White River

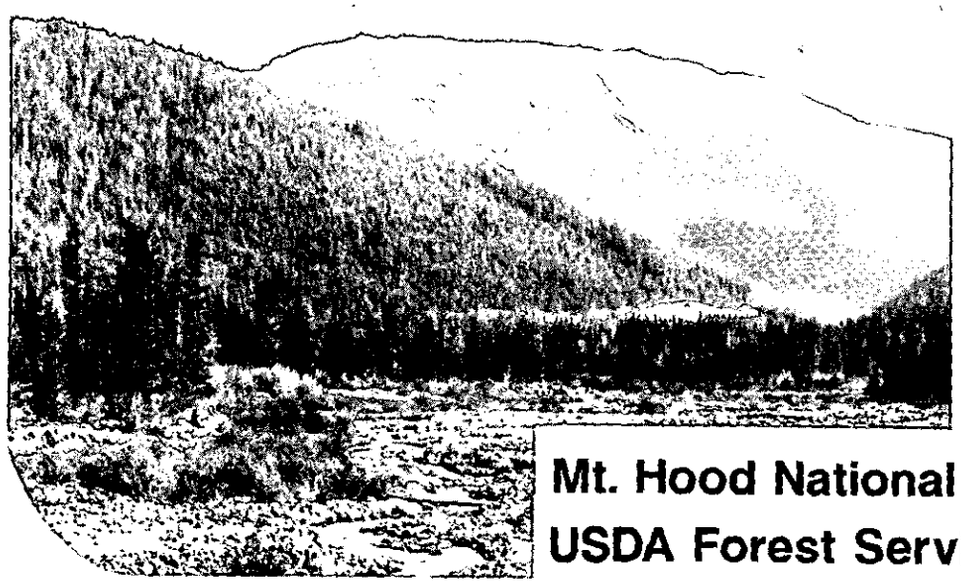
National Wild and Scenic River

Management Plan

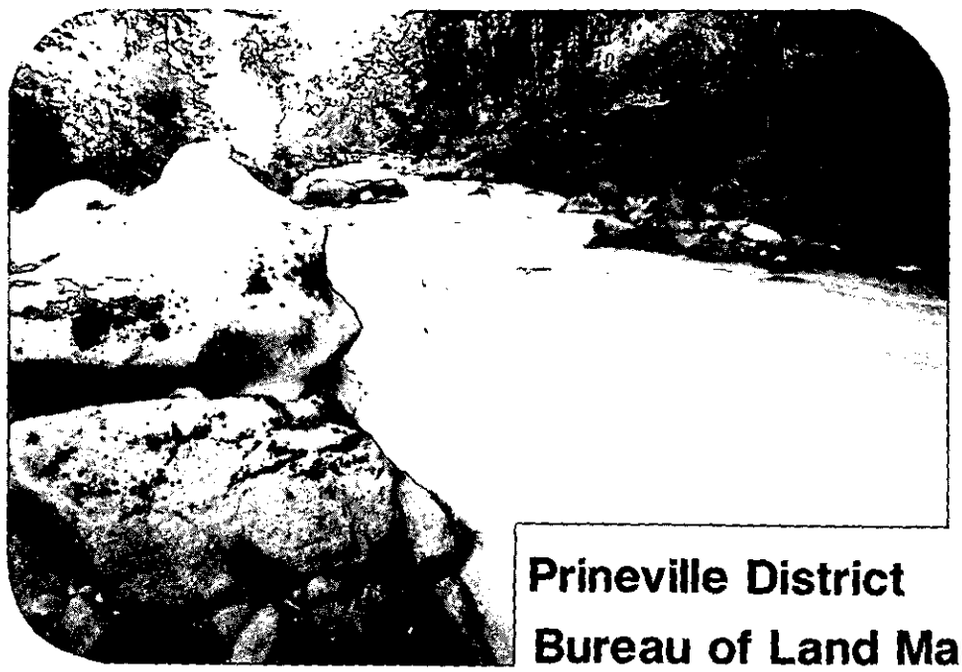
United States
Department of
Agriculture

Forest Service

Pacific
Northwest
Region



Mt. Hood National Forest
USDA Forest Service



Prineville District
Bureau of Land Management

White River
National Wild and Scenic River
Management Plan
Mt. Hood National Forest
USDA Forest Service
Prineville District
Bureau of Land Management

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December 19, 1994

MT. HOOD NATIONAL FOREST DECISION NOTICE FOR ENVIRONMENTAL ASSESSMENT

The following Management Plan now has an approved Decision Notice for Environmental Assessment:

District	Management Plan	Deciding Officer
Bear Springs	White River National Wild and Scenic River Environmental Assessment and Management Plan	Judith E. Levin Acting Forest Supervisor

This decision is subject to appeal pursuant to 36 CFR 217. The appeal should be filed with Regional Forester, ATTN: 1570 APPEALS, P. O. Box 3623, Portland, OR 97208-3623. The appeal must be postmarked on or before February 2, 1995.

For information or a copy of the decision document, contact the District Ranger for the area listed.

1-202-224-4115

White River
National Wild and Scenic River
Management Plan, Decision Notice, and
Finding of No Significant Impact

Forest Plan Amendment #7

Two Rivers Resource Management Plan Amendment

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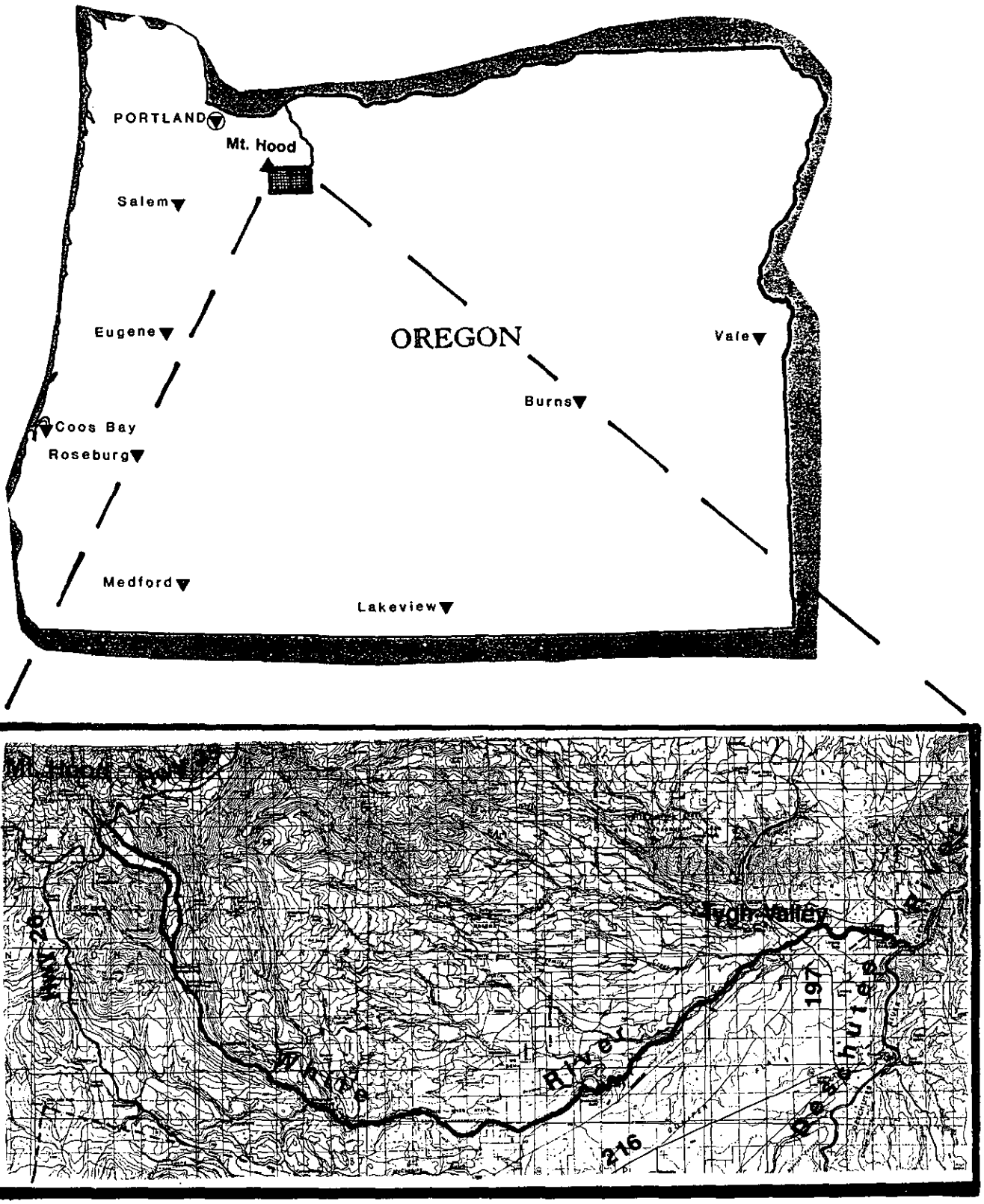


Decision Notice and Finding of No Significant Impact

White River National Wild and Scenic River Environmental Assessment and Management Plan

The White River National Wild and Scenic River Environmental Assessment and Management Plan will amend the 1990 Mt. Hood National Forest Land and Resource Management Plan (Forest Plan) and the Prineville District Bureau of Land Management Two Rivers Resource Management Plan (Two Rivers RMP). The White River Management Plan describes the conditions which need to be achieved or maintained to protect and enhance the river's values. It prescribes standards and guidelines to govern activities within the boundaries. It establishes a schedule for implementation and a program of monitoring activities within the boundaries to measure achievement of desired conditions. Actual accomplishment and monitoring of activities will depend on budget allocations. Insufficient funds over a period of years can delay or prevent implementation of proposed actions.

The Decision

Based on the information provided by the Environmental Assessment, public comment, and a President's Forest Plan consistency review, we jointly adopt **Management Alternative C** with some modifications, **Corridor Boundary Alternative 2, Designated Viewshed Alternative III** and the recommendation to **adjust the river corridor termini to include White River Falls.**

Due to new information and public input, these modifications to Management Alternative C have been made:

After receiving comment from Mt. Hood Meadows Ski Area, Inc., we reviewed the enabling legislation for the White River and concurred with the comments on the following two points, which required a slight change in management direction (see Appendix A - Response to Comments).

- Change "Permit no additional road construction in Segment A" to "*Permit no additional road construction in Segment A. Exceptions are temporary or permanent roads which have no short-term or long-term negative impact on the outstandingly remarkable values related to Scenic Resources, Wildlife Habitat and Populations, and Hydrology and which could be needed and constructed within the permit boundary of Mt. Hood Meadows Ski Area.*"
- Change "Prohibit additional commercial ski area expansion into the corridor beyond that allowed Mt. Hood Meadows in a future Master Plan Record of Decision" to reflect the wording in the enabling legislation exactly: *"Any commercial ski area expansion within the White River Wild and Scenic corridor shall not involve water resource projects and shall be consistent with protecting the values for which the river was designated."*

The Mazamas commented that they did not want to see road 48 designated as a snowmobile route. After reviewing the recreation strategy, we decided that a compromise between Alternative B and C would be possible:

- Road 48 between White River East Sno-park and the junction of road 4890 will be closed to snowmobiling. This closure better fits the overall recreation strategy for Bear Springs, Hood River, and Zigzag Ranger Districts, which emphasizes nonmotorized recreation in the upper White River area. Road 43 will remain open as a snowmobile route connecting the Frog Lake and Bonney Meadows areas. Approximately 2 miles of road 48 between the junctions with roads 43 and 4890 will be part of the officially designated snowmobile route.

Many public comments indicated concern over fire danger in the river corridor below Keep's Mill. The suggestion that fire pans be **required** in the corridor during the times that campfires are allowed (Oct. 16 - May 31) has been adopted.

We received a great deal of comment on our preferred decision to prohibit off-road driving by non-street legal vehicles within the corridor boundary. Many off-road vehicle users felt that, at minimum, there was a need for a designated route with at least one crossing over White River in Segment B or C.

- We have decided that a larger scale study to plan travel linkages throughout the forest is needed as well as a smaller scale study on the impacts to river related values of such a proposal. *This means that the prohibition on off-road driving will remain in place until the White River Access and Travel Management Guide, the White River Watershed Analysis, and the White River Limits of Acceptable Change Study are complete and indicate that such a route is feasible and acceptable.*

The Forest Service and BLM will cooperatively implement this decision. We will coordinate and jointly fund the implementation of several actions in Alternative C. However, each agency maintains separate responsibility for the lands under its jurisdiction. The Management Plan jointly describes the Desired Conditions and Implementation and Monitoring schedules for the entire river corridor. The Standards and Guidelines are separated along administrative boundaries.

Description of the Decisions Made and the Reasons for Them

Overall Objectives for Alternative C (as modified above)

The objectives of Alternative C are:

- To manipulate the environment to move slowly towards the desired condition, and
- To provide for a level of recreation use that promotes enjoyment of the river-related values while minimizing impacts on those values.

Emphasis is placed on low to moderate recreation use levels and dispersed recreational activities. This alternative applies the principles of ecosystem management at a low level of management intensity.

Reasoning -- These objectives appear the most reasonable to use for many reasons. First, the physical environment and the social context of White River's historic and current use point to relative solitude, primitive development, and limited access. Most of the public comment in this regard called for keeping White River "just as it is." Second, stand conditions in the forested sections of the river corridor are neither wholly stable nor in immediate danger of catastrophic change. This condition calls for some manipulation to reduce risks to habitats and to maintain disturbance-dependent habitats. It does not call for extensive emergency treatments. Third, harvest levels in this corridor have never been high due to steep, rocky slopes which are visible from many sensitive travel routes. Fourth, we must consider consistency with the President's Forest Plan. Most of the forested parts of the corridor are within a Late-Successional Reserve, which would preclude a programmed schedule of timber harvest and high levels of recreational development. Fifth, Alternative C allows management to respond to risks to habitats and maintains current recreational use levels. We feel it offers the most flexibility while protecting the values for which the river was designated.

Minerals and Energy Development

Locatable minerals will be recommended for withdrawal on National Forest lands, but BLM lands will remain open for mineral entry. All federal land will be open to mineral leasing with a no surface occupancy stipulation. On National Forest lands, no common variety (salable) mineral development will occur after the Highway 35 Permit Stage II removal (half of the allowed stages in the current permit). The BLM will consider applications from local governments. The Highway 35 permit will be amended to

add requirements for site rehabilitation consistent with the desired conditions in this plan. Applications for energy development to the Federal Energy Regulatory Commission (FERC) will be recommended for denial in all river segments.

Reasoning -- Locatable and leasable minerals are not significant in the White River corridor. Salable mineral extraction has occurred in the corridor. We weighed the public safety issues and rehabilitation costs of closing the Highway 35 sand pit immediately against allowing one more entry, improving the existing rehabilitation effort, and giving the Oregon Department of Transportation (ODOT) a chance to look for alternative sources. We think one more entry provides the best overall solution. However, we will not allow such an entry until Watershed Analysis for the White River drainage is complete in accordance with the requirements of the President's Forest Plan. We decided that on BLM lands, requiring local governments to conform to the means necessary for protection of the river values provides more flexibility than to prohibit sale. The BLM retains the right to refuse to sell and the demand from local governments is low.

Vegetation Management and Grazing

The White River corridor will be withdrawn from a programmed schedule of timber harvest. We reserve the right to use unregulated timber harvest and prescribed fire to reach the desired conditions and to protect or enhance river related values. Unregulated harvest means harvest which is not part of a planned schedule of harvest. Large, undisturbed blocks of old growth, which connect with old growth in adjacent basins, will be retained on federal lands using the 1993 R6 Interim Old Growth definitions. No chemical or biological methods will be used to manage unwanted vegetation with the exception of noxious weeds. Noxious weeds will be managed using an integrated pest management approach.

Grazing in Segment B will continue with increased monitoring of effects on the river related values. Fencing to exclude cattle from campgrounds will occur in Segment B. The Forest Service will use monitoring results to make recommendations for changes in allotment plans and to formally eliminate areas from the permit boundaries where cattle grazing does not occur presently. On BLM lands cattle will be excluded from lands below the rims with gap fencing where necessary.

Reasoning -- We believe Alternative C best represents our vision of how the function of an eastside Late-Successional Reserve combined with a Wild and Scenic River can be achieved. In the past, fire played an important role in most of the corridor. Fire, except for prescribed burning of timber harvest slash, has been excluded from White River for many decades. Management will be necessary to stabilize some stands and reach desired conditions. However, such management should proceed at a conservative pace in order to protect scenery and current wildlife habitat. Grazing is not a major issue, except in some campgrounds in Segment B. Alternative C will solve this problem and create opportunities to change allotment plans where necessary.

Hydrology, Riparian Vegetation, and Fisheries

Baseline water quality data and optimal flow needs to protect the river related values will be determined. The corridor will be actively managed to maintain or improve water quality as needed.

Riparian areas on federal lands will be monitored using riparian inventory and photo trend analysis, water quality inventory, biotic condition index, fish census, and remote sensing. No chemical treatment of noxious weeds will be allowed in the riparian zone.

Fish habitat conditions will also be monitored and managed with an emphasis on native species. Fish screens on all diversions in the White River basin will be recommended. Fish habitat improvement structures shall be evaluated via Section 7. In general, they will mimic natural, non-catastrophic

occurrences and will not interfere with recreational use of the river or other outstandingly remarkable values.

These actions will occur cooperatively between the Forest Service and BLM in conjunction with the State of Oregon where appropriate.

> ***Reasoning*** -- Alternative C offers strong positive action toward recording, maintaining, and improving water quality and fish habitat. Most of these actions were similar for all alternatives; However, Alternative C calls for determining the optimal flows rather than the minimal flows for maintenance of water quality and fish habitat. Other actions in Alternative C, such as Vegetation Management and Mining, balance recreational and public safety demands with high water quality and riparian habitats. Recreational facilities will be designed at the current capacity, which will be quantified in a Limits of Acceptable Change type of study. Existing facilities will be redesigned where needed to improve riparian habitats and water quality.

Threatened and Endangered Species, Wildlife, Botany, and Biodiversity

Surveys for threatened and endangered plant and animal species will be conducted in accordance with the national Endangered Species Act and Oregon Endangered Species Act. Conditions desirable for protecting these species as well as a strategy to reach the desired conditions will be developed. Management will emphasize habitat for native species. In Segment B, high quality amphibian and aquatic insect habitat will be maintained. The Forest Service, BLM, and willing landowners will develop desired conditions on private lands and attempt to reintroduce peregrine falcons in Segment D. Human travel near areas containing sensitive plant and animal populations will be discouraged on federal lands. The Forest Service and BLM, in conjunction with other agencies and entities as appropriate, will conduct cooperative baseline wildlife surveys.

> ***Reasoning*** -- We heard a lot of concern that White River remain both accessible for recreation use and remain a quiet place to go and enjoy wildlife and plants. As human use increases, habitat quality for many of the species listed as threatened, endangered, or sensitive decreases. Everyone agreed that the essential feel of the place as it is currently is the way it should remain. While we do not have major disagreements among stakeholders, we do have some substantial conflicts for which we feel Alternative C provided the best solutions. We believe that most of the needs of the White River stakeholders are met by keeping the canyon relatively primitive and by emphasizing nonmotorized recreation. This choice became even more clear when we studied the wildlife and plant habitats of the area and the function of a Late-Successional Reserve in the President's Forest Plan.

Recreation, Scenic Resources, Travel and Access

Alternative C emphasizes the unique recreation opportunities offered in White River. The existing developed camps fall into the historic "forest camp" category. The general recreational experience is primitive but accessible in Segment B and primitive but relatively inaccessible in the other segments. Alternative C seeks to keep this quality of experience while improving the design and interpretation at some of the most intensively used primitive campgrounds and trails. No new campgrounds will be built on National Forest lands, but improvements, such as facilities for horses, will be allowed. Only one small campground at Graveyard Butte will be constructed on BLM lands; this campground will be designed to accommodate existing use while providing more protection to the river related values. New trail construction is allowed on National Forest lands but limited and tied to minimizing disturbances to wildlife. Off road driving will be prohibited within the corridor until a study of the situation is complete and reveals that a designated route is feasible. No new trails will be allowed on BLM lands. Open road density will be reduced and some roads may be turned into trails. The Recreational Opportunity Spectrum (ROS) Class in Segment B is changed from Roaded Natural to Semi-Primitive Motorized.

Alternative C offers a higher level of protection for scenic resources than the Forest Plan in two ways. First, views into the canyon were considered and will be discussed under the Designated Viewshed decision. Alternative C gives these new viewpoints a VQO (Visual Quality Objective, also referred to as scenic quality objective) of Retention in the Foreground and Partial Retention in the Middleground and Background of Segments A and B, and Retention in all distance zones in Segment C. The Forest Plan calls for Modification at these viewpoints. Second, the scenic quality objectives from the river are now the same as those from the Barlow Road--Retention in the Foreground and Partial Retention in the Middleground and Background rather than Partial Retention in all distance zones in Segment B. Retention in all distance zones in Segment C rather than Partial Retention in the Middleground and Background is also more protective. The Two Rivers RMP did not formally assign VQOs in White River. This plan does so.

Reasoning -- Alternative C does the best job of protecting the primitive recreation experience in White River and is most compatible with landowner concerns about increased visitation in the canyon where fire danger is high and agency presence is low. Even users who are not particularly happy with Alternative C because of restrictions on some motorized activities have expressed appreciation of an essentially primitive place within a forest of mostly developed recreation experiences. This alternative also allows for a modest increase in interpretation and barrier-free designs within the umbrella of existing uses.

Current scenery objectives are very complex and do not adequately protect some major views into the river canyon. This plan attempts to upgrade and simplify scenery objectives in accordance with the vegetation management needs in the corridor and designated viewshed. It gives enough flexibility to rehabilitate some existing clearcuts and carry out other projects to increase scenic diversity. The emphasis on redesigning existing facilities will increase the scenic quality of campgrounds and parking areas.

Fire Protection

Alternative C adds the option for an ecosystem-based prescribed fire program. It requires the use of uncolored or fugitive chemical suppressants within the river corridor to current fire protection tactics. In addition, fire pans will be required during the times when campfires are allowed in the canyon below Keep's Mill. It encourages those living in areas currently without any formal fire protection to form rural fire departments. Mutual aid agreements between these rural fire departments and the Oregon Department of Forestry and between the Oregon Department of Forestry and the federal agencies would then provide approximately the same level of wildland fire protection to the entire corridor.

Reasoning -- An ecosystem-based prescribed fire program will allow the reintroduction of a major process on federal lands. This process was a major contributor to both biological diversity and ecosystem stability. We believe that returning fire to the landscape will reduce the risk of a catastrophic wildfire and catastrophic fire effects on vegetation, wildlife habitat, biological diversity, scenic quality, water quality, and many other values within the corridor. The other changes in fire protection serve to reduce the risk of wildfires, provide for wildfire protection in areas currently without a suppression organization, and better protect the river related values from the effects of wildfire and wildfire suppression tactics. Switching to uncolored or fugitive chemical suppressants both retains the use of this effective fire suppression tool and better protects scenic quality after the fire is out. Fugitive suppressants retain their color long enough to allow for effective and efficient use of this tool yet fade over time and allow the natural colors of the landscape to quickly return.

Cultural Resources

Prehistoric, historic, and traditional value resources within the White River corridor will be managed through a coordinated plan of goals and objectives common to the Forest Service, BLM, and Oregon State Parks and Recreation Department. The plan encourages the participation of the Confederated Tribes of the Warm Springs Reservation of Oregon and private landowners to develop and implement this plan. Specific management goals would focus on the protection and enhancement of cultural resource sites, features, and traditional values as required by Forest Service and BLM policies and federal laws. Our goal is to survey all federal lands for cultural resources.

Reasoning -- The White River corridor has been heavily used historically and traditionally. We feel the importance of the area demanded a coordinated and comprehensive effort.

Corridor Boundary Alternative 2

Interim river corridor boundaries are modified to better protect identified river values and to make them more easily identifiable on the ground. Boundary Alternative 2 is most simply described as a rim-to-rim boundary which emphasizes logical ecosystem and landscape ecology principles in its delineation. Virtually all Class IV streams which feed directly into the river are included. Most of the northern spotted owl, wolverine, harlequin duck, red-legged frog, Cope's salamander and sensitive plant species habitat to be found in the river canyon are included. This boundary exceeds the Congressional acreage per river mile limitation and will require Congressional action to implement.

Reasoning -- The decision to request Congressional action was based on the inherent ecological sense this boundary makes and on the knowledge that Congress intended that river values be protected by the Wild and Scenic Rivers Act. White River Canyon is very wide near the headwaters due to its geologic origin and hydrologic action over the millennia. White River shifts channel across the glacial outwash plain, tending to flow either towards Mineral Creek or Iron Creek. This plain is well over 1/4 mile wide and exceeds one mile in width in a few places. We have received written support and no negative comments from the public on this particular proposal.

We received many comments on the size of the corridor and on the existence of the corridor from landowners and from the permittees of the Mt. Hood Meadows Ski Area. The landowners were concerned about the size of the corridor *on private lands*. We propose reduced acreage in those areas since the interim boundary went over the canyon rim and onto farmer's fields. The permittees of Mt. Hood Meadows Ski Area objected to any corridor boundary which overlaps the Meadows permit area:

> "The preferred alternative (Alternative 2) and Alternative 3 include within their Segment A and B boundaries portion of Mt. Hood Meadows existing permit area. It is inappropriate to include any of Meadows current permit in the final corridor boundary."

Neither of these concerns are directly related to the proposal for Congressional action.

