dispersed roads, jeep roads, former logging roads and spur roads must be closed at any cost to comfort or accessibility.	***The following change has been made to the Proposed Action to address this concern:***

	Critical fire roads can be gated. These closures absolutely must be enforced. Remaining roads must be patrolled regularly to check for new off-road uses.	Forest roads which are to remain open have been identified: Rd 1200, 1217, 1270, 1290-800, 1400, 1419, 1419-200, 1419-800, 1419-900, 1420, 1490, and roads which access campgrounds and recreation residence tracts. All others are subject to future closure on a case-by-case basis.
41i	Jefferson county needs to be more sensitive to the unique condition of the Metolius in dealing with and maintaining roads. 1419 should have been paved with red cinders and the shoulders finished with red cinders. That is what is in keeping with the historic character of the river. They have made the argument that a black top is safer. I don't buy it. The red road worked just fine for years, and now the bike path is there to get kids off the road so safety should be much less of an issue. There is no reason to have any crushed gravel in the Metolius. Red cinders should be the rule in all settings-including shoulders and private drives. Jefferson county was unwilling to make the speed limit of #700 15 MPH. So one is supposed to drive 20 MPH through Camp Sherman and then is allowed to increase to 25 for the drive along the river. It's crazy. People drive it at 35-45. While it's true that 700 will not be an issue after this, still I encourage much lower speed limits in the corridor. And if speeds don't come down, I encourage speed bumps.	The agencies can and will continue to cooperate on issues such as this. On federal roads, surface material can be considered during planning of specific road resurfacing projects. We will continue to work on the larger issue of traffic safety, particularly for the Camp Sherman core area. Traffic speeds and ways to control them can be a part of that.
56a	We are opposed to any closures of the following roads: >Rd. 64, >Rd. 1499, >Rd. 1298, >Rd. 1270, >Any spur roads off Rd 1270, >Rd. 1200-980, >Rd. 1419-200-700-800, >Any road closures overlooked in the Draft EIS. Except for the 1419 series, these roads offer prime opportunities for hunting, fishing camping, and other recreational activities especially for the very young, the elderly, and the physically challenged.	The Plan recognizes the consequence that some users may not be physically able to access certain areas once motorized access is eliminated. Prime opportunities for hunting, fishing, camping, and other recreational uses still exist.
79c	You refer to future closure of minor roads on a case by case basis at page 27. Again, the area that we are planning for here is so small that there is no reason not to address these specific small roads in this plan.	See 41e. The intent of the original and new language in the Proposed Action is to recognized that there is clearly a need to keep some roads open and to close others. Through future study and changes in conditions, resource concerns may be identified that would warrant additional closures. The need for additional closures has not been identified at this time. The roads that could be subject to future closure are primarily spur roads off Roads 1420, 1270, and 1298 in the uplands on the west side of the corridor.
79n	We support the other proposed road closures on the Lower River and urge that the small spur roads be ripped up and revegetated.	Closed roads will be rehabilitated where access to private land or administrative use is not needed.
87b	The roads near the Camp Sherman store is often congested, and traffic often travels at unsafe speeds. .These conditions pose a hazard to bicyclists, pedestrians and animals... However, traffic must be carefully rerouted so that congestion and safety hazards are not increased.	Transportation planning to improve safety, reduce congestion, and provide better traffic flow in the Camp Sherman core is an intent of the Plan.
88a	We are absolutely opposed to any road closures proposed in the Metolius River area. You have no doubt reviewed our other correspondence to the District Office and the Forest Supervisor. Our reasons remain the same.	Noted
xxx	Road District 18 or Jefferson County is in charge of servicing and maintaining certain Forest Service Roads in Camp Sherman. It comes to our attention that you are considering closing Road 800 between Camp Sherman and Road 14. It is important that this road remain open for emergency access to Becky Johnson's property. Road 14 is not snow plowed during the winter . Therefore, Road 800 is the only available access for emergency vehicle to the Johnson property.	The closures of Rd 1419-800 was considered as an alternative but not carried forward into the Proposed Action.

Road 1298		
12a	Eliminating road from Bridge 99 to Fish Hatchery. You'll have to provide additional parking for hikers and fisherman to have access to area.	Provisions for parking and turn-around will be made at the road closure.
19k	Closure of RD. 1298: The purpose for closing this road is unclear. Current use allows river access between Wizard Falls and Bridge 99, principally by fisherman. This is largely point access with minimal use of the river trail. Closing it will undoubtedly increase linear use of the river trail with attendant erosion and degradation. This closure should be carefully reconsidered.	The intent in closing Rd 1298 was to provide a non-motorized trail opportunity away from the river. Trail maintenance standards have been established which protect riparian areas from degradation.
32b	Taken on a case by case basis, closure of the 99/hatchery road doesn't seem to make any sense at all... To close that road to all access simply means that anglers are further inconvenienced by being forced to walk further. There is no environmental trade off because road has to be maintained as a secondary access to the hatchery.	see 19k. The plan recognizes the consequence that some anglers will have increased walking distances.
73e	Closing road 1298 between Wizard Falls Fish Hatchery and road 12 does not seem to be well founded. This road is well back from the river it is already gated some what short of the fish hatchery and all the turnouts are blocked so vehicles are required to stay near the road...closing road 1298 could encourage people to trespass to get to that section of the river.	see 19k. Trespass is a serious concern. We do not see a link between this closure and increased trespass.
Road 1419-700		
01a	We think the plan to close the road south of "Livingston Bridge" would be acceptable as long as there's an access cut through from the bridge to the upper north-south road leading into Camp Sherman. We could even manage vehicular closure of the Tract C bridge as a tenable option. However, we feel it would drastically limit our access to the entire area if the Tract C bridge was removed.	Tract C Bridge will not be closed or removed. A connection of Tract C bridge to Rd 1419-800 (the upper north-south road) is a part of the proposed closures of Rd 1419-700.
26c	We would like to see road 1419-700 not closed... If road 1419-700 is closed and replaced with 1419-800, will it be open year around similar to 1419-900? According to the Activity Schedule for Fiscal Year 1997, it is stated the responsibility will be transferred from Jefferson County to the Forest Service. Will there be access to the recreation residences during the winter months?. We would like to see a statement addressing the maintenance' of 1419-800 and 1419-200. We are aware our lease states road maintenance is the responsibility of the permittee, but with it also being access to Riverside Campground, is there a change in responsibility?	Rd 1419-800 is currently open in the winter to the Johnson property, so those that have used Rd 1419-700 in the past will still have year-round access via Rd 1419-800. Maintenance of Rd 1419-800 and 1419-200 will fall under the local road district.
27b	My second suggestion (and request) is that the tract c road between the tract c bridge and the bridge just north of the mouth of spring creek not be closed. If this stretch of road is eliminated, approximately 70% of the total Scenic River viewable from a car is eliminated!..I would like to suggest a more practical solution than eliminating the whole road for a 300 or 400 yard problem stretch. I would suggest that the road between the mouth of Lake Creek and the bridge just south of the mouth of Spring Creek be re-routed 10' to 20' to the east. This eliminates the road being so close to the river and also allows for a bicycle path and a foot trail to be put in-between the road and the river.... The cost to move this 300-400 yards of road would be much less than making two roads totaling approximately 700-900 yards to connect both the Tract C Bridge and the Livingston Bridge to the second forest service road as proposed.	Approximately 1 1/2 miles of the river continues to be easily viewed from autos on Rd 1419-900 between Camp Sherman and Allingham.. Other areas of the river below Allingham are accessible for auto viewing at Wizard falls and Lower Bridges and in the campgrounds. The costs of moving a portion of Road 700 are likely higher than closing it and tying it to Rd 800, because of the need to reduce the side hill grade. Additionally, having two roads directly adjacent to the river only compounds the resource concerns about riparian impacts and run off.
41g	Do not make provisions for any parking at the tract F stopping point. It would create a terrible turn-around, encourage heavy bike traffic and discourage people from parking along road 800	The exact placement of the gate, turnaround, and parking will be details developed in the project design and

	and walking down to the river to fish. Also, there is a "boggy" shallow to the east there that grows equisetum and should not be disturbed. I encourage the gating of 700 at Camp Sherman and, absolutely, at the access to Livingston bridge.	implementation.
44g	I urge you to place a locked gate where the road to Livingston bridge meets road 800.	see 41g
53x	**MRFHA strongly agrees that Rd 1419-800 should be improved to offer a second route for entrance to and exit from Tract C.** With the closure of Rd 1419-700, a second route must be accessible for safety and emergency reasons.	While Road 1419-800 will be available for access to Tract C, the Plan proposes no improvements. An increase in use may require more frequent grading or snow plowing.
53dd	**MRFHA is extremely concerned about safe and well dispersed traffic flow in connecting Road 1419-800 to Camp Sherman area.** (Note: changes are not well marked on maps) By diverting all traffic along Rd 1419-800 directly to Rd 1419-900 as currently outlined in the DEIS, the East and West-bound traffic coming into and leaving the Camp Sherman store area will be greatly increased. This stretch of road currently represents a serious safety hazard for several reasons: (1) it is already heavily used by both motorized and non-motorized traffic; (2) there is frequent speeding by traffic coming west into Camp Sherman; and (3) it is an area of low visibility because of a hill and curve. The pre-existing safety hazards and conflicts between motorized and non-motorized traffic coupled with increased traffic from the connection of Rd 1419-800 to Rd 1419-900 will magnify the potential for serious injury. To enhance safety and better distribute traffic MRFHA has three recommendations: 1. Improve the existing, short connection from Rd 1419-800 which joins Rd 1419-700 at the south side of the Camp Sherman store (behind the public restrooms). 2. Improve signage relating to the existence of safety hazards (e.g. reduced speed limits; signs indicating bicycle and pedestrian traffic, children, etc.) 3. Increase enforcement in the area. Enforcement is key to the success of transportation management. (Page 28, PA, bullet #4)	The short connection from Rd 1419-800 which joins Rd 1419-700 just south of the Camp Sherman store will be maintained as a part of Rd 1419-800. ***The following change to the Proposed Action addresses the concern regarding Camp Sherman core traffic and safety:*** Traffic in the Camp Sherman core is managed in coordination with Jefferson County to improve safety (for both motorized and non-motorized uses), reduce congestion, provide better traffic flow, and move parking away from the river. The Camp Sherman core includes Roads 1400, 1419, 1419-700, 1419-800, 1419-900, and 1420. The resulting implementation activity would be to produce a traffic plan which would meet these objectives.
53ee	**MRFHA is very concerned about the possibility of off-road parking between Road 1419-800 and the closed Road 1419-700 by people fishing along the river.** Unless proper provisions or restrictions are made, such parking could destroy native vegetation.	see 41g. Parking will be allowed only in designated places.
74a	We also endorse the explanation that was given to us at the Portland meeting that the eastern half of the roadway would become a gravel bike path.	The closed portion of Rd 1419-700 will be managed as a high standard trail for bicycles and pedestrians.
74b	Road 1419-800 has a section in its north end that meets Road 1419-700 just to the south of the Camp Sherman store on an existing roadway not shown on the map. We believe it is important that this road remain open to reduce potential traffic congestion in camp Sherman.	see 53dd
Road 1419-900		
27c	After listening to all of the reasons to have a one-way traffic flow on this road, and also the adversities of having it, I think there is a better solution that will take care of most of the concerns, pro and con. .... If the road was moved 5' to 10' to the east along this short area, and even cutting into the hill slightly, then a bike/pedestrian path could be put in between the river and the road, thereby alleviating the complications of a one-way road in a scenic river area.	see 53dd. The traffic plan would consider one way travel on Rd 1419-900 and non-motorized uses in a comprehensive way with the entire Camp Sherman core. The comments already received will be very helpful in this project.
26b	Instead of making road 1419-900 one-way, preference for a hardened path on the west side of the river for bicycle and	see 27c

	pedestrian travel would provide a safer transportation method. Road 1419-900 would cause more traffic on the road where Allingham Bridge is, 1419 and 1420. This could cause a bigger traffic safety problem.	
24e	In addition, I don't believe the proposal to designate Road 1419-900 as one-way is necessary. Since our cabin is in Tract O, I drive that road very frequently, during all months and conditions of the year. Congestion is infrequent and occurs primarily on the three summer holiday weekends. Many drivers do drive too fast, especially considering that the road has some curves. Safety of bicyclists should be your primary concern as far as the paved road is concerned. All other non-vehicle users (pedestrians, etc.) can use the off road area on the river side of the road. One-way streets are urban solutions, not solutions appropriate for rural areas. The extra use of gas, and resulting pollution, needed to drive the additional miles to get to the store and upper river from the campgrounds (Camp Sherman CG, Allingham CG, Smiling River CG, Pine Rest CG and Gorge CG), from the 29 recreational residences, and from Forest Service buildings at Allingham should be enough reason for you to search for a better solution than the one-way street you propose. And, I strongly believe that the only significant benefit would come to a relatively few bicyclists, and primarily on the big weekends; there has to be a much better, and less disruptive, solution. I recommend that the solution be developed in stages. The first stage should be to: (1) post speed limits, such as 15 or 18 MPH, (2) post safety signs for automobile drivers and bicyclists, such as "drivers should be aware of bicyclists" and "bicyclists should ride near the side of the road", and (3) post signs in the campgrounds and near trails that lead to the road that say "walkers should not walk on the road, but rather should use the designated walking trails along the road or river". I'm confident that the above and other similar safety education measures will significantly improve the situation. Then, after monitoring the situation if there is still a problem, take appropriate additional steps..	see 27c
28h	MTTP-9 which would restrict traffic to one-way north bound on Road 1419-900 also concerns us. If this restriction is imposed, it should only apply during the summer. Otherwise, the upper road would have to be plowed in winter.	see 27c
53cc	**MRFHA is very concerned about the rationale for converting Road 1419-900 to one-way and the resulting implications.** In deciding whether or not to make Rd 1419-900 one-way, safety should be of paramount consideration with regard to bicyclists, walkers, automobile drivers and passengers, or recipients of emergency care. If a decision is made to make Rd 1419-900 one way, will there be sufficient pull-outs and will additional pull-outs destroy the riparian? Will bicycle traffic be two-way? Will barriers/stripes be in place to separate motorized and non-motorized traffic? Will the road be wide enough to allow safe passing by vehicles? Will it be wide enough for emergency vehicles to pass other vehicles? If Road 1419-900 is retained as a two-way road, how will safety of bicyclists and walkers be improved without harming the existing trails or riparian? In either case, how will the issue of speeding vehicles be addressed? To enhance safety for either one-way or two way traffic on Rd 1419-900, MRFHA has two recommendations: (Pages 27-28, Road Use and Closures) Improve signage relating to the existence of safety hazards (e.g. reduced speed limits; signs indicating bicycle and pedestrian traffic, children, etc.) 2. Increase enforcement in the area. Enforcement is key to the success of transportation management.	see 27c

87c	Any decision regarding Rd 1419-900 must address bicyclist/pedestrian safety while preserving the riparian. *Suggested rewording of the **Preferred Alternative** (page 28) for above concerns:* **Safety for bicycles and walkers along** Rd 1419-900, **from Camp Sherman to Gorge Campground, is increased by posting speed limits for vehicles and educational messages for drivers, bicyclists and walkers along the road and at points where trails meet the road.**	see 27c
Road 1499		
14b	Have road closures from Lower Bridge to Monty campground not from Candle Creek.	see 21m
21m	Sitting the gate opposite Candle Creek means that the territory between Lower Bridge campground and the gate is not considered part of the Lower River. It is left open to dispersed camping, much of which has historically been quite destructive of the riverine environment. you call for improving that very poor mile and a half of road. We call, instead, for placing the gate in the first stretch of Road 1499 just beyond the campground, leaving the road in its present marginal condition and providing more of a buffer for the primitive area downstream.	***The following change has been made to the Proposed Action to address this concern:*** Public motorized access is closed on Rd 1499 downstream from Candle Creek. Public motorized access is closed on a trial basis on Rd 1499 between Bridge 99 and Candle Creek to rest dispersed campsites from vehicular impacts and evaluate the amount or level of dispersed camping use that is received/displaced.
32c	In my opinion the road does no harm whatever - the current experience below 99 is a good primitive experience... If access is denied by road I think that alternative means of approach must be considered.	The plan proposes monitoring to evaluate the uses that will be displaced by the road closure.
41h	Road 1499 must be closed at Lower Bridge Campground and continue no further north.	see 21m
44b	It is my recommendation that the lower river road be gated and locked at Lower Bridge Campground, and dispersed camping be allowed (by permit?) for walk-ins only. I understand that run-off from the current road may be negatively effecting the river, and that restoration to that extent may be needed. But I do not feel the road should be 'improved' in any way for motorized vehicles.	see 21m
60d	The unimproved access road between Bridge 99 and Monty Campground should be maintained in its current condition to provide inholders with access to their property and recreation users with access to their favorite 'Fishing hole" or campsite.	Motorized access to private land will remain. Users will still have access to their favorite "fishing hole" or remote campsite, it just will no longer be motorized access.
73f	I would not like the use of this area to increase or any improvements made to the road but a complete ban to public vehicle use is unnecessary. Some form of limited entry would be much more desirable.	Limited entry for motorized vehicles was considered, but not selected as it would be difficult and expensive to administer..
73g	It appears that if the road is closed, access to private property is potentially a problem of abuse and not in the best interest of the scenic values of the river corridor. If the road is closed there should be some aggressive plan to eliminate the private lands that are a conflict of interest with the Scenic River plan.	There is no basis to assume that access to private land in the lower river will be abused. The eventual acquisition of private inholdings and elimination of the road would be consistent with the overall management goals for the lower river. These properties may only be acquired from willing sellers.
Road 64		
97a	What kind of gate? Prefer not a cable. Think closure would reduce vandalism. I know I am giving up some things, but thinks it's for the best.	The gate would most likely be a powder river style. Such details will be decided during implementation.

Issue 6		
Prehistoric and Historic Resources		
17i	I do question that "One of the largest risks to these resources is their destruction from fire." In all the time I have been going to the area, I can only remember one home burning down.	Noted. This statement would have been more accurate: "One of the risks to these resources is their total destruction from fire."
46c	We use to tent camp in Pine Rest campground in the 50's and 60's, and they had fireplaces in each camp spot. It would be nice if some of those could be restored.	This can be considered during the landscape and site evaluation.
53ff	**MRFHA is concerned about vague and inconsistent language in reference to "cultural resources" and "cultural significance."** At times, these phrases seem to apply only to Native American issues, but at other times such phrases seem to address a broader historic record. MRFHA recommends that the DEIS be more definitive in including all of the historical significance of the basin and that the DEIS better define the words "prehistoric," "historic," "traditional," and "cultural." (Page 29-30, "Prehistoric and Historic Resources")	Noted. References to "cultural resources", "cultural sites", and "cultural values" would be more precise if the phrase "prehistoric, historic, and traditional use" replaced "cultural". ***The concern about cultural significance is addressed in the following change to the Proposed Action:*** Determination of cultural significance of prehistoric resources is coordinated with the Confederated Tribes of Warm Springs. Determination of eligibility to the National Register of Historic Places for both historic and prehistoric resources is conducted in accordance with current laws, regulations, and management direction.

Issue 7		
General		
19f	First there is no indication as to how management actions conform to the State Comprehensive Outdoor Recreation Plan to which both the State of Oregon and the USDA Forest Service are signatories. This should be corrected in the final plan.	The general, statewide nature of SCORP does not necessarily capture the unique trends or patterns in localized areas such as the Metolius. There are no requirements that this plan "conform" to the SCORP. The Metolius Watershed Analysis contains a discussion of recreation trends in the basin.
19g	There are various management actions affecting recreation, such as road closures and boating restrictions, but little consideration as to the effects these may have on other parts of the river.	We know of no way to predict the scale or impact of uses displaced from one portion of the river to another. The Plan depends on monitoring to capture and manage impacts, regardless of the reason they occur..
19h	There is no discussion on how the growth of recreation overall on the river will be managed. What is the goal? To hold recreational growth at current levels? To allow it to increase? If so, by how much?	The intent of managing recreation in the upper river is to emphasize the integrity of the natural and historical setting rather than social encounters. Limiting resource impacts from use is more critical than to set or manage numbers of users. The capacity of facilities such as parking areas and campgrounds will be primary factors limiting growth. In the lower river, the management of social encounters and opportunities for solitude is emphasized. Resource impacts will aid in establishing appropriate amounts of use, but encounters will be a strong limiting factor. A Limits of Acceptable Change system will measure resource conditions and user encounters to provide information for future management actions.
43e	How much recreational growth is acceptable and what standards have been/will be used to determine acceptable levels? Shouldn't the plan discuss what levels are acceptable or compatible with the maintenance of the designated ORVs?	see 19h
43h	Management goals for this area are clearly spelled out, unlike the upper section where goals are hazy and non-specific.	see 19h
51b	This is my foremost concern: It is people walking big dogs unleashed. I'm not sure whether this is an enforcement duty of the USDA Forest Service, State of Oregon ODFW, Jefferson County.... As more and more people are using the Camp Sherman area, and with this past year producing more and bigger dogs, the decline in visible wildlife is most evident....I'm sure this is not a concern with the Metolius Wild and Scenic River Management Plan preparation, but I feel it is one that will have to have some consideration by someone soon.	Existing Forest Service regulations require owners to have dogs under control and on a leash in campgrounds. Enforcement is difficult.
53gg	**MRFHA is concerned about safety in the recreational enjoyment of the Metolius corridor.** As the numbers of people in the corridor increases, the potential for accidents will also increase. Safety should be a primary focus in enforcement of the Final EIS.	Noted
60b	Definitive study has not been conducted to determine the carrying capacity of the Metolius River. The NWRA supports an EIS be done to determine the carrying capacity.	see 92e
92e	The Wild and Scenic Rivers Act requires that you establish a carrying capacity for the river. This means that you should calculate or estimate (professional approximation to be revised as experience in meeting objectives or LAC's dictate) for <u>all</u> human uses within the corridor and then manage to meet those capacities.	While other river plans have defined carrying capacity by numerical limits, there is no requirement in the Wild and Scenic Rivers Act that carrying capacity be an established number. The Plan uses monitoring of observable human impacts on different resources and categories of user experience to determine thresholds of use and acceptable change. Thresholds and the resulting response are a more flexible method of defining carrying capacity. A numerical carrying capacity would have to be based on several years of complicated user surveys and data collection. The

		registration systems used for boating and for the Scenic segment recreation will be used to determine appropriate levels of use for these areas and uses.
Developed Campgrounds		
06a	We would appreciate it if you would reconsider retaining tent-only camping at Pine Rest campground. As long-time tent campers, we appreciate a haven next to the river without the interference of RV's.....In our experience, we have noticed that day-users of Pine Rest leave more messes behind than campers.	Pine Rest campground will be managed for tent camping only, although some changes to or elimination of campsites may be necessary to reduce riparian impacts.
06b	We would be willing to have to make reservations to use Pine Rest as our summer campground. In fact, a reservation system might help administrators keep track of those who use Pine Rest unwisely.	The Plan provides for the use of a reservation system in the future .
11a	For developed campgrounds, the condition standard for managing riparian vegetation is ambiguous (page 110) and the overall effect of the Preferred Alternative only maintains riparian vegetation in campgrounds in its current fair condition. Campgrounds contain about 20% of Forest Service managed riparian areas upstream from Gorge Campground.	The overall intent of the Preferred Alternative is to improve riparian areas both within and outside the campgrounds. A number of standards are applied: rehabilitating unacceptable impacts to the riparian zone from trails and fishing access, reducing the amount of developed area within 100 feet of the river, and designated parking away from the river. These measures cumulatively improve the condition of riparian zones within the developed areas by reducing soil impacts that lead to compaction and erosion and by restoring native vegetation either through rest or by active replanting. It should be noted that not all of the developed areas are in only fair condition - Pioneer Ford campground for instance, has a very intact and functioning riparian area for nearly its entire length of river frontage.
12e	Would reducing # of stockers curtail the # of RVs that settle into the River campgrounds? Get those Big Bulky Vehicles away from the River.	There is no demonstrated relationship between stocking fish and the number of RVs .
14e	Make a reduction of overnight camping. Encourage more day use and walk-in campgrounds.	The Plan will result in some reductions in overnight campsites. The plan increases the amount of walk-in/tent camping and day use facilities.
15e	Completely removing camping from the 100 foot zone will be easier done now than later.	Reduction in the amount and severity of impacts from camping within 100 ft of the river will be a result of the Plan. Not all sites pose problems. There is no demonstrated need to completely remove camping from within 100 ft of the river.
17l	In a campground, (where we are talking about bathrooms and picnic tables) I strongly suggest removing the facility rather than the tree.	The Plan's approach is to consider campgrounds and other developed areas as lands where precedence is given to the existing use. There are benefits to both wildlife and the human users from providing snags and down logs where they do not pose a hazard, and the Plan is flexible enough to take advantage of those opportunities. Most snag and down log habitat, however, will be provided on the 93% of the corridor not dedicated to existing human uses.
17m	I am sure that at any given time, during peak summer use, capacity is being reached in most campgrounds along the River. It is inappropriate to measure the use on an average. This impacts the experience.	The monitoring element that tracks campground use has been modified to better reflect the effects of peak use on the recreation experience.
19e	No mention is made of the impact of recreational vehicles in the campgrounds on scenic quality. On any summer weekend, the campgrounds have the appearance of a mobile aluminum trailer park. Nothing in the plan addresses this....the plan should provide measures to mitigate their adverse visual impact such as limiting their numbers through restricted riverside camp sites and providing less visually obvious campsites.	There is no agreement regarding the positive or negative effects of RVs on scenic quality. The Plan does address the effects of different types of camping in terms of their effects on campground capacity and site design, and recreation experience.
19i	Preferred alternative approaches will likely increase RV camping in these areas. Segregating RV and tent camping, or	There is no basis to predict that RV camping will increase or decrease. Camping site capacity overall will decrease.

	better yet making Pioneer Ford or Allen Springs tent camping only should be considered.	Several campgrounds will be managed to favor and emphasize tent camping.
21d	The Plan's designation of a hundred-foot zone within which only one fourth of the area is to be developed seems insufficient. That designation would provide very little help in alleviating bad conditions, The one-hundred foot number seems almost designed to avoid existing campsites. We urge you to establish objective criteria that would trigger some restorative action for any degraded area anywhere in the campgrounds. Certainly any campsite in the riparian area should be eliminated.	The Plan does set thresholds and objective criteria for identifying and repairing any and all sites with unacceptable impacts immediately adjacent to the river, whether in the campgrounds or not. In the campgrounds, any spots with unacceptable impacts to water quality or riparian vegetation are restored. Additionally, there is incentive to reduce developed area as much as possible in the areas within 100 feet of the river, while still allowing some (up to a limit of 25% of the area within 100 ft) to be impacted by human use in ways that do not threaten river or riparian values.
21e	We further urge you to revisit the "rest and rotation" concept that turned out so well in Riverside campground.	The LAC process used to monitor campground site impacts notes rest and rotation as an appropriate tool to be used if acceptable soil and vegetation conditions cannot be maintained.
21f	The Plan specifies a trigger of 60% capacity over the season before the Forest Service reviews such options to overcrowding as reservations or an overflow campground. (Have you ever reached this figure) We think that summer weekend use, especially holiday weekend use, is an important element overlooked in this trigger, especially if you should implement some sort of "rest and rotation" system	see 17m
21aa	Why set a specific threshold standard (60% in all campgrounds over the year [or is it over several years?]) for critical occupancy level (p. 33), then have so little stated about management response (only reservations and overflow campground)?	see 17m and 21e. The monitoring process and thresholds have been changed Rest and rotation are also considered. We did not find other methods that were feasible ways to maintain an appropriate recreational experience in the face of future increases in demand. Increasing capacity of the existing river campgrounds was not consistent with the overall intent of the Plan. If there are ideas that we did not consider, they can still be addressed at the project planning stage if and when the capacity threshold is reached.
21bb	Re campgrounds, why not address peak occupancy (holiday weekends) which creates some important and special impacts, too?	see 17m
23c	I would like to see a statement that provides a clear vision of how campgrounds are going to be managed to provide quality camping experiences for the public while conscientiously protecting the river's fragile riparian zone.	Statements of intent and vision for different areas and resources occur in several places in the FEIS and Management Plan. See discussions in Chapter 2 for each issue. Also see Chapter 5, Implementation.
23d	If in each campground sites were eliminated based on, 1) proximity to river and actual degradation, and, 2) proximity of one campsite to another, removing those that fail to provide a sense of privacy and sufficiency of space.	The Plan calls for review of each campground to determine appropriate designs that reduce impacts to the riparian areas and the river. The need for privacy and space vary from user to user, but current direction for campground design can guide us in maintaining a consistent experience.
24f	I believe that your plans to improve three campsites so that fees can be charged is not a good idea. To do so will encourage more campers who require a more civilized environment (fireplaces, tables, etc.), and will send campers who want a more primitive experience to more remote spots, some of which will not be approved sites. And I believe, except for the big weekends, there is plenty of camping spots for all who want to camp. Overall, we will end up with more people on the big weekends while we want to limit or control over-use. I recommend that you limit the improvements in the three campgrounds to garbage collection and periodic patrols, but not charge fees. Further, I recommend that tent or car camping be emphasized even more. **Developed Campgrounds**: *Suggested rewording of the **Preferred Alternative** (page 33) for*	These three campgrounds currently have no designated sites and few other amenities. Current use is haphazard and results in resource and experiential impacts that are not consistent with Wild and Scenic River objectives. The intent of the Plan is to redesign these facilities to reduce their impacts while providing a recreational experience somewhere between those offered by the other developed campgrounds and the non-designated dispersed sites. The improvements are to protect the resource and the experience, not to justify charging fees. Once we make these improvements however, existing direction requires that we charge to recover some of the costs of management. These three campgrounds and portions of others will be designed in such a way that smaller sites will emphasize tent

	above concerns: Lower Canyon Creek, Candle Creek and Monty have designated campsites (approximately 5-10 at Lower Canyon Creek and Candle Creek and 20 at Monty). **Garbage collection and periodic patrols are provided.** Lower Bridge, Candle Creek, and Monty campgrounds are managed to provide a transition to the more primitive recreation experience in the lower river. Monty is open only during the management season of Perry South Campground when a management presence is maintained sufficient to ensure a quality camping experience and assist in administering boating use. **Pine Rest, Lower Canyon Creek**, Candle Creek Campground, **and** Lower Bridge Campground are designed and designated for tent and-oar camping only.	or small RV camping.
24g	I don't believe you will ever see overall use at 60% of capacity over a season; and, in any case, I don't believe that it is a meaningful measure of excessive use. Use is concentrated on the big weekends (100%-plus of capacity), and then far less during the other weekends, and much less on weekdays during the season. As I stated before, I don't think you have an over-use problem, except on the big weekends, and you will never solve that problem, even with a reservation system. In fact, I believe a reservation system will attract more people. I believe that a reservation system will cause more out-of-stater's to make reservations; then, Oregonians will still come to the area and eventually find somewhere to camp (some at non-approved sites), thus, increasing overall usage. Therefore, I strongly recommend that you drop any plans for options to the present first-come-first-serve camping plan.	see 17m. The monitoring for campground capacity has been changed. A reservation system can reduce overall use of the river corridor by discouraging those that do not have a reservation from coming anyway and driving up and down the river looking for an open site, and then ultimately camping in an inappropriate undesignated site. Reservation systems can also be used to spread use around from the peak periods to times of lighter use.
30d	Heavy use of the area by large self-contained motor homes should be discouraged.	see 19e. The intent of the Plan is to emphasize by site design a more traditional camping experience.
30e	Camp sites should be dispersed away from the river. Some people might enjoy the experience of camping well above the river corridor and "looking down" on the grandeur from higher elevation camp sites; not every camping experience depends on proximity to the river. The 100 foot zone in the preferred alternative is not effective in most current campsites.	Not all campsites within 100 feet of the river result in unacceptable resource impacts. The intent of the Plan is to address those that do have unacceptable impacts while maintaining some of the existing river-related camping that people come to the Metolius to experience.
30g	Some campsites should be periodically closed to allow the vegetation to restore itself.	The Plan provides for rest of campsites where vegetation and soil objectives cannot be met by redesign and traffic control.
30h	Capacities ought to be established at the camp sites and not exceeded. A camp site reservation system makes good sense.	Current direction provides maximum capacities for campsites and other facilities. Education may ensure compliance better than enforcement.
36h	A reservation system needs to be put in place, giving the Forest Service the ability to close and restore sites as necessary, without conflict, and to begin to move campsites and trails further away from the river.	The Plan intends to move sites and trails away from the river where impacts are unacceptable. A reservation system is costly and difficult to administer and is not warranted by the current use.
43f	Provisions are being made for more tent camping with the focus on Candle Creek and Riverside. This is being done without any apparent consideration for aesthetic values along the river. The final plan should address the issue of visual clutter along the river, consideration should be given to moving RV's some distance from the river to preserve existing aesthetics in the Allingham, Gorge, Allen Springs and Pioneer Ford areas rather than creating the appearance of aluminum urban sprawl.	See 19e. Monty and Lower Bridge campgrounds are also specifically mentioned in the Plan as being managed to provide a more primitive traditional camping experience.
44h	I urge you to require the removal of <u>any</u> campsite within 100 feet or in (or near) any riparian vegetation.	See 30e
46b	I vote that a reservation system never be implemented on the Metolius. It should always be on a first come first serve basis.	see 24g

	It has always been crowded on the weekends and holidays, but everyone who camps on the river realizes this and adjusts their camping plans to accommodate the crowds. No reservations.	
79y	This is a great need to reduce the impacts of the campgrounds on the river...Please set up a reservation system for the campgrounds, create a rest and restoration program to periodically close campgrounds, move at least one campground away from the river and move more campsites and trails away from the river.	See 24g, 21aa, and 36h
83b	I favor decreased use by recreational vehicles, for the sake of quiet and natural values. I prefer a campground plan along the line of alternative 3, P. 58.	see 19e and 30d
Day Use Facilities		
10c	RECOMMENDATIONS: Pine Rest Campground to remain as a primary tent campground only. The "PA" of the "DEIS" does not give any guidelines and/or restrictions. Nor more importantly does it identify definite times of usage. And who would monitor the activities of the proposed program? The activities of these anticipated crowds and groups would not be monitored on site and would therefore be more likely to lead to deleterious consequences... Besides what has been identified previously, we fear a greater impact and possible consequence of this decision. I include the environmental impact of increased and ungathered litter and destruction of campground vegetation. I include the campground being left in the late night or early morning hours completely unsecured and unpoliced by irresponsible persons or disorderly groups. Unsecured fires and the consequences of same could surely be the outcome!	The Plan manages Pine Rest Campground as a tent camping area.
10d	Day Use Facilities MUST BE MONITORED CONTINUALLY. Some person (s) on site in the campground must have the authority to do so. Our considered suggestion to the Forest Service is to allocate a percentage of the major campgrounds for the proposed Day Use Facilities. In so doing this essential monitoring would come under the official authority of the "Camp Host(s)".	A portion of Smiling River campground will be converted to day-use providing increased day-use capacity in an area where use can be easily monitored.
12b	Better day-use areas and picnic tables (i.e. Canyon Creek campground, areas by Bridge 99, Eastside entrance to Fish Hatchery). Tables can be above river but in sight of it.	Under the Plan there will be day-use areas at the Headwaters, Camp Sherman, Camp Sherman Campground, Smiling River, Pine Rest, Pioneer Ford, and Lower Bridge. Tables and campsites will be better defined and maintained at Lower Canyon Creek Campground. There are opportunities to work with ODFW to improve day-use areas at Wizard Falls Fish Hatchery, but the Plan does not specifically address them.
24h	I am against classifying campgrounds or campsites as day use; I believe (except for the big weekends) there are already enough open spots to satisfy day use. I believe publicizing day use will bring more people to the area; then, you won't have enough designated day use spots, especially on the big weekends. I am completely opposed to designating whole campgrounds as day use; people will still go to the area of the corridor they want to be in, rather than flock to your designated spots. Therefore, if you are intent on establishing day use sites, do so by selecting several camping sites from each campground. However, I will recommend that you drop the entire thought of having any designated campsites. I recommend that you relocate the campsites at Pine Rest Campground, further from the river, and continue it as tent camping only. **Day Use Facilities:** Eliminate this section (page 33). Space for day use is not a problem, except on the three big weekends. See discussion on	see 10c, 10d, and 12b.

	page 7.	
30f	Riverside Campground should serve as an example. Camp sites need to be "rested". More day use camping should be encouraged; Pine Rest Campground would be an excellent candidate for day use only.	see 10c and 10d.
43g	The existing tent only area (Pine Rest) should be maintained rather than converted to a day use area. It is the smallest campground on the river and currently the only tent only area. It would appear to be more practical to develop a day use area in the old campground between Camp Sherman and Allingham or above Camp Sherman than to displace an existing facility.	see 10c and 10d.
46c	We do need more day use areas though. I vote that we allow 10 percent of each campground for day use. This would provide a variety of areas on the river for day use	see 10c, 10d, and 12b
77a	I realize there would be other designated camp sites, but none of them are quite as nice as Pine Rest and I have no desire to camp next to RV's...Please consider changing your mind about your plans for Pine Rest.	see 10c
Trails		
12c	Get horses off trail between Canyon Creek and Fish Hatchery.	Horses are not permitted on the river trail and the plan maintains this regulation.
14c	Allow biking on roads only. Improve trails and access as stated in the plan.	In the plan, bicycles are not allowed on the river trail. Several closed roads (1419-700, 1298, 1499, and 64) will provide opportunities for bike use as will all roads.
15i	Travel by domestic animals and mountain bikes must be stopped.	The plan includes many limitations on the use of horses and bicycles. Without further information about a basis of concern, no additional limitations will be considered.
18i	Fishermen and hikers should be allowed to walk the river for it's entire length on both sides between Lake Creek confluence and Candle Creek if they are within 20 feet of the river. The large private sections should be opened up to hikers and fishermen.	Opening private property to public use is outside the scope of this plan.
20c	Loop trails are few and far between and no where near the concentration of campgrounds. A footbridge strategically placed near the Gorge Campground would open the trail system to families hiking a loop system between Allingham and lower Canyon Creek. We hope hikers can receive more attention in the final management plan.	The footbridge at Gorge Campground was an alternative considered but not selected because of the cost and concern for riparian and instream impacts. The plan includes loop opportunities between Camp Sherman and Allingham and between the Fish Hatchery and Bridge 99.
21g	The present river trail system seems to have just happened, resulting in multiple trails, in sitting too close to the river, and in heavy damage to the river's banks. The Plan might well be more specific about how to deal with that problem: relocation, closures, redesigning and reconstructing. Just calling for a landscape plan does not speak to what happens next on the ground. The plan should identify trail segments which are already known to be troublesome. The trail segment north from Canyon Creek campground comes to mind as a prime example, but much of the eastside trail is also a problem.	The plan establishes specific criteria for identifying existing and future problem spots on the trail. Locating these areas and performing site-specific analysis will be a part of the implementation of the plan.
21cc	What does "system trail" (p. 34) imply? Does it mean foot traffic only? Does it mean anything else?	Forest Service system trails are designated, monitored, and maintained, as opposed to "user trails" which are not. No use restrictions are implied.
27e	I am well aware of the reasons the public has for wanting to restrict horses. They use safety as a reason but this in most instances is not factually supported. (Unfortunately, there was one horse accident last year, but this is probably the only occurrence that has ever been recorded!) The real reason that the public objects to horses on the trails is because they do not like the manure. This is not reasonable but before arbitrary	Safety is the reason that horses, and bicycles, are not allowed on the river trail. The trails narrowness, rockiness, proximity to the river, and high volume of foot traffic make it unsafe for any amount of horse use. Gathering data on use levels is not necessary to determine safety issues.