The Mazamas spoke directly to the proposal:

> "We understand that Alternative 2 will require Congressional action to increase the acreage from the 16,662 allowed in the Wild and Scenic Rivers Act to 27,160 proposed in Alternative 2. We applaud the Agencies for being willing to take this on."

Nothing in the Wild and Scenic Rivers Act or this management plan precludes management or consideration of expanding the Mt. Hood Meadows Ski Area within the corridor. We have reduced the acreage of the corridor on private lands from that proposed in the interim boundary. Therefore, we believe we have addressed the public issues with regard to the corridor boundary and that there are no issues particular to the increased acreage of the corridor near the headwaters which would preclude adoption by Congress of Corridor Boundary Alternative 2.

Recommendation to Include White River Falls into the Wild and Scenic River Corridor

The Omnibus Oregon Wild and Scenic Rivers Act of 1988 specifically excluded 0.6 miles of the river around White River Falls. This exclusion was to allow Northern Wasco County People's Utility District (PUD) the option of redeveloping the abandoned hydropower generation facilities. In early June 1993, the PUD Board of Directors decided to discontinue the project. The PUD does not object to now including White River Falls into the White River Wild and Scenic River corridor. *We recommend that this area be included in Segment F and that Segment F be redesignated as a* ***scenic river*** *segment. We have decided to make that recommendation to Congress using the clarification of termini process.*

> ***Reasoning*** -- We have consulted with the public, including local and tribal governments and have received no written negative comments on this proposal. The Confederated Tribes of Warm Springs indicated concern during a meeting on White River alternatives about retaining the opportunity to evaluate introduction of anadromous fish above the Falls. This proposal is not intended to preclude chances to explore that idea. Conversations with landowners and other stakeholders have indicated that they feel White River Falls *is the most important area to have included within the wild and scenic river boundary* because of its obvious uniqueness and scenic power.

Process for Congressional Approval of the Corridor Boundary

The Forest Service and BLM cannot make the final decision on this proposal; however we will base our management on Corridor Alternative 2 in the interim. After this Decision Notice is issued, a final boundary map, showing the recommended river corridor boundary, will be transmitted to Congress via each agency's national office for approval. This map will show the recommended clarification of termini. Accompanying the map will be a transmittal letter indicating the recommended clarification and an indication of the public input regarding this issue. Once Congress approves the river boundary establishment package, the managing agencies would prepare language to amend the Wild and Scenic Rivers Act.

Designated Viewshed Boundary Alternative III

A designated viewshed is the visible land area (without vegetative screening) seen from a single or from multiple viewpoints. This viewshed is given a particular scenic quality objective or objectives. The interim viewshed included only viewpoints looking out from the river itself. This did not include some of the most scenically important viewer positions used by visitors to enjoy the beauty of White River canyon. Examples of these excluded viewpoints include forest road 48 and Bonney, Barlow, and Graveyard Buttes. On federal lands, the designated viewshed only applies to scenic quality objectives. We will manage the area seen from these multiple viewpoints to meet the assigned scenic objectives. On private lands, this boundary will only serve to give the managing agencies an idea of what area to consider when requesting scenic easements from willing sellers.

> ***Reasoning*** -- The White River Resource Assessment recognizes the views **into** the canyon as part of what makes scenery in White River an outstandingly remarkable value. We decided that the designated viewshed should include the terrain seen from these viewpoints.

Consistency with the President's Forest Plan

The Record of Decision (ROD) and Standards and Guidelines for the President's Forest Plan requires that White River Wild and Scenic River Management Plan address how it will serve to attain the Aquatic Conservation Strategy Objectives. Appendix C of this management plan discusses each objective and

how the White River Wild and Scenic River Management Plan complies with each. In addition, Appendix C briefly discusses the consistency between the standards and guidelines listed in both the President's Forest Plan and the White River Management Plan.

The White River Management Plan appears to be consistent with the final SEIS and ROD. In the event of a conflict between a standard and guideline in the river management plan and one in the President's Forest Plan, the stricter standard and guideline will apply.

Amendments Made to the Mt. Hood Forest Plan

The development of a river-specific management plan necessitates amendments to the Forest Plan since the B1 (Wild and Scenic Rivers) allocation was written to apply to all designated rivers and, thus, must be more general. Some new standards and guidelines merely carry the original intent of the Forest Plan into more detail. Others change the intent of the original standard and guideline or desired condition. Together, these changes constitute Amendment No. 7 to the Forest Plan. Major amendments are listed below:

- Change the Target Tree sizes in the Desired Future Condition to those listed in Table 2.4 of this management plan.
- Change the land allocation from B1 to A1. This change is a result of eliminating regulated timber harvest from the corridor.
- Change the interim river corridor boundary to better protect river values after receiving Congressional approval.
- Change the B2 Designated Viewshed Boundary for White River to the boundary indicated in this management plan (adds approximately 18,874 acres to the viewshed; including changing approximately 6100 acres from C1 to B2).
- Prohibit the use of chemical methods for vegetation management and noxious weed control in riparian areas.
- Emphasize habitat management for native fish species only.
- Use only uncolored or fugitive chemical fire suppressants.
- Prohibit construction of new campgrounds.
- Change the ROS Class in Segment B to Semi-primitive Motorized from Roaded Natural.
- Prohibit wheeled ATV and street-legal vehicle use of road 48 north of its junction with road 43 between November 15 and April 1.
- Close road 48 to snowmobiles between White River East Sno-park and the junction with road 4890. Roads 43 and 4890 should remain open to snowmobile use. Prohibit further expansion of snowmobile routes in the A1 corridor.
- Prohibit off-road driving unless and until Watershed Analysis, Access and Travel Management planning, and the LAC study indicate that a designated route and crossing over White River is feasible and acceptable.
- Prohibit new road construction in Segment A outside of any approved Mt. Hood Meadows Ski Area expansion.
- Require fire pans under campfires between October 16 and May 31 in the river corridor below Keep's Mill. Prohibit campfires below Keep's Mill from June 1 to October 15.
- Limit open road density to 1.5 miles per square mile.

Amendments to Two Rivers RMP

- *Prohibit livestock grazing below the canyon rim.*
- Prohibit off-road driving.
- Require fire pans under campfires between October 16 and May 31. Prohibit campfires from June 1 to October 15.

We have concluded that these amendments are non-significant amendments to the Mt. Hood Forest Plan and the Two Rivers RMP for the following reasons:

The changes affect lands which are currently being managed either in accordance with the *Wild and Scenic Rivers Act due to the interim boundary or as a Late-Successional* Reserve under the President's Forest Plan, which is quite compatible with wild and scenic management.

The standards and guidelines, management actions, and specific activities identified in the River Management Plan are consistent with the original Forest Plan and Two Rivers RMP goals. Changes are overall refinements and are based on site-specific study and more detailed analysis than was done for the Forest Plan or Two Rivers RMP.

The adjustments of management area boundaries and direction included in the river plan do not make significant changes in the multiple use goals and long-term land and resource management direction.

Other Alternatives Considered in Detail

Alternative A (No Action)

This alternative would have just followed the existing direction found within the Forest Plan and the Two Rivers RMP, as well as any applicable laws, agreements, and species recovery plans.

We did not select *this alternative because it did not provide enough management direction when* compared with the other management alternatives. This alternative also did not provide the level of protection to the river values unique to White River that were found in the other alternatives.

Alternative B

This alternative minimized manipulation of the existing environment except as needed to protect resources and aid in species recovery. It provided for levels of recreation use at lower levels than currently with an emphasis on dispersed recreation.

We did not pick this alternative because it did not provide enough flexibility to reach the desired ecological conditions. We felt the White River landscape requires slightly more intensive management to stabilize the functioning of the Late-Successional Reserve and to reach the desired conditions outside the Reserve. We also did not find a need to lower recreation use capacity.

Alternative D

The goal of this alternative was to manipulate the environment to a moderate degree to move rapidly toward the desired ecological condition. It would have provided more recreation use facilities than now exist with an emphasis on more developed recreational experiences.

We did not choose this alternative because it simply did not "fit" the picture of White River as we saw from either the President's Forest Plan or from the responding public and landowners with whom we worked. The proposed vegetation management would probably be inconsistent with the President' Forest Plan and the recreation proposals would take away some of White River's unique primitive quality.

Alternative E

The goal of this alternative was to reach the desired condition in the shortest possible period of time. It would have the highest recreation use and the most developed and motorized recreation.

We did not select this alternative because the existing conditions in White River corridor are not in need of emergency treatment. Therefore, it is not necessary to strive to reach the desired condition in the shortest time possible. The recreation proposals would take too much away from the primitive experience preferred by our stakeholders. We felt the risks to the river related values from the higher recreation use levels, the level of vegetation manipulation, and the level of mining potentially permitted at White River pit were too great.

Corridor Boundary 1 (Interim Corridor)

This corridor stays strictly with an average 1/4 mile width on each side of the river. In Segment B, as the river changed channels, the corridor boundary would also change so that it remained with the river.

We did not choose the interim boundary because of the potential for the corridor to move large distances in Segment B and because it was over the canyon rim on private and BLM lands in Segment D. Thus, we felt it had too many acres where they were unnecessary and too few where they were needed.

Corridor Boundary 3

This corridor follows the same general intent as Corridor Boundary Alternative 2, but stays strictly within the acreage limits imposed by current law. Thus, the corridor is significantly narrower in Segment B than under Corridor Alternative 2 and does not fully include most of the Class IV streams that drain directly into White River nor much of the wildlife habitat and plant community diversity listed as part of the river related values. It does include enough area to fully encompass potential channel shifts without needing to move the boundary, unlike the Interim Corridor.

We did not pick this alternative because it did not include all of the area at the headwaters which would logically protect the river related values. This boundary would be the boundary of choice, however, if Congress does not approve our proposal for Corridor Boundary Alternative 2.

Designated Viewshed Alternative I (Interim Designated Viewshed Boundary)

This alternative consists of viewed areas as seen from White River on National Forest lands. Segments D-F, managed by the BLM, do not have a designated viewshed.

We did not choose this alternative because it did not include viewpoints into White River which partly caused scenery to become an outstandingly remarkable value in the Resource Assessment and because BLM had no interim viewshed boundary.

Designated Viewshed Boundary Alternative II

This viewshed included the same viewshed as Alternative I and added a viewshed for the BLM managed segments.

We did not select this boundary because it did not include the viewpoints into White River that partly caused scenery to become an outstandingly remarkable value in the Resource Assessment.

Public Involvement

Public involvement has played and continues to play a critical role in the river management planning process. Private citizens, interest groups, state and local governments, other agencies, and the Confederated Tribes of Warm Springs offered valuable advice throughout development of the resource assessment and Management Plan. The planning effort involved mass mailings, 5 public meetings, and a public working group established at the time the IDT developed issues and draft alternatives.

In June 1991, the Mt. Hood National Forest and the Prineville BLM held a public meeting at Tygh Valley to introduce the planning process and solicit public comment. All landowners within the quarter-mile interim corridor and other interested citizens and groups received invitations. About 50 people attended the first meeting.

The draft resource assessment, released in 1991, identified outstandingly remarkable values for the river. The Forest Service and the BLM did not change any of the findings as a result of public comment, but added information to the resource assessment.

In December 1992, a citizen work group was set up to discuss issues and propose alternatives with the river planning team. Members represented a variety of interests and viewpoints and met seven times between December 1992 and July 1993. The IDT incorporated the work group input into the desired future condition, issues, and alternatives. The draft alternatives were presented at four public meetings in September 1993 at Gresham, Warm Springs, Maupin, and The Dalles.

The environmental assessment (EA) was released on November 22, 1993. Two public comment periods followed for a total of 60 days. We used the comments received to further develop this management plan. Refer to Appendix A of the management plan for the comments received and how we incorporated them into the White River Management Plan.

Finding of No Significant Impact and Compliance with Laws

Following a review of the EA, we determined that this is not a major federal action that will significantly affect the quality of the human environment. An Environmental Impact Statement is not necessary and will not be prepared. This determination is based on the following considerations:

- Irreversible and irretrievable commitments of resources and adverse cumulative secondary effects will not exceed those discussed and evaluated in the Final Environmental Impact Statements for the Mt. Hood Forest Plan and the Two Rivers RMP.
- Environmental impacts to all resources including social resources were analyzed and discussed in the White River Wild and Scenic Rover Environmental Assessment and were not found to be significant.

- The White River Management Plan is in compliance with relevant Federal, State, and local laws, regulations, and requirements designed for the protection of the environment.
- Biological Evaluations on the impacts to threatened, endangered, or sensitive plant or animal species have been completed for all alternatives analyzed in the White River EA. The evaluations assess the impacts of the river management plan on threatened, endangered, and sensitive species that could potentially be found in the White River corridor. The evaluations include a conclusion that there will be no effect or no negative impact at this level of decision to the threatened, endangered, and sensitive species present. Site-specific biological evaluations will be done for specific projects planned in the corridor to implement this management plan.
- The river management plan protects and /or enhances the identified outstandingly remarkable values found in the river corridor:

  Geology,

  Hydrology,

  Botany,

  Fish habitat and populations,

  Wildlife habitat and populations,

  Historic resources,

  Scenic resources, and

  Recreation.

Implementation

This decision may be implemented 45 calendar days after the Decision Notice is published in the Oregonian.

Each project identified in the River Management Plan will require additional environmental analysis prior to implementation, with the appropriate levels of analysis, in compliance with National Environmental Policy Act requirements.

Right to Appeal: USDA Forest Service

This decision is subject to appeal pursuant to 36 CFR 217. Written Notice of Appeal of this decision must meet the direction contained in 36 CFR 217.9 (Contents of a Notice of Appeal) and must the include specific reasons for the appeal. Two copies of the written Notice of Appeal must be filed with the Reviewing Officer, John Lowe, Regional Forester; PO Box 3623; Portland, Oregon 97208-3623, within 45 days of the date of legal notice of this decision appears in the Oregonian.

Right to Appeal: USDI Bureau of Land Management

Within 30 days of the receipt of this decision, you have the right to protest to the Prineville District Manager and thereafter to the Board of Land Appeals, Office of the Secretary, in accordance with the regulations of 43 CFR 4.400. The protest to the District Manager must be filed in writing in the Prineville District Office of the Bureau of Land Management. If no protests or appeals are filed, this decision will become effective and be implemented in 30 days.

For further information, please refer to the White River National Wild and Scenic River Environmental Assessment, or the White River National Wild and Scenic River Management Plan.

Responsible Official:

R. Wayne Eddy

for Judith E. Levin
Acting Forest Supervisor
Mt. Hood National Forest
Date: 11/3/94

Responsible Official:

James L. Hancock
Prineville District Manager
Bureau of Land Management
Date: 11/3/94

Chapter 1

Introduction

CHAPTER 1: INTRODUCTION

Introduction

White River became a Wild and Scenic river through the Omnibus Oregon Wild and Scenic Rivers Act of 1988. This act added segments of 40 Oregon rivers to the National Wild and Scenic Rivers system. The White River was one of those 40 rivers. The Omnibus Oregon Act designated six segments on White River. The upper three segments, covering a length of 26.9 miles, run from the river's headwaters on the east slope of Mt. Hood to the boundary of the Mt. Hood National Forest. The Mt. Hood National Forest is responsible for the administration of these river segments, and this Management Plan covers that portion of the river. The lower three segments, covering a length of 25.4 miles, run from the boundary of the Mt. Hood National Forest to the river's confluence with the Deschutes River, excluding 0.6 miles at White River Falls. The Bureau of Land Management has developed a separate river management plan, which is included in this document, for those segments. Figures 1.1 and 1.2 display the corridor and designated viewshed for the entire river. Figure 1.3 displays the different segments covered by Forest Service and BLM management.

This management plan will provide for a comprehensive approach for managing, protecting, and enhancing the free-flowing natural character of the river and its associated values and natural attributes. This plan describes the desired future condition of the corridor and provides management direction in the form of Standards and Guidelines. It also identifies projects the Mt. Hood National Forest and the Prineville District of the BLM should implement and monitoring guidelines within the corridor.

Readers and river users must realize that implementing these activities and carrying out the monitoring efforts identified within this management plan depend on available funding. If budget allocations are not sufficient, the projects and monitoring activities proposed in this management plan may be rescheduled. Insufficient budgets over a period of years could mean that the managers of the Mt. Hood National Forest and the Prineville District of the BLM are unable to carry out proposed activities, to apply standards and guidelines, and to move toward some of the desired conditions.

Wild and Scenic River Legislation

In 1968, Congress passed the National Wild and Scenic Rivers Act, establishing a nationwide system of outstanding free-flowing rivers. The primary purpose of the Act is to balance river development with river protection and conservation. The Act specifically prohibits future hydropower development on protected rivers and requires the managing agencies to protect and enhance those values which are **river related** (owe their existence or location to the river) and are **rare, unique, or exemplary** in character. Rivers may be added to the system either by an act of Congress or by order of the Secretary of the Interior upon official request by a State.

Some of the underlying principles of the Act are:

- to keep selected rivers or river segments in a free-flowing condition and to recognize their importance to our national and cultural heritage.
- to include all types of free-flowing rivers in the system, whether in very remote areas or flowing through developed areas.
- to designate rivers because of their existing attributes and uses, including a river's natural, recreational, and cultural values.
- to recognize the need to provide for partnerships among landowners; Federal agencies; and local, State, and tribal governments in determining the future of the river area and managing its resources.

Under the Wild and Scenic Rivers Act, designated rivers were classified as wild, scenic, or recreational, depending on the level of development and access present at the time of designation. Wild rivers are the most natural appearing and least accessible. Little or no development is present, such as roads or campgrounds. Scenic rivers have shorelines that are largely undeveloped with few access points. More types of land uses and developments are compatible with management goals on a scenic river than on a wild river. Recreational rivers have more developed shorelines and roads parallel the river more closely and may even dominate the landscape. There may be some development along the banks and some existing impoundments or diversions.

Due to the different levels of existing development, the Omnibus Oregon Wild and Scenic Rivers Act describes the upper three segments of White River as:

Segment A - The 3.3 mile segment from the headwaters to the line between sections 9 and 16, township 3 south, range 9 east as a **recreational river**, to be administered by the USDA Forest Service.

Segment B - The 16.7 mile segment from the line between sections 9 and 16, township 3 south, range 9 east to the confluence with Deep Creek as a **recreational river**, to be administered by the USDA Forest Service.

Segment C - The 6.9 mile segment from the confluence with Deep Creek to the National Forest/BLM boundary as a **scenic river**, to be administered by the USDA Forest Service.

Segment D - The 18.03 mile segment from the National Forest/BLM boundary to the confluence with Threemile Creek as a **scenic river**, to be administered by the BLM.

Segment E - The 5.57 mile segment from the confluence with Threemile Creek to River Mile 2.46 at section 7, township 4 south, range 14 east as a **recreational river**, the be administered by the BLM.

Segment F - the 1.85 mile segment from River Mile 1.85 at section 8, twonship 4 south, range 14 east to the confluence with the Deschutes River as a **recreational river**, to be administered by the BLM.

The miles above do not match with the miles in the Omnibus Oregon Wild and Scenic Rivers Act. These mileages are from digitized data in a Geographic Information System (GIS), but do represent the descriptions and intent of the enabling legislation.

Method of Plan Preparation

The White River Management Plan was developed from the White River National Wild and Scenic River Environmental Assessment (EA). The EA was released in November 1993 and evaluated a range of five alternative management scenarios, three corridor boundary alternatives, and three designated viewshed alternatives. Additionally, the EA weighed the environmental consequences of each management, boundary, and viewshed scenario. Based on input from the public and a variety of agencies, the management direction in this plan was identified as the preferred strategy. This plan provides a more comprehensive list of actions, with specific target dates and estimated implementation costs, along with final management direction and guidelines for the river.

How this Document is Organized

Chapter 1 provides an introduction to the River Management Plan.

Chapter 2 summarizes the outstandingly remarkable values found along the river, describes the Desired Future Condition for the river corridor, and identifies the general resource management goals for the river corridor.

Chapter 3 contains specific management direction for the river corridor in the form of Standards and Guidelines. The Standards and Guidelines for the Mt. Hood National Forest are listed first, followed by Standards and Guidelines for the Prineville District of the BLM.

Chapter 4 lists specific management actions to be taken under the direction of the River Management Plan. Most of these actions will require additional site-specific analysis. As a result of that analysis, costs and scheduling of the actions may change. Implementing the actions also depends on available funding.

Chapter 5 identifies a monitoring program to evaluate the effectiveness of management actions taken along the river and to insure that river values are being protected and/or enhanced.

The Appendices provide support and additional information to the main document and includes responses to public comments (Appendix A), procedures to follow when evaluating water resource and other projects that could affect the river's values (Appendix B), this plan's consistency with the President's Forest Plan (Appendix C), a proposal to add White River Falls to the White River Wild and Scenic River (Appendix D), a description of the river corridor boundary (Appendix E), and a list of preparers (Appendix F).

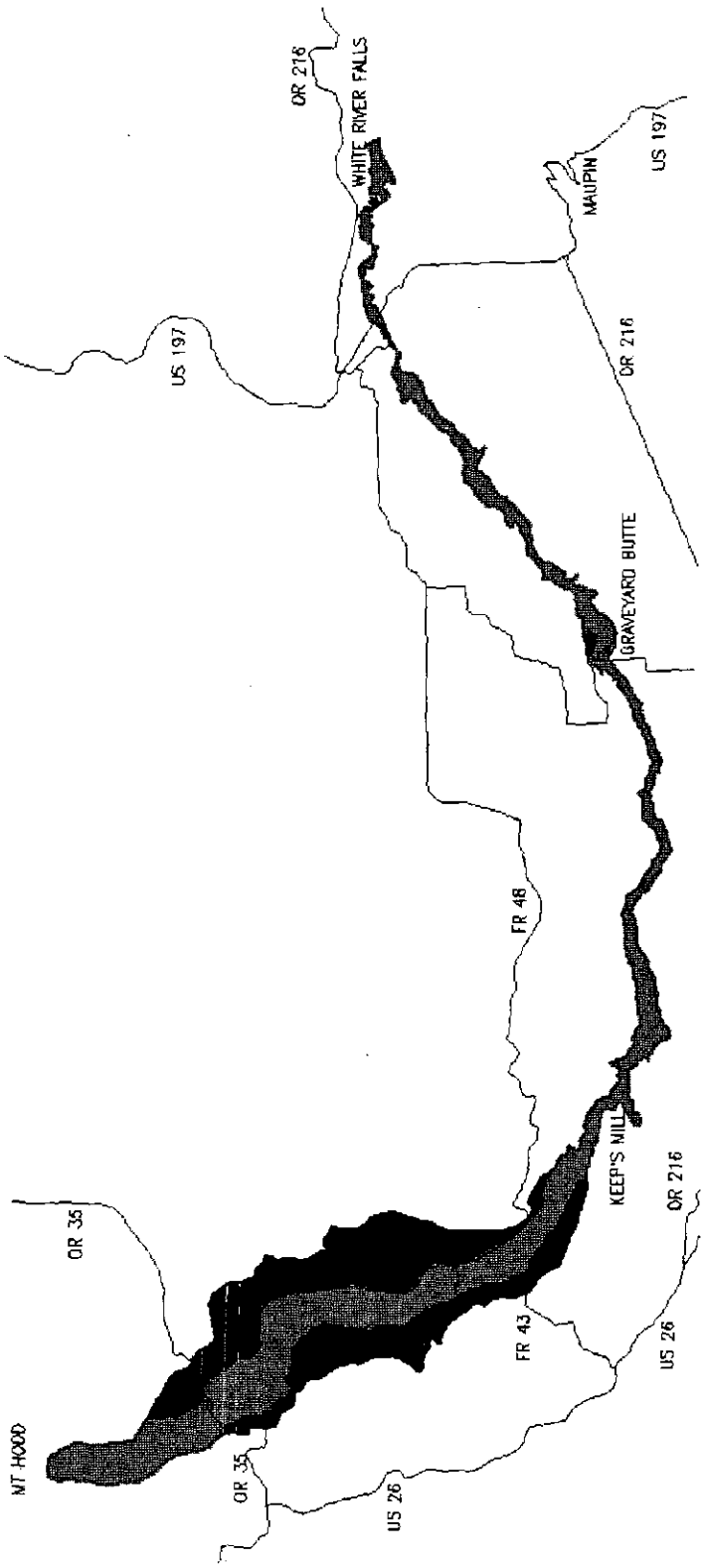


Figure 1.1. White River corridor covered by the Forest Service and BLM management plans.

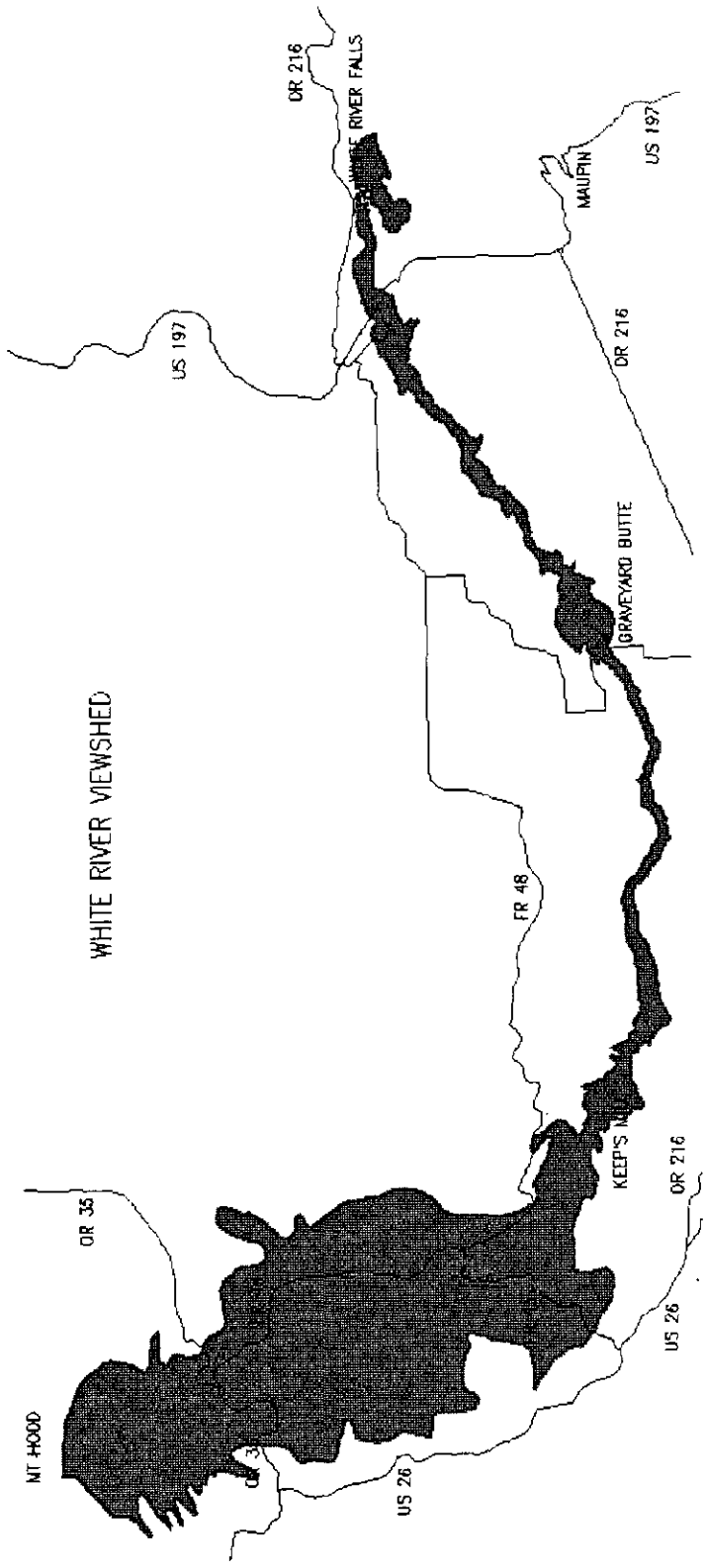


Figure 1.2. Designated viewshed for White River National Wild and Scenic River.

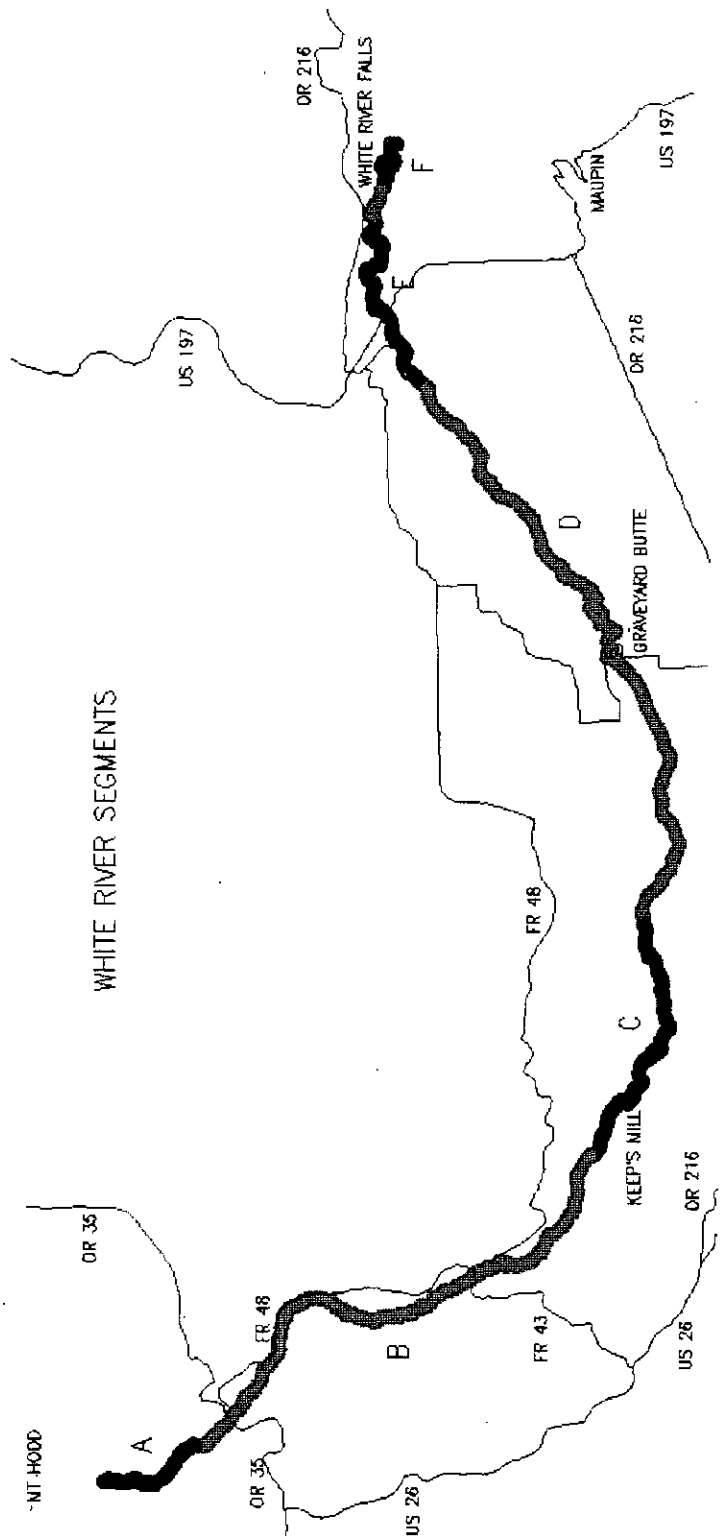


Figure 1.3. River segments for the White River National Wild and Scenic River.

Chapter 2
Outstandingly Remarkable Values
Desired Future Condition

CHAPTER 2: OUTSTANDINGLY REMARKABLE VALUES AND DESIRED FUTURE CONDITION

Introduction

The White River Management Plan provides the direction for management of the White River and lands within the river corridor. This chapter describes those values which were found to be outstandingly remarkable for the White River, followed by the Desired Future Condition for all resources along the river. The last section lists the overall resource management goals for White River.

Outstandingly Remarkable Values

The intent of the Wild and Scenic Rivers Act is to maintain the free-flowing character of the designated river and to protect its values. Congress created the term "outstandingly remarkable values" to describe those values. Outstandingly remarkable values are features or opportunities in a river corridor which are directly related to the river and which are rare, unique, or exemplary from a regional or national perspective. The Management Plan for White River provides for balanced protection and enhancement of all values found to be outstandingly remarkable:

- geology,
- hydrology,
- botany,
- fish habitat and populations,
- wildlife habitat and populations,
- historic resources,
- recreation, and
- scenic resources.

A summary of these values is below. A more detailed description of these values can be found in the Resource Assessment for White River.

Geology

The geology of White River is an outstandingly remarkable value for Segments A-D. Specific features include evidence of recent volcanic activity, ghost forests, active fumarole field, active mountain glacial activity in the upper reaches, and the Graveyard Butte area. The river corridor contains a variety of landforms, starting with the glacially carved valley on Mt. Hood's flank, extending into a broad, glacial valley floodplain, then descending into steep canyon lands with impressive water falls.

Hydrology

White River's hydrology meets the criteria for an outstandingly remarkable value for all river segments. The glacially formed environment, the river's white color in late summer and fall, and the river's aspect and gradient make White River unique in the region. White River Falls isolates the watershed aquatically, providing an environment in which indigenous aquatic species, such as the White River race of redband rainbow trout, have evolved.

Botany

Many regionally important sensitive and unique plants and plant communities are present along the river including: bog communities with stiff club moss (*Lycopodium annotinum*) in the upper drainage; dark-soiled bogs with "genus communities" of grape ferns (*Botrychium* spp.) in the Iron Creek-Buck Creek areas; the notable plant communities of the south-facing, rocky openings along the river near the National Forest boundary, including unusual extensions of species beyond normal range; and an endemic plant with a very small range, Tygh Valley milkvetch (*Astragalus tyghensis*). The river corridor's broad diversity of plant species and communities, ranging from subalpine to desert steppe, and the potential research natural area values also provide a unique combination and relationship among the communities listed above.

Fish Habitat and Populations

The White River race of redband rainbow trout is genetically distinct from other redband rainbow trout. Segments A-E, above White River Falls, provide existing or potential habitat for White River redband rainbow trout. The possible introduction of chinook salmon into Segments A-E represents a potential outstandingly remarkable value with regional significance. Analysis of anadromous fish introduction is beyond the scope of this document since the area of potential impact is much larger than the wild and scenic river corridor. Possible interactions between introduced anadromous fish and the native fish are not known, but also beyond the scope of this document to analyze.

Wildlife Habitat and Populations

Wildlife populations and their habitat are outstandingly remarkable values in Segments B-D. These segments support a diversity of endangered, threatened, and sensitive species associated with the river corridor. Segment B provides important northern spotted owl and harlequin duck habitat. Segments C and D contain important peregrine falcon habitat. High quality habitat conditions for elk and various raptors are significant values, but are not nationally or regionally significant, nor are they unique to Central Oregon.

Historic Resources

Historical cultural resources are outstandingly remarkable values in Segments B and C. Two important historic sites, Barlow Road and Keeps Mill, lie along the river corridor in these segments. The Barlow Road in Segment B, an important alternate route along the Oregon Trail, parallels the river for approximately four miles until it crosses at White River Station. This piece of the Oregon Trail is of national significance. Keeps Mill in Segment C is a significant regional site. Both the Barlow Road and Keeps Mill have high interpretative value as well as historic value.

Segment A contains Timberline Trail which, while regionally important, does not meet the criteria for an outstandingly remarkable value. Other historic resources are known to exist within White River canyon in Segments D-F; however, these sites have not been formally recorded and evaluated.

Recreation

Segments A-D offer outstanding opportunities for sightseeing, photography, nordic skiing, and kayaking. Rugged hiking and backpacking, and nature and wildlife observation are additional outstanding recreational opportunities within Segment D. The river canyon's outstanding solitude and hiking opportunities attract visitors within and outside the region.

Scenic Resources

White River has outstandingly remarkable scenic values in Segments A-D. The river's scenery is regionally important and widely appreciated in all seasons. The following outstanding viewsheds support

this finding: views within the corridor from White River, the campgrounds and dispersed sites, and from the Barlow Road; views of the river corridor from Timberline Lodge, its lower parking area, and Timberline Trail; views of Mt. Hood and White River valley from White River East Sno-park; the view into the canyon from above Keeps Mill; views from Bonney Butte; and views into the rugged canyon from several points between the National Forest boundary and Tygh Valley.

Desired Future Conditions

The IDT developed the Desired Future Conditions (DFCs) based on the landscape analysis, the Forest Plan and Two Rivers RMP, and input from the citizen work group. This section describes what the river corridor should look like and what commodities and amenities it should provide. Using an ecosystem approach (Figure 2.1), the section describes the desired range of vegetative conditions for federal lands within the corridor. Some elements in the DFCs require action beyond the scope of this management plan, requiring action by other local, state, and federal agencies.

All Segments

All river management activities protect, maintain, or enhance the outstandingly remarkable values. A mix of nature trails, viewpoints, interpretive markers, and written materials interpret Outstandingly Remarkable Value features.

During late summer and fall, the river flows milky white in color and does not show signs of other, darker colors. The river remains free flowing throughout the year.

The distribution and populations of plants and animals within the corridor are similar to those expected under natural conditions. Vegetation management is designed to maintain riparian vegetation communities in proper ecological functioning condition while allowing only those projects which promote biological diversity. Desirable plant species include (but are not limited to) alder, red-osier dogwood, willows, cottonwoods, and a variety of understory species, such as chokecherry, rushes, and various forbs. Site conditions dictate the specific composition and presence of each riparian community type.

Human activities enhance or protect sensitive species habitat. Public lands provide opportunities to research sensitive species, habitat needs, and management strategies to enhance or protect sensitive species populations. Centralized markers or signs, pamphlets, and brochures provide information on sensitive species and their environment.

Where natural forces cannot operate freely or fully, land management maintains or promotes plant community diversity, including a mix of native and agricultural species on the landscape. As much as possible on public lands, management actions should mimic natural processes, or their effects, to shape the vegetative mosaic and successional stages on the landscape. Noxious weeds are absent or present only at very low levels.

Natural processes operating on the river provide a diversity of insect species at endemic population levels, a mix of pools and riffles, and a rich and biologically diverse riparian vegetative mosaic. Fish populations and habitat quality remain at the highest level the river is naturally capable of providing. Native fish species maintain their genetic integrity and population viability. A healthy and diverse riparian plant community stabilizes banks and filters out sediments. Watershed management prevents unnatural levels of sediment from entering the river. Riverbanks are stable and are not eroding excessively due to human actions and activities.

Fuels management reduces the risk of a large stand-replacing wildfire while providing proper levels of downed woody material and duff needed for high quality fish and wildlife habitat, long term site productivity, and streambank stability. Table 2.1 lists the desired residue profiles and Table 2.2 the acceptable limits of exposed mineral soil levels for the landscape units on public lands. A higher than acceptable level of exposed mineral soil may occur in the short term to move the areas toward meeting

the long term goals around the outstandingly remarkable values in the corridor. Visitors to the corridor may encounter evidence of fire from prescribed burning and wildfires.

River corridor management helps maintain or enhance the Wasco County economy, while protecting the river's outstandingly remarkable values. Corridor management should provide opportunities for local employment and assist in expanding the local economy.

Cultural resource sites provide opportunities to increase public knowledge and understanding of the history and prehistory of the White River corridor. Law enforcement activities protect sites from vandalism and theft. Approved plans provide management direction for those sites that need plans. All public agencies and private landowners within the corridor work together to protect, enhance, and interpret cultural resources along White River. Native American traditional use locations on Federal and ceded lands are managed for their traditional values and importance.

Segments A and B

The resculpted sand pit provides safe snow play and a natural-appearing landscape. Native vegetation at population levels typical of the area covers the former mine. Subsurface water flows unimpeded through the sandy soils of the Lodgepole Flats landscape unit.

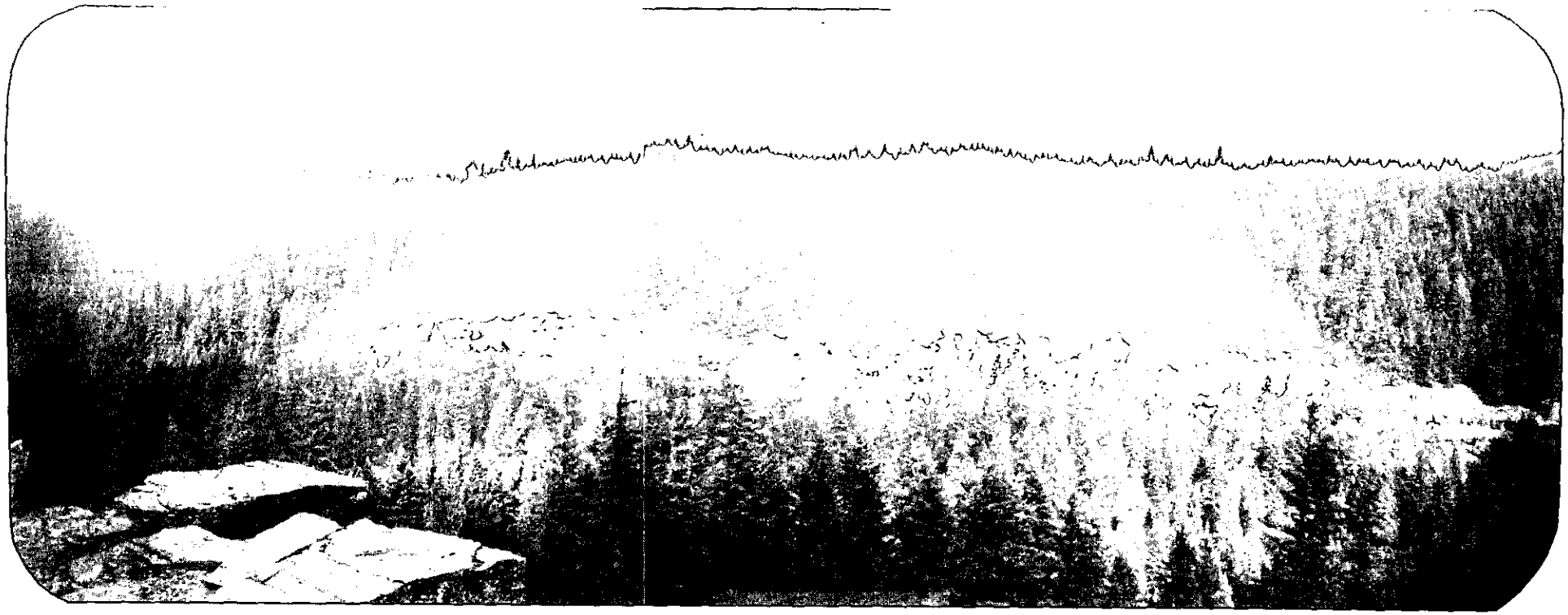
Vegetation management mimics the natural processes that shape plant communities. The area provides high quality wildlife habitat, scenic quality, views to Mt. Hood and White River, tree species compositions at more naturally occurring levels, and successional stages in proportion to that expected under natural conditions. National Forest lands provide various special forest products; such as firewood, mushrooms, and beargrass; as long as these activities are compatible with managing the outstandingly remarkable values.

National Forest management protects visitors in campgrounds, day use areas, and along the Barlow Road from obvious hazards associated with dead and defective trees. Natural processes shape the vegetative mosaic on the landscape, including associated downed logs, other woody debris, and snags, and successional pathways in the Subalpine, Open Riparian, Canyon Riparian, Talus, Lodgepole Flats, and Wetlands landscape units. Where some or all these natural processes cannot occur in these six landscape units due to other constraints, vegetation management mimics those processes.

The other landscape units in Segment B (Cool, Wet Mixed Conifer and Mesic Mixed Conifer) contain a mix of stand structures (Table 2.3 and Figure 2.2). Old growth stands contain suitable numbers of large trees (Table 2.4). Primary cavity nesters, such as woodpeckers, find enough snags, downed logs, and wildlife trees to meet 100% of their needs on individual harvest units and 80% of their needs over the landscape unit as a whole.

Livestock do not use Segment A due to the lack of forage. Recreational livestock do not use the segment due to the lack of suitable trails. Livestock grazing and use of recreational livestock continues in Segment B where it is compatible with management of Outstandingly Remarkable Value features and where it does not interfere with public use of the river corridor. Range conditions rate good to excellent.

Human activities do not significantly disturb wildlife in Segment A. Large continuous blocks of old growth and large, undisturbed travel corridors within Segment B provide habitat and security for a variety of species. These features cross the river and run down the corridor. Healthy, viable populations of various threatened, endangered, and sensitive species occur within the area, including several nesting pairs of northern spotted owls. Approved plans guide management activities in the pileated woodpecker and pine marten management areas and Key Site Riparian areas within the corridor. Vegetation management provides all successional stages, including thermal cover and optimal thermal cover for deer and elk.



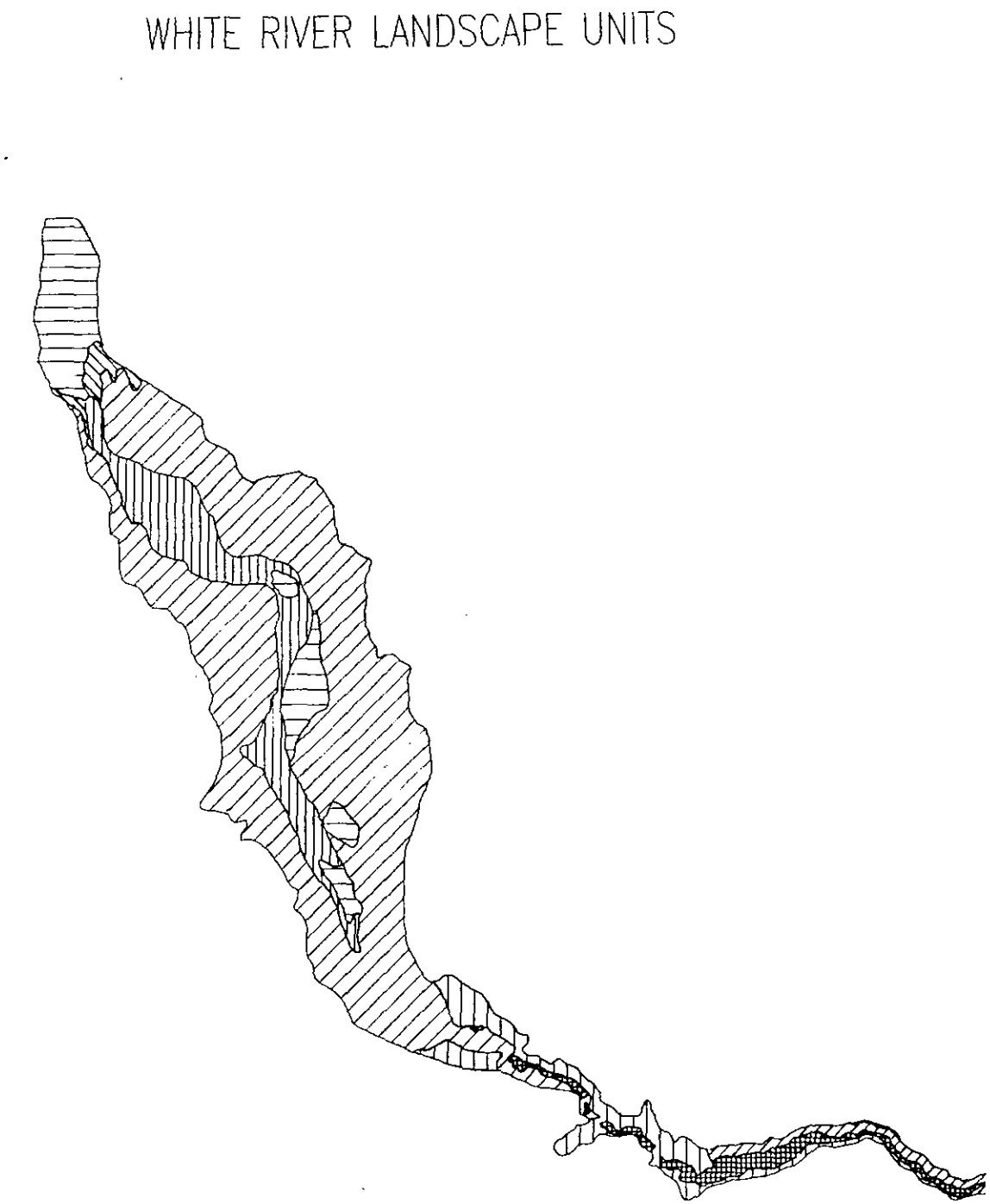


Figure 2.1. White River landscape units using an ecosystem approach to vegetation management.

MAP LEGEND

- ROCKS 'N ICE
- SUBALPINE
- LODGEPOLE FLATS
- WET MIXED CONIFER
- WETLAND
- MESIC MIXED CONIFER
- TALUS/FORESTED ROCK
- DRY MIXED CONIFER
- OAK CONIFER
- RANGE
- TYGH VALLEY
- TYGH VALLEY RIPARIAN
- AG LANDS
- SHRUBLANDS

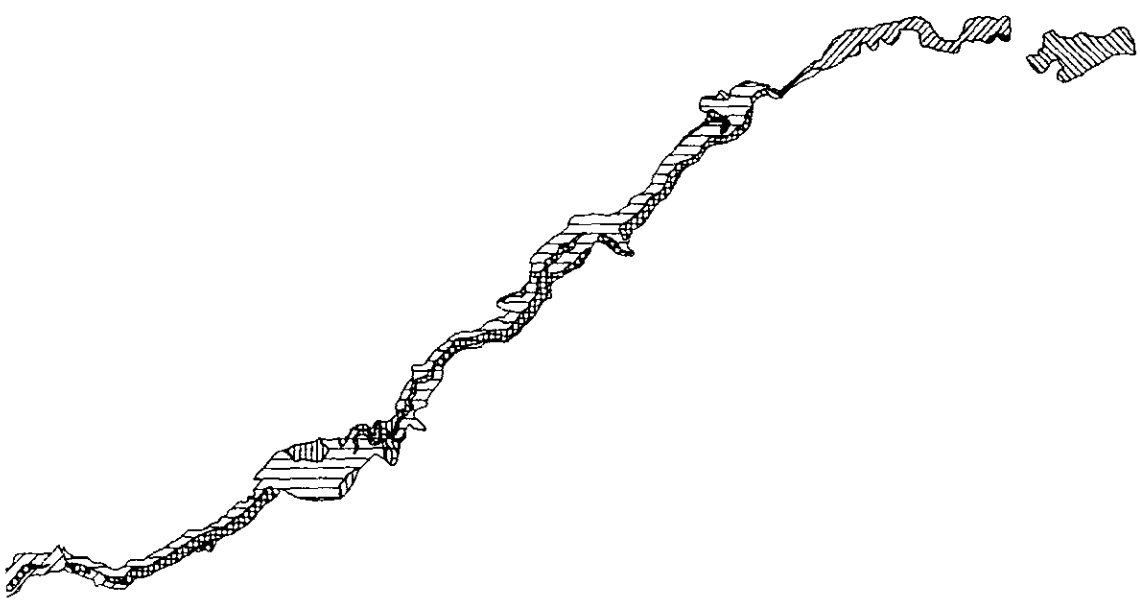


Table 2.1. Range of desired residue profiles by landscape unit and major plant association series on federal lands.