	restrictions are put in, please consider the minimal adverse effect the horses have... it is requested that the Forest Service find out how much usage there is; do not just restrict the horses without factual information.	
28k	The DEIS does not contain a good map of existing trails in the Metolius Corridor. This makes it very difficult to understand and analyze the impacts of the proposed trail alternatives. There is no explanation of the many trails in the woods leading into the river corridor and no explanation of the extent of the equestrian, mountain bike, and foot use of the various trails and trail segments. HOM is very concerned about MTTR-1 (page 158). We do not understand how it relates to the description of the preferred alternative. The description of the preferred alternative addresses "the river trail" as though there were only one trail, not trails on both sides of the river. MTTR-1 refers to the river trail "on both sides of the river." The existing trails do not extend onto private property on both sides of the river. MTTR-1 suggests that the plan intends that they do so in the future. The House on the Metolius strongly objects to this policy. Trails should be designed and routed to discourage trespass across private property. In the HOM area, we recommend that the river trail only be developed and maintained as a designated trail on the east side of the river. The designated trail should be routed around our private property, away from the river, well before our property line. Otherwise, river trail hikers are blocked by HOM's fence and they climb it. This causes HOM expense and trespass problems.	A trail map shows the segment of river trail which are designated as system trails. There is no intent to construct new trails across private property. Developing and maintaining the trail only on the east side of the river will not eliminate use or impacts on the west side of the river. The concern for trespass is better addressed through education.
41c	Attempts should be made to control trail braiding and dispersal by light signing and wood and rock deterrents. Trails should not be hardened or improved, only manipulated where necessary to control damage to banks and vegetation. All existing non-bike trails should be strictly off-limits to bicycles. Horses should be kept away from the river and off of foot trails. Their use in the corridor should be discouraged. No trail work should be done by the Army Corps. They are far too insensitive.	The plan addresses trail braiding and other sorts of degradation. Hardening or improving trails are options to address these problems where use cannot be rerouted or eliminated. Light-touch deterrents are preferred. See 12c and 14c regarding horse and bicycle use.
42d	Having the Metolius Windigo horse trail go to and into (crossing) the Metolius River is a terrible idea. The horse trail should go south around the head of the Metolius! The route could be adjusted to cross only 1 paved road (14) instead of 2 and much of the residential section of the Metolius could be avoided; There are roads that could be used so the new Metolius Windigo trail segment could be re-routed easily (cheaply), Having horses trample across the river - stirring up sediment and dropping 'pies' directly into the water could thus be avoided. Residents near the crossing would be happy, riders would be saved from the awkwardness of having to ride through peoples yards and water for the horses would still be available from Lake Creek which is smaller and therefore less likely to suffer a direct hit with a 'pie'. If you are to limit traffic - be consistent! Keep horses away from the river. They don't mix with water, bikers, hikers, fishing, boating, camping, summer homes or anything.	This appears to be a good idea. At this time, there is no evidence of impacts that warrant the cost of rerouting the trail. The change of experience to horse users might also be objectionable.
51a	Mountain bikes and horses using the hiker only trails. It has been addressed on page 135 of the statement, but I know enforcement is going to be difficult to achieve. Possibly better signing of a more indestructible nature would help.	see 12c and 14c
53hh	**MRFHA is very concerned about the lack of solutions for trail degradation and conflict between users.** The Management Plan should discuss prevention and repair of trail degradation. Conflict between users is a serious issue. MRFHA recommends clear and consistent communication of regulations	The Plan provides for the repair of all unacceptable trail impacts. Prevention can be achieved through education and traffic controls. Existing and Plan direction will segregate users and reduce user conflicts.

	as well as stricter enforcement. The conversion of selected roads from automobile to pedestrian and bicycle trails will minimize future degradation on existing river-side trails. (Page 34, PA, para 2 and page 159)	
59o	The Conservancy is concerned that sufficient front end planning and subsequent on-the-ground monitoring along "recreational roads" be undertaken. It is possible that road closure could lead to increased usage, and that some of this could "spill over" onto our property.	The trail use of closed roads may or may not increase use or trespass. Trespass can be addressed by signing and education.
87a	To help reduce trail degradation and enhance riparian repair, ...we support increased education, increased and consistent signage, and strict enforcement.... Reducing the fishing season would also enhance trail repair and reduce riparian degradation.... We support the USFS finding additional ways to reduce traffic on over-used trails (e.g. between Camp Sherman and the campgrounds on the east bank). Such solutions might include a (rustic) bridge near one of the campgrounds to encourage people to make a loop using the West side.	The plan recognizes education and enforcement as important components of riparian protection and all facets of the plan. The fishing season is outside the scope of this plan. See 20c regarding the loop bridge.
91e	We would like to see 1419-700 left as a bike path to remove the conflicts with the hikers along the river trail.	The 1419-700 will be narrowed and then maintained as a high standard trail suitable for bicycle and foot travel. Some portions of the river trail along this stretch of river will be rerouted onto the closed road, other portions will remain for foot travel only.
92j	You need management objectives for each of your trails that prescribe, as a minimum, type(s) of user, difficulty level, capacity, and maintenance standards.	Existing Forest Service direction prescribes difficulty levels, types of use, and maintenance standards. Capacity is addressed in the plan as it relates to unacceptable impacts.
94a	Also would it be possible to lay some logs across the hiking path to discourage the cyclists?	Yes. Logs across the trail will be retained wherever possible to improve the riparian conditions and discourage bicyclist on the river trail.
Boating		
General		
03a	the current DEIS prevents the river from being enjoyed by boaters. In doing so, the Forest Service does not satisfy the above mandate of the Wild and Scenic Rivers Act and does not fulfill its duty to hold the river in trust for the public....The AWA cannot support any of the alternatives presented in this DEIS. None of the alternatives, including the preferred alternative, are acceptable with respect to human powered boating on the Metolius....The management plan needs to be substantively revised to give the public a fair decision making process	noted. ***The Proposed Action has been changed to reflect these concerns.***
03b	many of the decision making criteria appear to be based on speculation and not sound resource management science.... Before instituting a management plan, or a Final EIS (FEIS), the Forest Service needs to collect evidence that supports the decisions it makes.	The Proposed Action has been changed so that limits are not imposed unless data from monitoring use and impacts indicates that limits to use are necessary to protect ORVs.
28e	Although recreation is also an outstandingly remarkable value, the information in the DEIS does not support a conclusion that boating is such a value, at least on the upper river.	Kayaking and rafting were included in the Resource Assessment as part of the recreation experience that contributed to it being considered an Outstandingly Remarkable Value.
28j	The DEIS does not discuss current boating regulation and patrol on the river. Current applicable Marine Board rules should be described in the DEIS. River patrol, search and rescue responsibilities and staffing should also be described, along with a record of boating accidents and their location. The DEIS should also describe any changes the Marine Board proposes to make in its rules to implement the proposed plan.	There are currently no boating regulations or patrols. State Marine Board rules apply principally to motorized and/or commercial boating - there are currently no SMB rules that apply specifically to the Metolius. Search and Rescue rexsponsibilities are described in the Management Plan, as is the need for rule-making to prohibit motorized boating.

30l	Public access to the river must be curtailed, especially when "water play" and other water uses (like motorized boating, kayaking and tubing) degrade the river bed, fish habitat and stream beds.	The Proposed Action prohibits motorized boating. There is no evidence that activities such as water play, kayaking, or fishing are degrading the river bed or habitat, except in very limited and local situations which can be managed without eliminating public use.
54b	Because of the lower overall pressure, better whitewater, decreased crowding, valuable primitive recreation values (especially once the river roads are closed) and lower potential (simply due to lower numbers of each) for angler/boater interactions the boating on the lower Metolius is outstanding in its own right, meets demands not met by the river above the 99 Bridge, and should be preserved as well as possible in the final EIS.	We believe that the Proposed Action preserves boating options in the lower river as well as possible given the need to protect fish habitat, and the financial and physical limitations of our abilities to reasonably manipulate instream wood.
57k	Government regulations on navigation must be only those which are legitimately related to the conduct of navigation, not those that are imposed for reasons external to navigation, such as to appease adjacent landowners, fishermen, or other interests	The Wild ansd Scenic Rivers Act give s the Secretaries of Interior and Agriculture the authority and responsibility to regulate uses, including boating, as necessary to protect river values.
70b	What is unfortunate is that concerns regarding boating use have not been directed to the boating community... I advocate reaching out to the river community to alert them of concerns associated with boating on the Metolius.	See the Public Involvement section. The boating community, including individuals, local, regional, and national organizations, has had considerable input and impact on the development of this plan.
82b	Respecting the fisherman should be encouraged by signs on the campground bulletin boards and education by Forest Service personnel. Boating should also be allowed from Bridge 99 to Monty Campground and fallen trees cleared so it is reasonably safe. Very few fishermen fish the lower river. Fish enhancement is not necessary there.	Fish habitat enhancement and protection is for the benefit of the fish populations, not the anglers. The types of cover habitat and current-modifying structure that results from log jams and river spanning wood is much less that what historically occurred in the lower river Swift currents and lack of holding water in the lower river make this type of habitat very valuable.
Upper River		
02b	Boating - Boating should only be allowed above Bridge 99, and should be regulated so as not to interfere with fish spawning.	Noted
15d	Because of severe streamside problems above Bridge 99, it also makes sense to prohibit river travel there as well.	Riparian standards in the plan address any severe streamside problem. There is no data which would attribute these impacts to boating.
17n	On the Upper River boating; should be banned from any areas impeded by woody material that is being left for fish habitat. I do not think it is fair for the agency to say on one hand it will leave logs in the River and on the other that boating is allowed. This is going to cause huge safety problems. People must be told of the danger or "water play" could be a very serious game.	Information about safety and wood management policies will help reduce the risk to water-based users. Outdoor recreation activities of all sorts are inherently risky and it is not the managing agency's role to ban all activities which involve risk to the user.
19c	"Waterplay" is an ambiguous term and needs definition. What precisely will be allowed and how will it affect wild fish populations?	The reference to "waterplay" has been removed.
21j	We would particularly call your attention to the user conflict inherent in imposing a put-in point for boats upon the campers at Gorge Campground and the conflict between floaters through the private property just downstream from there and those who would fish there.	No boating put-ins are proposed for Gorge Campground. There are no boating regulations proposed which would change the existing patterns of use in this campground. It is the point below which a user registration for boaters will be required. Identifying boating use patterns and conflicts generated by this use is the intent of the boating registration.
21dd	What activities are included in "water play" (p. 35)? Given the temperature of the water, has water play been a significant activity historically? What level of manipulation is necessary to permit water play with safety?	see 19c
24k	I believe that you must separate boating into two classes: commercial-sized crafts and small rafts. The commercial-sized boats are not appropriate for the majority of the upper river (only downstream from Lower Canyon Creek; the river above Lower Canyon Creek is either too shallow or too narrow). Use	Differentiating between suitable and unsuitable types of crafts for various river segments is a decision that the managing agencies feel is best left to the user. Data collection will aid in determining whether there are environmental impacts or safety concerns that result from

	of small rafts is not destructive to riparian vegetation. And, conflicts between boaters and fisherpersons are greatly overstated. I don't believe that segregation of seasons and river sections for fisherpersons and boaters is needed at all. Education is fine, especially as related to boating safety. Further, I don't think that monitoring of boating activity is necessary in the upper river, except from a safety standpoint. The most obvious need is to have a record of all boats going downstream from Lower Canyon Creek; this section of the river is known to be dangerous. I would recommend mandatory registration, and should include a requirement that rafters read about the dangers of the river between there and Wizard Falls... *Suggested rewording of the* ***Preferred Alternative*** *(page 35) for above concerns:* Upstream from Gorge Campground, minimal manipulation of instream wood is allowed for water play. From **Spring Creek** to Bridge 99, minimum safe boating passage is maintained when wood manipulation does not adversely impact riparian or instream habitat. **Commercial-sized boats are not allowed above Lower Canyon Creek Campground. Permits are required to put-in at Lower Canyon Creek Campground to ensure that such boats are properly equipped and boaters are competent to float the section of the river from Lower Canyon Creek Campground to Wizard Falls. Known hazards are identified, but comprehensive information on boating conditions is not guaranteed**. Use is not limited.'	certain types of crafts or uses that would warrant regulation.
28i	The House on the Metolius opposes the preferred alternative allowing manipulation of instream wood downstream from the Gorge Campground. This policy, as restated on p. 35, would encourage boaters to put in at Gorge Campground and float through HOM property. This causes safety, trespass and littering problems which could be avoided if a priority were placed on fish habitat, as it should be.... boating is not a traditional use of the river corridor.... As a recent use, it should be discouraged to the extent of conflict with traditional uses....They enter the canyon and their boats are cut up on the rocks. The boaters have no life jackets. They swim out of the canyon and leave their useless deflated "rafts" in the riparian zone on our property. They then trespass across our property to get back to the road. We have rescued too many of them to count. Even the better prepared boaters litter our property with cans and garbage. By clearing the river for boat passage downstream from Gorge Campground, the proposed plan encourages starting boating trips at Gorge and promotes littering and trespassing on our land. We strongly object to this approach. If boating is allowed at all on the upper river, it should be downstream from Canyon Creek Campground where there is adequate parking and where our property is avoided.	See 21j. Boaters currently have the right to float any portion of the river regardless of who owns the bed and banks. The monitoring and registration will help identify resource impacts and other conflicts with private landowners. Signing and education can help resolve many of the current trepass and littering problems. The agency is willing to work with other landowners to resolve user conflicts.
29i	By restricting the lower river, boaters may substitute the section of river between Gorge Campground and Bridge 99. Considerations should be made for establishing designated launch and take-out sites along this section.	There is no basis to assume that lower river users will be displaced to the upper river. Information gathered from boater registration and monitoring riparian impacts will help determine if there is a need for hardened boating facilities in the upper river.
68a	Allow boating, from Camp Sherman to Bridge 99, From our own experience as fishermen and boaters, we know that the two activities can coexist.	The plan does not put any restictions on boating in this stretch of the river; however, wood will not be manipulated for boating passage upstream from Gorge Campground.
70c	It is unclear what is meant by "water play."	see 19c
79aa	Close or Strictly Regulate Boating from Camp Sherman to Bridge 99...There are increasing user conflicts between people who are fishing and boaters who get tangled in their lines. There is also conflict between leaving woody debris in the river	The plan recognizes the habitat value of instream wood and the need to maintain that value to the greatest extent possible. The level of boating use and extent of conflict with anglers in the upper river is fairly low. Boating registration and

	for fish habitat and boaters who demand or require the removal of the woody debris. The preference must be for the fish habitat. One option for boating may be from Pine Rest to Bridge 99.	monitoring will aid in determining trends that need to be managed in the future.
82a	The river that runs from Allingham Bridge to Gorge Campground should be cleared of trees and brush so it is safe for waterplay - which includes children on inflatable rafts	The plan recognizes the habitat value of instream wood and streamside brush and the need to maintain that value to the greatest extent possible. Allowing minor manipulations will increase safety without degradation of instream habitat which would result from removal of all wood and brush.
91f	Rafting should only be allowed below bridge 99.	Noted. See 17n
Numbers		
03c	Outside of potential conflicts, the DEIS does not adequately address a clear need for boater limitations.... Boaters are the only user group restricted by quotas in the DEIS. Thus the goal of the Forest Service on the Metolius seems to seek a primitive experience only for a select few. Use restrictions should apply to all user groups, not just the ones that are easiest to restrict...In order to develop a reasonable permit system, the Forest Service must first accumulate data about current use and projected trends.	This concern is addressed by replacing use limits from the DEIS with social setting objectives and registration which will be used to maintain the desired primitive recreation experience for all users of the Scenic river segment and protect against unacceptable resource impacts.
08a	The Metolius could easily handle 30 to 50 people per day and still experience the beauty without harming the primitive nature of the river if you make them day trips only.	This assumption does not address the impacts that boaters may have on the primitive experience of land-based users. User registration will provide data from which levels of use that maintain the desired recreation experience will be determined.
08c	You have no numbers on floaters, we don't even know if we have a problem..... it doesn't seem fair or right to eliminate a group of river users (floaters) from their historic use of the river with no scientific reason for doing so.	see 03c
13c	The proposed use levels are far to restrictive...This is a ridiculously low level of use, especially for a day trip with the characteristics of the Metolius. A limit of 300-500 boaters over a 122-day boating season averages out to 2.5 to 4. 1 boaters per day.	see 03c
21ee	Why cite a range (300-500) for boaters	see 03c
25a	don't need limits on boating - insufficient data- use doesn't support limits - won't for some time - support registration for data collection to determine future need	see 03c
29c	It is premature to specify that 300 to 500 total boaters for the season is the appropriate number required to ensure a primitive boating experience. My recommendation is that the preferred alternative read "Boating is permitted in limited numbers to ensure a primitive boating experience. Limits will be placed on the number of boating groups per day and size of groups.	see 03c
40b	restricting the number of boaters to 300-500 per day during the summer months is too restrictive	see 03c
54c	there are no good current boating use figures for the Metolius, especially the lower river, and perhaps especially in the non-summer season. The estimates given cite average number of boaters and parties per weekend but don't specify whether this average is year-round, hence perhaps higher in summer, or just during the summer season. No user satisfaction surveys have taken place to determine whether the current levels approach crowding levels that would impact the recreational experience..... If in fact summer levels did approach crowding limits, there is no discussion of additional capacity on weekdays, or off-season use. (Granted winter weather puts significant limits on year-round use in the area.) It is even	see 03c

	possible, on a day use stream, that here is a minimum as well as a maximum desirable level of use: where the average number of parties per day are capped on one hand, so that actual run-ins on the river are not a problem, and non-camping boaters are not in conflict for a limited number of campsites, some boaters (like me) actually feel a bit safer when they feel that if they were to get in trouble another party is likely to happen by within the day rather than a week later. (Call it a primitive but not too isolated experience if you will.)	
54e	All of this suggests it might be preferable to institute an unlimited permit system for a couple of years first to gather actual use figures, before instituting actual use limitations. The sheer logistics--long shuttle as well as the lack of commercial outfitting or frequent roadside access--guarantee that over the short term while this data is being gathered the Metolius is not at risk of becoming another Deschutes.	see 03c
57c	The draft Plan does not contain a basis for river recreational boating use that includes the several factors required in determining carrying capacity. The Wild and Scenic Rivers Act requires that capacity be determined.	see 03c
57d	The 300-500 person total annual use in the preferred alternative, along with the allowed period of use for the river sections, is arbitrarily based on an incomplete single year's observations.	see 03c
57l	The number of boaters on a particular river can be limited, but only when the limit relates to the expressed interests of those doing the navigation, not when it is done to appease other interests. So to be lawful, a limit would have to be endorsed by the majority of the boaters themselves. Also, the public's right to navigate extends year around... A lawful plan must not include a limit on the number of noncommercial boaters, unless the boaters themselves agree that their numbers should be limited (as they have on certain rivers.)	see 03c and 08a
57o	Lawful Plan ...There will be no limit on the number of noncommercial boaters, until and unless there are more than several parties on the busiest days, and this occurs repeatedly. Then the agencies will poll the boaters themselves to determine what limit they would endorse after balancing their desire to exercise their legal right to navigate with their desire to keep the river lightly-visited.	see 03c and 08a and 57k.
70a	little is known about how or when boating occurs or the potential impact boating may have on the river. As I understand it, the amount of boating on the upper river is unknown and the only information on the lower river comes from a four month study conducted during one year. This seems hardly adequate information when a big part of what makes the Metolius unique is that its constant flows allow year-around boating.	see 03c
70d	an unrestricted year-around permit system should be established on the entire river to determine the amount and type of use each section of the river receives. This will allow better management of the river in the future.	see 03c
70e	The lower Metolius currently provides a primitive boating experience. Instead of setting an arbitrary number of boaters allowed, more information on boating use should be obtained through development of a permit system and other methods of monitoring.	see 03c
90c	You say in the DEIS that river use is low---then why are you proposing to restrict boating?! Do you have any evidence that boaters are hurting the river environment you are trying to	see 03c