Landscape Unit	Plant Series	Tons per Acre[1] 0-3"	3-12"	12-20"	20"+	Fuel Bed Depth[2]	Duff Depth
Rocks 'N' Ice, Talus, Subapline, Open Riparian, Canyon Riparian, Lodgepole Flats, Wetlands	Mountain hemlock, Pacific silver fir	Natural forces decide					
Cool, Wet Mixed Conifer	Western hemlock	3.5-5.5	4.0-6.0	6.5-9.5	6.5-9.5	0.25 ft	1.2-2.0 in
Mesic Mixed Conifer	Grand fir	3.5-5.5	4.0-6.0	6.5-9.5	6.5-9.5	0.25 ft	1.2-2.0 in
Dry Mixed Conifer	Grand fir	3.5-5.5	4.0-6.0	6.5-9.5	6.5-9.5	0.25 ft	1.2-2.0 in
	Douglas-fir	3.5-5.5	4.0-6.0	7.0-10.0	5.5-7.5	0.25 ft	0.8-1.8 in
	Pine-oak	3.5-5.5	2.5-3.5	3.0-4.0	4.0-6.0	0.25 ft	0.4-0.9 in

[1] Tons per acre by diameter classes of downed woody material

[2] Average height of most downed woody material.

Table 2.2. Range of acceptable exposed mineral soil levels by landscape unit and plant association series on federal lands (applies only to vegetation manipulation projects).

Landscape Unit	Plant Series	Bare Ground by Successional Stage: Stem Initiation[1]	Stem Exclusion[2]	Stem Reinitiation[3]	Old Growth
Rocks 'N' Ice, Talus, Subalpine, Open Riparian, Canyon Riparian, Lodgepole Flats, Wetlands	Mountain hemlock, Pacific silver fir	Natural forces decide			
Cool, Wet Mixed Conifer	Western hemlock	≤3%[4]	3-2%	2-1%	<1%
Mesic Mixed Conifer	Grand fir	≤5%	5-3%	3-2%	<2%
Dry Mixed Conifer	Grand fir	≤5%	5-3%	3-2%	<2%
	Douglas-fir	17-16%	16-10%	10-5%	<5%
	Pine-Oak	15-9%	9-6%	6-3%	<3%

[1] New openings, seedlings, saplings

[2] Closed canopy with natural thinning beginning

[3] Canopy gaps and second tree layer starting

[4] Percent of the landscape unit within the corridor

Table 2.3. Range of desired percentages of each landscape unit in each stand structure category.

Stand Structure	Description	Landscape Units[1]: Cool, Wet Mixed Conifer	Mesic Mixed Conifer	Dry Mixed Conifer
Stem Initiation	New openings, seedlings, and saplings	≤10%	≤10%	≤5%
Stem Exclusion[2]	Closed canopy with natural thinning	10-30%	10-30%	5-20%
Stand Reinitiation	Gaps appearing in canopy and new conifer regeneration starting	15-30%	15-30%	15-30%
Old Growth	See R6 description	30-50%	30-50%	45-70%

[1] Percentages represent percent of landscape unit within the corridor in each stand structure

[2] Includes both single-story (poles) and two-story (mature) stands.

Table 2.5 lists the desired VQOs for the river corridor and the designated viewshed. Ski facilities at Timberline Lodge and Mt. Hood Meadows do not block scenic views. These facilities do not compete with any scenic views and meet a VQO of Partial Retention. Visitors can take photos or videotapes of the characteristic landscape, know scenic views exist, and want to linger at viewpoints. Sno-park amenities meet Partial Retention from within the sno-parks.

Visitors see Mt. Hood from several viewpoints along the Barlow Road. The plant communities and general landscape along the Barlow Road resembles that seen by the original pioneers and meets Retention in the foreground. Campgrounds and dispersed camp sites provide an aesthetic setting. Deciduous trees and shrubs as well as western larch grow along Forest Road 48. Turnouts and viewpoints meet VQO's and provide interesting views of Mt. Hood and White River. Forest road 48 provides safe access on a smooth surface; its traffic control structures meet Partial Retention and blend with the landscape. Travelers along Road 48 do not see any geometrically shaped harvest areas.

In middlegrounds, visitors see some evidence of vegetative management activities, such as harvest units or prescribed burns, but these activities do not dominate the scene. Openings mimic naturally occurring landscape events for the particular landscape unit but meet Partial Retention at least from all viewpoints. Western larch and other fall color trees appear throughout the segments. Backgrounds receive similar management as Middlegrounds except management activities in Backgrounds affect larger areas and still meet VQO's. Visual Quality Objective allocation is appropriate to the quality of scenic views each location provides. Viewpoints have good access and viewing opportunities.

Visitors to older stands in the Cool, Wet Mixed Conifer landscape unit travel through a cool, dark forest dominated by large trees of several species. In the Mesic Mixed Conifer landscape unit, visitors travel through a more open and light forest than in the Cool, Wet Mixed Conifer unit. Large ponderosa pine, Douglas-fir, western white pine, and other earlier successional species dominate the older stands.

Table 2.6 lists the desired ROS class for each river segment and each management alternative. Recreational settings, experiences, access, use levels, and development levels are consistent with these ROS classes. Most facilities should be rustic with native materials on the exteriors. Visitors experience moderate evidence of human development, but the natural characteristics of the landscape dominate. User groups rarely conflict with each other. Motorized vehicles travel only on designated routes. Historic reenactments related to the Barlow Road protect trails and river crossings from damage and excessive wear. Visitors have limited access to the river for floating and kayaking. Recreational activities do not damage sensitive plants and animals or disrupt their life cycles.

Low key on-site visitor management controls and regulations help protect the campgrounds, day use areas, sensitive areas, and Outstandingly Remarkable Value features from excessive use and wear and help minimize visitor conflicts. Visitors may find simple information facilities and will contact Forest Service personnel in the campgrounds. Campsites and heavily used dispersed sites may have hardened paths, barriers, parking spots, and tent sites. Generally, dispersed sites should contain trees, shrubs, and forbs with little or no evidence of human use.

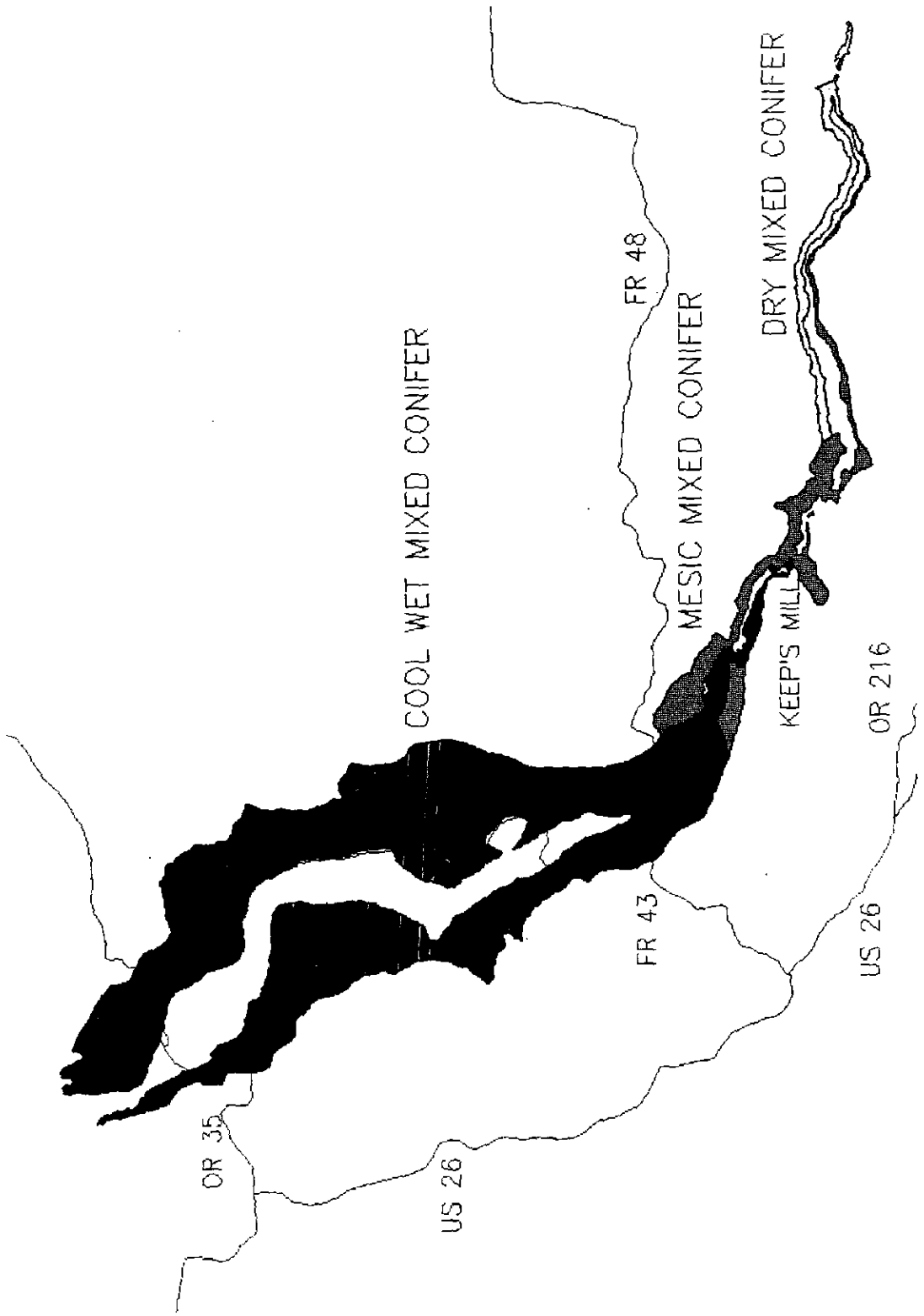


Figure 2.2. Landscape units with listed range of desired percentages of each stand structure.

Table 2.4. Target tree sizes for old growth stands by forest zone.

Forest Zone	Key Species	Target DBH (inches)
Mountain hemlock	mountain hemlock	24
	Douglas-fir	36
	noble fir	40
	Pacific silver fir	26
	western hemlock	36
	western white pine	18
	western larch	24
	lodgepole pine	15
Pacific silver fir	Pacific silver fir	32
	Douglas-fir	36
	western hemlock	36
	mountain hemlock	24
	western white pine	20
	western redcedar	36
	noble fir	46
Western hemlock	western hemlock	48
	Douglas-fir	48
	western redcedar	48
	noble fir	48
	grand fir	36
Grand fir	Grand fir	32
	Douglas-fir	32
	ponderosa pine	36
	Pacific silver fir	22
	mountain hemlock	22
Douglas-fir	Douglas-fir	32
	ponderosa pine	36
	Oregon white oak	19
Ponderosa pine	ponderosa pine	32
	Oregon white oak	27

Table 2.5. Desired VQOs.

Segment	Viewer Position	Visual Quality Objective		
		Foreground	Middleground	Background
A and B	Timberline Lodge and Lower Parking Area	Partial Retention	Partial Retention	Partial Retention
	Mt. Hood Meadows - undeveloped areas	Retention	Partial Retention	Partial Retention
	Highway 35/White River Sno-parks	Partial Retention	Partial Retention	Partial Retention
	Barlow Road, White River	Retention	Partial Retention	Partial Retention
	Top of Bonney Butte	Retention	Partial Retention	Partial Retention
	Top of Frog Lake Butte	Retention	Partial Retention	Partial Retention
	Developments, such as recreational facilities and parking areas	Partial Retention	N/A	N/A
C and D	Keeps Mill Campground	Retention	Retention	Retention
	Keeps Mill Overlook	Retention	Retention	Retention
	Miscellaneous Overlooks off roads 2110-270 and 4885	Retention	Retention	Retention
	Developments, such as recreational facilities and parking areas	Partial Retention	N/A	N/A
	White River, Graveyard Butte Crossing, and miscellaneous viewpoints yet to be determined	Retention	Retention	Retention
E and F	White River and miscellaneous viewpoints yet to be determined	Retention	Partial Retention	Partial Retention

Table 2.6. Desired Recreational Opportunity Spectrum Class for each river segment.

River Segments and Designation	ROS Class
Segment A: Recreation[1]	Roaded Natural
Segment B: Recreation	Semi-primitive Motorized
Segment C: Scenic	Semi-primitive Nonmotorized; Keeps Mill - Semi-primitive Motorized
Segment D: Scenic	Semi-primitive Nonmotorized; Graveyard Butte- Semi-primitive Motorized
Segment E: Recreation[2]	Semi-primitive Motorized
Segment F: Recreation	Semi-primitive Nonmotorized

[1] Based on number of expected encounters due to Mt. Hood Meadows Ski Area expansion

[2] Based on desired setting only

Segments C and D

The county gravel pit at Graveyard Butte blends with the characteristic landscape and native vegetation covers the former pit. Mining and mineral leases cause no negative impacts to outstandingly remarkable values. Vegetation management mimics the natural processes that shape the plant communities. The segments provide high quality wildlife habitat, scenic quality, views to Mt. Hood and White River, tree species compositions at more naturally occurring levels, and successional stages in proportion to that expected under natural conditions. Federal lands provide various special forest products, such as firewood and mushrooms, as long as these activities are compatible with managing the outstandingly remarkable values and do not promote trespass on private lands.

In the Canyon Riparian and Talus landscape units on public lands natural processes shape the vegetative mosaic on the landscape and successional pathways. Where some or all these natural processes cannot occur due to other constraints, vegetation management may occur to mimic those processes or their effects.

The other landscape units on public lands in Segments C and D (Cool, Wet Mixed Conifer, Mesic Mixed Conifer, and Dry Mixed Conifer) contain a mix of stand structures (Table 2.3 and Figure 2.2). On federal lands, primary cavity nesters find enough snags, downed logs, and wildlife trees to meet 100% of their needs in individual harvest units and 80% of their needs over the landscape unit as a whole.

Large, continuous blocks of old growth and large, undisturbed travel corridors provide habitat and security for a variety of wildlife species. These features cross the river and run along the corridor. Healthy, viable populations of various threatened, endangered, and sensitive species occur within the area. Forested lands provide all successional stages, including thermal and optimal thermal cover for deer and elk.

In Segment C, motorized vehicle use causes minimal disturbance to wildlife. Segment C provides high quality habitat for several nesting pairs of northern spotted owls in those plant communities that can provide such habitat over the long term. Drier plant communities that can do so provide suitable northern spotted owl habitat over the short term until higher quality habitat develops elsewhere. Approved plans guide management actions in the pileated woodpecker and pine marten management areas within the corridor. Both segments provide habitat for turkeys, gray squirrels, and other small game animals, and winter range for deer and elk.

Livestock grazing and recreational livestock use continues in Segment C and on public lands in Segment D where it is compatible with management of Outstandingly Remarkable Value features and where it does not interfere with public use of the river corridor. Range conditions rate good to excellent. Landowners may use prescribed fires to meet their objectives. All unplanned ignitions in Segment D are designated as wildfires and suppressed using appropriate strategies and tactics. The north aspects of federal land in Segment D have a low risk of large, destructive wildfire.

Private irrigation systems maintain proper drainage to manage high flows during snowmelt without causing excessive erosion or other water damage to Outstandingly Remarkable Value features. Private irrigation ditches may develop small hydroelectric projects on private lands, but these projects minimize affects on scenic quality. The Forest Service allows access for maintenance of the irrigation ditches under special use permit and permanent easement.

In Segment C, Keeps Mill and the road to Keeps Mill provide river access and views of south aspects in the canyon. Large diameter ponderosa pine stands dominate those views. Keeps Mill Campground provides an aesthetic setting while protecting the riverbank and other Outstandingly Remarkable Value features . Rustic signs interpret the site's historic aspects. Keeps Overlook and forest roads 2110-270 and 4885-160 provide secluded and little-used viewpoints into the canyon and serve as informal picnic or photo spots. Visitors perceive the canyon as pristine and remote. All views in the Foreground, Middleground, and Background of both Segment C and D meet Retention (Table 2.5).

In Segment D, viewpoints at Graveyard Butte Crossing and the Juniper Flat Road provide panoramic vistas where White River contrasts with the desert steppe landscape. Any visitor use facilities near Graveyard Butte; such as parking, photo point turnouts, and dispersed campsites; provide an aesthetic setting and protect the river, Outstandingly Remarkable Value features, and private lands from damage and excessive wear. Any visitor use facilities help protect private lands from trespass and meet Partial Retention in the Foreground.

Visitors to older stands in the Cool, Wet Mixed Conifer landscape unit (Segment C) travel through a cool, dark forest dominated by several species. In the Mesic Mixed Conifer landscape unit on public lands, visitors travel through a more open and light forest than in the Cool, Wet Mixed Conifer unit. Large ponderosa pine, Douglas-fir, western white pine, and other earlier successional species dominate the older stands. Visitors to the Dry Mixed Conifer unit on federal lands travel through open, park-like stands with some combination of ponderosa pine, Douglas-fir, and Oregon white oak. Grasses and shrubs dominate the understories in the pine-Douglas-fir stands and the pine-Douglas-fir-oak stands. The latter plant community supports fewer shrubs than the former. Grasses dominate understories in the pine-oak stands.

Recreational settings, experiences, access, use levels, and development are consistent with the desired ROS class in both segments (Table 2.6). In Segment D, recreational activities do not interfere with landowner uses and do not cause property damage or result in trespass. Visitors must obtain permission from the landowner to enter or cross closed private lands. Camping and campfires occur only in designated areas.

Segments E and F

Management activities under the White River Plan end where White River corridor meets the Lower Deschutes corridor. White River Falls is included within the wild and scenic river corridor and part of Segment F. Segment F is designated as a Scenic River segment. All landowners practice sustainable forestry and provide wood products, healthy forests, wildlife habitat, and scenic quality. Public agencies and private landowners work together to provide and manage habitat and forage for watchable wildlife, such as deer, ducks, and raptors. Healthy, viable populations of various threatened, endangered, and sensitive species occur within the corridor. Segment F provides high quality wildlife habitat for a variety of species.

Aesthetic visitor facilities compliment the site and scene, protect visitor safety, and interpret the old hydroelectric facilities. Highway 197 and State Highway 216 provide views into the canyon at either end of Segment E. Commercial and residential developments in the foreground areas of Segment E do not compete with the view of the river beyond. Devil's Half Acre provides a sweeping vista. Table 2.5 lists the desired visual management objectives.

Recreational settings, experiences, access, and use levels are consistent with the desired ROS class in both segments (Table 2.6). Recreational activities do not interfere with landowner uses nor result in property damage or trespass. Boaters find legal places to take out of the river. Developed campgrounds and other recreational facilities encourage visitor use. Visitors must obtain permission from the landowner to enter or cross closed private land. Camping and campfires occur only in designated areas.

Tygh Valley remains an agrarian community complimented by a free flowing, natural-appearing river. Human development is prevalent and impoundments, diversions, or channel modification may be evident. Visitors have legal nonmotorized access to the river at designated points. They commonly find moderate evidence of others and may encounter large numbers of users on-site and in nearby areas. Sites contain enough controls and visitor regimentation to prevent most visitor/visitor and visitor/landowner conflicts and to help protect Outstandingly Remarkable Value features. Sophisticated information exhibits may occur.

Recreational experiences, access, use levels, and development are consistent with a ROS of Semi-Primitive Nonmotorized in Segment F (see description under Segments A and B). Nonmotorized trails and watercraft supply public access to the river. The river mouth and the state park provide access points on the north side. Visitors must obtain permission from private landowners to cross closed private lands. Camping and campfires happen only in designated areas. Public agencies encourage private land uses and activities that protect, enhance, or maintain the outstandingly remarkable values.

General Resource Management Goals for White River

The following management goals are intended to guide and help focus the management plan to ensure that any recommended actions of set of actions result in the intended outcome.

- ☐ Protect the river's free-flowing character and protect and enhance its outstandingly remarkable values.
- ☐ Provide opportunities for a wide range of recreation opportunities along the river corridor managed to prevent degradation of the outstandingly remarkable values.
- ☐ Protect and enhance the quality and quantity of river water. Maintain acceptable levels of water temperature, suspended sediment, and chemicals.
- ☐ Identify, provide, and protect instream flows which are necessary to maintain and/or enhance the outstandingly remarkable values of White River.
- ☐ Protect and enhance habitat for fish and wildlife species.
- ☐ Protect threatened, endangered, and sensitive species of plants, fish, and wildlife found in the corridor.
- ☐ Protect culturally significant features and resources.
- ☐ Maintain and/or enhance the integrated ecological functions of rivers, streams, floodplains, wetlands, and associated riparian areas.
- ☐ Protect, and where necessary, seek to restore the natural ecological and hydrologic functioning along the river.
- ☐ Provide for plant and plant community diversity and maintain and/or enhance healthy functioning ecosystems to sustain long-term productivity.
- ☐ Help reduce conflicts between recreation users and private property owners and reduce trespass on private property.
- ☐ Strive for a balance of resource use and permit other activities to the extent that they protect and enhance the quality of the river's outstandingly remarkable values.
- ☐ Develop a partnership among landowners; county, State, and tribal governments; and federal agencies in deciding the future of White River and share in management responsibilities for the river.
- ☐ Strive to develop effective, compatible, and consistent land use management through coordination with local land use planning authorities.
- ☐ Emphasize user education and information. Establish as few regulations as possible and ensure that any regulations established are enforceable and enforced.
- ☐ Foster cooperative interpretation and environmental education efforts.
- ☐ Consider the needs of local communities regarding economic development. Recognize that the public with its varied needs as partners and participants in managing the river corridor through awareness, interaction, and communication.
- ☐ Require all developments to harmonize with the natural environment.
- ☐ Have a management plan that is reasonable, cost-effective, and viable and that achieves protection of the river's outstandingly remarkable values.

Chapter 3
Management Direction

CHAPTER 3: MANAGEMENT DIRECTION FOR THE WHITE RIVER CORRIDOR

This chapter contains the specific management direction for the National Forest and BLM lands within the White River corridor. This direction describes the bounds and/or constraints on all activities on federal lands necessary to implement the River Management Plan. This direction replaces the B1 Wild and Scenic River Standards and Guidelines in the Mt. Hood National Forest Land and Resource Management Plan (Forest Plan). It also lays out the relationship to the Forestwide Standards and Guidelines. This direction adds to that found in the Two Rivers RMP. Standards and guidelines for the Forest Service are listed first, followed by those for the BLM.

Mt. Hood National Forest

Goal

The ultimate goal of the following Standards and Guidelines is to protect and enhance the resource values for which the White River was designated into the Wild and Scenic River system.

Location

This Management Area applies to the designated corridor for that portion of the White River within the Mt. Hood National Forest boundary (Public Law 90-542, Wild and Scenic Rivers Act 1968).
The A1 Wild, Scenic, and Recreational Rivers Management Area for the White River is the area contained within the final river corridor on the Forest (Figure 1.1). The Forest Plan also identifies other Management Areas that are within this river corridor. The other Management Areas with prescriptions more restrictive to vegetation and access management (such as A4 Special Interest Area, A7 Special Old Growth, and A9 Key Site Riparian) are included within the wild and scenic river corridor as mapped on the Alternative Q map of the Forest Plan. Prescriptions for A4, A7, A9, and A11 Winter Recreation Area apply as shown on the Alternative Q map along with the A1 prescription.

Where the final river corridor boundary has expanded into the B2 Scenic Viewshed, B10 Deer and Elk Winter Range, and C1 Timber Emphasis Management Areas, the A1 Management Area direction applies. In areas where the A1 Management Area narrows from the interim corridor, the adjoining B2, B10, or C1 Management Direction would apply. The proposed final corridor boundary and Designated Viewshed boundary increases the B2 allocation by approximately 3489 acres, and reduces the B10 allocation by 74 acres and the C1 allocation by 6102 acres. For scenic resource management, standards and guidelines apply to the designated viewshed. In addition, all applicable Forestwide Standards and Guidelines apply within the river corridor. If inconsistencies occur between prescriptions, the Standards and Guidelines most restrictive to vegetation and access management predominate.

Another Management Area representing Management Requirements, the B7 General Riparian Area (unmapped), is an inclusion within and overlaps some of the A1 Management Area boundaries. The B7 Management Area prescriptions, as well as the A1 prescription, applies to this corresponding inclusion.

A1 Wild, Scenic and Recreational Rivers - White River

The following Standards and Guidelines apply to National Forest lands within the Wild and Scenic River corridor for the White River. The intent of the following Standards and Guidelines is to protect and enhance the outstandingly remarkable values for the White River and to protect its free-flowing characteristics.

The following are taken from the B1 Wild, Scenic and Recreational Rivers Standards and Guidelines in the Mt. Hood Forest Plan (1990) but have been modified to apply to the specific characteristics of the White River and to clarify direction that may be confusing. All the Standards and Guidelines relating to

wild segments have been deleted *since there are* no wild segments on the White River. The text of Standards and Guidelines that are new *or modify* the intent of the original Standards and Guidelines are displayed in italics.

A. General

1. *All management activities in the river corridors shall protect and/or enhance the identified outstandingly remarkable values of geology, hydrology, plant species and community diversity, fish habitat and populations, wildlife habitat and populations, historic resources, recreation, and scenic resources (FSH 1909.12, Chapter 8, 7/87). The outstandingly remarkable values shall be identified via environmental analysis for river-specific implementation management plans. River-specific plans shall be consistent with Management Area management direction.* **A1-WR-001 A1-WR-002 A1-WR-003**

2. The free-flowing characteristics of the river shall be protected (PL 90-542, Wild and Scenic Rivers Act, 1968). **A1-WR-004**

3. River characteristics necessary to support the existing classification of Scenic or Recreational shall be protected during all management activities (47 CFR 173 9/82). **A1-WR-005**

4. *The managing units shall coordinate management activities within the White River corridor with management activities within the Salmon River wild and scenic river corridor.* **A1-WR-006**

5. Management activities shall be consistent with prescribed Recreational Opportunity Spectrum (ROS) classes (FSM 2311.1):

   a. *Segment A shall provide a roaded natural ROS setting.* **A1-WR-007**

   b. *Segment B shall provide a semi-primitive motorized ROS setting.* **A1-WR-008**

   c. *Segment C shall provide a Semi-primitive non-motorized ROS setting, except the road to Keeps Mill shall provide a semi-primitive motorized ROS setting.* **A1-WR-009**

B. Specific Resource Values

1. Dispersed Recreation Facility and Site Construction, Administration and Management

   a. Dispersed recreation improvements (e.g. trails) shall be provided to: **A1-WR-010**

      1.) *Maintain current use levels while redesigning facilities to protect the river's outstandingly remarkable values.*

      2.) Minimize site degradation in scenic segments.

      3.) Provide for the comfort and convenience of users in recreation segments.

      4.) Provide for a minimum of convenience in scenic segments.

   b. *River recreation use levels shall be managed to maintain the prescribed ROS classes and shall incorporate both the physical and ecological capability for each segment.* **A1-WR-011**

   c. *Recreational livestock use should be allowed in Segment B and may be allowed in Segment C, provided river banks,* **A1-WR-012**

riparian vegetation, and scenic quality are protected from adverse impacts.

d. *Recreational livestock may be tied, grazed or held overnight or for extended periods of time within the near-foreground areas (i.e. 100 feet) of campsites, trails, riparian zones, and key interest areas.* **A1-WR-013**

1.) Utilization of current year's vegetation growth should not exceed 30 percent (see Forestwide Range Management Standards and Guidelines). **A1-WR-014**

2.) No more than 5 percent of an activity area should be in a detrimental soil condition from the combined impact of compaction, puddling and displacement (see Forestwide Soil Productivity Standards and Guidelines). **A1-WR-015**

3.) Exposed mineral soil around campsites, trails and key interest areas should not exceed 25 percent of the activity area. **A1-WR-016**

e. *Nordic skiing in Segment A should be limited to ungroomed, undeveloped trails.* **A1-WR-017**

f. *Out-of-bounds Alpine skiing into the White River Corridor outside the permit boundaries of commercial ski areas shall be discouraged.* **A1-WR-018**

g. *Motorized recreational vehicle use shall not occur north of Highway 35 and its parking areas.* **A1-WR-019**

h. *Limited trail construction may occur in Segment A to provide viewing and interpretive opportunities as long as construction and use minimizes disturbance to the outstandingly remarkable values.* **A1-WR-020**

i. *Trails in Segment B should present varying levels of challenge while protecting other resource values. Accessible trails that challenge physically disabled users should be provided.* **A1-WR-021 A1-WR-022**

j. *No new trails shall be developed in Segment C other than a trail from White River Crossing to Keeps Mill, if such a trail is feasible.* **A1-WR-023**

k. *No newly constructed river or stream crossings shall be provided in currently inaccessible areas. New trail bridges recommended in conjunction with the Forest Travel and Access Management Plan and the White River LAC study may be constructed in areas already impacted by crossings. Fords constructed of non-cemented materials may be provided across White River.* **A1-WR-024**

2. Developed Recreational Facility and Site Construction, Administration and Management

a. Developed recreation improvements shall be provided to: **A1-WR-025**

1.) *Maintain current use levels while redesigning facilities to protect the river's outstandingly remarkable values.*

2.) *Maintain safe winter sports activities with minimal user conflicts.*

3.) Minimize site degradation in scenic segments.

4.) Provide for the comfort and convenience of users in recreational segments.

5.) Provide for a minimum of convenience in scenic segments.

b. *New campgrounds shall not be constructed in any river segment. Existing campsites within a campground may be moved to more appropriate locations within the same general area.* **A1-WR-026** **A1-WR-027**

c. Developed sites of more than 20 units should be discouraged in Scenic river corridors. **A1-WR-028**

d. *Barrier free units should be provided at one half of the developed recreation sites in Segment B.* **A1-WR-029**

e. *Each campground in Segment B should contain at least one small group camp site.* **A1-WR-030**

f. *Recreational livestock facilities may be provided only at White River Station and Barlow Creek campgrounds.* **A1-WR-031**

g. *No watercraft facilities shall be provided.* **A1-WR-032**

h. *White River pit should be rehabilitated as a safe area where snow play may occur.* **A1-WR-033**

i. *All developed recreational facilities; such as campgrounds, day use areas, trailheads, parking, etc.; shall be properly located in relation to the outstandingly remarkable values for the river and in relation to threatened, endangered, and sensitive plant and animal species populations and habitat, and in relation to cultural resource sites.* **A1-WR-034**

j. *Any commercial ski area expansions within the A1 corridor shall not involve water resource projects and shall be consistent with protecting the values for which the river was designated.* **A1-WR-035**

k. *Commercial recreation use may occur and use levels shall be monitored relative to total use, carrying capacity, and the limits of acceptable change.* **A1-WR-036**

3. Visual Resource Management **A1-WR-037**

a. *All management activities shall achieve the following visual quality objectives (VQOs):*

1.) *In Segments A and B, views from Timberline Lodge and Lower Parking Lot, Mt. Hood Meadows, Highway 35/White River Sno-parks, Barlow Road, White River, the top of Bonney Butte, and the top of Frog Lake Butte shall meet the VQO of Retention in the Foreground and Partial Retention in the Middleground and Background.* **A1-WR-038**

2.) *In Segment C, views from Keeps Mill Campground, Keeps Mill Overlook, miscellaneous overlooks off roads 2110-270 and 4885, and the White River shall meet the VQO of Retention in all distance zones.* **A1-WR-039**

3.) *Development, such as recreational facilities and parking areas, shall achieve a VQO of Partial Retention in the Foreground as viewed from within the developed area. Facilities shall be designed in accordance to the Recreational Opportunity Spectrum (ROS) class specified for each river segment (see Dispersed and Developed Recreation Standards and Guidelines above).* **A1-WR-040**

b. *All trails within the White River corridor shall be designated Sensitivity Level I. See Forestwide Visual Resource Management Standards and Guidelines for VQOs prescribed for trails.* **A1-WR-041**

c. *Vegetation manipulation to open views to Mt. Hood at selected viewpoints along Barlow Road in Segment B may occur.* **A1-WR-042**

d. *Scenic waysides with safe parking facilities may be constructed to provide views to Mt. Hood and White River along Road 48 in Segment B.* **A1-WR-043**

e. *Existing scenic overlooks and viewpoints in Segment C should remain primitive and provide adequate parking where use requires it. Walk-in scenic overlooks within the corridor may be constructed and link with trails outside the corridor in Segment C; they shall meet the ROS class of Semi-primitive Nonmotorized.* **A1-WR-044** **A1-WR-045**

f. *Management actions necessary to rehabilitate existing clearcuts, roads, parking areas, or other facilities to meet the established VQOs shall be considered during watershed and/or project planning.* **A1-WR-046**

4. Cultural Resources Management

   See Forestwide Cultural Resources Standards and Guidelines.

5. Wildlife and Fisheries

   a. Habitat improvement practices should be limited to those which are necessary for the protection, conservation, rehabilitation, or enhancement of river area resources. **A1-WR-047**

   b. *Habitat improvement projects shall not introduce non-native plant species that could significantly change the natural ecosystem.* **A1-WR-048**

   c. Habitat improvement structures should mimic regular occurring natural events (as opposed to catastrophic); e.g. trees falling in and across the river, boulders falling in or moving down the river course, minor bank sloughing, erosion or undercutting, island building and opening or closing of existing secondary channels. **A1-WR-049**

d. Habitat improvement structures shall not create unusually hazardous conditions or substantially interfere with existing, or reasonably anticipated, recreational use of the river such as fishing, canoeing, rafting, tubing, or swimming. **A1-WR-050**

e. *Habitat improvement structures should emphasize providing for the habitat needs of native fish and wildlife species. Habitat for desirable non-native species; such as wild turkey, chukar, and Hungarian partridge, may be provided.* **A1-WR-051**

f. *Streams in Segment B should provide high quality amphibian and aquatic insect habitat.* **A1-WR-052**

6. Range Management

a. Existing commercial livestock grazing may be permitted provided river banks and riparian vegetation are protected from adverse impacts (see Forestwide Range Standards and Guidelines regarding forage utilization). **A1-WR-053**

b. Permits may be re-issued on vacant allotments if river related resources are not compromised. Allotment Management Plans shall be consistent with Management Area management direction. **A1-WR-054**

c. Range improvements may occur in any river classification to protect or enhance river-related values. **A1-WR-055**

d. Corrals and loading chutes should not be permitted. **A1-WR-056**

e. *Commercial livestock grazing shall not occur within campgrounds and day use areas in the A1 corridor.* **A1-WR-057**

7. Vegetation Management

a. *Regulated timber harvest shall be prohibited. Unregulated timber harvest and salvage activities may occur for insect and disease control, fire, public safety, to enhance or protect the outstandingly remarkable values, achieve the desired future conditions, or under specified conditions on valid mining claims. All river banks shall be protected during logging activities.* **A1-WR-058 A1-WR-059 A1-WR-060**

b. *Vegetation management may occur only when damage or degradation to one or more outstandingly remarkable value is strongly suspected to occur within the next 5 years.* **A1-WR-061**

c. *Old growth stands should be classified according to the R6 Interim Old Growth definitions for the applicable vegetation types. These definitions may be modified to reflect site-specific conditions.* **A1-WR-062 A1-WR-063**

d. *Chemicals shall not be used to control noxious weeds in riparian areas.* **A1-WR-064**

8. Soil, Water and Air Quality

a. Water quality shall be maintained or enhanced (see Forestwide Water Standards and Guidelines). **A1-WR-065**

b. Watershed management and improvement projects may be permitted. **A1-WR-066**

c. All scenic and recreational river segments shall be managed to remain in a free-flowing and unpolluted state. **A1-WR-067**

d. *Techniques or procedures should be used to provide for the optimal flow regime needed to maintain or enhance the outstandingly remarkable values, with an emphasis on native fish and the minimum flow needed for channel maintenance.* **A1-WR-068**

9. Minerals and Energy Management

a. Locatable minerals shall be recommended for withdrawal from development under the mining law (1872 Mining Law) with the A1 corridor for scenic and recreational segments. Provision shall be made for valid existing mining rights. **A1-WR-069**

b. All new dams, major water diversions, and hydroelectric power facilities shall be prohibited. **A1-WR-070**

c. Leasable mineral (e.g. geothermal) permits shall include a "No Surface Occupancy" stipulation for that portion of the permit potentially affecting river resource values. **A1-WR-071**

d. Common variety mineral (e.g. sand and gravel) development shall not be permitted within any river segments. **A1-WR-072**

e. *The existing permit upstream from Highway 35 with Oregon Department of Transportation (ODOT) shall be limited to the approximate cubic yard amount scheduled for Stage II in the current restoration plan or to such an amount which would allow for optimal restoration of the area under a new restoration plan to be completed before the above mentioned mining operation commences. The restoration plan shall not exceed Stage II limits unless compelling reasons related to restoration indicates a need to reasonably exceed the Stage II quantities. The restoration plan shall emphasize protection and enhancement of the outstandingly remarkable values and public safety.* **A1-WR-073 A1-WR-074 A1-WR-075**

f. Plans of Operation for mineral exploration and development shall include reasonable, operationally feasible requirements to minimize conflicts with recreational activities and to protect the character of the landscape within the river corridor. **A1-WR-076**

1.) Surface occupancy, if allowed, shall be designed to have the least possible effect on river related values. **A1-WR-077**

2.) Site disturbance from mineral activities shall be rehabilitated within 3 years following project completion. **A1-WR-078**

3.) During project operation, disturbed soils shall be stabilized prior to the autumn high rainfall season. **A1-WR-079**

g. All mineral exploration and development shall be done in a manner to protect river resource values. **A1-WR-080**

10. Geology

See Forestwide Geology Standards and Guidelines

11. Lands and Special Uses

a. National Forest System lands within river corridors shall be retained. See Forestwide Lands Program Standards and Guidelines. **A1-WR-081**

b. Existing special uses, including recreation and non-recreation uses, may be allowed to continue where consistent with Management Area management direction. Special uses that do not meet Management Area management direction shall be terminated or phased out. **A1-WR-082** **A1-WR-083**

c. New special use permits may be issued within all segments when consistent with Management Area management direction. **A1-WR-084**

d. Construction of new utility and/or transmission lines (e.g. gas lines, geothermal and water pipelines, and electrical transmission lines) should not be allowed within any river segment. *Existing lines may be upgraded provided the upgrade protects the outstandingly remarkable values.* **A1-WR-085** **A1-WR-086**

e. Applications for licenses from the Federal Energy Regulatory Commission (FERC) to construct any impoundment, water conduit, reservoir, powerhouse, transmission line, or other associated hydroelectric facility within any designated river segment shall be recommended for denial. **A1-WR-087**

f. All non-hydroelectric dams not presently authorized by the Forest Service shall be prohibited. **A1-WR-088**

12. Transportation Systems/Facilities; Travel and Access Management

a. Within scenic segments, new roads and associated facilities and structures are discouraged, but maybe constructed when no other reasonable alternative for necessary access exists. **A1-WR-089**

b. *No additional road construction shall be permitted within Segment A except those needed in the Mt. Hood Meadows permit boundary which do not adversely affect the outstandingly remarkable values of scenic resources, wildlife habitat and populations, and hydrology.* **A1-WR-090**

c. *New roads may be constructed within Segment B.* **A1-WR-091**

d. *Roads shall be decommissioned which are not needed for log haul, administrative use, or recreation access. Decommissioned roads may be used as trails.* **A1-WR-092** **A1-WR-093**

e. *If the Highway 35 bridge across White River should be severely damaged or destroyed through a natural event, the bridge should be reconstructed in a manner that allows for the relatively unimpeded flow of debris torrents and glacial outwash floods that normally influence the river channel and the river's hydrologic regime.* **A1-WR-094**

f. *Open road density in the A1 corridor should not exceed 1.5 miles per square mile.* **A1-WR-095**

g. Within scenic and recreational river corridors, motorized recreational use shall be limited. **A1-WR-096**

1.) Motorized vehicles shall be permitted only on open roads. **A1-WR-097**

2.) *Off-road driving shall be prohibited with the exception of over-snow vehicles and wildfire emergencies unless and until the Forest Travel and Access Management Plan, White River Watershed Analysis, and the LAC study indicate that a designated trail and crossing are feasible.* **A1-WR-098**

3.) *Wheeled ATVs and street legal vehicles shall be prohibited on Road 48 north of its junction with Road 43 between Nov. 15 and April 1.* **A1-WR-099**

4.) Motorized water craft shall be prohibited within scenic segments, but may occur within recreational segments. **A1-WR-100**

h. *The road to Keeps Mill shall be maintained at a standard that allows only high clearance vehicles.* **A1-WR-101**

i. Areas, roads and segments of rivers closed to vehicle use shall be posted. Administrative use of motorized vehicles shall be allowed in all river segments. **A1-WR-102** **A1-WR-103**

j. *Recreational livestock and mountain bicycle use shall be restricted to trails designated for those purposes.* **A1-WR-104**

k. *Road 48 between White River East Sno-park and the junction with Road 4890 shall be closed to snowmobiling. Roads 43 and 4890 should remain open to snowmobiling. No further expansion of snowmobile routes shall be allowed in the A1 corridor.* **A1-WR-105** **A1-WR-106** **A1-WR-107**

l. Pedestrian and equestrian use should be encouraged. **A1-WR-108**

13. Fire Prevention and Suppression

a. Off-road vehicle travel within the designated river corridors shall not be permitted except for emergency fire suppression purposes. **A1-WR-109**

b. Use of tractors to construct firelines may be permitted only in emergency fire suppression situations. Fireline locations shall consider protection of river related resource values. **A1-WR-110** **A1-WR-111**

c. Fire retardant "drops" should be directed to minimize entry of chemicals into water courses and to protect river values. *Only uncolored or fugitive chemical suppressants and other water additives shall be allowed.* **A1-WR-112** **A1-WR-113**

d. *Campfires shall be prohibited in the A1 corridor between Keeps Mill and the Forest boundary between June 1 and October 15. Prior to June 1 and after October 15, campfires may be allowed; fire pans shall be required under each campfire.* **A1-WR-114** **A1-WR-115**

e. See Forestwide Forest Protection Standards and Guidelines.

14. Wood Residue Management

    a. *Vegetation management and fuel treatment activities should retain, at minimum, the number and size of downed logs recommended in the R6 Interim Old Growth definitions. Whenever possible, whole trees should be left instead of pieces (logs cut at both ends). The definitions may be modified to reflect site-specific conditions.*

    A1-WR-116
    A1-WR-117
    A1-WR-118

    b. *Prescribed burning and prescribed natural fire may occur to protect or enhance river-related values.*

    A1-WR-119

15. Integrated Pest Management

    See Forestwide Timber Management Standards and Guidelines regarding Integrated Pest Management.

Prineville District of the BLM

This portion of Chapter 3 contains specific management direction for BLM public lands within the White River corridor. The following information summarizes management standards, guidelines and constraints from previous management decisions made in the BLM Two Rivers Resource Management Plan (RMP)/Environmental Impact Statement (EIS) and the White River Wild & Scenic River Environmental Assessment. Where applicable, this direction updates the previous management direction for this river, contained within the Two Rivers RMP/EIS.

Goal

The goal of following and implementing BLM and applicable BLM/USFS standards and guidelines is to protect and enhance White River's outstandingly remarkable resource values and protect its free-flowing characteristics.

Location

The following standards and guidelines apply to the designated corridor for that portion of the White River between the National Forest boundary and the confluence of White River and Deschutes River. For scenic resource management, standards and guidelines will apply to the designated viewshed on BLM lands and any lands for which the BLM acquires a scenic easement.

Management Standards, Guidelines, And Constraints

The following Standards, Guidelines and Constraints from applicable BLM and Congressional mandates apply to BLM public lands within the Wild and Scenic river corridor for the White River:

A. General

1. The free-flowing characteristics of the river shall be protected (PL 90-542); Wild and Scenic Rivers Act, 1968.
2. A report will be prepared, summarizing the outstandingly remarkable values of the White River Falls, with a recommendation to Congress that these falls be included within the final, White Wild & Scenic River corridor.
3. In cooperation with local law enforcement authorities, ensure that dumping of household, industrial, or hazardous waste does not occur anywhere in the corridor.
4. Use the Limits of Acceptable Change (LAC) process to establish standards and guidelines for all outstandingly remarkable values.
5. Coordinate management activities within the White River corridor with the USFS and ODF&W for the river segments of the White River under their jurisdiction and with the adjacent Salmon and Lower Deschutes Wild & Scenic river plans.

B. Specific Resource Values

1. Dispersed Recreation Facility and Site Construction, Administration and Management
   a. Management activities will be consistent with the Semi-Primitive Non-motorized ROS class in Segment D, except for the Graveyard Butte area, which shall be consistent with the Semi-Primitive Motorized ROS class. (i.e. limited development for resource protection and semi-primitive, recreational use).
   b. No developed trails or trailhead facilities will be constructed on BLM lands. Existing wildlife or user developed trails would remain. If resource degradation occurs from increased visitor use, rehabilitation will occur. No developed trails or trailhead facilities will occur on any acquired lands or easements. Rehabilitate these acquired lands as necessary.

c. Management activities on public lands within Segment E that are also within the White River canyon shall be consistent with the ROS classification for Segment D. Management activities outside of the White River canyon in Segments E and F shall emphasize maintaining these lands in their natural character, while accommodating other activities consistent with Wild & Scenic River legislation and management for this river.

2. Developed Recreational Facility and Site Construction, Administration and Management

   a. Developed recreation improvements shall be provided to:

      1.) Maintain current use levels on public lands at the semi-primitive camping area at Graveyard Butte, while designing future facilities that will maintain and protect the river's outstandingly remarkable values. Construct a small campground at Graveyard Butte designed to control the existing use and to rehabilitate existing environmental damage.

      2.) All developed recreational facilities, such as a campground, day use, and parking area, shall be properly located in relation to the outstandingly remarkable values for the river and in relation to threatened, endangered and sensitive plant and animal species populations and habitat and in relation to cultural resource sites.

   b. Monitor commercial use levels relative to total use, carrying capacity, and limits of acceptable change. Commercial permitting may be affected by future management decisions which may include allocating use in some areas.

3. Visual Resource Management

   a. Before BLM initiates or permits any major surface disturbing activities on public land, an analysis will be completed to determine adverse effects on visual qualities. Activities in areas of high visual quality that may be seen might be permitted if they do not attract attention or leave long term visual changes on the land. Activities in other areas may change the landscape but will be designed to minimize any adverse effect on visual quality.

   b. Facilities shall be designed in accordance to the Recreational Opportunity Spectrum (ROS) class specified for each river segment.

4. Cultural Resources Management

   a. Protect and stabilize significant cultural resources from being irreparably damaged or lost, due to human use or eroded by natural forces.

   b. Manage prehistoric, historic and traditional values within the White River corridor through a coordinated plan of goals and objectives common to the BLM, Forest Service, and Oregon State Parks and Recreation Department and with the participation of and coordination with the Confederated Tribes of Warm Springs and private landowners. Specific management goals would focus on the protection and enhancement of cultural resource sites and features and traditional values.

   c. Request that Indian Tribes contribute information on significant traditional use sites/materials. In addition, maintain overlay maps documenting all cultural resource inventory information.

   d. Routinely consult with and invite the participation of the Tribes in the early planning stages to determine the level of coordination appropriate for the specific Management Plan and activity planning efforts.

   e. Develop fire control plans that address cultural resource concerns.

   f. Increase emphasis on enforcement of established laws, regulations, and policies related to the protection and preservation of cultural resource values. Develop and implement a monitoring plan to ensure adequate protection.

   g. Develop and implement a public information/education program aimed at increasing public awareness of and appreciation for the significance of cultural resources.

   h. Conduct an appropriate level of inventory to identify Prehistoric and historic sites or features in areas proposed for surface-disturbing projects and potential land exchanges. Sites

discovered will be evaluated using criteria in consultation with the State Historic Preservation Officer.

1.) Consider the effect of any proposed undertaking on sites which meet the National Register criteria by following regulations of the Advisory Council on Historic Preservation or a memoranda of agreement negotiated with the Council.

2.) In most cases, proposals would include a no adverse effect or an adverse effect finding to National Register quality sites. These sites are avoided by relocating ground-disturbing activities.

3.) Where relocating a planned project is not feasible, the project will either not be allowed or mitigation of adverse effects to significant cultural properties may be necessary. Mitigation will usually be an attempt to extract and preserve those attributes of a site which qualify it for the National Register. For example, many prehistoric sites are significant for the information they may provide about ancient Indian lifeways and cultural adaptations. Various levels of site recording, excavation and analysis can often retrieve the important information, preserving it in records and reports.

i. Identified traditional values on BLM lands will be protected from timber harvest and recreational development. These sites will have no interpretative signing. Interpretative materials will not reveal the locations of these sites.

5. Wildlife and Fisheries

a. Fisheries

1.) When opportunities arise, BLM will continue to implement decisions in this plan and the Two Rivers Resource Management Plan regarding increasing public land holdings in the White River Canyon through exchange or other means with willing participants, to increase/improve overall wildlife and fisheries habitat.

2.) Emphasize the development of a coordinated public information and education program to increase public understanding of wildlife and other natural resources within the White Wild & Scenic River corridor.

3.) Improve overall coordination with the U.S. Forest Service and the ODF&W, through increased coordination and joint-agency efforts to conduct fisheries and wildlife habitat inventories and management efforts to ensure management objectives are met.

4.) Habitat improvement structures, if determined to be necessary, shall not create unusually hazardous conditions or substantially interfere with existing, or reasonably anticipated recreational use of the river such as kayaking, rafting, fishing, tubing, canoeing or swimming.

5.) Habitat improvement structures should emphasize providing habitat for native fish and wildlife species. Habitat for desirable non-native species such as wild turkey, chukar and Hungarian partridge may also be provided.

6.) Streams in Segment D should provide high quality amphibian and aquatic insect habitat.

7.) Identify and manage threatened, endangered and sensitive species in accordance with the Endangered Species Act, Oregon Endangered Species Act and agency policies and guidelines.

8.) Initiate informal and formal consultation with the U.S. Fish and Wildlife Service on all proposed actions which may affect any Federally listed or candidate threatened or endangered species. Consultation will be done in accordance with Section 7 of the Endangered Species Act, as amended.

9.) Habitat improvement practices should be limited to those projects that are necessary for the protection, conservation, rehabilitation or enhancement of river area resources.

10.) Habitat improvement structures, should mimic regular occurring natural events (as opposed to catastrophic; e.g. trees falling in and across the river, boulders falling in or

moving downriver, minor bank sloughing, erosion or bank undercutting, island building and opening or closing existing secondary channels.