	protect?	
92f	where did the 300-500 total boaters for the season on the down stream from Bridge 99 portion of the river come from?	It was based on the 1992 user registration data which indicated total use fell within this range.
93c	WKCC supports a self-registration, no fee, unlimited numbers registration system at this time to collect better data on use rates throughout the Metolius corridor. .....We cannot support the permit system and the arbitrary limitation on the number of boaters proposed in the Preferred Alternative. It does not make sense at this time. Boating use currently appears to be well within the acceptable range to provide primitive recreation experiences and protect natural resources. The boating community believes that the lower Metolius currently provides this type of experience. .....Under the preferred Alternative, boating use on the lower Metolius would be expected to decrease as instream wood accumulates and makes the run more difficult and challenging. Boating use will likely become self-limiting so that the numbers of boaters using the section will no longer even be an issue. Given this scenario, the most reasonable approach would be to: Initiate a self-registration, unlimited numbers permit system to provide data on boater use. 2. Develop quantifiable criteria to determine whether a primitive recreational experience is maintained and resource values are protected. 3. Monitor use rates and resource impacts to insure that a primitive recreational experience is maintained and adverse resource impacts are avoided. 4. If, at some future time, use increases to the point where limits on the number of boaters is necessary to protect either the experience or the resource, a limited entry permit system should be initiated at that time. Again, we do not currently appear to be at the point where use limits are justifiable and it is unlikely we will be there in the future given the direction in the preferred Alternative.	see 03c.
95c	River usage by rafters was not identified or quantified. The fact there is not more evidence of use by this group indicates how low impact it is.	noted
96d	Limitations on use should be adopted, but those limits should be objectively determined. Before any limits on the number of boaters are set, studies should be done to determine the carrying capacity of the lower river gorge.	see 03c
99a	I feel there is no field data research to support limiting the number of boats of rafts that are now floating the river and before rafting is limited, this data needs to be included in the plan	see 03c
Season		
03d	The preferred alternative identifies June 1 through September 30 as the only acceptable season of use for boating. No reason is identified or substantiated to limit boating use to this window of time.	The season identified in the DEIS corresponds with the time of year in which Monty campground is accessible as a take-out. Regulations on the boating season have been removed from the plan, though Monty and its access road will still be closed and not accessible as a take-out.
13d	The ban on off-season boating is arbitrary, unjustified, and unnecessary... Why is the Forest Service concerned with stopping an occasional handful of wetsuit-clad polar-bear types from running the river at this time? If the Forest Service truly wants to promote a "primitive boating experience," it should	see 03d

	actively encourage boaters -- not by regulation, but via education -- to plan their trips for the off'-season rather than the summer months. Better yet, the management plan should simply ignore the question of off-season boating altogether	
29d	In public meetings, it has been stated that the primary reason for limiting the season of use is to protect nesting birds (i.e. bald eagles) from disruption by boaters. My understanding is that the nesting season does not correspond to these dates. Specifically, the nesting season ends before June 1. I recommend that the season be extended from May 1 to October 15.	see 03d. For other Forest activities that may conflict with nesting, eagle nesting and juvenile rearing season is considered to be from January 1 to August 31.
40a	Off-season boating appeals to many rafters and relieves the over-crowding which occurs during the summer months	Noted
48a	to ban off-season boating is unfair and unjustified. It would seem wiser to relieve the summer boating over crowding and allow off-season rafting.	see 03d
54f	The preferred alternative limits boating to June 1 to September 30. 1 can find no justification for this anywhere in the DEIS. Some restrictions are reasonable during the fall kokanee season to prevent osprey/eagle impacts. But why other times? Fire concerns are certainly less at other times (if this is a concern at all given that boating is day use only.) If crowding is a concern, better that a few hardy boaters take themselves into the off season. Cold and inconvenient, maybe, but that's no reason to close the river for those prepared to run it.	see 03d
57p	Lawful Plan....Boating is allowed year-round. (Few boaters will run the river the rest of the year anyway, but they do have a legal right to do so.)	see 03d
60c	The NWRA also disagrees with a seasonal ban on boating and feels that Fall, Winter and Spring impacts are minimal and that the "elements" would reduce the number of user days and minimize the impacts in the river corridor. The current user data supports this position.	see 03d
62c	The June 1 through September 30 opening is not well supported by the information contained in the plan. Because the Metolius' steady year-round flow it provides unique floating opportunities at times when other rivers are not runable. Late Fall is considered by many boaters part of the prime season for floating the Metolius. With restrictions on the number of users, an extension of the permitted season later into the Fall should be feasible.	see 03d
70f	No information is provided as to why the June 1 to September 30 restriction... Thus, if a concern is that Monty Campground may be closed outside of the summer months, then a lower Metolius trip would require paddling out across the lake.	see 03d
93e	The DEIS gave no rationale for restricting the boating season to between June 1 and September 30. This is likely to be the season of heaviest use, but fall and spring may also be popular periods if the weather cooperates. One of the unique aspects of the Metolius is that the flow is constant and river is runnable year-around. This unique value is lessened considerably if the river is closed for two thirds of the year.... "Soggy Sneakers" indicates that there are two takeouts for the lower run. The first possibility is Monty Campground and the second is to "paddle down the lake two miles to the first public campground." If Monty Campground is closed outside of the summer months, a lower Metolius trip would still be possible but it would require paddling out across the lake. If this decision is made, we can	see 03d

	help alert the boating community to this issue.	
100b	you ought to keep the boating season running at least through the end of October. I've been down there in that area...I don't see, with the few boaters that are down there, the impact on fish or bald eagles.	see 03d
102b	Another point about boating in the off season is low and I don't believe has much of an impact on habitat. Typically I've been over there in the month of October, September, and other than other than the people that I'm boating with, never see anybody on the lower river.	see 3d
Regulations/Permits/Craft/Facilities		
08f	Wild fires: With no camping from a boat, you have almost eliminated the problem as it is hard to start a fire in the middle of the river, at least much harder than for other river users.	Noted. Campfires are only one of several potential causes of wildfires.
24k	Education and safety below Bridge 99 is equally important, and I strongly support a registration requirement at that point	Noted
25b	rest stop - not enough room for more than one party to land at a time. Should be open to stop anywhere - scouting rapids	Restrictions on rest stops in the DEIS have been replaced with data collection and monitoring which will help identify and address resource impacts that may result from boating stops.
25e	current use doesn't support limit on boaters camping	The plan has been changed so that boaters will be restricted by the same camping regulations as land-based users.
29b	The preferred alternative does not support developing a comprehensive plan to administer boating on the lower Metolius as a primitive recreational experience for future generations to enjoy... a system is desperately needed to administer boating permits and regulations. The preferred alternative is much too vague to provide guiding principles for developing management plans for administering boating on the lower river... The following are my recommendations for consideration: 1. A system will be developed to jointly administrate boating permits and regulations by June 1, 1996. 2. The permit system will be fee based in order to help cover administrative costs. The fee system will be consistent with fees on other Oregon rivers. 3. Permits will be issued at the Forest Service office in Sisters, or will be available by mail. 4. Permits will be issued between the hours of 8:00 a.m. and 5:00 p.m. seven days a week. 5. For the 1996 boating season, permits will be issued on a first come, first serve basis. 6. For the 1997 boating season, a lottery system will be established similar to the system on the Rogue River for issuing permits. 7. Three launch times will be established: 9:00 a.m., 10:00 a.m. and 11:00 a.m.	The plan has been changed so that boaters will self-register. Regulations which would necessitate more elaborate permit administration are not proposed at this time. With minor logistical changes, you have proposed a very workable permit system.
29f	*Modest boat landings are provided at Bridge 99 and Monty campground to minimize erosion and riparian impacts.* After discussions at the Camp Sherman Public Meeting on January 13, it was apparent that there has been very little research on the site requirements.	The exact design, materials, and placement of the proposed launches will be determined during implementation.. Users will be consulted and involved in the design.
34b	I oppose issue of any commercial rafting permits on the Metolius	Criteria for commercial uses in the river corridor have been developed which require a demonstration of need. It is not anticipated that commercial rafting could, at this time, meet the criteria established.
43d	The scope and nature of the proposed "rest stop" below bridge 99 is not defined in the draft, but any kind of facility or increase in the current minimal usage would appear to be in	The plan has been modified so that no rest stop facilities are proposed at this time.

	conflict with the "primitive" designation for the lower river	
54h	I think there is room off season to allow overnight use, in areas where soils and vegetation limit camping impact, perhaps where designated trail campsites are accessible from the river. Provision of minimal boating access points as proposed in the DEIS can eliminate some concerns about riparian vegetation. And although I don't like to segment user groups, it is also possible that where soft soils, or wet soils & immature vegetation pre- or post-season present a risk of riparian impacts from beaching or portaging rafts or doing full-scale camps, that kayak use or stove-based, minimal camping could still be allowed.	see 25e
57a	We hope you will clarify the plan's reference to permits, to use a fair (Freedom of Choice) permit system, if limited permits become necessary.	see 29b
57q	Those few boaters who so desire may camp overnight at the 5 to 10 designated sites available to land-based visitors, which are set back from the river's edge, but are within walking distance from the river	see 25e
57r	Only one rest area is officially designated, but the Forest Service assures boaters that they can legally stop along the river on national forest land where desired for safety, to rest, to scout, to portage, and for other purposes incidental to their navigation.	see 25b
57s	Boaters do not have to obtain a permit in advance. They register at the put-in, and can put in at any time. Any regulations are only those necessary for navigation, and are subject to the public's paramount right to navigate.	see 29b and 57k
81b	Rafting the lower river below Bridge 99 should be limited and better regulated. There could be a limited number of permits issued and emphasis on the important of experience and competence in rafting before anyone is allowed to do it.	see 03c and 29b
84d	In fact the user fee isn't a bad idea - if - the facilities are maintained and upgraded over time	see 29b
86a	I would limit boats to hardshell kayaks. It has been my (somewhat limited) experience that these people are just more serious about the experience	see 24k
86b	As the river is remote, cold and somewhat difficult, I would establish minimum equipment requirements. Each party should have a break-down paddle, a pin kit, and each boat should have a throw bag and all party members must be properly dressed (wet suits, dry suits P.F.D., helmet etc).	Regulations regarding necessary boating equipment are generally up to the State Marine Board. We can include recommendations for minimum equipment in the education and registration systems.
90b	I would again like to emphasize that the Metolius is just not well-suited for commercial boating... As soon as commercial boating is allowed on any river, river use increases dramatically ...and the increase in river users is not in experienced river boaters who know the basics	see 34b
90d	Is regulation of launch times necessary when we do not encounter other parties on the river as it is?!	While no regulations of launch times are proposed at this time, they may help protect the primitive experience for land-based users as well as boaters. It would also aid in administration and enforcement of boating registration and regulation.
93f	This is generally not a big deal since most of our members run the lower river as a day trip, however, the DEIS gave no rationale for prohibiting overnight boating trips while specifically developing several dispersed camping sites along the lower river. The final plan should be raised to remove the day-use only restriction and allow camping at the designated	see 25e

	dispersed camp sites available to land-based visitors.	
100c	I think limiting the number of people in a party and limiting the size of the craft would make sense	The plan includes social setting objectives which limit party size for all users of the primitive Scenic river segment.
100d	I don't think we need any more permitted systems. I think there's got to be a way to accommodate the use of that without putting us into a permit particularly if we're locked into when we have to use it	see 29b
101b	boaters right now have a very low impact on the area when we stop one time normally and sometimes not at all but generally just one time for a very short period of times so there's absolutely zero impact	See 25b. There are only a few places in the lower river where boaters can safely eddy out and pull up on the bank. With continued use, these areas, particularly riparian vegetation, may be unacceptabley impacted.
105b	regarding the lower river I am totally opposed to the construction of any recreation sites down there. A rest area for rafters, which I assume would be an out house, is completely unacceptable. I think it's contrary to keeping a primitive experience	see 43d
Eventual Closure due to Wood		
03e	While the presence and accumulation of deadfall (also called strainers) may deter people from boating the river, management agencies should allow the individual boater to make the decision about whether to run the rapid or not. Closing a river because it is deemed "unsafe" conveys the idea that the river is "safe" at all other times. The decision making onus should lie with the individual.	We agree. This concern is addressed by removal from the Plan of agency actions related to the eventual administrative closure of the river due to wood accummulations.
09c	If the wood builds up to the point that boating is no longer feasible, there will be no need to prohibit boating because paddling will not be possible with or without laws... When any river becomes too clogged with wood to paddle, paddlers simply stop going there. We suggest that this natural process be allowed to evolve without government interference.	see 03e
13b	Neither the Forest Service nor any other agency has the right to do this. Logs are simply one type of river obstacle, like rocks or falls. It is up to the individual boater to decide whether a particular set of obstacles or challenges makes a run interesting or worthwhile	see 03e
15c	It will be very difficult sometime in the future to prohibit river travel below Bridge 99, so why not now set a date when that travel will end?	There is currently no need for a total prohibition of boating in the Scenic segment. There is no way to predict if and when a future closure would need to occur.
54g	The preferred alternative proposes to eventually close the river when it is judged unsafe. I feel safety should be the concern of the knowledgeable boater, not the Forest Service. Safety concerns have been used far too often to close climbing, boating, even hiking opportunities. Far better to emphasize : --boater education ;--signing of hazards at put-ins, as the plan provides, with no guarantees they're complete ; --signage/education that the Metolius is indeed remote, steep, wood and brush choked, and rescue may be delayed or impossible ;--boater self responsibility; --signage that the river may be unsuitable for poorly maneuverable craft, such as rafts compared to kayaks ; --user fees if needed to subsidize river rangers (which could also help with concerns about trespass, etc; --liability waivers, if needed -possibly even demonstration of purchase of rescue insurance. As noted in the DEIS, even when log jams were still present in 1938, people were floating the river. I expect the river will become considerably more dangerous if wood again accumulates, but it should not be closed on that account.	see 03e

57f	NORS would particularly object: to an arbitrary management decision (page 35), to close the river because of woody debris. Boaters should be allowed to make the decision whether to boat (or climb a mountain)and accept wilderness challenge	see 03e
57j	the plan's stated reasons for proposing to eventually close the river do not pass any legal criteria. Yet the Forest Service and the other agencies are proposing to close it	see 03e
57u	Natural wood accumulations may make boating difficult or require tiresome portages, but boaters will be allowed to move wood out of the way to maintain a path down the river, and to decide for themselves if the river is worth boating.	see 03e. the plan does not allow wood manipulation by boaters downstream from Bridge 99.
62a	One would be a Plan provision recognizing that natural events may remove obstacles to boating thereby prolonging boating or even reopening boating as a practical pursuit on the lower Metolius.	see 03e
62d	"(A)t that time, the river will be closed by agreement between managing agencies." This statement pre-supposes a course of action that may prove not only difficult and impossible but also legally infeasible. Such a statement also may ostensibly commit and agency to an action which it may or may not have the legal authority to accomplish. I would suggest that at the very most a statement that appropriate managing agencies would confer and coordinate possible actions in response to such a condition (e.g., wood accumulations making boating infeasible) is preferable to the existing language.	see 03e
70h	it is inappropriate for the managing agencies to close the river to boating. If natural wood accumulation does fill the river, the managing agencies may want to post this, but this is a decision of the boater	see 03e
92g	The river should <u>not</u> be closed to river use when natural wood accumilation make boating infeasible any more than Mt. Hood or South Sister should be closed when there are avalanch hazards. The assumption of risk should be left up to the boater. If a person feels skilled enough to take the challange they should be able to.	see 03e
93a	The WKCC is adamantly opposed to any language within the final plan that would give any direction or authority to State or Federal agencies to close the lower Metolius to whitewater boating - either now or in the future. ....What we are specifically concerned about is maintaining the opportunity to boat the lower river. ....As was made abundantly clear at the public meeting in Portland on January 11th, liability of the managing agencies is simply not an issue. They are not liable because they have no control of natural hazards which inevitably exist on whitewater rivers whether they want them to or not. It is the responsibility of the individual boater to insure that they have the proper equipment, skill, and judgment to run a particular river safely. The amount of instream wood is also simply not an issue in justifying a closure. Of all of the tens or hundreds of rivers that are boated in Oregon, all of them have the potential to have logs and fallen trees. Dealing with them is a fact of life for whitewater boaters. The amount of wood in a particular stream does influence the number of boaters that use a particular river, but it rarely totally precludes use. In fact, some boaters may find a stream with numerous blowdown and logjams to be <u>more desirable</u> than <u>others because it is more challenging and more isolated</u>. Each	see 03e

	boater makes their own decision.	
96b	The most important point I would like to make about the safety of floaters on the lower river, however, is that this is not the concern of the management agency. When we kayakers decide to run a river we assume all the risk ourselves.	see 03e
Navagibility/Jurisdiction		
03h	Federal law states that if the river is "susceptible" of being used for commerce at the time the state entered the union, the river is navigable... the public has the right to recreate on the surface of the water in Oregon, regardless of the ownership of the underlying beds.... the Forest Service regulations on boating in the DEIS would interfere with the public's right of downstream passage.	We agree about the public's right to use the river, but in the case of Wild and Scenic rivers, that right is not without conditions. Both the Commerce and property clauses of the Constitution support the power of Congress to make rules and regulations to protect federal lands. The Secretary of Agriculture through the Forest Service is granted the authority to manage the surface of the Metolius River and the boating use which takes place thereon when and where conditions indicate that boating would impair the purposes or administration of the Wild and Scenic Rivers Act (WSR Act, section 12a). This authority to protect the river is without regard to ownership of bed and banks or determination of navigibility, neither issue on the Metolius having been properly adjudicated.
13a	The Forest Service does not have a legal right to prohibit or unduly limit non-commercial navigation on the Metolius. The public has a clear legal right to navigate the Metolius based on federal concepts of navigability, flotage easements, and public trust doctrine.	see 03h
57g	who has ownership of the riverbed need not be considered to evaluate the public's right to navigate, because the right to navigate remains intact regardless of who owns the riverbed. So, for instance, regardless of whether the Confederated Tribes claim to own to the north edge of tt;e river, or to the center line, or to the south edge, the public still has the legal right to navigate it.	see 03h
57h	The public's legal right to navigate a river does not necessarily include a right to navigate in boats that are inappropriately large, nor in large groups, nor on commercial trips, nor with motors. The only type of navigation that is definitely covered is noncommercial navigation, in small groups, in small watercraft (if that is all that is appropriate,) and without motors (if motors would be a disturbance.)	see 03h
57m	All rivers have obstacles of various sorts--shallow spots, gravel bars, falls, rapids, obstacles, etc. In numerous river cases, people opposed to navigation have told courts that various obstructions, hazards, long periods of low water, etc., render the river unnavigable. But the courts have always ruled that only boating itself is the measure of "susceptibility for navigation"	noted
90a	The Metolius is a navigable river. Many courts throughout the United States have consistently ruled that navigable rivers are PUBLIC resources. Even if the Tribe owned land on BOTH sides of the lower river, the RIVER is not theirs---and not theirs to "close."	see 03h
101c	how can a river owned by the public, which is the way I understand it , be controlled by tribal interests... which it seems is the driving force to close the river	see 3h. Ownership of the river, either bed and banks or surface, has not been determined.
Safety/Liability/SAR/Education		
13e	Search and Rescue concerns are not a legitimate or legal justification for limiting or prohibiting the public's right to non-commercial navigation on the Metolius	We agree. The Plan does not propose to close the river.
21ff	Given no wood manipulation on the lower river (p. 35), how do	The situation is analogous to that of mountaineering safety.