11.) Monitor fish habitat conditions throughout the corridor on a periodic basis.

12.) Cooperate with the ODF&W and the Confederated Tribes of Warm Springs, to determine the habitat use of spring and fall chinook, steelhead and Pacific lamprey in Segment F.

13.) Determine the structure, size, composition, distribution, abundance, and hydrologic function of naturally occurring numbers of downed logs in the river.

14.) Monitor riparian areas on federal lands using riparian inventory and photo trend, water quality inventory, biotic condition index, fish census, and remote sensing.

15.) Survey for threatened, endangered and sensitive species on BLM lands. Research or provide research opportunities to better understand the biological and habitat needs of threatened, endangered and sensitive species.

b. Wildlife

1.) Continue cooperatively managing the White River Game Management Area in Segment D with ODF&W to meet established objectives.

2.) Upland vegetation will be managed through grazing management and range/wildlife habitat development to provide maximum wildlife habitat diversity (ecological condition of high mid seral to low late seral stage) and to provide sufficient forage to meet the big game management objectives of the Oregon Department of Fish and Wildlife.

3.) BLM public lands within the White River Wildlife Area will continue to be managed to meet forage and habitat needs for big game and non game species as recommended by ODF&W.

4.) Off-reservation treaty rights related to plants and animals with traditional significance to the Tribes will be recognized by the managing agencies. No management actions which would adversely affect identified root digging areas, medicine gathering areas or animal species such as otter, eagles, and sensitive waterfowl nesting will occur.

5.) Protect and manage areas important to species to reach the desired future condition and to minimize disturbance due to human presence.

6. Range Management

a. Exclude livestock grazing on public lands below the rims of the White River Canyon within the Wild & Scenic river boundary, through decisions, revisions of allotment management plans, and fencing, if necessary.

b. Range improvements including fences and spring developments may occur in any river segment on public lands to protect or enhance river-related values and provide alternative water for livestock.

c. Upland vegetation on BLM lands will be managed to maintain or achieve an ecological status between 51 and 75 percent of the plant composition found in the natural plant community (late seral or good ecological condition).

d. Monitor grazing effects on outstandingly remarkable value features on BLM lands. Adjust Animal Unit Months (AUM's), periods of utilization, or allotment boundaries as appropriate through the allotment management plan or allotment evaluation.

e. With willing landowners, identify alternative grazing practices to avoid the need to construct or reconstruct fences across the White River.

f. If needed to comply with A., above, construct up to 5 miles of gap fencing (1.5 miles in Segment D; 1.0 miles in Segment E and 2.5 miles in Segment F) along the rim.

g. Livestock grazing will be managed to reach the stated riparian objectives on any riparian area outside of the Canyon rims within the designated Wild and Scenic river boundary.

h. All riparian areas that are major tributaries of the Lower Deschutes River will be managed to be in compliance of the BLM Two Rivers RMP/EIS, which states that riparian areas on BLM public lands are to managed to reach full potential, with a minimum of 60 percent of the vegetative potential to be achieved within 20 years.

7. Vegetation Management

   a. The control noxious weeds in riparian areas shall be consistent with current BLM regulations regarding noxious weed eradication in sensitive locations such as riparian areas.

   b. Areas of riparian vegetation presently in good or excellent vegetative condition will be maintained.

   c. Seek cooperative agreements with private landowners and federal and state agencies having adjacent public lands to enhance riparian habitat

   d. Habitat improvement projects should not introduce non-native species that could significantly change the natural ecosystem.

   e. Initiate vegetation manipulation when damage or degradation to one or more Outstandingly Remarkable Value is strongly suspected to occur within the next 5 years.

   f. Use integrated pest management strategies to manage pests and nonnative invader species within the constraints of laws and regulations. Strategies shall be consistent with the Northwest Area Noxious Weed Control Program FEIS 1985 and Supplement 1987 and Records of Decision on BLM lands. Coordinate control activities with adjacent State and private landowners.

   g. Coordinate and cooperate with county weed control officers on a regular basis in the control of noxious weeds. Control methods will be consistent with the Record of Decision for this plan and BLM's Northwest Area Noxious Weed Control Program EIS.

   h. Manage riparian vegetation to provide cover for neotropical migratory birds and other animals dependent upon the riparian area. Riparian projects would be analyzed on a project by project basis to rehabilitate severe riverbank erosion.

   i. All riparian areas that are major tributaries of the Lower Deschutes River will be managed to reach full potential, with a minimum of 60 percent of the vegetative potential to be achieved within 20 years.

   j. Management actions within riparian areas will include measures to protect or restore natural functions, as defined by Executive Orders 11988 and 11990.

   k. Riparian habitat improvement will be used to achieve a good to excellent aquatic habitat condition.

8. Soil, Water and Air Quality

   a. Water quality shall be maintained or enhanced.

   b. Watershed management and improvement projects may be allowed if river values are enhanced.

   c. All scenic and recreational river segments shall be managed to remain in a free-flowing and unpolluted state.

   d. Conduct an in-stream flow study to determine biologically appropriate flows that would enhance and/or protect outstandingly remarkable values within the river segments.

   e. Participate in discussions, activities, proposals, reviews, and so forth that involve issues which have the potential to impact optimum flows associated with the outstandingly remarkable values.

   f. The inventory of soil, water and air resources on public lands will continue. Soils will be managed to maintain productivity and to minimize erosion. Corrective actions will take place, where practicable, to resolve erosive problems.

g. Water sources necessary to meet BLM program objectives will be developed and filed on according to applicable State and Federal laws and regulations.

9. Minerals and Energy Management

a. Locatable minerals will remain open to entry under the mining law (1872 Mining Law).

b. All new dams, major water diversions and hydroelectric power facilities shall be prohibited, in accordance with the Wild & Scenic River Act.

c. All federal land would be open to mineral leasing. Leasable mineral (e.g. geothermal) permits shall include a "No Surface Occupancy" stipulation for that portion of the permit potentially affecting river resource values.

d. Consider applications from local governments for salable minerals, such as sand and gravel, on BLM lands within the corridor where consistent with protection of outstandingly remarkable and other resource values.

e. Plans of Operation for mineral exploration and development shall include reasonable, operationally feasible requirements to minimize conflicts with recreational activities and to protect the character of the landscape within the river corridor.

1.) Any mineral exploration, development or surface occupancy, if allowed, shall be done in a manner to protect river related values.

2.) Site disturbance from mineral activities shall be rehabilitated as soon as practicable, but initiated no later than 1 year following project completion.

10. Geology

Current direction for this resource has already been summarized in the BLM Two Rivers Record of Decision, June, 1986.

11. Lands and Special Uses

a. BLM lands within the White Wild & Scenic River Corridor shall be retained in federal ownership.

b. As opportunities arise, additional public access will be acquired, if access is consistent with management objectives. Where public access is desired, the minimum access needed to achieve management objectives will be acquired with willing participants. The preferred method will be through negotiated purchase of an easement or exchange.

c. Existing special uses, including recreation and non-recreation uses, may be allowed to continue where consistent with management direction for this river corridor.

d. New Land Use and Special Recreation Use permits may be authorized on public lands within all segments when consistent with management direction for the river corridor.

e. Construction of new utility and/or transmission lines (e.g. gas lines, geothermal and water pipelines and electrical transmission lines should be discouraged within any river segment. If no other feasible alternatives are available, utility/transmission lines/pipelines should be confined to the existing County Road and electric transmission line crossing located in Section 4, Township 5 South, Range 12 East, W.M. Maintenance and replacement of existing lines would continue to be authorized.

f. All utility/transportation corridors identified by the Western Regional Corridor Study of 1993 will continue to be used. Public lands will continue to be available for local rights of way, including multiple use and single uses utility/transportation corridors following existing routes.

g. If no other feasible utility routes are available, public lands within the corridor will continue to be available for local rights of way, including multiple use and single use utility/transportation corridors following existing utility and/or transportation corridors.

h. Applications for licenses from the Federal Energy Regulatory Commission (FERC) to construct any impoundment, water conduit, reservoir, powerhouse, transmission line, or

other associated hydroelectric facility within any designated river segment shall be recommended for denial.

12. Transportation Systems/Facilities; Travel and Access Management

    a. No new road construction will be allowed on BLM lands below the canyon rim.

    b. Motor vehicles will be restricted to designated roads,and parking/launch area(s). All other public lands will be closed to motorized use. Provisions will be made for authorized use, such as fire suppression, etc.

    c. Historic Areas or vehicle routes that do not remain open for continued motorized use will be closed, signed, rehabilitated, and barricaded if necessary to enforce the vehicle closure.

    d. Public land boundaries within the river corridor in popular use areas will be posted to reduce the risk of trespass.

    e. Provide signs along roads or use trails on BLM lands around Graveyard Butte informing visitors of limited public access and the need to respect private property.

13. Fire Prevention and Suppression

    a. Cross country off-road vehicle travel within the designated river corridor shall not be permitted except for emergency fire suppression purposes.

    b. Use of mechanized equipment (i.e. tractors, etc.) to construct firelines may be permitted only in emergency fire suppression situations with BLM approval. Fireline locations shall consider protection of river related resource values and shall be rehabilitated after the fire is suppressed. A Resource Advisor should designate approved areas for the use of tractors.

    c. Fire retardant "drops" should be directed to minimize entry of chemicals into water courses and to protect river values. Only uncolored or fugitive chemical suppressants and other water additives shall be allowed.

    d. A fire closure shall be implemented between June 1 and October 15 on all BLM lands within the White Wild & Scenic River Corridor. Campfires and charcoal fires would be allowed only at the Graveyard Butte camping area during this time period. Prior to June 1 and after October 15, campfires may be allowed; the use of fire pans would be required.

    e. During the open campfire season, BLM would encourage the use of fire pans and allow firewood collection on BLM lands. Recommend to other fire protection agencies and districts and private landowners that they adopt similar restrictions on lands within the corridor under their protection.

    f. Develop a fire management plan for federal lands within the corridor. Consider the use of all types of prescribed fires to help meet river management objectives. Incorporate adjacent land allocations or plans into the area covered. Coordinate plan development with adjacent owners and state and local fire protection organizations.

    g. Develop mutual aid agreements with the Oregon Department of Forestry (ODF) and recommend that property owners in the corridor without formal wildfire protection form or join rural fire protection districts. BLM, in cooperation with other federal and state agencies will work together to expand existing mutual aid agreements with ODF to provide backup and wildlife suppression assistance for new protected areas.

    h. The main emphasis of the fire management program on BLM public lands within the corridor will continue to be prevention and suppression of wildfire to protect public values such as timber, vegetation, visual resources and adjacent private property.

    i. Prescribed fire may be used to reach multiple use objectives. When prescribed fire is considered under various programs it will be coordinated with the Oregon Department of Forestry and adjacent landowners and carried out in accordance with approved fire management plans and appropriate smoke management goals and objectives.

    j. See District-wide Protection Standards and Guidelines.

14. Wood Residue Management

    a. Prescribed burning and prescribed natural fire may occur to protect or enhance river-related values.

    b. See District-wide requirements for prescribed fire.

15. Integrated Pest Management

    See Vegetation Section.

Chapter 4
Implementation Schedule

CHAPTER 4: IMPLEMENTATION SCHEDULE

Schedule of Planned Activities and Cost Estimates

This chapter outlines specific management actions to be implemented within each resource area. The plan, with its objectives (Chapter 2), management standards and guidelines (Chapter 3), the following actions, and the monitoring program (Chapter 5) make up the River Management Plan. It is designed to provide for the balanced protection and enhancement of all the river's outstandingly remarkable values. Additional site specific analysis will still be needed to assess environmental effects prior to implementing any project. This further analysis will show whether projects may or may not be implemented or be modified to reduce or eliminate unacceptable impacts that may result from implementation. *Project implementation depends on available funding. If adequate funding is not available some projects may not be implemented.*

RESOURCE	DESCRIPTION OF ACTIVITIES	MANAGEMENT PRIORITY[1]	ESTIMATED COSTS
GENERAL	◆ Recommend to Congress inclusion of White River Falls into the White River Wild and Scenic River designation (see Appendix D)--BLM.	High	--
	◆ Cooperate with local law enforcement authorities, other landowners, and local governments to monitor, prevent, or clean up dumps of household, industrial, or hazardous waste in the corridor--USFS and BLM.	Ongoing	$1000 per year
	◆ Complete a Limits of Acceptable Change (LAC) study. Study all resources in conjunction with the public to determine the carrying capacity of White River to provide social benefits--USFS and BLM.	High	$60,000
MINING AND ENERGY DEVELOPMENT	◆ Amend the special use permit and upgrade the restoration plan for the sand and gravel pit above Highway 35 to add requirements consistent with the Desired Future Condition, Standards and Guidelines, VQOs, ROS class, and protection of the river's outstandingly remarkable values as delineated in this plan--USFS.	High	$8000
	◆ Initiate a withdrawal review of the existing power site withdrawals along White River--BLM.	High	$4500
	◆ Initiate withdrawal for locatable minerals within the White River corridor on National Forest System lands. This project requires an EA and approval through BLM.	Medium	$15,000
SOIL AND WATER	◆ Obliterate Road 4885 from the rim to White River--USFS.	High	$6000
	◆ Stabilize cutbanks along Road 48 at the junction with 4880--USFS.	High	$2500

[1] High = complete within 1-3 years; Medium = complete within 2-4 years; Low = complete within 3-5 years

	◆ Stabilize cutbanks on Barlow Butte--USFS.	High	$5000
	◆ Collect baseline data on water quality and quantity and complete an in-stream flow study to determine the biologically appropriate flows to enhance or protect the outstandingly remarkable values--USFS and BLM.	Medium	$53,000
	◆ All projects with the potential to affect the free-flowing character of the river must have analysis completed to ensure the free-flowing character is protected (Section 7 analysis, see Appendix B)--USFS--BLM.	Ongoing	Included in project costs
VEGETATION MANAGEMENT	◆ Conduct a landscape analysis and design for the A1 corridor. Evaluate stand conditions with reference to damage or degradation with one or more outstandingly remarkable values. Schedule appropriate vegetation management activities. Include restoration/reshaping of existing clearcuts causing scenic quality degradation in project analysis--USFS.	High	$20,000 each analysis
	◆ Evaluate potential viewpoints to Mt. Hood along Barlow Road where selective tree removal may improve or create a view of the mountain--USFS.	Medium	$3000
	◆ Monitor riparian areas on federal lands using riparian inventory and photo trend, water quality inventory, biotic condition index, fish census, and remote sensing.	Medium-Low	$25,000
	◆ Continue cooperation with Oregon Department of Agriculture (ODA) in determining viability of *Astragalus tyghensis* on BLM lands, which includes populations within the river corridor--BLM.	High	$6000 allocated FY94
	◆ Prepare a management plan/conservation agreement for *Astragalus tyghensis* in cooperation with ODA and the US Fish and Wildlife Service--BLM.	High	$6500
	◆ In cooperation with The Nature Conservancy investigate plant communities within the river corridor for possible designation as Areas of Critical Environmental Concern/Research Natural Areas (ACEC/RNAs)--BLM.	Medium	$3000
	◆ Continue to provide botanical input/expertise into allotment evaluations, management proposals, and other activities which may affect botanical resources within the river corridor--BLM.	Medium	$1500 Annually
WILDLIFE AND BOTANY	◆ Survey for threatened, endangered, and sensitive plant and animal species on federal lands--USFS and BLM.	Medium	$17,000
	◆ Conduct baseline surveys for raptors and neotropical migratory birds on National Forest lands--USFS.	Low	$5000
	◆ Conduct baseline surveys for heron rookeries, reptiles, and waterfowl on BLM lands--BLM.		

High = complete within 1-3 years; Medium = complete within 2-4 years; Low = complete within 3-5 years

	◆ Conduct a research study to better understand the biological and habitat needs of threatened, endangered, and sensitive plant and animal species--USFS and BLM.	Low	$85,000
	◆ Initiate discussions with Whidby Island Naval Air Station to manage military overflights around White River corridor--USFS.	Ongoing	$3000/yr
FISHERIES	◆ *Recommend that ODFW make fish screening of irrigation diversions in the* White River basin a high priority and to seek enforcement of state law ORS 509.615 if needed through the State Water Resources Commission--USFS.	High	--
	◆ Recommend ODFW adopt catch and release with barbless hooks regulation on White River--USFS.	High	--
	◆ Survey and analyze fish habitat conditions throughout the corridor every 5 years using an interagency survey method--USFS and BLM.	High	$2000 mile
	◆ *Cooperate with the Confederated Tribes of Warm Springs and other interested* parties to develop a consistent and well coordinated inventory and management plan implementation, funding, and monitoring program for in-stream and riparian resources along the river. Determine the size, structure, composition, distribution, *abundance, and hydrologic function of naturally occurring numbers of downed logs* in the river--USFS and BLM.	*Medium*	*$25,000*
	◆ Analyze the genetic traits and life history requirements of native sculpin, longnose dace, and whitefish to determine eligibility as an outstandingly remarkable value. With ODFW and the Confederated Tribes of Warm Springs, determine the habitat use of spring and fall chinook, steelhead, and Pacific lamprey below White River Falls--USFS and BLM.	Low	$38,000
FIRE MANAGEMENT	◆ Develop a fire and fuels management plan for federal lands within the corridor. Consider all types of prescribed fire to meet management objectives. Coordinate plan development with adjacent landowners and with state and local fire protection organizations--USFS and BLM.	Medium	$30,000
RANGE MANAGEMENT	◆ *Exclude cattle grazing from campgrounds and day use areas in Segment* B--USFS.	*Medium*	$10,000
	◆ Complete the White River Allotment Resource Analysis--USFS.	Medium	$12,000
	◆ Exclude livestock grazing on BLM lands below the rims of the canyon through grazing allotment decisions and physical barriers--BLM.	High	$3100

High = complete within 1-3 years; Medium = complete within 2-4 years; Low = complete within 3-5 years

	◆ Monitor the canyon for unauthorized livestock use on BLM lands. Where needed, construct fencing to preclude access--BLM.	Ongoing	Variable, up to $25,000 depending on degree of problem
	◆ Monitor grazing impacts to the outstandingly remarkable values on BLM lands. Adjust grazing and management as needed to comply with this plan--BLM.	Ongoing	$1500 Annually
	◆ Adjust current BLM allotment leases to reflect removal of acreage and AUMs below the canyon rims--BLM.	High	Variable
CULTURAL RESOURCES MANAGEMENT	◆ Develop a coordinated plan of goals and objectives common to the Forest Service, Prineville District BLM and Oregon State Parks and Recreation Department to manage archaeological, historical, and traditional values resources. Encourage the participation of and coordination with the Confederated Tribes of Warm Springs and private landowners. Include plans for an integrated cultural resources database and atlas for federal lands--USFS and BLM.	High	$40,000
	◆ Complete cultural resource surveys (Class II on National Forest lands, Class III on BLM lands) to identify prehistoric and historic sites and features in areas proposed for surface disturbing activities. Sites discovered should be evaluated for significance following National Register of Historic Places criteria and in consultation with the State Historic Preservation Office--USFS and BLM.	Ongoing	Variable
	◆ Maintain cultural resource databases and files for federal lands--BLM.	High	$500-1000 Annually
	◆ Evaluate known cultural resources for National Register significance--BLM.	High	Variable
	◆ Develop incentive programs for protection of cultural resources on non-Federal lands--BLM.	Medium	$500-1000 Annually
	◆ Protect cultural resources and traditional values on BLM lands through management recommendations and monitoring plans--BLM.	High	Variable
	◆ Revise the interpretive sign at Klinger's Camp to correct errors in the text--USFS.	Completed	N/A
RECREATION AND SCENIC RESOURCES	◆ Reconstruct White River Trail--USFS.	High	$60,000
	◆ Redesign Keeps Mill Campground. Reconstruct 3 camping sites--USFS.	High	$10,000
	◆ Place a toilet at White River East Sno-park--USFS.	Medium	$10,000

High = complete within 1-3 years; Medium = complete within 2-4 years; Low = complete within 3-5 years

◆ Redesign campgrounds in Segment B as needed to protect the river's outstandingly remarkable values--USFS.	Medium	$30,000
◆ Develop comprehensive trail and interpretive plans. These plans should be developed after the LAC study is completed. The trail plan should minimize conflicts between user groups, protect the river's outstandingly remarkable values, and be consistent with the ROS class for each segment. The interpretive plan should delineate which outstandingly remarkable values and processes should have interpretive materials, the most appropriate medium and method for a given outstandingly remarkable value, and the location of interpretive materials--USFS and BLM.	Medium	$40,000
◆ Develop scenic waysides on Road 48 as needed--USFS.	Low	$45,000 each
◆ Construct 3 barrier free camping sites at Barlow Creek Campground--USFS.	Medium	$9750
◆ Construct 2 barrier free camping sites at Barlow Crossing Campground and 3 at White River Station Campground--USFS.	Low	$16,250
◆ Construct limited facilities for pack and riding stock at White River Station Campground--USFS.	Low	$5000
◆ Reconstruct Rimrock and Bonney Meadows trails. Conduct a feasibility study for constructing a trail between Keeps Mill Campground and White River Crossing Campground--USFS.	Low	$35,000
◆ If feasible, construct a trail from Keeps Mill Campground to White River Crossing Campground--USFS.	Low	$45,000
◆ Construct small group campsites in all campgrounds within Segment B--USFS.	Low	$20,000
◆ Reconstruct the road and parking area on Bonney Butte--USFS.	Low	$120,000
◆ Develop a small unit campground at Graveyard Butte to protect the river's outstandingly remarkable values and prevent resource degradation--BLM.	Medium	$30,000
◆ Pursue acquisition of scenic easements, as needed and available from willing sellers, to protect scenic resource values and meet scenic quality objectives within the designated viewshed--BLM.	Medium	$35,000
◆ Officially designate a viewshed in Segments D-F. Include the area seen from major viewpoints on BLM lands in Segment D--BLM.	Low	$90,000

High = complete within 1-3 years; Medium = complete within 2-4 years; Low = complete within 3-5 years

	◆ Pursue easements or acquisistions from willing landowners, emphasizing legal, primitive access to public lands upriver from old Highway 197 and downriver from Tygh Valley State Park--BLM.	Low	$45,000
TRAVEL AND ACCESS MANAGEMENT	◆ Close Road 48 north of Road 43 to wheeled ATVs and street-legal vehicles between Nov. 15-April 1. Eliminate a 3.3 mile snowmobile route from the junction of roads 48 and 4890 to the junction of roads 4890 and 4891. Formally designate Road 48 between Road 43 and White River East Sno-park as a snowmobile route--USFS.	High	$8000
	◆ Obliterate unneeded roads. Reconstruct or redesignate suitable roadbeds as trails--USFS.	Ongoing	Variable
	◆ Sign and close roads and trails to motorized vehicles--BLM.	Ongoing	Variable

High = complete within 1-3 years; Medium = complete within 2-4 years; Low = complete within 3-5 years

Chapter 5
Monitoring Program

CHAPTER 5: MONITORING PROGRAM

The monitoring program below is the management control system governing the implementation of the White River Management Plan. The specific objectives of the monitoring program are to determine whether:

1. Planned goals and objectives are meet;
2. Management Standards and Guidelines are followed;
3. Management Standards and Guidelines are effective;
4. Research beyond that identified is needed; and
5. If the intensity of monitoring is commensurate with the risks, costs, and values involved in meeting plan objectives.

Implementation of the following monitoring elements will be based on the availability of funding. If adequate funding is not available, some monitoring activities may not take place. The Forest Service will make every effort to identify opportunities that would reduce actual costs for the monitoring. The following table outlines the key indicators, management standards, and monitoring that the Forest Service will conduct on the White River Wild and Scenic River by resource area.

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MEET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
WATER QUALITY	Temperature Color pH Dissolved oxygen Chemicals (oil and gas, herbicides and pesticides, salt) Aquatic life--Macroinvertebrates	Temperature equal to or cooler than baseline established by 1995-1999 water years. Purity of white color equal to or whiter than baseline established by 1995-1999 water years. Maintain pH between 6.5 and 8.5. Maintain dissolved oxygen equal to or greater than 90% of saturation at the seasonal low or 95% of saturation in spawning areas during the spawning through fry stages of salmonid fishes. No oil or gas detectable either visually or by sense of smell. No negative changes in macroinvertebrate indices of species and community composition in the mainstem as established in the 1995-1999 baseline.	Identify damaged riparian areas and sediment sources. Work with state, federal, and county agencies to prepare restoration plans and implement corrections. Correct management practices or land use activities that may be contributing to temperature rise, color change, pH, reduced oxygen levels, depressed macroinvertebrate populations or unusual changes in macroinvertebrate species compositions, or indications of gas, oil, or other chemicals. Identify possible sources of effluent. Increase and intensify sampling. Work with counties and DEQ to prepare corrective actions or plans.	Install and maintain continuous recording thermographs and automatic samplers at five locations along the mainstem river for five years (1995-1999) to establish the baseline. Thereafter, take grab samples on a quarterly (seasonal) basis. Take other samples during significant "events" when possible. Responsibility: Joint with USFS and BLM fish biologist sor hydrologists. Cost: Initial $7,000 and then $5,000 annually.
SOIL PRODUCTIVITY	Bare ground by successional stage Compaction Displacement	Bare ground greater than desired levels (see desired future conditions in Chapter 2). Compaction and soil displacement does not meet Forest Plan Standards and Guidelines.	Identify causes of unacceptable levels of bare ground, compaction, and soil displacement. Modify management activities to correct problems. In developed areas, evaluate need to close site(s) temporarily to allow recovery or permanently and move site(s) to more suitable location.	Randomized transects as described in FSM 2520 R-6 Supplement and systematic point transects. Sampling will include both scientific techniques and ocular estimates. Sample two projects (i.e. timber sale units, developed recreation sites, etc.) each year. Responsibility: USFS soil scientist or hydrologist. Cost: $4000 annually.