	you deal with safety and liability issues till the river does indeed close itself?	Managing risk and the need for rescue are the responsibility of the individual. The Forest Service has no liability for accidents that result from natural events such as avalanches or instream wood (liability is less clear in the cases of wood placed or manipulated in the river). The agency can notify users of known hazards, and will cooperate fully with SAR operations run by the agency with jurisdiction (Jefferson County Sheriff).
29h	Boater education should also include known hazards which have been formally reported. This may not include all known hazards.... Formal policies and processes should be established for reporting and communicating known hazards.... Establishing formal communication processes will help ensure improved boater education and will reduce risk for experienced boaters.	noted. The Proposed Action allows for a cooperative process to notify users of known hazards.
57e	The fast river current and dense brushy banks with few eddies prevent stopping and make portage around hazards difficult, even for experienced boaters. For liability, and public safety, the managing agencies have very little choice regarding removal of hazards.	see 21ff
57l	The "difficulty of search and rescue" is not a factor in navigability rights. Many government agencies find themselves unprepared to deal with accidents on remote rivers, and unwilling to allocate money for search and rescue. But the public's right to navigate remote rivers remains intact regardless of the level of preparedness or funding of local government agencies.	We agree. see 13e
80d	It is a poor precedent to close a river to boating on the grounds of difficult access for rescue. Many rivers in Oregon are more remote than this corridor and adversity is accepted by the users as part of the experience.	The Plan does not propose to close the river on the grounds of difficult access for rescue.
Conflicts/Impacts		
03f	the DEIS lists riparian impacts at put-ins and campsites. These are public access points and public campgrounds, and, like thousands of other like areas across the country, can be managed to limit impacts. The DEIS has also determined, with no documentation, that only boaters impact these areas.	The plan proposes to address unacceptable riparian impacts throughout the corridor regardless of cause.
03g	Boaters can appreciate the needs of the tribes on the Metolius and their concern for the river, indeed many individual boaters share these feelings. However, we firmly believe that there is no conflict between spiritual and recreational use of the river.... some Native Americans have religious rites which may require solitude during certain times of the year. If this is the case on the Metolius, then AWA is willing to address these specific needs. We do not support the complete closure of the river.	noted
08e	Conflicts with other users (anglers): Boaters and anglers coexist on nearly every river in the West. Why should the Metolius be any different? Should anglers be favored over floaters? If you truly want to enhance the fishery, why don't you prohibit fishing. I am not advocating that, but that would make more sense than eliminating the floating	see 79aa in the Upper River comments above.
09a	We see no justification for eliminating boating on the Metolius based on this activity's impact on fishing. Should the number of boats using the river reach such a level that their presence does make it difficult to fish, then we suggest limiting the number of launches at that time	see 79aa
09b	The concern of the Warm Springs Tribe that boaters might trespass on their land is not a valid reason to prohibit an activity. An activity cannot be prohibited because of the possibility that someone might violate a law. We do not	Noted

	prohibit driving because someone might exceed the speed limit.	
21n	Your plan to allow boating on the Lower River under permit seems unwise. This plan element gives boaters the expectation of continued access, which access would have deleterious effects on river banks, on wildlife population, on freedom from wildfire, and on avoiding trespass on Reservation land, all conditions that defeat the principle of maintaining a primitive condition there	Other than conditions at Bridge 99 and Monty launches, there is no basis for the assertion that boating is or will have a deleterious effects on river resources. The Plan provides direction for addressing unacceptable riparian impacts. Registration and monitoring will be used to detect and help determine appropriate management actions to address any future impacts.
34a	there is no need to close the river to prevent trespassing on the Reservation. That would be a violation of my right to boat this navigable waterway	The Plan does not propose to close the river.
43c	Boating use is at present very minimal, but even the low level of current use creates friction with non-boating users due to the small and intimate nature of the river. Habitat issues and other considerations mitigate strongly against allowing commercial or recreational boating on the river.	see 79aa
46a	The Metolius is a pristine fly fishing river. As a fly fisherman, you can not enjoy fishing when boats are flowing through and disturbing your fishing waters. You lose that solitude fishing experience. If boating is allowed in the lower river, where do you launch your boat. The logical area you mentioned in the management plan is above Bridge 99. This is a popular fishing area. There is always someone fly fishing just above the bridge and many fishing on and below the bridge. Will this area be closed so that boats can be Launched I hope not	The Plan does not propose to close areas to angling because of boaters, nor does it propose to close areas to boating for the needs of anglers. The limited quantity and duration of impacts from boating on angling does not warrant such action. Boater registration will aid in determining such need in the future.
54d	There is little presented that suggest riparian impacts of non-motorized boating are significant; it would seem that the impacts from poorly located, non-hardened trail use and near-river camping are far greater	Riparian impacts on the Metolius are locally serious, but by no means significant. There are a variety of sources of riparian impacts. The Plan proposes actions to address unacceptable riparian impacts, regardless of source.
57b	the public is entitled to boat in the entire river. The preferred alternative would, in effect, prohibit boating use upstream from Gorge Campground because of woody debris in the river. Thus it appears that a section of the river is being reserved for a special recreational use at the expense of boaters. As a practical matter, the entire eleven mile upper section has negligible boating use. With proper education and user cooperation similar to the practice on the North Umpqua River, boaters will respect fisherman's rights by not boating the upper section or by boating at specified times	see 46a. The stream conditions above Gorge aloow boaters to easily avoid instream wood hazards. The value of the wood as habitat in this critical spawning area outweighs the slight inconvenience to the few boaters that use this portion of the river.
79o	Boating on the Lower River has allowed access by boaters to otherwise remote and protected wildlife areas, destroyed instream fish habitat by removal of woody debris, caused riparian area damage due to boat landings and launchings, allowed trespassing on the Warm Springs Reservation, increased the threat of fire, and endangered lives of rescuers attempting to save lost and hurt boaters. A permit process would not solve any of these problems but would instead create an expectation of at least that amount of use by what would become an entrenched user group	See the Proposed Action. A permit process may not eliminate any problems, but can be used in combination with enforcement to identify and limit impacts to acceptable levels.de
96c	The final justification made in the DEIS for closing the river is the Tribes concern about possible trespass on their land. I do not think this justifies closure of a public river. Many other public waterway flow past, and even through, private lands and we do not contemplate closing these rivers to boating. A few well placed "No Trespassing" signs should be enough to let boaters know that the left bank is private property	Neither the Preferred Alternative in the DEIS or this Proposed Action would close the river to boaters.
Wood		
08b	Secondly, you are closing the river when a tree falls across the river. Do we know how many logs are in the river now? No. Do we know how many would have to be removed each, year?	The Plan does not propose to close the river.

	No. Could the couple of logs that had to be moved to permit safe passage, 1% or less, be mitigated by adding a log or two to the aide of the stream?	
19b	Three standards of instream wood are defined in the preferred alternative plan... Other than boating issues (apparently boating would be eventually precluded below Bridge 99) no resource data is provided to support these different standards. If wild fish habitat is the major concern (but we don't know because fish alternatives are not provided), the standards make little sense. The river above Bridge 99 likely contains more and better fish habitat than that below, yet it will be managed to a lower standard. Given the severe man made reduction of instream wood historically on the upper river, the highest standards should be made there if wild fish populations are to be enhanced.	With the exception of the 2 or 3 miles below Canyon Creek, the upper river is wide and slow enough that wood only rarely spans or jams the stream. Instream wood is not as critical a habitat component here as it is in the lower river where wood and log jams may be the only current modifying structure available to form pools or side channels.
19j	Non-removal of wood below Bridge 99 appears to have the purpose of eliminating boating in this area. But no consideration is given on what effect this will have on boating on other areas of the river. In all likelihood, boating from Gorge to Bridge 99 would increase.	The registration system is designed to track changes in use and identify where and when any limits on users are necessary.
21o	Assuming that time and the river will eventually close the Metolius to boating seems unduly optimistic; users are likely to take removal of obstacles in their own hands	Manipulation of instream wood will be prohibited. A combination of enforcement and user education will limit this activity.
21x	How can wood manipulation (p. 21) from Gorge to Bridge 99 not "adversely affect riparian or instream habitat"? By what standard is adverse affect to be determined? How adverse is adverse?	Wood manipulation as described in the Plan means a range of actions. Simply limbing a log or trimming out a channel-blocking top would have litttle if any affect on fish habitat. The more extreme cases where a log is moved from cross channel to side channel may result in a substitution of one kind of habitat for another. While the potential habitat gain may not be as great, this is still not considered a significant effect to fish populations.
28d	The House on the Metolius opposes the Preferred Alternative relating to Instream Wood as stated in MTFH-3 and MTFH-4 on page 156. We urge you to allow only minor manipulations of wood anywhere above Bridge 99, not removal for boating passage. HOM strenuously opposes any facilitation of boating passage through HOM private property. Clearing for safe boating passage below the Gorge Campground would increase boating traffic through HOM property, to the detriment of important fish habitat needs.	noted
29g	In order to keep the lower Metolius river open for future generations of boaters, the Wild and Scenic River Management Plan must support manipulating wood for minimum safe boating passage... Although it is optimal for the fisheries habitat to maximize the number of instream logs, it is feasible to balance the need for a quality fisheries habitat with boater navigation. Depending on the nature of the in-stream wood, it may be very expensive to manipulate in-stream wood to allow for both. It is much more desirable that guidelines for manipulating in-stream wood be established rather than stating that in-stream wood shall not be manipulated....Fees from permits and volunteer contributions of labor and/or funds can help cover the costs of manipulating in-stream wood which balances quality fisheries habitat and boater navigation...."*From Gorge Campground to Bridge 99, minimum safe boating passage is maintained when wood manipulation does not adversely impact riparian or instream habitat.*"... This language should be applied to both the section from Gorge Campground to Bridge 99 and from Bridge 99 to Money Campground.	An alternative that provided for managing wood in the lower river was considered in the DEIS (Alternative 5). The combination of poor access, swift river conditions, objectives for primitive management, and habitat restoration make most wood manipulation in the lower river extremely expensive. It requires a large commitment of resources to maintain better passage than what will occur naturally, when the number of benefitting users is relatively small. Our experience in the upper river where access and currents are easier, indicates that manipulating logs to provide passage wihile still maintaining some habitat value can cost over $1000 per incident. It is unlikely that permit fees for a few hundred users could cover this level of expense. Additionally, manipulating logs on this scale is usually a job for heavy eqipment and skilled workers, and the potential role for volunteer labor is very low.

33a	In stream wood can be a hazard for children walking out and attempting to break off limbs that are upright If they fall upstream they will be washed under the log. Limbing top side will help.	noted see 21ff under Safety and Liability above
33b	4 logs have been dropped in at Smiling River changing water flow-erodes opposite banks. Enough! What are your limits? Log jams in time of heavy rain can cause flooding.	noted..
43b	If native fish habitat is a major concern it does not make sense that the river above bridge 99, which is deemed to have the best habitat, is managed to a lower standard than the river below bridge 99.	see 19b. It is not a lower standard, just different
54i	I think there is no absolute conflict between the fisheries resource and the boating resource on the lower Metolius. The best spawning gravels occur in the upper Metolius and in the Metolius tributaries, not the lower river at stake here. Total numbers of anglers and boaters are less on the lower river than the upper, so actual number of personal interactions will be small. The DEIS says that wood loads in the Metolius are currently below historical levels, especially in the upper river. It says the lower Metolius already has 7 times as many logs per mile as the upper, but there are no figures given for historical loads. I think there is some leeway for preserving quite a bit of instream wood while still preserving minimum boating passage. Even if no artificial removal is practiced, unless of course you resort to artificial placement of large numbers of wood barriers, placed repeatedly across the stream, which can be impassable, natural wood loads are irregular, and generally either navigable or portageable with minimum impact by a modern kayak. I would of course in my dreams like to believe that absolutely unrunnable wood situations with very difficult places to eddy out above them might still be modifiable without completely removing them from the river, perhaps even by introducing still more wood above in a place that creates both an eddy and fish habitat. But given that that is unlikely, final navigability rests in the technical skill and judgment of the boater.	see 19b and 29g
57d	Throughout the Draft Plan there are provisions for removing hazard trees near camps, trails and power lines. Woody material is to be manipulated for the convenience of water play. A few instream hazards to boaters have occurred over a long period of years. Removing two or three danger trees in the lower section would not effect fisheries or significantly alter the environment	see 29g. It is likely that a flood, slide, or wind event would result in many more than 2 or 3 danger hazard trees. Incremental removal of these logs in the past as hazards occur is the primary reason we relatively few logs in the river today.
57n	"Wood is not manipulated for boating passage." We have been definitely told by representatives of the agencies that this language means that the Forest Service would actually prohibit boaters themselves from moving logs out of the way... Just as "inholders" using the dirt road near the Metolius to get to their cabins have the legal right to move logs that fall across the road out of the way, so too do river runners have the legal right to move logs that obstruct the path down the river out of the way	Inholders have special use permits or road agreements that allow use and maintenance of the roads. There is no legal authority that automatically allows users of any right of way, either water or land-based, to modify that right of way without permission of the managing agency, particularly when modification is counter to the agency's objectives.
60e	With logjams, sweepers and other obstructions creating possible safety hazards, the NWRA supports a multiagency and organization task force to help maintain a safe and ecologically sound passage of the Metolius River, both above and below Bridge 99	The Proposed Action allows for coopertive management of river hazards as you suggest, but not to the extent of manipulating or removing wood in the lower river.
62b	Considering the Tribes' desire to add downed wood to the river, the state would not look favorably on the use of downed wood and its associated access to the reservation, as the basis for additional restrictions on land based recreation access.	noted

64e	In the area above Bridge 99, every effort should be made to retain all woody debris that enters the system. The only exception should be limited manipulation of woody debris to address public safety concerns.	see the Proposed Action
73h	I would prefer that every consideration be given to keep woody debris in the river to improve fish habitat. There seems to be many conflicts in the plan but I think that you should give first priority to the fish resource.	noted
75b	Trees and other w dy debris has fallen into the river over this winter and shoul left in place to provide fish habitat. I agree with the SI view that permitting boat use will institutionalize th se and that boaters will attempt to clear and dislodge the trees in the water, thus frustrating efforts to encourage fish habitat.	see 21o
79p	Allowing such accumulation of woody debris in the river is a great idea, but it won't work if boating is also allowed. The reason is that such debris would make boating difficult and dangerous, so the boaters will cut out the material as they have done in the past.	see 21o
80a	wood removal should be maintained for mid-channel passage. Leave the river open to future boating!... logs spanning the river are not necessary for premium instream habitat. The most valuable areas are eddies and slower side currents.	In the swift currents of the lower river, log jams and river spanning wood may be the only current-modifying structure availalble to create eddys and side currents. e
91f	Due to the management goals of trying to manage the river for wild trout populations we feel that no woody debris should be removed from the river to allow boating or rafting	noted
93b	we are concerned about the proposed direction in the Preferred Alternative which prohibits any manipulation of in stream wood below Bridge 99. This is unreasonable since, as the plan recognizes "it is possible to adjust logs to allow for passage". In many cases this can be done with no negative impacts to fish habitat. A more reasonable and realistic approach would be to adopt the same direction for the lower river as is proposed for the Gorge Campground to Bridge 99 section. Namely "Minimum safe boating passage is maintained when wood manipulation does not adversely impact riparian or instream habitat". As stated above, our intent is not to improve or even necessarily to maintain the current level of boating access on the lower river. However, if a significant hazard can be removed with no impact to other resources, we should maintain the flexibility to do so. Nor is it our intent to encourage the Forest Service to assume the responsibility for managing naturally occurring obstacles on the Metolius. This is impossible and they are under no obligation to do so. Any instream wood management that actually occurs should be on a small scale, site-by-site basis and should be a cooperative effort between boaters and the agencies fisheries biologists.	see 29g
95a	Make provision for continued use by rafters. Stream spanning wood is not clearly indicated as much better for fisheries than stream side wood and habitat. Yet stream spanning wood will exclude a low impact user group---boaters	see 80a
103a	The issue of maintaining fish habitat as well as boating which is also recognized as an outstanding recreational issue on the river is not mutually exclusive	see 29g

103c	manipulate the woody debris in a manner to allow safe passage and at the same time preserve the fish habitat	see 29g
104a	I feel that any logs that became an obstacle could be removed without doing it in an obtrusive way like apparently the Forest Service has done in the past by blasting	see 29g. Blasting rarely provides enough control to move wood in a way that benefits fish habitat.
Close-it		
05a	I feel that boating should be very limited on all sections of the Metolius River. In order to sustain a "wild fish" environment the area needs to be kept free of excess use that rafting and commercial river use brings. As an avid flyfisherman and a concerned conservationist, I urge you to limit any boat use at all.	noted
14a	Discourage boating more than the plan proposes. No boating allowed from Gorge CG to bridge 99. Limited boating without improvements from bridge 99 to Monty CG. Discourage all removal of wood for boat passage on the whole river. We are rafters and raft many rivers in the west, but feel the Metolius is to small and fragile a river to encourage and allow rafting.	Conditions do not warrent more limitations on boaters than currently proposed
16a	The Metolius needs minimal human intrusion; therefore I urge you, in concert with the Warm Springs tribes, to ban all boating on the river. It is a jewel that can only become tarnished as population pressures mount.	see 14a
36a	We must ban boating on the lower river now rather than postponing our decision as suggested on pages 35 and 39....1. Once a precedent is set (as now) it is not easily set aside, but more easily done now that public assistance is readily available, as in this study of preferred alternatives. 2. Woody debris in the river, even to the genuine but uneducated nature lover, is no more than a small challenge to the dedicated adventurer in realizing his or her primitive boating experience, 'irregardless' of the effect on bulltrout and other aquatic species.	The agency does not have the authority to limit or ban boating without a clear trend increasing use and resulting unacceptable impacts on river values.
41j	Rafting and boating should be discontinued. Their impacts are well known and understood. There is no way to maintain riparian health and in-stream woody masses with boaters. They will do anything to remove hazards that aren't good kayaking terrain. They damage the banks putting in, portaging and taking out. They disturb water fowl and hunting and nesting raptors. Etc. There is no way to open the river for use and defend it against commercial use and the vicarious encouragement of it. A permit system will help control numbers to a degree but will also help to make that section of the river famous as a hard-to-get river	see 36a
41o	The upper river should also be closed above Gorge campground. In the remaining section, in no situation should in-fall be manipulated to accommodate boaters. There should be a clear declaration in all literature and on existing signboards that boating is an assumed user risk and discouraged, to protect the river resource values. We have consistently seen good in-fall turned into no structure at all by saw, block and tackle. Please. You can't expect to have a good fishery and to manipulate the river to accommodate boating.	see 36a
44e	I strongly urge you to abolish any kind of boating or waterplay in the Metolius River. Not only are there limited places to park vehicles and put ins and portage spots (where tremendous impact is currently visible), but that the effects of the accompanying dispersed camping and downed tree removal is damaging to the river as habitat to delicate flora and waterlife. In any event, if boating is allowed, I feel very strongly that fish habitat needs to be considered as a priority, and that wood	see 36a

	removal for the safety of waterplay should not occur.	
76a	There is only one major problem with the preferred alternative from my point of view - it allows boating or some kind of floating on the entire river... This is our opportunity to maintain and improve the quiet, natural character of the river, to reaffirm historical uses, avoid possible user conflicts and avoid a clash with the Confederated Tribes, who are doing the right thing to protect the resources of the lower river... It can please people like me who are seeking protection of the corridor, desire it's naturalness to increase while allowing long established low risk family recreation	see 36a
83a	I would prohibit all boating (i.e. adopt alternative 4, p.61). I oppose it for all the concerns listed on p. 34, plus this: I believe it is not a traditional, long-term historic use. If the river is to be closed to boating eventually anyway, close it now before increased use builds pressure to keep it open, and before wood build-up claims more lives	see 36a
94b	Why not close off all rafting and boating on the river? Don't we have enough rivers in this state that can be used for this purpose without ruining one of the last pure ones that we have.	see 36a