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
VEGETATION MANAGEMENT	Forest/ecosystem health Target tree sizes Target stand structure percentages	Insect and disease levels and related mortality within range of natural conditions for a given landscape unit/plant association/community type. Largest trees equal or exceed target diameters by species and forest zone. Percent of landscape unit within established range for each structural stage (stem initiation, stem exclusion, stand reinitiation, old growth).	Determine corrective actions needed to reduce insect and disease activity to acceptable levels. Actions may include such activities as harvest, prescribed burning, and spraying. Re-evaluate harvest prescriptions and tree marking in harvest units. Re-evaluate target sizes within an affected forest zone and adjust as needed. If lacking in the younger structural stages, begin replacing older stands. If lacking in older stages, either reduce or eliminate harvesting for a set period of time or alter harvest prescriptions to promote more rapid development of structure typical of older stands.	Conduct formal stand exams every 10 years. Develop and maintain a vegetation database that stores information gathered in stand exams and vegetation management activities and results. Conduct walk-through exams in areas of known or suspected unusually high levels of insect or disease activity; use more formal survey methods if walk-through exam warrants. Responsibility: USFS district silviculturist Cost: $15/plot
	Desired residue profiles	Downed woody material remaining in harvested areas within established desired range after all treatments completed.	Re-evaluate harvest specifications, fuel treatments, and fire wood program to leave the desired levels. Actions may include changing contract specifications, altering or foregoing fuel treatments, opening or closing an area to firewood collection, replacing missing material, etc.	Conduct fuel inventories in 10% of harvest units using either Brown's downed woody inventory method or photo guides. Responsibility: USFS district fuels specialist/technician Cost: $20/acre

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
VEGETATION MANAGEMENT (Cont.)	Amount of riparian habitat and wetlands Properly functioning ecological condition as indicated by vegetative cover and streambank condition	Manage or maintain riparian vegetation to maintain or enhance vegetative diversity, biomass, and percent cover at desired level determined during baseline monitoring to comply with management area management direction and desired future condition.	Remove or eliminate source of impact (i.e. close campsites, roads, trails, etc.) if inventory assesses extent of impact as unacceptable.	Conduct baseline riparian/wetland resource inventory and photo inventory. Continue to reassess at 5 year intervals. If funding is limited, identify areas of resource damage. Visually monitor recreation and other developed sites for resource damage. Based on level of funding, establish formal monitoring plots in high use areas. Responsibility: Joint with USFS and BLM botanists, fisheries biologists and hydrologists Cost: $5,000 every 5 years
	Landscape within the corridor able to sustain/achieve desired conditions	Stand conditions within the corridor would be evaluated in areas where the landscape does not meet the desired conditions or is in danger of causing damage or degradation to one or more outstandingly remarkable value within the next 5 years.	If landscape analysis reveals that vegetation management projects would improve stand conditions, projects would be planned.	Initiate landscape analysis and design process every 5 years. Responsibility: White River stewardship team Cost: $5000-10,000 every 5 years
	Noxious weeds	See Forest Plan monitoring plan, page Five-29 and BLM District Weed Control Plan (Prineville District Office).		

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
BOTANICAL DIVERSITY--National Forest lands	Ecological condition and trend as indicated by the area, amount, and composition of species - focus on recreational sites. Stability of sensitive plant populations Special forest products (mushrooms, beargrass, huckleberries, etc.)	Vegetation within the river corridor would be managed to promote ecological trends and conditions as determined by baseline inventories, monitoring plots, and range of natural conditions as revealed in watershed analysis and landscape analysis. Reduction of loss of sensitive plant species or habitat. Declining trend in populations or production of special forest products.	Determine causes of observed trends, sensitive plant population or habitat losses, and reductions in special forest products. If human-caused, control, restrict, or mitigate activities and practices as needed. Implement short-term prescriptive activities to restore natural conditions or biodiversity.	Conduct baseline vegetation inventory and photo inventory, and reassess at 5 year intervals. If funding is limited, concentrate efforts on areas of known resource damage. Visually monitor recreation and developed sites annually for resource damage. If funding is available, establish formal monitoring plots in high use areas. Track number of permits issued for special forest products. Survey areas of known continual use. Enter into a long-term monitoring study with PNW Research Station to evaluate selected mushroom populations. Responsibility: White River stewardship team. Cost: $5000 every 5 years

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
BOTANICAL DIVERSITY--BLM lands	Ecological condition and trend as indicated by the number of species present and their relative composition/age structure within the community. Focus on areas recieving moderate to heavy recreational use, lands grazed by livestock, and other areas subject to human use. Stability of Special Status Plant populations	Manage vegetation to provide the maximum species diversity with an emphasis on native species. Plant communities exhibiting natural diversity would be used as a standard against which to judge areas impacted by human use for which diversity is low. Implement or continue management actions within the river corridor in a manner ensuring the stability and viability of known special status plant populations. Manage habitat under a principle of "no net loss."	Identify, if possible, the cause(s) of decreased diversity and take remedial action as appropriate or practical. Identify, if possible, cause(s) of apparent reductions in population sizes. If human-caused, activities may be restricted, modified, or eliminated.	Conduct a gross vegetative inventory, concurrent with the aforementioned floristic inventory to identify areas of low diversity. Develop target species compositions/structure based on similar communities with greater diversity. Use gross ocular estimates of community parameters and photo points, focusing in areas known to be suffering botanical degradation. Reinventory areas suffering degradation every 5 years. Qualitatively monitor every 3 years. Data collected will include observations on plant vigor, reproduction, threats, and an estimate of total individuals. Responsibility: BLM botanist Cost:
WILDLIFE HABITAT AND POPULATIONS	Populations of major species Amount and combination of habitat types	Negative changes in river corridor use by selected species (i.e., neotropical migratory birds; management indicator species; threatened, endangered, and sensitive species; and raptors). Mix of habitat types sufficient to provide habitat needs of selected species. Adequate connections maintained between critical habitat elements (i.e. old growth, travel corridors, thermal cover, etc.) within river corridor and adjacent lands.	Identify causes of changes. If human-caused and counter to desired future conditions, correct practices or activities. Identify causes of inadequate habitat or lack of connectivity. If human caused and counter to desired future conditions, correct practices or activities.	Conduct wildlife surveys on a 5 year basis to correspond with habitat surveys. Record all raptor nests and waterfowl sightings. Conduct a breeding bird survey on 20% of the land area within each landscape unit on a 5 year basis. GIS mapping of habitat types and extents (acres) using aerial photography interpretation, field verification, and stand exams. Establish a baseline year (1995) and replicate survey every five years. Responsibility: Joint with USFS wildlife biologist and/or ecologist and BLM wildlife biologist. Cost: $2000 annually; $17,500 every 5 years

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
FISH HABITAT AND POPULATIONS	Quality and quantity of spawning gravels Rearing habitat and pool quality Large woody material	Locate areas and measure substrate embeddedness, sediment *deposition, and frequency* distribution during 1995 and 2000. Maintain desired quality and quantity of spawning gravel established in baseline inventory. Any decrease in the inventory habitat type and extent on mainstem and major tributaries. Maintain habitat quality and quantity at least at inventory levels. Any decrease in the number of large logs that meet minimum standard.	Identify causes of degradation in habitat quality and quantity. If human-caused, mitigate or eliminate impact and/or create additional habitat as needed through habitat improvement opportunities.	Conduct habitat inventories every 5 years, include areas of spawning gravels. Select key sites, analyze substrate annually for 3 years, then every other year thereafter. Responsibility: Joint with USFS and *BLM fisheries biologist or* hydrologist Cost: $7600 every 5 years for riparian surveys, $1200 for substrate analysis.
	Fish species composition Smolt production Creel census as indication of quality of sportfishing	Maintain species composition using inventory data and ODFW baseline data. Any decrease in smolt numbers compared to stream specific baseline information in excess of 10% basin-wide mean for each year. Any decrease in 5 year average catch of selected species.	Coordinate with ODFW to identify actions that may degrade wild fish species compositions or populations and assist in implementing mitigation measures.	Annual creel census, redd counts on selected reaches, random shocking and inventory, report analysis of data every 5 years. Responsibility: Joint between USFS and BLM fisheries biologists and ODFW regional biologists. Cost: $3000 annually
FIRE MANAGEMENT	User compliance to seasonal fire closure Compliance to potential restricted fire use on BLM lands due to extreme fire danger.	Compliance or non-compliance with BLM fire regulations. Number of violations observed. Number of acres burned due to violations of fire regulations.	Increased visitor contact patrols. Issue citations for violations of fire use restrictions. Increased contatc with adjacent landwoners. Increased media coverage to promote compliance with fire regulations.	Field patrols on weekends, holidays, and during the summer. Field patrols during exterme fire danger periods. Responsibility: BLM fire management Costs:

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
RANGE MANAGEMENT	Riparian vegetation Streambank stability Cattle presence in developed sites in Segment B	Utilization levels above levels allowed in Forest Plan standards and guidelines or at or above levels that cause degradation in water quality and fish and wildlife habitat quality. Streambank sloughing or excessive erosion at watering points. Any physical signs of cattle in developed recreation sites.	Identify actions needed to reduce forage utilization to acceptable levels. Identify actions needed to reduce adverse impacts to streambanks. Identify actions needed to eliminate cattle from developed sites.	Follow methods in FSH 2209.21 Responsibility: USFS range conservationist and White River stewardship team. Cost: $3000 annually
CULTURAL RESOURCES	Integrity of sites	No irreparable damage of significant cultural resource sites by human activities.	Public information and education to build awareness of cultural resource values. Stabilize sites damaged by human activities or conserve its values through mitigation efforts.	Maintain cultural resource database of river corridor. Monitor known sites annually to determine condition. Responsibility: USFS archaeologist in cooperation with the Confederated Tribes of Warm Springs Cost: $2000 annually

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
SCENIC RESOURCES	Projects, activities, or modifications which alter landform, vegetation, water, or character within the viewshed as seen from the river and other viewpoints designated in the White River management plan. Landscape patterns as indicated by aerial photos.	Activities within river corridor and viewshed would be evaluated on how well they meet VQOs and ROS class for river corridor and viewshed. Conditions within the corridor would be evaluated for aesthetic quality in the context of the White River management plan desired conditions and the characteristic landscape.	Management actions or developments (or proposed developments not consistent with wild and scenic river classifications or scenic resource management (including ROS standards) will be modified (i.e. screened) or proposals rejected. Conditions of landscape pattern and infrastructure not found to be in accordance with desired conditions will be recommended for inclusion in the landscape analysis and design process.	Conduct a VRM inventory and study every 5 years to ensure projects and other human-caused modifications are consistent with management standards and that existing conditions meet desired conditions. Include aerial photo interpretation, key site inventory (photo points), and field review (river view) assessments in the analysis. Individual projects will be analyzed on a case-by-case basis to ensure protection of the viewshed and compliance to standards, including county reviews for private land development and NEPA analysis of federal projects. Responsibility: USFS district landscape architect Costs: $2000-4000 every 5 years. Project specific analysis will vary based on the extent of the project.

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
RECREATION--ROS CLASS AND USE LEVELS	Key indicators and standards to be established with implementation of Limits of Acceptable Change (LAC) inventory, survey, and analysis. (The following represents items most likely to be included.) Quality of experience as indicated by congestion or crowding, use levels, safety, reported incidents of conflict such as site competition and vandalism	Established by user/visitor expectation survey and landowner survey to establish social "carrying capacity" or acceptable levels of use. Numbers of encounters with other recreationists (groups) per day. Numbers of reported conflicts, vandalism reports, or safety incidents recorded annually. Recreation visitor counts, trail user counts, vehicle counts (parked and roads). Number of days campground and parking lot capacities exceeded. Number and type of non-motorized recreation opportunities/activities.	A combination of indirect (information, education, signing, site design, etc.) and direct (enforcement patrols, site closures, seasonal restrictions, permits, etc.) management actions and controls would be used, emphasizing indirect methods first. If the above methods are not effective, use may need to be limited through use of permits or other more direct measures of visitor control, especially along the Barlow Road.	Conduct LAC survey and develop monitoring program every 10 years. Responsibility: White River stewardship team Costs: $20,000 for survey and monitoring program development

RESOURCE VALUE TO MAINTAIN OR ENHANCE	KEY INDICATORS	MANAGEMENT STANDARDS	MANAGEMENT ACTIONS TRIGGERED IF STANDARDS ARE NOT MET	MONITORING METHODS, SAMPLING PROCEDURES AND FREQUENCY
RECREATION–DISPERSED AND DEVELOPED SITE CONDITIONS	Soil stability Vegetative loss Tree damage Fire rings Human waste Litter accumulation Facility damage	Impacts to campgrounds, day use areas, and dispersed use areas will range between light and extreme to be based on subjective judgment and objective measurement regarding erosion, vegetative change, facility damage, and accumulation of litter as follows: **Light:** Previous ground vegetation intact, allowing natural erosion to occur. Facility damage and litter is not evident. The site displays only minimal physical changes. **Moderate:** Vegetative growth is somewhat retarded, allowing minor abnormal erosion to occur. Traces of litter can be found within and adjacent to the site. Minor vandalism, repairable by routine maintenance, is occurring on facilities such as tables, signs, etc. Physical changes to the site could include minor tree limbing or damage, movement of rocks or semi-stationary objects, presence of fire rings, etc.	Use basic site protection measures, harden sites to maintain important sites if necessary between moderate and heavy standards. Campsites or day use areas which have received extreme impacts will be closed and rehabilitated until levels of impacts have been mitigated to at least moderate levels. Other actions could include increased user education efforts, seasonal closures, site or access restrictions, etc. Management actions and controls would emphasize indirect methods first, such as: 1. Increased user education efforts in "minimum impact" camping techniques (signs, brochures, increased management patrols, etc.). 2. Establishing camping setbacks from roads, river, trails, and other water sources. 3. Campsite rehabilitation. 4. Campfire ban. 5. Designated campsites and registration. 6. Close areas to overnight camping.	Inventory and assess all existing and proposed sites within the river corridor. Remeasure and assess all sites once every 3 years or when conditions indicate need. Review annually White River East and West sno-parks and Barlow Creek, Barlow Crossing, White River Station, White River Crossing, and Keeps Mill campgrounds. Utilize feedback from routine patrols and biological/wildlife monitoring programs. Responsibility: White River stewardship team and recreation planner. Cost: $500 annually to review developed sites, $2000 every 3 years.

RECREATION--DISPERSED AND DEVELOPED SITE CONDITIONS (Cont.)	**Heavy:** Use area vegetation is gone but adjacent vegetation still intact. Abnormal erosion within the site is correctable through maintenance. Major littering is evident within and adjacent to the site and can be corrected through maintenance. Physical changes to the site could include moderate tree limbing/damage, beginning tree root exposure, trails radiating from the site, human caused changes to site layout (trenching, digging or scrapping, moving facilities, etc.), evidence of human waste, etc. All impacts could be resolved through routine maintenance **Extreme:** Use area vegetation is gone and adjacent vegetation growth is retarded. Abnormal erosion is occurring both within and adjacent to the site. Maintenance can no longer correct soil and vegetative impacts without temporarily closing the site. The site experiences perpetual littering or dumping. Maintenance can correct major vandalism to facilities but not to natural features such as rocks, trees, etc. Physical changes to the site could include dead or cut trees, extensive tree root exposure, heavy erosion, compacted soil restricted re-establishment of native vegetation within and adjacent to the site, major trails and satellite areas radiate from the site, changes in plant species composition. Maintenance can no longer sustain long-term use without temporary closure to allow natural rehabilitation to occur.

TRAVEL AND ACCESS MANAGEMENT	Road erosion and damage related to roadside vegetation and facilities Accidents on roads to indicate safety problems Trail erosion and damage related to trailside vegetation and bare ground Open road density	Confine motorized use to designated roads. Maintain roads to established federal or state standards. Maintain trails to established federal standards. Prevent multiple trail or trail networking using indirect methods. Trail use and design will be in keeping with desired conditions, ROS experience level, and visual management standards. Evaluate user made trails for damage to resources. Open road density greater than 1.5 miles per square mile.	Increase road maintenance frequency. Reconstruct/relocate roads, improve bridges, parking lots, trails, and related facilities (i.e. signs, vehicle barriers, etc.) to resolve unlawful access, resource damage, and road safety problems. Close unauthorized roads and trails where resource damage is taking place. Develop, maintain, and replace signing as needed. Increase trail maintenance frequency. Reconstruct/relocate trails to reduce trail networking and encourage appropriate use. Keep trail maps and information current. Actively close trails where unauthorized off road vehicle use is taking place. Evaluate area for additional road closures, decommissioning, or obliteration.	Monitor routine road maintenance needs annually. Utilize feedback from visitor contacts. Monitor any accident reports on forest roads to identify safety problems. Monitor routine trail maintenance needs annually. Establish monitoring plots along high use trails to measure trail depth, width, and drainage. Remeasure points and map/inventory trails every 5 years. Responsibility: White River stewardship team and recreation planner. Cost: $2000 annually for survey/monitoring. Cost for correcting problems varies by project.

Appendix A
Response to Comments

APPENDIX A: RESPONSE TO COMMENTS

Mt. Hood Meadows

Comment	At p. 2-9 under Transportation Systems/Facilities; Travel and Access Management, number 3, the common management action states, "Permit no additional road construction Segment A." This is inconsistent with the Mt. Hood Forest Plan comparison (p.2-45) which for all alternatives reads, "*Road construction in Segment* A, outside the Mt. Hood Meadows expansion are (sic) prohibited." The "are" is a typo and should be changed to "area". More importantly, p. 2-9 number 3 should be changed to add at the end: "outside the *Mt. Hood Meadows expansion area.*"
Response	Based on your comment and a review of the enabling legislation we added the following to the statement in question: *Exceptions are temporary or permanent roads which have no short- or long-term negative impacts on the outstandingly remarkable values related to Scenic Resources, Wildlife Habitat and Populations, and Hydrology and which could be needed and constructed within the permit boundary of Mt. Hood Meadows Ski Area.*
Comment	At p. 4-8, Alternative B Specific Effects, Types of Use states, "No additional road construction would occur on federal lands in Segments A, C, and D." *This statement* is inconsistent for the reason stated above and should either eliminate Segment A or be amended to exempt roads in Segment A that result from any Meadows' expansion.
Response	We changed the effect to be consistent with the wording above. Road construction may occur within the Mt. Hood Meadows permit boundary in Segment A but should not occur outside the permit boundary.
Comment	At p. 2-8, under Scenic Resources and Recreation common management actions, Meadows' ski area expansion into the corridor is limited to that allowed in the Mt. Hood Meadows Ski Area Management Plan currently under review. This position conflicts with the Act and Congressional intent. The language should be changed to read: "Prohibit additional commercial ski area expansion into the corridor beyond that allowed Mt. Hood Meadows in a future Master Plan Record of Decision."
Response	The intent of this document was not to preclude the possibility of expansion into the proposed White River area by Mt. Hood Meadows but that no expansion should occur beyond that point. We reviewed the enabling legislation again and changed the wording in the statement in p. 2-8 to reflect the wording used in the enabling legislation: *Any commercial ski area expansion within the White River Wild and Scenic River corridor shall not involve water resource projects and shall be consistent with protecting the values for which the river was designated.*
Comment	At p. 2-[26], the Scenic Resources and Recreation, Winter Sports proposed management strategy of Alternative B-E calls for "No increased use by alpine skiers would be allowed." This strategy is inconsistent with the law and in direct conflict with Congressional intent. It should be eliminated or amended to reflect: "No increased use by alpine skiers beyond that resulting from Mt. Hood Meadows expansion."

Response The statement in question does not clearly state our intent. This statement refers to alpine skiers who leave the permit boundary of any commercial ski area and ski down White River to Highway 35. The correct wording follows:

Alternatives B and C: *No increased use by alpine skiers outside the permit boundaries of commercial ski areas would be allowed.*

Alternatives D and E: *Minimize use increases by alpine skiers outside the permit boundaries of commercial ski areas.*

Comment At p. 4-5, one of the Management Alternative Effects for Recreational Use states "Restricting Mt. Hood Meadows from further expansion into the corridor would have no adverse impact. The ski area can expand to the north and northeast, away from White River."

This statement is not only conclusory and unsubstantiated, it is wrong. The specific intent of the legislation was to allow Meadows to expand into the "White River" area. The area was identified in the Mt. Hood [LMP] and the 1978 Mt. Hood FES as a potential area for Meadows' expansion prior to the nomination of White River as Wild and Scenic, much less the legislation designating it as such. Such expansion is necessary to meet the desired 15,000 Persons At One Time (PAOT) use level of the proposed Master Plan. Moreover, lift 26 in the new plan is critical to the ski area for the beginner and low intermediate terrain it will create.

Mt. Hood Meadows is bounded on the north and northeast by the Mt. Hood Wilderness. It cannot expand beyond its existing permit areas in those directions. Also, the proposed Master Plan already maximizes lift development and terrain utilization within the existing permit area to obtain the desired PAOT.

This language and all Alternative Management Directives which seek to limit Meadows' expansion into the proposed management boundary should either be stricken or amended to reflect limits on alpine skiing that are other than Meadow's expansion.

Response The 1988 Omnibus Oregon Wild and Scenic Rivers Act, Public Law 100-557, contains the following wording concerning ski area expansion into the White River Wild and Scenic River:

. . . *Provided,* That designation and classification shall not preclude the Secretary [of Agriculture] from exercising discretion to approve construction, operation, and from exercising discretion to approve construction, operation, and maintenance of ski lifts, ski runs, and associated facilities for the land comprising the Mt. Hood Winter Sports Area insofar as such construction does not involve water resource projects and is consistent with protecting the values for which the river was designated.

It is our understanding that this language does not guarantee that any ski area can expand into the river corridor but that management of the corridor should allow the Secretary of Agriculture to have the *option* to approve ski area expansion. The intent of the environmental assessment and management plan for White River is to not preclude the possibility of Mt. Hood Meadows' expansion into the proposed "White River" area.

You are correct in terms of expansion opportunities to the north and northeast. In preparing the environmental assessment we did not carefully check where the current permit boundary lay in relation to the Mt. Hood Wilderness. The ski area does not have any expansion options to the north and northeast. We regret the error.

Comment Tables 4-2, 4-3, 4-4 and 4-5 all reflect that the Expected Alternative Effects to Alpine Skiing are "Decreased over time." These statements may mean that besides any expansion by Mt. Hood Meadows skiing will decrease over time, but that is not what is stated. If Meadows expands as it has planned by constructing 2 new chair lifts and trails in the proposed 700 acre area, alpine skiing most certainly will not decrease over time under any management alternative. It is outside the prerogative of any management alternative to consider reduction in alpine skiing to attain management goals because of statutory language and Congressional intent.

Response You are correct in that we did not clearly state what we meant. Alpine skiing *outside the permit boundaries of the commercial ski areas* should decrease over time. Alpine skiing within the permit boundaries of commercial ski areas are expected to remain the same or increase over time.

Comment At Appendix D., the description of facilities does not indicate that ski runs will be developed as part of the construction of lifts 22 and 26. This should be amended to reflect that fact.

Response We recognize that the ski lifts will have runs associated with them. However, neither the FEIS nor the Record of Decision displays where those runs lie in relation to the wild and scenic river corridor. As with any roads that may be constructed, all ski runs constructed within the wild and scenic river corridor should have no short- or long-term negative impacts on the outstandingly remarkable values in Segment A.

Comment The Preferred [Corridor] Alternative (Alternative 2) and Alternative 3 include within their Segment A and B boundaries portions of Mt. Hood Meadows existing permit area. It is inappropriate to include any of Meadows current permit in the final corridor boundary. The Meadows existing permit area is designated an A-11 Winter Recreation Area in the Forest Plan and managed as such by the USFS.

There appears to be no rational or essential basis to now include either 71 acres (Alt. 2) or 61 acres (Alt. 3) within the corridor boundary. During the period from designation of White River as Wild and Scenic (1988) through this date, the Meadows permit area has been managed under the Forest Plan, Standards and Guidelines without consequences to the river's attributes, even though the interim boundary was significantly smaller. The final boundary must exclude any of the current Meadows permit area.

Moreover, in accessing (sic) the Alternative Boundary Effects on Recreation, the EA acknowledges , "Alternative 3 includes the existing facilities and opportunities but offers little possibility or expansion" (p. 4-30). The final boundary cannot be created to "offer little possibility" for recreational expansion by Meadows.

The final corridor boundary for Segment A should reflect the intent of Congress by either keeping the interim boundary or excluding from the management corridor any of the proposed expansion area that is ultimately included in the new Meadows ROD.

Response Nothing in the Mt. Hood Forest Plan, the 1988 Omnibus Oregon Wild and Scenic Rivers Act or the 1968 Wild and Scenic Rivers Act, as amended, precludes including any portion of the existing or proposed Mt. Hood Meadows permit area. Wild and Scenic River corridors must be large enough to adequately protect the values for which the river is designated. Additionally, language in the 1988 Omnibus Oregon Wild and Scenic River Act and the intent of the management plan and environmental assessment does not preclude ski area expansion or continued management of the land within the permit boundaries for skiing activities as long as the activities and facilities cause no short- or long-term negative impacts to the river's values. The boundaries in Alternatives 2 and 3 are intended to provide protection for the outstandingly remarkable values in Segment A.