Issue 8		
General		
02a	River Access - The lower river should be kept as scenic-primitive. We would like to see all roads along the river closed below Bridge 99, including Road 1499. This area can and should be a hiking area only. In line with this, we would like mountain bikes excluded from this area and of course all motorized off-road vehicles, including snow mobiles. We do not object to horses for travel in the area, but their environmental impact should be carefully watched and horse usage may have to be restricted if it becomes too detrimental. We would prefer the entire lower river be day use only.	The intent of managing the lower river as a primitive recreation area was established by Congress in the designation language for the Metolius. A Primitive ROS designation is not analogous to Wilderness designation. Primitive ROS does not necessarily limit types of uses to those which are "traditional" as in Wilderness. The experience of a Primitive ROS should provide a high probability of isolation from the sights and sounds of others. Motorized uses have wide-spread effects on the area due to noise. Non-motorized uses, regardless of type, have a much more limited scope of influence. Regulation of non-motorized uses in the lower river is to prevent or reduce resource impacts rather than experiential impacts. The presence of a road in this area is not consistent with the Primitive ROS, but cannot be eliminated in this planning process because it provides the sole means of access to private lands. Use of this road will be regulated to provide the most consistency with the Primitive designation possible.
17o	It is imperative that we leave this area as a wild, Primitive, natural area. This means no roads, boats or developed trails.	see 02a
19l	Management under the preferred alternative is highly problematic. In contrast to the rest of the river, it is only in this section that management goals and controls are clearly specified. These controls are likely to result in adverse effects on the upper river where management controls are vague at best.	The controls in the lower river have confined several Semi-Primitive motorized uses. These uses will not likely be displaced to the upper river corridor due to limited availability of suitable settings and controls imposed as part of this management plan.
19m	For a variety of reasons, the area does not provide a "primitive" recreational experience and to say so, is to run roughshod over the ROS.... The road will remain and be maintained; private residences will remain; logging and historical alterations are evident; a boating rest stop, apparently with sanitary facilities will be established.	see 02a
19r	The unstated objective appears to be to limit use on the lower river to preserve the natural characteristics. This could be achieved with minimal displacement on existing use and access through the following: 1. Close Rd 64 at Monty Campground and Rd 1499 north of the private property and allow no motorized use in this area. 2. Limit entry for motorized vehicles, bicycles, and equestrian use at Candle Creek. (Number to be established through -study) 3. No off road use for vehicles, bicycles and horses. 4. No overnight camping below bridge 99 except for hikers. 5. Berm all spurs of Rd 1499 and Rd 64.	These options were either adopted in the plan or considered in other alternatives except: limited entry of motorized vehicles which is not consistent with the primitive management direction in the designation language for the Metolius; limiting overnight camping to hikers for which there are no established resource reasons to discriminate between types of use. The LAC process and registration will aid in determining whether impacts warrant further use restrictions.
21q	Do you foresee having to exercise your option of establishing rules later for registration and restrictions on use along the Lower River? We surely do, with the proposed plan. Let's anticipate some of those problems beforehand and establish the necessary restrictions in the original management document. It will never be easier.	There are no established resource reasons to discriminate between types of use and levels of use more than what is already in the plan. The LAC process and registration will aid in determining whether impacts warrant further use restrictions. The LAC process also establishes potential responses if and when thresholds are exceeded.
22a	We do not want to see any development below Bridge 99. This area should be left undisturbed. There are already enough boats and people in general, on the upper river. If there is an increase in traffic in the lower river areas, we fear forest fires starting from careless campers. These	The Plan does not propose any new development in the lower river. We do not anticipate a significant increase in use of the lower river. Reducing access to an area generally reduces

	fires could not be fought in an effective way. Fires are always a concern to all of us. Why make it any more difficult to get to the burning area? We do not want to see any road improvements below Bridge 99. Also, we are against any trail improvements. The intentions of trails are for hikers only, however, on the trails we now have, we see bicycles and horses. There would be very little enforcement on the lower river area. This might result in misuse of the trail.	use. An increase in use of the lower river could result in an increase in fire risk. The risk can be mitigated by education and site controls. Monitoring the use will determine if the risk of fire threatens the lower river. We will continue to have access to the lower river for fire suppression and other administrative uses.. It should be noted that fire is an integral element of the ecology and character of the lower river so that at some fire is acceptable and even desired to maintain the primitive character of the area. The only road or trail improvements intended in the Plan are to protect the river and riparian resource from unacceptable impacts that result from current location or condition. Misuse of the trail will be monitored and will be a factor in considering further limitations on use.
23h	I think you should honor the wishes and convictions of the Warm Springs Tribe. They see that as their section of river, and they don't want any boating on it--and for very good reasons. Rescues and firefighting are difficult to mount down there, and tend to trash out the area. Let them have their river and their way. Let the river reclaim itself. Think of that whole area down there as sacred land, to be respected from a distance, to be honored by being left alone.	Noted
36c	Experience has shown that even the best behaved boaters, bikers, overnight campers and equestrians, by their very presence, adversely impact the quality of prime habitat and increase the danger of fire. We must, therefore, forbid these activities, deciding in favor of wildlife and aquatic species preservation.	There is no demonstrated evidence that human presence, particularly at the low levels that are likely to occur in the lower river, have any generally adverse impact on the quality of habitat. There may be specific habitat impacts, for instance from use in riparian areas or disturbance of eagles at Monty, but the Plan addresses those specific concerns.
43h	The private residences, proposed boater rest stop, increase in biking traffic, logging and historical alterations are all in conflict with the "primitive area" concept.	see 02a
45d	I am not too familiar with the lower River, but it is still part of The River, and I see no value in getting an "over-use foot in the door" by continuing, and in some cases broadening, the areas permitting boating, and other non-fishing activities which could easily be pursued in a more appropriate and tougher environment elsewhere.	The lower river user registration system will help insure that continuation of use in the lower river is not a foot in the door for over-use. When data indicates unacceptable change, efforts will be undertaken to protect the resource or limit use. The Plan does not intend for any uses to be "broadening" in the lower river. The intent for managing this area is to allow, but monitor, the continuation of some uses (hiking); restrict and limit some uses (boating, non-motorized dispersed camping, bicycling, horse use); or eliminate some uses (motorized access and camping).
75c	The road should be closed and overnight camping prohibited or restricted by very stringent permitting-and only walk-in camping. No horses, please, and no motorized vehicles.	This alternative was considered, but not selected because we felt that further limitations were unnecessary to protect the resource and the primitive experience.
79j	Current and proposed human use of the Lower River corridor essentially cuts this area in half, disrupting migrations, interfering with elk calving areas, destroying riparian areas and fish habitat and causing accidental fires.	Managing the lower river corridor for consistency with the surrounding land management areas (the Deschutes National Forest Metolius Wildlife Primitive and Tribal Conditional Use areas) was an important consideration in developing the Proposed Action. Actions taken in the plan will improve ***(refer to negative impacts listed)
85a	I would choose Alternative #4. Because, it does the most in satisfying the management plan goal, and I would strongly amend it by recreational use being day use only.	Noted
85b	**I love this area and the original inhabitants, please stop any people from coming into this area and risking further damage to the area and it's original inhabitants**.... Please explain to me how new facilities can protect and rehabilitate this area better than nature will anyway when there is no	No new facilities, roads or trails are proposed for the Scenic segment of the river corridor..

	interference of people.	
85d	The Metolius River has been severely damaged through the years by humans and will continue to do so if allowed into this designated area. **If our hearts and minds are truly dedicated to protecting and rehabilitating the Metolius River then I demand that this area be declared a wilderness area.**	Only Congress can establish a Wilderness Area , which incidentally, do not exclude people. The wishes of Congress, as expressed in the Wild and Scenic Rivers Act, is to manage this segment of the river for primitive recreation. By any measure, the Metolius cannot be considered severely damaged by human use. If fact, it is in remarkably pristine condition, in spite of the intensity of use. Throughout, the intent of the Plan is to maintain that pristine condition, while continuing to allow people to enjoy it.
105d	If the road is gated than I think we should simply offer that area full protection by making it the Metolius Breaks Wilderness Area.	See 85d. With the exception of the road, which is required for access to private lands, management and use of the Scenic segment is nearly the same as if it were Wilderness. In fact, site controls, monitoring, and the registration system are all greater constraints than are imposed on most Wilderness Areas.
Motorized Access		
19o	Administrative vehicular travel such as those servicing the boater rest stop and private property owners travel would still be present and distort a primitive experience.	***The boater rest stop is no longer a part of the Proposed Action***. The amount of private and administrative travel is not expected to exceed an average of one or two trips per week. This level of potential encounters is consistent with objectives for primitive character.
19q	The lower river provides a degree of semi-primitive motorized recreation experiences . At present, the Deschutes National Forest has only 917 acres designated for such activity. (Recreational Needs Bulletin: SCORP 1991). Diminishing such opportunities on the lower river would increase use elsewhere on a forest with already minimal opportunity.	While only a small portion of the Deschutes NF is allocated to provide an ROS of semi-primitive motorized, a significant portion (over 50%) of the Forest has existing conditions that provide this type of experience. These acres were not included in the last SCORP report because they were in land allocations where the expectation was for change to a more modified character, largely due to expected timber harvest. Since the adoption of the NW Forest Plan, significant portions of what was once allocated to General Forest are now allocated to Riparian Reserves, Late-successional Reserves, or other allocations where a much lower level of modification will occur. These areas will continue to provide a semi-primitive motorized experience.
36e	To limit human infringement due to vehicular traffic, I would urge that rather than improving Road 1499, the Forest Service should close it with a gate at the Lower Bridge campground.	Because the slide eliminated the proposed gate location, the next best location as noted in the Proposed Action is at or very near the beginning of Road 1499, upslope from Lower Bridge campground.
67a	Place a locked gate on the Lower River at Lower Bridge Campground and close road 1499. Allow it to be for non-motorized day-use only..... Do nothing to that road. It can serve as is for horses, hikers and mountain bikers.	See the Proposed Action
80b	Most of the riparian vegetation impact and damage is evident at sights easily recognized as accessible by motor vehicle or ATV. It is my strong recommendation to close all motor vehicle access on the "river right" (east and south) side of the corridor	See the Proposed Action
85c	**No motorized access in this area supports the management goal.** I believe that if the group can recognize this great opportunity to provide this area all due respect and fulfill their goal statement with language that will protect and rehabilitate the Metolius River and its original inhabitants, **only then can I know that the group has it's mind and heart in one place. Because right now it reflects a split that creates confusion and loss of direction. If the group is to provide protection and rehabilitate this sacred area, then do not let people take precedence over this area.**	See the Proposed Action
105c	Gating the road to vehicle access. I would strongly encourage the consideration of a limited vehicle access, I would strongly	This was considered, but not developed as an alternative. Experience with similar proposals (e.g., the Camp Sherman

	encourage the consideration of a limited vehicle access where a certain number of keys would be made available, just say 5 or 6 vehicles a day, would be issued keys it the gate possibly checks out by the camp ground host of bridge 99, and you would check your key in and out and that way we control the usage down there to maintain a primitive experience while still allowing for day trips to experience the river's best trout fishing.	dump) have indicated the difficulty of administering a limited access system.
Non-motorized Access		
15b	The road on the east side of the river below Bridge 99 must be closed to all modes of travel except by foot. Dispersed camping must not be allowed	See the Proposed Action. There are no resource reasons to limit dispersed camping more than the Proposed Action already does.
19p	Prohibiting public motorized use will likely increase equestrian and bicycle use which will diminish primitive qualities. Overall, such uses are bound to increase camping on the lower river with attendant environmental degradation.	See the Proposed Action. The Plan limits impacts of dispersed camping regardless of any increase in non-motorized access.
21p	Were you serious about permitting bikers to access the old road beyond the closure point? So bikes are now "primitive" tools?	A primitive recreation experience is not defined by "primitive tools". If restricted to the existing road, bicycles will not result in significant resource impacts, nor will they greatly affect the experience of other users who will be focused closer to the river. The expectation is that if you are camping or hiking along the river, you will not see, hear, or otherwise notice a cyclist passing on the road.
21hh	Re the primitive lower river experience, should we assume "mechanized, non-motorized" (p. 38) means bicycles? skateboards? pogo sticks?	These are all non-motorized methods, although terrain, the road surface, and common sense will likely limit most machines.
36b	Hikers on foot who seek a wilderness-like experience might, with reservation be allowed into the area for day hikes. This activity and its impact should be monitored. The Forest Service should <u>not</u> create a developed trail, which would only invite additional people into the area and subvert our established goal of habitat protection.	The intent of the Proposed Action is to maintain, relocate and rehabilitate the existing hiker trail to reduce impacts to the river and riparian area. No new trails are to be created.
68c	3) Keep the river from Bridge 99 down primitive: no road or trail improvements.	Any trail or road improvements are only to eliminate or reduce their impact on the river.
75a	The slide should not be cleared. The road should be allowed to deteriorate and all access should be on foot or mountain bike along a trail.	The Forest Service is obligated to provide roaded access to private inholdings. Currently, a rough track has been cleared across the slide. The slide will not be removed.
79k	People would still be allowed into the area but only on foot and not overnight. Also, there should be no developed trail as proposed by the Plan, which would only advertise and encourage use. At the very least, any trail should not appear on any recreation map.	see 36b
Trails		
19n	The linear hiking opportunity between Candle Creek and Lake Billy Chinook is of questionable quality. Much of this area is in a deep canyon with little visual aspect. Hiking would largely be on a defined road, not a primitive trail while public motorized access would be denied.	The existing trail will continue to provide a limited river oriented hiking opportunity. The value of this opportunity is a matter of opinion. It will not be necessary to hike on the road.
29k	Mountain biking is not addressed. Considerations should be made for establishing guidelines on Mountain biking between Bridge 99 and Monty Campground.	The Plan would limit mountain bikes in this area to the use of closed roads. The river trail which connects the closed portions of Rd 1499 and Rd 64 is for foot traffic only.
36f	I would remind us that rules are easier to make than to enforce, as in the case of the off road vehicle damage to Three Creeks Meadow, which Forest Service officials state 'will take years to regenerate'. I mention this in support of my position to limit the potential danger of adverse effects through human activity, by limiting accessibility. Let there be <u>no trail</u> around the lower	see 36b

	river!	
79r	There is currently only an undeveloped and overgrown user trail connecting the roads which are to be closed. The draft plan is unclear, but it sounds as if you intend to further develop and advertise a trail. Please: No trail	see 36b
79s	It is also important to disallow those uses which need a trail and which would cause riparian damage if there were no trail, including mountain bikes and horses.'	The Plan limits uses other than hiking to the existing roadbed.
80c	A walking (possibly biking) trail should be maintained on this same side from Bridge 99 to Monty CG to encourage non-motorized activity and access for varied other recreation or patrol/enforcement uses.	see 36b
Dispersed camping		
65a	Future increases in unregulated camping below Lower Bridge could have negative impacts on the river corridor. Future recreation emphasis should be of a low impact variety.	The Plan regulates camping in the lower river to designated walk-in sites only. Registration and monitoring will be used to identify use trends and impacts so that actions may be taken to ensure future use is of a low-impact variety.
79u	Overnight camping should also be disallowed along the Lower River. The risk of man caused fire in this area where it is hard to fight fire is simply too great. Let's give the night back to the wildlife along the river.	Human caused fire occurrence in the lower river is low. Designating dispersed camping sites and allowing campfires only in established fire rings will decrease the risk of human-caused wildfire.
84a	I have seen several examples of camp sites where people have left garbage and/or fire ring damage. I believe these were sites where people drove down the four wheel drive road and camped via vehicle. Why not enforce a fire pan regulation like on many other river areas?... I think the absence of fire pits made people think more about getting everything in the garbage bags.	Designating dispersed campsites and fire rings were intended to help address such potential problems. The lower river registration system and monitoring will be used to identify the need for fire pan requirements or other such regulations in the future.

Issue 9		
Commercial Development		
21k	We recognize the difficulty you faced in crafting language to deal with commercial and other special uses. But we still can't tell, from the language, what would and what would not pass muster. Since we are interested in a natural, unsullied Metolius corridor, as free from commercialization as possible, we urge the planners to revisit this matter, seeking to direct future managers with very tough criteria for granting any commercial permits... It's hard to conceive of any new commercial enterprise that is really needed in the short run. We'd like the criteria to reflect that.	Demonstrated need is determined by whether a use is needed for the safety and health of the public, to accomplish a standard or guideline of the Plan, or to fulfill agency management/administrative roles. The fact that a business opportunity or the opportunity to provide a service exists does not demonstrate need.
23g	The language, "demonstrated need (not merely demand)" seems to me not clear enough to prevent irretrievable mistakes. Let's make sure we have no golden arches in Camp Sherman.	see 21k
28l	The preferred alternative would allow commercial development if the development "responds to a demonstrated need (not merely demand) .. ." What does this mean? No substantive standards for determining what constitutes need are included in MTCM-1 or MTCM-2 at page 160. Would the need criteria for commercial rafting be met simply if use restrictions are imposed on the Deschutes? The House on the Metolius opposes any authorization of commercial boating on the river. The preferred alternative should address this point explicitly and bar commercial boating.	see 21k
30k	The largest threat to the character of the Metolius Basin is the commercial response to more and more visitors. The powerful monetary incentives in favor of development must be addressed by the management plan. Very stringent criteria must be applied before commercial permits are granted. Visitor use must be controlled and not encouraged by the promotion of additional visitor accommodations and amenities. Your language is not strong enough.	see 21k
41m	No commercial activities of any kind should be permitted, i.e. tours and guide services, boating and other outfitters, fishing lessons, and commercial horse back riding trips	see 21k
45a	The assumption of "new facility development" that could "protect" or "improve" conditions for natural resources is erroneous. New facilities, meaning more and more people, garbage, sewage, traffic on riverside paths have already had a negative impact on the river--riparian damage, fewer fish, loss of "the primitive experience" and disappearance of water.	Impacts of new facilities on the resources and experience is a serious concern. Some facilities such as a firewood vender, sewage treatment plant, or a recycling depot might be examples of the types of facilities which might protect a resource. The Plan is also written to allow for beneficial uses that cannot be predicted or foreseen at this time.
45c	The Preferred Alternative plan allows boating on the Lower River. Eventually boating will be pushed by commercial interests to the upper river, inasmuch as experience tells us that no matter what the Camp Sherman community wants, along with the long-time visitors who came for the primitive experience--camping, fishing, hiking, the joy of wilderness--it is always the commercial-developer interests who influence decisions in their own favor.	see 21k
46e	The preferred alternative for commercial development is vague. Who determines the "demonstrated need"? This worries me because what we don't need on the Metolius is more development.	see 21k
55e	"New development and changes to existing development will be allowed if development responds to a demonstrative need" leaves to many interpretations. This needs be more specific.	see 21k
59p	We suggest rewording this statement to make the emphasis more compatible with the overall direction of the plan, to read:	see 21k. If a use protects a resource or aids in controlling

	"New development and changes to existing development will be allowed if it meets three conditions: that it (1) protects an identified resource, or(2) aids in controlling use, and (3) responds to a demonstrated need (not merely a demand). It might also be helpful to distinguish between a "demonstrated need" and a "demand.	use, it really is responding to a demonstrated need..
72b	The language "demonstrated need" should be explained to the fullest, always keeping the Forests' health the #1 priority!	see 21k
79z	You suggest that this is not demand-oriented, but need-oriented. The distinction is not exactly clear, but the conjunction used should not be "or, but rather "and." Frankly, for this initial planning process and planning period (presumably about ten years), it would be far simpler and more safe to have No additional commercial development and recreation uses.	see 59p
100a	I agree with Friends of the Metolius on the vague and inconsistent language around commercial development land use. I'm also concerned with issues around commercial development. All of us feel that that area should be kept minimally impacted with new development.	see 21k
Other Special Uses		
21l	As to non-commercial special uses, we expect the planning criteria to guarantee negligible negative effects, to be only for non-repeating events, to be sharply limited in frequency (either by season or by month), and avoid being promotional of the Metolius Basin. your language may be sufficient an this subject.	This language would apply to non-commercial uses and non-recreational commercial uses that do not require development. The distinction between commercial and non-commercial is made based on whether the use generates revenue. Fees may be charged to offset direct cost (not administrative or overhead costs) or for application to resource protection/rehabilitation within the corridor without being considered revenue. The distinction between recreational and non-recreational uses is made based on existing Forest Service special use administration direction.
21ii	Which uses cited in the introductory material (or what uses generally) are to require a special use permit?	Some types of activities require permits regardless of size (outfitter/guides, commercial photography), but others (family reunions, weddings) only require permits if they exceed a certain size (generally over 75 people) or if they could have a negative resource impact.
32i	Limited and respectful guide operations on the Metolius would be of great benefit to both users and to the resource through education... To prevent misuse in addition to the requirements set forth in the plan I think further criteria are needed to define the type of guide use that is acceptable. For example I don't believe just because someone has an active permit on the high lakes of the Forest that they are necessarily a good candidate as a guide on this river. The Metolius is a very unique resource with wide spread reputation of being difficult to fish. It requires "local knowledge." 1. To support the education component of the permit and to ensure a high standard of service to the clients a perspective guide should demonstrate a history, and a familiarity with the river. This involvement could take many forms, active participation in Forest Service habitat work, Involvement in planning processes such as Forest Service Wild and Scenic River Plan or the Fish and Wildlife Basin Planning. Or perhaps it is nothing more regular visits to the river. In any case a permit should not be granted to someone with a passing knowledge of the resource. If a person is not now visiting the resource on a regular basis - and can't demonstrate that they have been doing that for some time they should not be eligible	Because of the very limited nature of commercial activities that will be permitted, permit administration considerations are best left to case-by-case consideration.

	for a permit. 2. Permits should be given to individuals only - not to fly shops or guide corporations. The permit holder should be expected to actively work the permit serving as much as 30% to 40% of the clients himself. Guide operations run by absentee owners frequently have high employee turn over. If the permit holder is not required to be active in the use of the permit the Forest Service will only have control over who owns the permit and not over who is on the ground actively using it. 3. Finally I have concern over allocation of permit days. Under the current proposal there is a limit to the amount of commercial use per year. I assume this would work with a pool of days and individual licensed and permitted guides drawing days from the pool to achieve an allocation. Under this proposal if there where say half a dozen guides eligible to draw from the pool. I can see the situation where they would all want to use their days during the same peak periods say around Green Drake hatch or in the case of rafting guides around peak holidays. Available permit days would be used up quickly leaving periods when there was no guiding available - at the same time during peak periods the guides would be tripping over one another crowding the best holes. A better scenario I think would be to place the limit on the number of guides. In this way you won't have a lot of different operator on the water at the same time. The one or two permitted guides are forced to spread themselves over more of the season. Thus you have guiding available all the time - and you're less inclined to have over crowding and excess competition between guide companies. You also reduce the need for administration by the Forest Service. There is no pool of days to oversee. And no permit system where you draw to get on. There are only so may guides and therefore only so may days that can be guided.	
32j	If the lower river is going to be open to guides and if more restrictive guide regulations are set up I would encourage you to write them in a way that would continue to allow for more remote multi day operations either by foot, horse or by boat in the area below 99.	see 32i
43i	Not issuing a permit is a long ways from not allowing use. The Forest Service needs to get serious about enforcement.	Noted
44i	I wonder if there can be more clarity in the term 'negligible negative impact'...By including wording about the order of priority in the criteria, applicants might get the message that demonstrating the ability for profit-making is not the key.	see 21k regarding need. Negligible impact would apply to uses which can be accommodated by existing facilities without displacing general public use.
45e	I am worried about vagueness and lack of clarity that often appears; for example on page 11, Issue #9: "What is the appropriate role of commercial and special uses in the river corridor?" How is "special" specifically defined? It could mean anything. Aside from that, neither uses referred to here are appropriate if the goal is to preserve and protect the primitive experience of the Metolius River, Basin and Corridor, especially those listed on page 40, paragraph 2.	Special uses are uses which must be authorized by the Forest Service under a special use permit.
62n	Pg. 96, Wizard Falls Fish Hatchery - Wizard Fall Fish Hatchery was actually built in 1947 and not 1946.	Noted and corrected.
76b	I do not want to see the commercialization of the river, which guides and outfitters will bring.	The limiting criteria should protect against commercialization.
84c	Please don't let this river be taken over by commercial outfitters or a tribal monopoly for access.	see 76b

92h	Page 41 - The second sentence in "preferred alternative should be changed to read "Commercial recreation uses are appropriate only if they are needed to achieve planned management objectives (not merely because there is existing or potential commercial demand)	see 21k and 21l
92i	You need a section on permits here. In essence you need to state that if use is to be restricted and allocated by permit that the method of allocation will be fair and equitable e.g. a method where all the Permits are given to individual applicants who, after they receive the permit, are free to choose the services of an outfitter or to engage in the permitted activity on their own.	see 32i
95b	I would not be in favor of outfitters using the river, but I feel such organizations as schools and the Museum could be allowed permits along w/ private parties.	see 21l

Issue 10 Recreation Residences		
21jj	For what portion of the 108 recreation residences does the 100-foot set back for the "footprint" apply (p. 42)?	Approximately 62 of the 108 residences come within 100' at the closest point and 33 are completely within 100'.
42g	Expansion of footprints of structures should be taboo as should height raises. Don't manage the basin for 108 families, phase them out by 2008. When existing permits expire then get rid of them. Don't tolerate new construction in the 'wreck-creation' residences	Phasing out recreation residences was an alternative considered in the DEIS.
53d	**MRFHA is concerned about the limitation imposed on existing structures within the 100 foot riparian zone.** While MRFHA is in favor of a healthy and natural riparian zone, the 100 foot limitation appears arbitrary. Since most of the recreation residences were established several years ago, the 100 foot limitation presents an unjustifiable and unfair regulation for the homeowners with residences within the 100 foot zone. However, MRFHA acknowledges that a line must be drawn for management purposes; therefore, expansion of the footprint behind the front line of the existing structure would seem reasonable provided the regional square foot limitation is not exceeded. MRFHA requests further discussion with the Forest Service regarding this issue.	***The following change has been made to the Proposed Action to address this concern:*** Remodeling and expansion of the primary residences is managed to protect key riparian components, the historic character of the structures, and the dominance of the river in the landscape character of the area. Expansion of any part of the structure toward the river is not permitted. The river facing elevation of the residence shall not increase in width. Trees which provide shade to the river or potential instream wood will not be removed. Plans are designed and construction performed to minimize new ground disturbance and the loss of native vegetation.
53e	**MRFHA is critically concerned about including the MRFHA Tract Objectives document in the Management Plan.** MRFHA strongly urges the Planning Team to remove the Tract Objectives from the Appendix of the Metolius Wild and Scenic River Plan. Other official documents (e.g. The Northwest Forest Plan, etc.) are referenced throughout the DEIS, but those documents are not included in the DEIS. The Tract Objectives is an agreement between the recreation residence permittees and the Forest Service. (Page 42, PA, paragraph 1) **MRFHA is concerned about the reference to "revised" Tract Objectives.** We request that the word "revised" be deleted throughout the entire Final EIS and the Oregon State Scenic Waterway Program. The word revised adds no value. (Page 42, PA, paragraph i; page 26, PA, line 6)	The Metolius River Tract Objectives will not be published in the FEIS or be a part of the plan. Incorporating direction from the Plan into the Tract Objectives will be an implementation activity.
53f	**MRFHA is critically concerned about not addressing the issue of rebuilding in cases of fire or other catastrophic events.** The Management Plan must address rebuilding since a fire or other event within the riparian zone may destroy the residence, and require that it be partially or totally rebuilt. (Pages 42, paragraph 2 & 3; 160-161)	***The following change has been made to the Proposed Action to address this concern:*** Rebuilding of primary residences may be permitted on the existing footprint with or without expansions that fit expansion guidelines. New construction may be permitted at a distance greater than 100' from the river when there is a benefit to riparian function and the old footprint is rehabilitated.
53g	**MRFHA is concerned about potential confusion in the use of "permittee" and "permitted."** To eliminate any confusion in the use of the noun "permittee" and the verb "permitted." MRFHA recommends substituting the word "allowed" for "permitted."	Permitted and allowed are used with distinction in the Plan. The term permittee will be avoided to reduce confusion.
53j	**MRFHA is concerned that reissuance of a permit is referred to as transfer of a permit. MRFHA is also concerned that technical permit policy is included in the DEIS.** We request further clarification. For accuracy and clarity, that sentence	The language has been corrected. ***The following change has been made to the Proposed Action to address this concern:*** Permit reissuance or remodeling/expansion are

	should read: When **rebuilding, exterior** remodeling or expansion of the residence is undertaken or upon **reissuance** of the Special Use Permit, on-lot restoration is required for lots not in compliance. (Page 43, Landscape Management PA, last sentence). However, MRFHA requests that the above sentence be removed from the Final EIS.	opportunities to minimize elements of recreation residences which are not consistent with the intent of current policies.
53o	**MRFHA is concerned that references to private land are made in Issue #10. Issue #10 has been written to address recreation residences.** (Page 43, PA, paragraph 3, sentence 1)	Noted and corrected in Chapter 2.
53p	**MRFHA is very concerned about the occasional negative references which single out recreation residences.** The reference to "recreation residences" is inflammatory. All residences within the boundaries of the Metolius watershed, including private residences, can represent a potential pollution problem. Therefore, the recreation residences should not be singled out. Also, since the recreation residences have not been identified as a current problem, any reference to them may prejudice people to believe otherwise. Recreation residence homeowners have alleviated previous problems by capping water wells which tested high for fecal coliform, and by drilling new, deeper wells. (Page 12, paragraph 3)	Noted
74d	We would suggest that any plans submitted to the Forest Service must be prepared by a member of the American Institute of Architects. Furthermore, we recommend that Forest Service provide for the potential for the review to be performed (at the request and expense of the applicant) by a prominent architect chosen by the Forest Service	Such a requirement is outside the scope of this plan.
74e	On page 225, "signs," we recommend (as a minor point) the word "name" in the first line be changed to "names," since residences may be owned by multiple owners or, as our case, where my wife and I have different last names.	This issue relates to a portion of the Metolius Tract Objectives not addressed in the Plan. It should be addressed by the recreation residence homeowners association or Forest Service permit administrator in the next review of the Tract Objectives.
89b	We are concerned about the proposed "100-foot" rule on any remodeling. If it is important to not remodel on the river side of any cabin, then we feel it would be better to just say that and not impose an arbitrary "100-foot" rule. The reason we say that is because this type of 100-foot limitation would make it impossible for some cabins to ever be remodeled, while at the same time it would make it possible for other cabins to be completely remodeled.... We would instead like to see the plan allow for more flexibility for cabin remodeling or expansion, whether that be on a per cabin basis, or generally an allowance for "expanding out the back."	see 53d
89c	It is also our hope that the final plan allow for rebuilding a cabin in the event of a disaster, such as a fire to a cabin or the other complete or partial destruction of a cabin. We feel that this should be clarified so that everyone knows where they stand.	see 53f
89a	It is not appropriate for anyone to consider the usage of these cabins limited to "108 families." I know that with every cabin that I am familiar with, usage is expanded far beyond the permittee family	Noted
91a	We feel there should be more flexibility in what is allowed in the remodeling process outside the existing footprint of the cabin.	see 53d
Landscape Management		
11b	For recreation residences, no current condition of riparian vegetation is specified and the condition standard for managing	The overall condition of riparian vegetation on recreation residence lots is not known. Recreation residence lots would

	riparian vegetation is ambiguous (page 110). Even though riparian vegetation has been destroyed by past practices, the overall effect of the Preferred Alternative maintains riparian vegetation at recreational residences in its current condition until residences are remodeled or Special Use Permits are transferred. Recreation residences contain about 36% of Forest Service managed riparian areas upstream from Gorge Campground.	amount to something near 36% of the Forest Service managed river frontage upstream from Gorge Campground, if they were located on the river. Because lots are setback from the river an average of over 50 feet, the actual percentage of riparian area on-lot is less than half of your estimate of 36%. ***The following change has been made to the Proposed Action to address this concern:*** On-lot areas which show unacceptable loss of riparian function will be rehabilitated. Unacceptable sites show conditions such as devegetation beyond the confines of developed areas and one pathway to the river trail, lack of stability (soils are raveling), or evident erosion and run-off problems. On-lot areas will be managed with the goal of increasing overall riparian function and the integrity of native, upland vegetation. Riparian function is determined based on the amount of filtering vegetation, native plant species, shrubs, stream shade/cover, trees for future instream wood contribution, and permeable soil.
15f	Restoring these areas [100 feet] at all of the leased lots should also be done without exception.	see 11b. The benefits of increasing riparian functions on recreation residence lots are recognized, but the basis for the need to restore on-lot areas outside the conditions included in the new standards has not been established.
20e	There appears to be no management flexibility to consider vegetation differences, placement of the cabin on the lot, or special needs to manage the vegetation within 100 feet of the river for fire protection. Without an adequate defensible space around the cabins, they become "downed heavies" potentially adding to the intensity of a ground fire. Thus, we believe some latitude should be incorporated in managing within 100 feet to allow firefighters the chance to defend the structure as fire approaches. Cabin owners may need the opportunity to remove pine needles and other ground cover fuels to a safe distance.	see 11b
24m	In summary, my argument is as follows: 1. The formula suggested in the Preferred Alternative would result in inadequate altered area around cabin structures to provide for safe protection from fire. 2. By providing an adequate area that may be altered to provide for safety from fire, there will be very little, if any for some cabins, on-lot area within 100 feet of the river that would be made available for unaltered riparian area. 3. Neatness of the property near cabins is important, as well as for good fire protection. 4. If on-lot area is converted to unaltered riparian area, our permit fees must be reduced to reflect the loss of use of that part of our property. 5. Thus, recreation residents should be allowed to alter any of their on-lot property within 100 feet of the river for fire protection and neatness. 6. The Preferred Alternative for on-lot landscape management should stress desirable practices regarding vegetation, such as: a) no new non-native plants, b) encourage native plants, c) use of only organic fertilizers, d) use of herbicides may not be used without specific Forest Service approval, and e) maintenance of plants will be addressed in the individual operation and maintenance plans.	see 11b

	Suggested rewording of the Preferred Alternative (page 43) for above concerns: The planting of new non-native trees, shrubs, flowers and grasses will not be permitted, except in pots or planters. Plantings of native trees, shrubs, flowers and grasses will be encouraged. Only organic fertilizers may be used. No herbicides (including weed killers).	
27d	I am at a loss as to why the Forest Service, knowing that one of the best protections of a home in a fire is from having a green lawn, no vegetation near the house, and fire-proof shingles, would be so restrictive as not to allow a lawn all around a home if the permittee wanted it	see 11b. Fire protection for recreation residences is not the only or may not be the overriding consideration for riparian vegetation management in recreation residence lots.
53i	**MRFHA is very concerned about the rationale for how much area of a lot can be altered.** The "one-quarter of the area within the 100 foot designation appears arbitrary. After careful analysis of the PA, we believe that the suggested formula for allowable alteration will not accomplish the riparian protection objective without creating significant fire hazards. We are most concerned about the recreation residences that are located close to the river. We have concluded that no one standard can be applied uniformly to each and every property. Thus, MRFHA has not been able to agree upon a suitable recommendation. We believe that the only effective way to arrive at an acceptable solution is to develop a recommendation in cooperation with Forest Service personnel. (Also, note discrepancy in lot boundaries. 15 feet from water's edge, not 20, is listed on page 143) (Page 43, Landscape Management)	see 11b and 15f
Off-lot Improvements		
15g	Bridges to islands must be removed to spare wildlife from the many domestic animals roaming the area.	see 42I. Enforcement of existing leash laws and livestock regulations may better serve to protect wildlife.
42i	Off lot 'improvements' should never have happened and should be removed. I believe groomed yards (grass) is unnatural and has no place in this area.	Some off-lot improvements such as driveways and water lines are necessary to the use of a recreation residence. Others such as footbridges and platforms were not necessary but are already in place. In most cases, removal could potentially cause as much or more impact than leaving the improvements in place.
53k	**MRFHA is concerned about the lack of clarification of standards which must be met for continued existence of off-lot improvements.** The PA (page 43) and the implementation instructions (page 106) addresses standards for safety and resource protection as requirements for continuing some off-lot improvements. Resource protection is reasonably defined, but no standard for safety is referenced. Existing platforms should be continued under the same criteria. Their absence in the implementation section implies they will be removed. No documentation of this requirement exists. Identification of the improvements should be included in the O & M Plan. (Pages 43 and 106)	This concern is addressed by the following change to the Preferred Alternative: No new waterwheels, platforms, footbridges, or other off-lot improvements are permitted. (MTRR-10) Existing platforms, waterwheels, and footbridges are permitted and maintained for safety, historic appearance, and resource protection. Maintenance and reconstruction is permitted only when it does not adversely harm riparian vegetation, streambanks, aquatic habitat, or water quality. When maintenance is not possible, the improvement will be removed.
53l	**MRFHA is concerned about requiring off-lot improvements to be on a new permit with additional fees.** The discussion of environmental consequences for recreation residents (page 143, paragraph 4 of the PA) implies continuing off-lot improvements requires a new permit and the assessment of fees. The improvements addressed can be identified on the face of the term special use permit (FS-2700-5a) with no additional fee. Including these improvements in the special use permit will determine ownership and responsibility for up-keep.	Permitting of off-lot improvements will be done in accordance with current Forest Service special use administration direction.
Septic and Water Systems		
10a	We feel very strongly that the "DEIS" should have addressed a	There is no information at this time that indicates septic

	protocol or compulsory regime or program for septic tank 'clean-out' and treatment. Addressing this issue would certainly be primary to the prevention and occurrence of contaminated water.	systems are a water quality problem. The Plan's intent is to identify problems, if they exist, that might be harming water quality, and then to develop and take appropriate actions to solve these problems.
10b	We question the appropriateness in the placement of the large septic tank and dispersal field for trailers, motor homes and/or campers at the Allingham Guard station... We feel that the "DEIS" should address a recommended program for monitoring that system	All septic systems on National Forest lands will be held to the same standards of inventory and testing, including Allingham.
17b	All residences should have their sewers or septic tested on a regular basis. This should include the RV septic dump at Allingham	see 10b
20d	Another area of concern is the statement "Pit toilets and dry wells are not acceptable septic systems and shall be removed or upgraded," as found on page 43. Discussions with public health professionals and engineers would indicate this statement is arbitrary and unnecessary. Public Health officials state that pit toilets are a very efficient way to dispose of human waste because of the very nature of the fermentation processes. Public Health official, Dr. Henry Bruyn M.D., states "The pit toilet, without gallons of water, will seep slowly into the soil around it fermented and almost sterile to a radius of perhaps twenty feet. A well built latrine, deep and unlined to prevent collapse of the walls, will last as long as fifty years." He goes on to comment "The so-called 'septic tan ised upon the fermentation principal... one sink full of ter and detergent soap will destroy the fermentation proces. it would appear from this source that requiring septic systems, whether for limited use at recreation residences or at the W&S Management Plan seeks to achieve.	Pit toilets can be functional in many areas. However, in areas of high water tables and high soil permeability such as the Metolius basin, they are not generally recommended or advisable.
21kk	Re water testing (p. 43), will the Forest Service and/or DEQ continue instream sampling for overall degradation of water quality, as a result of degraded tributaries, for example, in addition to the residence-by-residence test defined here?	Yes, see Water Quality
26a	We would like to be assured the recreation residences are considered as one of the Outstanding Remarkable Values which will have continued access to water for domestic use from the Metolius River. Covering Septic and Water Systems, we would like to see included in the Preferred alternative, first paragraph, a sentence stating recreation residences will be allowed water from the river for domestic use .	Rights to river water for domestic use are granted by the Oregon Water Resources Department and outside the scope of this plan..
46f	All septic systems should be inspected twice a year to ensure that no septic waste are entering in Metolius. This is a major concern. Any septic problems need to be caught and contained before it affects the river.	see 10a
53m	**MRFHA is very concerned about the suggestion that a community sewer system is needed without supporting evidence and discussion of feasibility.** To include a comment in this preferred alternative which suggests the prospect of a sewer system appears premature. (Page 43, PA, paragraph 3, sentence 2)	see 10a. Any opportunities to provide sewage disposal that protects the water quality should be considered. This is not to suggest that septic systems and drainfields do not protect water quality or that a community sewer system is needed.
53n	**MRFHA is critically concerned about the lack of clarification and definitions of standards for water testing and septic inspections..... MRFHA is concerned about clarification of annual water testing.** What types of tests are being conducted, where are tests being made, and by whom? Will testing be part of public record? Who gets the test reports? (Page 154, MTWQ-3)	Water testing will be conducted for fecal coliform and nitrates by the homeowner annual. Reports will be shared with the Forest Service and would be public information, though not necessarily published or distributed as a part of some public report. The results will be used as part of an over-all water quality monitoring plan.
55f	There appears to be no method of monitoring either existing or future septic systems other than positive tests in domestic water systems. It seems feasible that septic systems could be a NPS	Water quality monitoring (one portion of which is domestic water testing) will help detect any contamination that might be resulting from septic systems. Septic inventories and

	or PS and go undetected. This appears unclear.	inspections will help identify and prevent such problems.
59q	Septic and Water Systems - PA statement. The statement has no teeth to it as far as private landowners are concerned. What about a requirement that faulty or improperly functioning septic systems be upgraded to a specific standard? for the good of the community?	The Plan does not set standards for septic systems on private land. Jefferson County and DEQ regulate septic standards, and all failed septics are required to be upgraded or replaced. The upgrade of all septic systems on National Forest lands to current code was an alternative considered in the DEIS.
64c	Given the fact that there is no sewer system in the Camp Sherman area, what's the likelihood that existing septic systems are the cause for some of these problems?	That is unknown. Water quality monitoring is aimed at trying to detect and identify the source of water quality problems
64d	What effort, if any, is planned to deal with potential water quality problems associated with residential development in the basin?	Water quality monitoring and regulatory/preventative measure placed on septic systems on National Forest lands.
73d	Because some of these domestic water systems draw directly from the river these test results could be followed as an ongoing record of water quality in that part of the river providing the right things are tested for.	see 53n
74c	We question the wisdom of annual testing of all wells and domestic water systems. While owners might certainly be wise to check their water periodically for their own health, annual testing is expensive--and we suspect that the Forest Service will be undated with data of questionable value.	The cost of testing for fecal coliform is modest and the data will be valuable for residents and water quality monitoring.
91b	Some of the very old cabins do not have a septic system. It should be written into the plan that regardless of lot size they will be allowed to put in an approved septic and drain field system, even if that means going outside the lot line to meet county requirements.	A variety of technologies exist that should allow opportunities for on-lot sewage disposal.
91c	We are very strongly opposed to any type of community sewer system. It is far too cost prohibitive.	see 53m
91d	The plan calls for testing of the water system each year-- for what? This needs to be spelled out in the plan.	see 53n

Issue 11		
education and interpretation		
14f	Set up a Metolius River volunteer program to help educate and maintain this program.	Noted
41v	The plan is not specific about interpretive sites and kiosks. These should be limited to the most congested areas of car traffic only. The kiosk on the highway was a crime. It should however be used as a pulpit for explaining the sensitivity of the area and the limitations users will face in entering it. The signs on the highway listing accommodations and restaurants are a nightmare come true. They must be removed at all costs. No business in Camp Sherman will ever suffer. Why promote an area that is already overused. Why advertise? And no one passing on the highway should ever know that there is gas in Camp Sherman. We can ignore these things now, but just wait until the numbers of people coming over that pass doubles in the next couple of decades.	Sites or kiosks would involve signs and permanent structures. The Proposed Action limits these forms of interpretation to existing developed sites or where continuous information is important for visitor safety or resource protection.
46d	Limit promotion, signs and interpretive facilities to the headwaters and the Camp Sherman store area.	see 41v
53ii	**MRFHA agrees with increased visitor awareness, appreciation, and stewardship through education and interpretation. MRFHA also agrees with understanding that the historic perspective of the Camp Sherman Area is vital to future protection of its rustic character.** Increased visitor awareness through "an appropriate level and scope of education and interpretation" which stresses the sensitivity of the corridor's physical, biological, cultural and historical resources would enhance visitor appreciation stewardship of the corridor (Page 44, paragraph 2)	Noted
53jj	**MRFHA is concerned that the local community is not specifically included in planning and delivering education about stewardship of the corridor.** Both private and recreation residents should be a valuable resource for the Interagency Interdisciplinary Team in implementation of Issue #11. At a minimum, MRFHA should be a part of an advisory body to the Team. Additionally, MRFHA could be utilized for an ongoing project about visitor responsibility in stewardship of the corridor. (Page 44, PA, paragraph 1)	The important role that is played by members of the local community and volunteers in education and interpretation is recognized in the overall management area goals and the objectives for interpretation.
60f	there needs to be a strong program to inform and educate all prospective boaters and campers of the unique character and nature of the river corridor. Signing and kiosks should be placed at appropriate access points and informational areas to inform the public of the Metolius River and its many recreational opportunities and the fragile nature of the river corridor.	see 41v regarding signing and kiosks. The importance of interpretation in the resource management of the corridor is recognized in the Preferred Alternative.
72c	I think signs should be installed in various areas of the Forest stating: "You are now entering one of America's most beautiful Forests: please take the utmost care to protect this Ancient and Beautiful Areas.	see 41v regarding signs. The suggested sign wording is very compatible with the intent of the Preferred Alternative which focuses on increasing visitor awareness of the sensitivity of resources and their responsibility to protect these resources.
Enforcement		
15a	Just as with behavior in highway traffic, constant policing must be done at and near the Metolius River. This should be paid for, in a large part, by users' fees	Methods of financing enforcement are outside the scope of this plan. Parallel planning efforts are in effect which include proposals to dedicate user fees to river protection and enforcement.
18g	As a fly-fisherman I have come across poachers using bait on occasion and I would encourage more officials to walk the river above and below Wizard Falls Fish Hatchery.	noted
53b	Finally, MRFHA believes the key to the success of the	noted

	Management Plan is fair, consistent monitoring and enforcement. The issues and corresponding implementation standards and guidelines are complex and often represent substantial changes from past Metolius corridor management practices. The intention of the Management Plan is worthy, but without enforcement, it could easily become ineffectual.	
79t	You suggest that the river trail would only be used by hikers, but again, there is no effective enforcement mechanism to prevent use by mountain bikes and horse users	The combination of signing, education, and enforcement of the current regulations should help, but there is no level of enforcement of that would guarantee 100% compliance.
ORVs		
32k	I think the fisheries ORV is miss named. Saying the Fishery is the ORV - in my mind means the fishing opportunity of the recreation value is what is important. In reality according the resource assessment it is the Wild Fish and their habitat which is the ORV.	The Resource Assessment gives priority to fish populations, but recognizes their value in relation to the angling opportunity.
79i	The Wild and Scenic Rivers Act provides that certain outstandingly remarkable values should be treated with a preference over other values with primary emphasis to be given to protecting "esthetic, scenic, historic, archeological and scientific features." Section 10(a). This fact is not discussed in the plan or DEIS and would be quite significant particularly with regard to the priority between fish habitat issues (which involve these points of emphasis) and recreation boating.	There is no language in the Wild and Scenic rivers Act that directs preference of one ORV over another. The intent of the Plan is to place primary emphasis on protecting the natural resources of the Metolius, "without limiting other uses that do not substantially interfere with public use or enjoyment of these values." (also Section 10(a)).
Boundary		
27a	My first suggestion (and request) is that the scenic river corridor exclude all the private land beyond 1/4 mile of the Metolius river.	Private land was included in the corridor to simplify administrative boundaries. The standard and guidelines and other management direction do not apply to private lands that are included within the corridor.
Segment		
36d	Please do <u>not</u> seriously consider 1.2 miles of the lower river being down graded from a Scenic River to a Recreational River. There are a number of differences between State and Federal boundaries and designations, the state program being geared to private land. As there is no private land in this area of the river, there can be no management conflict. There are ample opportunities for recreational activities in Central Oregon. We need federal protection here.	***The following change has been made to the Proposed Action to address this concern:*** The division (termini) between the Recreational and Scenic river designations is at Bridge 99.
42a	I. LOWER RIVER. I am concerned about the possibility of opening up 1.2 miles of the lower river to passenger vehicles, changing it to 'primitive' to 'scenic'. It is my belief this would encourage further degradation to the primitive area and would greatly diminish the 'primitive experience' so cherished in this basin. In fact, it would only move the increased human traffic toward Lake Billy Chinook, and we would find ourselves confronting similar degradation issues due to the dispersed camping and boating that we see now, in this section.	see 36d
79l	We oppose your idea of going to Congress to have 1.2 miles of the Lower River from Bridge 99 downstream to near the confluence with Candle Creek downgraded from a Scenic (managed as Primitive) River to a Recreation River. This change would allow more development in this very sensitive area.... Your argument is that downgrading the river protection for the 1.2 miles would make it consistent with boundary designations under Oregon's State Scenic Waterway. In truth, there are several differences between the state and federal boundaries and designations, and they are simply no reason at all to reduce federal protection here. Also, the State program is oriented to private land and there is no private land in that stretch of the river, so there is no possible management conflict.	see 36d

Tributaries		
15j	Care of tributaries to the Metolius River is lacking in the plan.	The size of a proposed corridor is limited by direction of the Wild and Scenic Rivers Act (Section 3(b)), so priorities must be set for which acres will be included or excluded. The Plan includes the critical lower portions of all the tributaries. The Northwest Forest Plan designates all of the remaining portions of the tributaries as Riparian Reserve. Actions in these reserves must not only be consistent with the objectives of the Aquatic Conservation Strategy, but will also be evaluated for their effects to the Wild and Scenic River corridor.
79h	This river plan suffers tremendously from inadequate references to and planning of these critical tributaries to the river.	see 15j
Overall		
21a	An element of the present Deschutes Forest Management Plan that has been very useful is the preamble, which states the principles underlying that plan. When standards and guidelines have keen insufficient to offer certain direction, we have been able to go back to the preamble to find clarification and direction. We strongly urge the planners to develop such a philosophy statement to be added to the Wild and Scenic Management Plan	A preamble has been added to the management plan. It is intended to add an overall goal or vision for the Metolius Wild and Scenic River Corridor. Also, introductory statements of objectives have been added to the beginning of the Standards and Guidelines for each resource.
21r	Should cooperative, coordinated action (p. 13) include some designation of lead responsibility--or does everyone wait on everyone else for initiation of the action?	Implementation of the Plan depends an Interagency Cooperative Agreement that defines roles and responsibilities. While not included in the Management Plan, this agreement has been crafted and agreed to in principle by the agencies.
28a	The DEIS does not contain an adequate explanation of the current status of state and local plans and an explanation of how they may be affected or changed following adoption of the proposed plan. This deficiency is addressed in more detail below.	Chapter 1 of the DEIS discusses role and responsibilities of state and local management agencies. The Federal Plan does not direct changes to plans outside of the Federal jurisdiction. It does provide guidance and encourages consistency within other agencies as their own planning processes evolve and are reviewed and modified.
28b	Given the significance of the Watershed Analysis for future management in the river corridor, we recommend that this plan not be completed until that analysis is done.	The Metolius Watershed Analysis has been completed, and the plan is consistent with and incorporates its findings.
33d	Federal Budget restrictions and the effects on agencies to hold to schedules. A great deal of the work involved will fall on our local Forest Service people. Is our time table realistic?	The time table for implementation has been changed to a priority schedule that recognizes that implementation is subject to budget considerations.
41a	The plan should unapologetically mandate the highest, most rigorous levels of protection for the declared ORVs, with an understanding of expected increases in pressure on the area. The preferred alternative does not go far enough.	noted
79g	Since one of the things lacking in this river plan is an overall appreciation of the Metolius Basin, it is really necessary to understand the history of how the basin has been managed, how the adjoining lands are to be managed and why the land management systems have been set up the way they have	The overall goal/vision statement for the management of the Wild and Scenic River Corridor will give recognition to the Metolius Conservation Area Goals from the Deschutes National Forest Plan and consideration to the management of the surrounding areas. This was a very important factor in development of the Plan.
DEIS/Editing		
53a	MRFHA recommends that the Management Plan: 1. Be clearly written, consistent, and concise, with minimal use of technical wording. 2. Limit the use of the word "many" since this word is difficult to define or quantify. 3. Omit the Tract Objectives in the Final EIS since it is an	Noted. The term "summer homes" was used in the DEIS as a general term which would encompass all recreational residential facilities without regard to whether they were on public or national forest lands.

	agreement between the recreation residence permittees and the Forest Service. Other official documents are referenced throughout the DEIS, yet are not included in the DEIS Appendix as are the Tract Objectives. 4. The recreation residences are often referred to as "summer homes" in the DEIS and Oregon State Scenic Waterway Program. The term "summer homes" is not representative of the use of the residences; and, in most official documents the term "summer homes" is replaced by "recreation residences." Therefore, MRFHA strongly recommends that all references to "summer homes" in the DEIS and Scenic Waterways Plan be replaced with "recreation residences." 5. After thorough analysis of several issues within the DEIS, MRFHA has reached the conclusion that further discussion with the Forest Service is needed to achieve mutual understanding and to reach satisfactory solutions. These issues include, but are not limited to, limitations imposed on recreation residences and lot alteration; on-lot restoration; septic inspections and upgrading; water testing; and consistency and relationship of federal, state, and county policies.	
53c	**MRFHA is extremely concerned about the negative comments regarding recreation residences.** MRFHA favors providing a balanced introductory statement about recreation residences. The entire second paragraph is quite negative with regard to the recreation residences. Full-time occupancy by recreation residences permittees may be a problem in other forests, but it does not seem to be a problem in the Deschutes National Forest or within the Metolius River recreation residences and occupancy enforcement is a USFS responsibility. The authority for that enforcement exists. Not mentioned in the DEIS is the provision in the recreation residences permit that requires a permittee to use the residence at least 15 days annually. To comment on non-problems or a lack of enforcement of existing rules and guidelines seems unproductive. Reference should not appear in the plan for it seems to have no bearing on establishing management policy for the Metolius Wild and Scenic River management Plan. (Pages 42 and 97). Since recreation residences permittees are concerned about protecting the Metolius corridor, the introduction to "Landscape Management" appears unfairly negative and biased against the homeowners and their desire to maintain the tracts in a traditional manner. Negative wording adds no fact, value, or content to the document. The Tract Objectives, which have been in effect since 1990, address riparian protection. Offenders of the Tract Objectives are not as numerous as indicated in the DEIS. MRFHA encourages stronger enforcement of the Tract Objectives for those few violators. (Page 42, "Landscape Management," introductory paragraph)	Comments in the introductory statement reflect a body of public opinion, not the view of the planners or the agencies. One of the reasons that recreation residences are considered an issue is because this view exists, accurate or not.
54a	It would have been useful to label on the master (fold-out) map all the significant roads, water bodies, etc., referred to elsewhere in the report. For example, the following features are not labeled on the master map: First, Jack, Canyon, Abbott, Candle, Jefferson Creeks, the Whitewater River, Roads 64, 1419-700, Tract F, the Livingston bridge. The location of the river trail is not shown on the map. I hope the Final EIS will include a more comprehensive map, wherever management actions are specified by geographic feature.	Noted, but there are limits of scale and economy that may limit what we can include on a map.
59a	Please remove our name from our ownership parcel on the locator map. Precise location may serve as an attractant and could draw in unwanted public use.	Noted and changed.

59r	Chapter 3 - Affected Environment Rare Plant Species - Discussion p. 76. Reference to habitat degradation through improper land use could be made. Habitat degradation, in our view, is one of the process' whereby habitat loss eventually occurs. This is an important distinction because it refocuses' the potential population stress to ongoing human activity. Non-Native Plants - Description p. 77. Refer to comments under Weed Control above. It also appears that the illustrations on p. 77 and 81 need to be switched. Wildlife - Discussion p. 82. The heading: "T, E, and S Species" should be changed to read: "Threatened, Endangered, and Sensitive Animal Species." You are not talking about plants in this discussion. General Comment - Regarding "Outstanding Remarkable Value". This verbiage apparently is necessary to emphasize importance. No argument there. However, it is part of the inflationary wordiosity of our times that: "Outstanding Value" or "Remarkable Value" would not prove sufficiently compelling.	Noted. The identification and management of "Outstandingly Remarkable Values" is mandated by the Wild and Scenic Rivers Act.
59s	Chapter 4 - Environmental Consequences Air - Discussion and table p 100. Short term air quality may be a "3" in the PA. However, long-term probably would be a "2". maybe it is worth making this distinction. Upland Vegetation - PA statement. Grazing does not mimic the effects of low intensity fire. It oversimplifies the discussion to only identify fuel removal as the primary ecosystem attribute. Moreover, which species are "adapted" to light disturbance by large, hoofed ungulates in this ecosystem? Consider the following reference: Mack, R.N., and J.N. Thompson. 1982. Evolution in steppe with few large, hoofed mammals. The American Naturalist 119(6):757-773. Relative Effects to Fire from Managing - Discussion p. 114. In addition to reduction in fuel loading and stand density, you might add reduction in fuel continuity, reduced fire hazard, and reinstatement of a primary ecological process into (previously) fire regulated ecosystems. It may also be important to acknowledge here and elsewhere that ongoing use of prescribed fire and prescribed natural fire is a founding principle for long term management within the area. Weeds - Description p. 116. Say more. Analysis of only noxious weeds is too narrow a focus. Abandoned roads are often conduits for spread of exotics. Aquatic weeds spread in streams and creeks. Education is a must as you point out, but will not get the job done. Ongoing detection through inventory and monitoring is a critical component of a long term program. Although it's accurate to say the percentage of habitat potentially occupied by exotics is relatively low, this de-emphasizes the impacts to those habitats where spread and establishment of aggressive exotics may be occur. Emphasis needs to be equally focused on "environmental weeds".	Noted.
76d	It would be helpful to name the streams referred to in the text on the otherwise well done map.	Noted and changed.
79f	It would have been very helpful if you would have included the preferred alternative in with these charts. Though you have discussed the preferred alternative in an earlier section, a comparison is difficult and you often use very different language in the preferred alternative's description	The Preferred Alternatives is now the Proposed Action which is displayed separately to draw attention to the most important part of the plan.

Appendix B - List of Preparers

Metolius Coordination Group

Dan Ahern, Jefferson County

Steve Brutscher, Oregon Parks and Recreation Department

Jody Calica, Confederated Tribes of Warm Springs Reservation

Brian Cunninghame, Confederated Tribes of Warm Springs Reservation

Chip Dale, Oregon Department of Fish and Wildlife

Gerry Henrikson, Bureau of Indian Affiars

Don Pederson, Deschutes National Forest

Karen Shimamoto, Sisters Ranger District

Metolius Interagency Interdisciplinary Team

Planning

Rod Bonacker, Sisters Ranger District

Tori Roberts, Sisters Ranger District

Hydrology

Deepak Sehgal, Confederated Tribes of Warm Springs Reservation

Tom Felando, Deschutes National Forest

Vegetation - Ecology

Maret Pajutee, Sisters Ranger District

Glen Ardt, Oregon Department of Fish and Wildlife

John Arena, Bureau of Indian Affairs

Fisheries

Mike Riehle, Sisters Ranger District

Ted Fies, Oregon Department of Fish and Wildlife

Mark Fritsch, Confederated Tribes of Warms Springs Reservation

Wildlife

Doug Calvin, Confederated Tribes of Warm Springs Reservation

Ron Archuleta, Sisters Ranger District

Steve George, Oregon Department of Fish and Wildlife

Cultural Resources

Scott Stuemke, Confederated Tribes of Warm Springs Reservation

Don Zettel, Sisters Ranger District

Land Use & Transportation

Donna Owens, Deschutes National Forest

Jan Houck, Oregon Parks and Recreation Department

Larry Sharp, Deschutes National Forest

Recreation

Steve Couche, Sisters Ranger District

Brian Cunninghame, Confederated Tribes of Warm SpringsReservation

Terry Slider, Deschutes National Forest

Geographic Information System (GIS)

Eric Brandt, Confederated Tribes of Warm SpringsReservation

Julie Capps, Sisters Ranger District

Others Involved with the Preparation of the Plan

Norm Behrens, Oregon Department of Fish and Wildlife

Jim Coburn, Deschutes National Forest

Don Doyle, Deschutes National Forest

Don Eixenberger, Oregon Parks and Recreation Department

Steve Galliano, USDA Forest Service

Dale Hile, Confederated Tribes of Warm Springs Reservation

Steve Lewis, Oregon Department of Fish and Wildlife

Chuck McGraw, Jefferson County

Al McPherson, USDA Forest Service

Jim Noteboom, Confederated Tribes of Warm Springs Reservation

Gary Peterson, USDA Forest Service

Andrea Unruh, Deschutes National Forest

Land and Water Associates

Artists

Reuben Anderson - Chapter 1, 3, Appendices, Pages 4, 68, 71, 81, 104, 114, 118, 142, 143

Dennis "Ben" Benhower - Inside Cover, Pages 4, 96, 99, 124

Glen Corbett - Summary, Chapter 4, Pages 23, 29, 39, 43, 44, 77

Rusty Merritt - Maps

Anne Noel - Chapter 2, Glossary, Index, Pages 19, 41, 84, 87, 130, 133, 137, 141

Maret Pajutee - Photographs

S. GOVERNMENT PRINTING OFFICE: 1996 - 794-506 / 42007 REGION NO. 10

COMMON ACRONYMS

CFS - Cubic Feet per Second

CTWS - Confederated Tribes of Warm Springs Reservation

DBH - Diameter at Breast Height

DEIS - Draft Environmental Impact Statement

EIS - Environmental Impact Statement

EPA - Environmental Protection Agency

ESA - Endangered Species Act

IRMP - The Confederated Tribes of Warm Springs' Integrated Resource Management Plan

LAC - Limits of Acceptable Change

LRMP - Deschutes NF Land and Resource Management Plan

MWRMP - Metolius Water Resource Management Plan

NEPA - National Environmental Policy Act

ODFW - Oregon Department of Fish and Wildlife

OHV - Off-highway vehicle

ORV - Outstandingly Remarkable Value

NFP - Northwest Forest Plan

PAG - Plant Association Group

PGE - Portland General Electric

RNA - Research Natural Area

ROS - Recreation Opportunity Spectrum

S&Gs - Standards and Guidelines

SIO - Scenic Integrity Objective

TES - Threatened, Endangered, or Sensitive

WSR - Wild and Scenic River

United States
Department of Agriculture
Forest Service
Deschutes National Forest
Sisters Ranger District
P.O. Box 249
Sisters, OR 97759

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

Forwarding and Address Correction Requested

Bulk Rate
Postage and Fees Paid
U.S.D.A. Forest Service
Permit No. G-40