Even though a portion of the Mt. Hood Meadows ski area lies within either proposed corridor, the land allocation associated with the river corridor would overlay the A-11 allocation. There are numerous examples of overlapping land allocations throughout the forest. Where land allocations overlap, the most restrictive standards and guidelines for a given resource area or activity apply. Thus, under management Alternative C, the area of overlap would be managed as a Winter Recreation Area within a Wild and Scenic River corridor.

To the best of our knowledge, neither the Forest Service nor Mt. Hood Meadows have conducted any studies to show what effects, if any, skiing activities and facilities within the permit boundary have had on the values for which the river was designated.

The statement on page 4-30 refers to general recreation facilities and opportunities throughout the river corridor, such as trails, campgrounds, and day use areas. It does not refer to any existing or proposed facilities or opportunities associated with Mt. Hood Meadows.

Comment

Although Segments A and B were designated as a Recreational River by the Omnibus Act and not a Scenic River like Sections C and D, the EA proposes to create a designated viewshed and manage the Segments for an Outstandingly Remarkable Value (ORV) of scenic quality (p. 1-14). Congress chose not to delineate scenic qualities as significant enough to attain a designation on that basis, but the EA proposes to do it anyway. It goes on the include as Recreation within Segment A sightseeing and photography to justify the scenic importance.

On the basis of the scenic quality ORV and Viewshed Alternatives, the EA states with respect to Meadows expansion that "Limiting further expansion also reduces risks to scenic quality" (p. 4-5); "Ending new road construction in Segments A, C, and D would reduce the risks to scenic quality" (p. 4-12); "Design Lift 22 to minimize impacts to scenic quality as seen from White River, White River pit and Highway 35" (p. D-2); and "Reconsider Service Road B due to potential impact to . . . scenic quality" (p. D-2).

Expansion by Mt. Hood Meadows into the 700 acre area will consider impacts on scenic vistas as part of the environmental documentation required to analyze the projects impacts. This analysis should be done within the context of the Forest Plan VQO's, not any additional requirements caused by the management plan this document will create; or by and (sic) corridor or viewshed boundaries designated as part of the plan.

Response

Designation of a given river or river segment as "Scenic" or "Recreation" depends on specific criteria related to road access and levels of development, not on scenic quality. The 1968 Wild and Scenic Rivers Act, as amended, includes the following definitions:

"Scenic river areas - Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still 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 1988 Omnibus Oregon Wild and Scenic Rivers Act did not change these definitions. The level of development currently present within the Mt. Hood Meadows

	permit boundary and possible if the permit boundary is expanded means that Segment A does not meet the definition of a Scenic River. Any river segment can include scenic quality as an outstandingly remarkable value, regardless of its specific classification. Scenic quality is one of the values in Segments A and B. All Wild and Scenic rivers include a designated viewshed with associated visual quality objectives. These objectives are designed to protect the scenic values for which the river was designated.

Mazamas

In the area of management alternatives, the Mazamas support Alternative B over Alternative C for the following reasons:

Comment	We support less management of the natural area.
Response	The landscape analysis showed that certain areas of the corridor, particularly Segments C and D, currently are outside the range of natural conditions for the typical, pre-European settlement plant communities due to fire exclusion. We would like the option of manipulating these communities in order to increase the ecologic stability of the area and to reduce the risk of catastrophic events. Alternative B does not give us this option. We agree that any timber harvest should be minimal and designed to enhance or protect the outstandingly remarkable values within each river segment. Changing the land allocation from B1 to A1, which also occurs under Alternative C, removes the river corridor from the forest's timber base and should eliminate, or at least greatly reduce, any expectations that the corridor will provide timber on a regular basis. Forested land under BLM's ownership has already been removed from their timber base. Further, designation of the White River corridor as a Late-Successional Reserve under the President's Forest Plan provides an additional level of protection and additional standards and guidelines for all management activities.
Comment	We would like to see recreation capacity held at no more than current levels.
Response	The recreation strategy in Alternative C is intended to hold recreation capacity at current levels. Facility redesign should reduce the negative impacts to other resources from recreation use.
Comment	We discourage promoting non-native animal species.
Response	Alternative C does not necessarily promote nonnative wildlife species. The emphasis is on native species; however, providing habitat for the natives also results in habitat for the nonnatives. The net effect between Alternatives B and C is the same in that regard. Further, Alternative C recognizes the presence of nonnative species, that we cannot remove these species, and that many of these species are socially and biologically important to the area.
Comment	We do not want to see road 48 designated as a snowmobile route.

Response After reviewing your comment and the recreation strategy, we decided to compromise between Alternative B and C. Road 48 between White River East Sno-park and the junction of road 4890 will be closed to snowmobiling. This closure better fits with the overall recreation strategy for Bear Springs, Hood River, and Zigzag ranger districts, which emphasizes nonmotorized recreation in upper White River area. Road 43 will remain open as a snowmobile route connecting the Frog Lake and Bonney Meadows areas. Road 4890 will remain open as a snowmobile route, maintaining an existing loop. Approximately 2 miles of Road 48, between the junctions with roads 43 and 4890, would be part of the officially designated snowmobile route. Please see Standards and Guidelines A1-WR-105, 106, and 107.

Comment The Mazamas believe that in order to uphold Wild and Scenic Values, the sand and gravel mining operation to the North of Highway 35 should be closed and the area restored to a natural condition.

Response Alternative C allows for only one more entry instead of the originally scheduled 3 additional entries. Thus, this alternative reduces the future potential removal by approximately 2/3's. The one allowed removal will provide opportunities to rehabilitate the pit including correcting identified hazards for safe snow play, reshaping slopes to reduce the visual impacts of past mining, redesigning the pond into a swampy wetland, and improving watchable wildlife opportunities.

Opportunities for safe snow play are in very short supply on the Mt. Hood National Forest, especially at an elevation with good snow conditions. White River pit is not an official snow play area, but it is used for this activity. It should be rehabilitated such that if someone choose to use the area for snow play they could do so with a reasonable expectation of safe snow play. The pond as it currently exists does not perform its ecological intent. The biologists at Zigzag Ranger District and on the White River planning team agree that swampy wetlands are a normal part of the river ecosystem in this area. As such a new rehabilitation plan will address how best to reshape or rework the pond and what plant species to promote to better meet this intent. Funding for the completion of the rehabilitation plan and resulting work can be financed in great part by ODOT during this final entry.

Oregon Department of Transportation is currently looking for alternative sources of sanding material for the Highway 26 and 35 corridors and for ways to reduce the amount of material used. However, they need 2-3 additional years of the White River material before these other sources and techniques can be implemented effectively. The one entry allowed under Alternative C would provide needed material over this transition period.

Lastly, even this last entry and the rehabilitation plan must be reviewed in context of the President's Forest Plan and the Aquatic Conservation Strategy Objectives before removing any additional material. Zigzag Ranger District plans to evaluate the next entry and develop a new rehabilitation plan that both protects or enhances the outstandingly remarkable values in the area and provides opportunity for safe snow play. Please see Standards and Guidelines A1-WR-073, 074, and 075.

Wilderness Watch

Comment	Page 1-10 6th paragraph - you state "As demand for recreation sites increases, the type of recreation experience will change from a more primitive, less developed ROS class to a less primitive, more developed ROS class." This is not necessarily so. The managing agencies may control the use created by demand by putting on restrictions that could maintain the present ROS or even bring it to a more primitive state. The point here is that the managing agencies have the control and undesirable change will only happen if you allow.
Response	This statement is intended to lay out one of the conflicts associated with recreation use. We believe that this change to a less primitive, more developed recreational experience will occur *unless* the agencies take specific actions to control use levels and the recreational experience. Alternative control measures and anticipated use changes are listed in Chapter 2, Alternatives, p. 2-24 and 2-25. It is also true that recreation management in both managing agencies is chronically underfunded and White River has been a low priority in both agencies. Further, the existing situation includes recreational facilities and use levels that have developed in the absence of any coordinated plan. This situation is not expected to change unless a coordinated plan, which would include site design and various controls on visitor use, is developed as proposed under the Action Alternatives (B through E).
Comment	2-8 Scenic Resources and Recreation, 1, 2, 4 - You are required by Sec 3(d)(1) of the Wild and Scenic Rivers Act to determine "user capacities and other practices necessary or desirable to achieve the purposes of this Act" in this plan. These are key decisions that should be made in conjunction with the other decisions being made in this plan so they may be coordinated.
Response	You are correct. However, a Limits of Acceptable Change (LAC) study was not funded during the EA stage. This LAC study is a top priority under the implementation plan.
Comment	2-11 Mining - Locatable, leasable, salable, Highway 25 (sic) permit - Prefer Alternative B as this would result in less impact from any mining operation.
Response	**Forest Service** - In terms of locatable, leasable, and salable minerals, the only difference between Alternatives B and C on the Mt. Hood National Forest concerns whether or not to withdraw leasable minerals. The Forest Plan already recommends withdrawing locatable minerals and no more permits for salable minerals within wild and scenic river corridors, with the exception of the Highway 35 pit. The potential for leasable minerals (primarily geothermal) is so low that little or nothing is at stake by not withdrawing that category of minerals. Initiating a formal withdrawal of leasables would be a needless expense. Please review our response to the Mazamas (previous page) concerning the Highway 35 pit for our rationale in staying with Alternative C **BLM** - The selection of Alternative B would preclude any mining or mineral activity, not just result in less impact on federal land. The selection of the preferred alternative allows for future flexibility while meeting the intent of the Act. The generally low potential for locatable minerals and the legal requirement in 43 CFR 3809 for a mining plan of operation and required bonding of any proposed activity provides more than adequate protection to ". . . achieve the purposes of this Act." A no surface occupancy stipulation on any mineral leasing is more than adequate to preclude significant impacts to the corridor. A leasing withdrawal is not considered necessary. The selection of Alternative C for salable minerals is preferred because of low demand from local governments, the right of BLM to refuse to sell, and the need to allow for future flexibility.

Comment	2-23 Fire Protection - Fire pans should be required as this restriction is now common on many rivers because it reduces the risk of fires and results in less damage to the surface on which the fire is built.
Response	We will adopt this suggestion. See Standard and Guideline A1-WR-115 for National Forest lands.
Comment	2-25 Commercial Use - The decision as to whether or not to allocate use between outfitters and the non-outfitted public should be made in this document. This should be based on your need to limit the use to meet LAC objectives. Wilderness Watch would not favor a fixed percentage allocation. If use is to be controlled by permit, the permits should be made available to the people who desire to use the land or river and they should then have the opportunity to choose whether or not to use the services of an outfitter.
Response	Use was not allocated at this time since commercial use is an insignificant part of the use on White River at this time. We believe that this allocation could wait until the LAC study was completed or a conflict developed between commercial and private use.
Comment	Alternative 2 - Segment E this boundary is probably too narrow because when the river shifts (as eventually it will) to the edge they may be no buffer between the river and the management practices on the adjacent land.
Response	Management opportunities associated with private lands are minimal within Wild and Scenic river corridors. All of Segment E is privately owned. Further, we felt that the limited acres available would be better applied on federal lands where management opportunities are much greater and where the river shifts a great deal. The private landowners in Segment E would not accept a wide corridor and their input, along with the input of other resource specialists resulted in the narrower corridor in Segment E. You are correct in that the river will likely shift in Segment E. However, we do not know how much it is likely to shift, given the current land uses and land form. We believe the proposed boundary should adequately protect the river except in the advent of a major channel shift. If a major channel shift would occur such that the river moved to the very edge or outside the proposed boundary, the corridor boundary would also shift to cover the river shorelines within approximately 1/4 mile of either side. A major channel shift in Segment E would also likely trigger an amendment to the river plan to address the effects of both the river channel shift and the boundary shift and to establish a new corridor boundary.
Comment	3-17 - 5th paragraph - This is a National Wild and Scenic River. There is no legal or rational base for the statement "corridor management should provide opportunities for local employment and assist in expanding the local economy." This type of DFC statement can lead to selecting projects that are economically desirable but environmentally unwise and which may be counter-to regional and national interests. This type of discriminatory language should be removed from the EA.

Response Legal requirements within the 1968 Wild and Scenic Rivers Act, as amended, and the 1988 Omnibus Oregon Wild and Scenic River Act establish constraints on allowable projects. No project on federal lands can have long-term negative impacts on any value for which the river was designated. Allowable projects on other ownerships are controlled by state and local laws, not by the federal agencies, with the exception of water impoundments.

We believe that any wild and scenic river plan will have a greater chance of meeting its goals and objectives if it has local support. Further, we see no rational basis for *not* desiring that river management contribute to the local economy, however it can within the context of protecting and enhancing the river's outstanding remarkable values. The Forest Service also has Rural Development as one of its missions. Environmentally sound, economically desirable projects within the wild and scenic river corridor is included under that mission.

Sandra and Van Woodside

Comment The promise of this bill was "to preserve and protect this river in its natural condition." As such, there is nothing to be gained by introducing people into this natural area.

To meddle, by allowing trails and fire and camping will result in degradation of the natural beauty and disturbance of natures wildlife. Please leave it as nature intended it to be.

Response The trails, fire, and camping were happening in the river before it was designated. All trails in Segment D (the main canyon) are not part of a formal trail network. The recreation management strategy in Alternative C would prohibit the designation of a formal trail network, developed trails, and trailhead facilities on federal lands and would restrict use to current levels (1994). Any facility construction within the canyon is intended to reduce and control the impacts associated with camping.

The wildfire management strategy would prohibit campfires between Keeps Mill and the Deschutes River between June 1 and October 15 on federal lands. We have added a further restriction requiring the use of fire pans the rest of the year instead of just encouraging their use. Fire pans should greatly reduce the risk of escaped campfires outside of the main wildfire season (June 1-October 15). Please see Standards and Guidelines A1-WR-114 and 115 for National Forest lands. We cannot require the state and private landowners adopt these restrictions on the lands under their jurisdiction, but have recommended that they adopt the same or similar restrictions.

The plant communities within the canyons (Segments C, D, and F) have been greatly altered by suppressing all fires. However, we recognize that uncontrolled and unplanned fires can have devastating impacts on the scenery, wildlife, and private landowners within and adjacent to the canyon. For this reason we recommended that all fire management organizations jointly develop a fire management action plan for the lands under their protection jurisdiction and recommended that wildfire protection be extended by some method(s) to cover all lands within the White River corridor (p. 2-7, Fire Protection 1, 2, and 3).

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Comment	No fires should be allowed at all in Segments D, E, and F.
Response	The EA contains several requirements and recommendations governing wildfire protection and management (p. 2-7 Fire Protection 1, 2, and 3; p. 2-20 and 2-12 Fire Protection, Fuels Management; cover letter). In addition, we have changed from merely encouraging the use of fire pans outside the main fire season (June 1-October 15) to requiring the use of fire pans (Standard and Guideline A1-WR-115 for National Forest lands). These requirements and recommendations are intended to allow for the continued use of campfires at least part of the year and to reduce the risk of catastrophic wildfire. At this time, it is not acceptable from a social standpoint to completely ban all campfires year-round. It is not logistically possible to suppress all wildfires immediately since many places within the canyons do not allow for firefighter safety. It is not ecologically sound to completely remove all fire from the plant communities within the canyons. These communities are adapted to fire and require fire to remain healthy.
Comment	White River Falls should be designated as part of the Wild and Scenic River
Response	Appendix A recommends the inclusion of White River Falls within the White River Wild and Scenic River.

On June 17, 1994, we extended an additional comment period because the off-highway vehicle (OHV) planning activity on Barlow Ranger District created interest in the provisions of the preferred alternative in The White River EA. We reopened comment on all aspects of the plan. A summary of the comments and our responses are listed below.

Comment	A total of 264 notes and postcards were received in support of an OHV connection between Barlow and Bear Springs Ranger Districts. 145 of those 240 people did not prefer Alternative C (the preferred alternative). Ten of the 240 respondents preferred Alternatives D or E because of their increased recreation opportunities and motorized access. We also received lengthy and thoughtful letters from Billy C. Torman, William H. Frickey, Central Oregon Motorcycle and ATV Club (COMAC), Arnold Ryland, Stan Fargher, Joseph J. McCarthy, Mark Dorin, Cheryl A. Greenstreet, and Robert H. Greenstreet. The following consists of a summary of the thoughts and concerns received in support of an OHV connection: "Thank you for extending your cutoff date for the White River. Please consider adding OHV access from the north side of White River from McCubbins Gulch Riding Area and OHV trail loops in Barlow District" **Danielle Barrell** "What is your issue, our presence or staying on designated trails? . . . How does your viewshed in Segment B effect future trail development in the McCubbins Gulch OHV area? . . . are decommissioned roadbeds being considered for motorized access . . . will this (old growth) effect future trail facilities?" **Cheryl A. Greenstreet** "Please don't alienate the majority of motorcyclists by making these trails for street-legal bikes only." **Mark Dorin** "Use the old Barlow Road just off road 43 and up the hill to connect the Bear Springs and Barlow OHV trail systems together. I'm sure you've already thought of this. Longer trails can be used for OHV while short scenic trails for hikers alone." **Stan Fargher**

"I have been riding in your area for many years and find it one of the nicest areas around to take my family to ride and enjoy the outdoors. . . .We need White River corridor open. I would be willing to help build anything to make it possible." **Joseph J. McCarthy**

"Alternative C, as it now stands, would actually be harming the area it plans on protecting by making the two OHV areas into Day Use High Impact areas, similar to an OHV area we have here in Central Oregon called Henderson Flats. This is the very best example of how NOT to manage OHV use." **COMAC (P. Falcioni)**

"I have ridden in your area for many years and find it one of the nicest. . .we feel that Alternative C is NOT acceptable for many that use the area. . .'E' or 'D' is better." **Billy C. Torman**

"Several years ago, when Don Campbell was the Ranger at Bear Springs, we worked very hard to develop an environmentally sensitive plan for OHV use in the McCubbins Gulch area. Included in this planning was the need for crossings of White River to access the ride areas on the other side." **Arnold Ryland**

"Before receiving this letter eliciting comments, it had seemed that the Districts of Bear Springs and Barlow had made an INTERNAL DECISION to eliminate trails and their use, without public comment." **William H. Frickey**

"Within the scope of your present document, all that is necessary at this time is to designate areas for future opportunities for motorized OHV crossing of the river corridor or possible dual-use designation for the existing motorized crossings. The opportunity to link the Bear Springs OHV trail system and the Barlow OHV trail system should not be lost in the White River Wild and Scenic River Management Plan." **Robert H. Greenstreet**

We also received two comments in support of the motorized access provisions within Alternative C:

"I am opposed to opening the corridor to other motorized vehicles such as off-road motorcycles and all-terrain vehicles. These vehicles are simply too destructive. Permitting their use in the corridor would soon nullify the designation of the river as 'wild and scenic'." **Carol L. Chaffee**

"Wilderness Watch does NOT support any adjustment to Alternative C of the White River Management Plan to provide for non-street legal OHV's. There is no evidence in your proposed plan or in the Forest Plan to support providing for their use. The presence of OHV's would be potentially disturbing to wildlife habitat." **Wilderness Watch (Joseph F. Higgins)**

Response

We are impressed and truly grateful for the time all of these stakeholders spent in answering our call for comment. It started discussions on both of the Districts and within the White River ID Team. We wanted these ideas, concerns, and thoughts in order to try and reach an acceptable and feasible solution. The main points we gained from the letters in support of OHV use in the White River corridor were that at least one crossing on at least one designated trail for OHV use was wanted. Or, very minimally, the door remaining open to the IDEA was wanted. From those who did not want this access we learned that there was a concern for wildlife habitat and the potential "destructiveness" of OHVs.

At present, we lack sufficient data to know where to locate a trail from the McCubbins Gulch OHV area to a trail on the Barlow Ranger District and what impacts a designated trail and crossing would have on the White River Sand Flats; the Barlow Road; the primitive campground at Keep's Mill; threatened, endangered, and sensitive plant and wildlife species and habitat; and water quality. An OHV trail system on Barlow has NOT been formally designated yet, so that we do not know where to provide a connection. The Forest Plan originally allowed for the possibility of OHV trails in the B1 corridor (Wild and Scenic Rivers) but no such trails had been designated. The only decisions made regarding OHVs within the White River corridor was the closure of the Barlow Road and the White River Sand Flats to non-street legal vehicles. Further complicating the picture is the designation of White River as a Tier 2 Key Watershed and a Late-Successional Reserve plus the creation of Riparian Reserves at least 300 feet wide on each side of fish-bearing streams under the President's Forest Plan. At present, we do not know what effects, if any, these designations might have on our ability to provide OHV trails and crossings. Therefore, we cannot make an informed decision either way.

The truth is this issue came up too late to deal with adequately in the wild and scenic river plan. We have decided to keep the question open and pass it along to the White River Watershed Analysis Team. Therefore, we will keep the current language in Alternative C with the stipulation that the White River Watershed Analysis, the White River Limits of Acceptable Change Study, and the White River Access and Travel Management Guide will lead us to a final decision in this matter (A1-WR-098).

We also received two letters in support of production of sanding aggregate from White River pit.

Comment

If the White River Quarry is determined to be unavailable as a sanding source, this could significantly and more likely drastically impact the level of service for sanding that ODOT would perform for winter road maintenance on Mt. Hood. Current costs for yearly sanding material from White River Quarry is $280,000 for an average use of 45,000 cubic yards per year. Any hard rock quarry material would cost between $480,000 and $640,000 for the same average use of 45,000 cubic yards per year, depending on the source (commercial or USFS). This potentially over doubles the cost of ODOT's producing and/or purchasing of sanding rock, a cost not easily absorbed while providing the same level of service. . . . ODOT requests the USFS evaluate further mining in the White River Quarry as part of the White River Management Plan and, if necessary, to identify alternative sources within USFS land for future sanding rock material. **Karla Keller**, District 2C Manager of Oregon Department of Highways

". . . from the standpoints of safety and economy, it is indeed fortunate for the citizens of Oregon that this source contains native material that requires less processing than "hard rock" sources and is located near the area of greatest need on the Mt. Hood Highway." **Dale Allen**, ODOT Region 4 Manager.

Response Please refer to the previous comment period's response (response to the Mazamas). Although we did not previously receive written comment from ODOT, we met with representatives and discussed this issue at the gravel pit site near White River West Sno-Park. These concerns have played a major part in allowing ODOT to complete the Stage II removal, which would be roughly one-half the amount expected over the original life of the pit. However, since these discussions, the President's Forest Plan was released, designating White River as a Tier 2 Key Watershed and a Late-Successional Reserve plus establishing Riparian Reserves. Since the White River pit lies within a Riparian Reserve, additional mining will need to show how it serves to attain the Aquatic Conservation Strategy Objectives. Since White River lies within a Key Watershed, a watershed analysis is required before additional mining can proceed. This analysis may, in fact, result in the prohibition of further mining or it may allow it to proceed at some lessor level than that identified in the White River Management Plan.

Appendix B
Water Resource Project Evaluation

APPENDIX B: WATER RESOURCE PROJECT EVALUATION

Introduction

This paper documents a procedure which can be uniformly and consistently applied by the Forest Service to determine whether proposed water resources projects present a direct and adverse effect to designated wild and scenic river values, and thus would be prohibited under Section 7 of the Wild and Scenic Rivers Act (the Act), or whether the projects should be allowed to proceed because they do not meet the threshold.

The procedure also applies to congressionally identified study rivers (Section 5a rivers), which are afforded interim protection from projects which would affect "free-flow" characteristics in Section 7(b) of the Act. Although not protected from such projects in the Act, rivers identified for study through the land management planning process (Section 5d rivers) are also afforded protection via agency policy (Forest Service Planning Handbook 1909.12, Chapter 8.12).

The procedure may also be applied to evaluate activities proposed outside a designated or study river corridor to determine if they result in indirect effects that "invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area on the date of designation," as referenced in Section 7(a).

This procedure presumes a strict interpretation of what activities would qualify as water resources projects. Water resources projects have been defined in 36 CFR Part 297 as:

> ". . . any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act, or other construction of developments which would affect the free-flowing characteristic of a Wild and Scenic River or study river."

Section 16(b) of the Act provides a definition of "free-flow" that assists in identification of water resources projects. It states:

> "Free-flowing, as applied to any river or section of river, means existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway."

Therefore, if a proposed activity would affect a river's free-flow, or meet other criteria outlined in 36 CFR 297, it qualifies as a water resources project and the Section 7 procedure defined in this paper can be applied.

Issue

The key issue, assuming that the proposed activity is identified as a water resources project, is whether the project presents a direct and adverse affect on the values for which the river was designated or is being studied (or if a proposed activity is above or below the area, does it unreasonably diminish the scenic, recreational, or fish and wildlife values)?

Lack of a standardized procedure to analyze effects has contributed to the difficulty of making an adequate analysis of water resources projects as required by Section 7, manual direction (FSM 2325), and the Forest Service Handbook (FSH 1909.12, Chapter 8). The balance of this paper describes a standardized analysis procedure that incorporates the following principles:

- Effects will be judged in the context of the legislation designating the affected wild and scenic river and the management objectives for the river as defined in the comprehensive river

management plan. (In the case of study rivers, effects are judged in the context of relevant Forest Plan standards and guidelines and the potential affect of the activity on the river's eligibility.)

- Water resource projects are permissible if the net effect protects or enhances values for which the river was designated or is being studied. Water resource projects are not permitted if they have a direct and adverse effect on such river values. (In the case of study rivers management activities may be carried out provided they would not result in a reduced classification recommendation, and are consistent with other relevant Forest Plan standards and guidelines.)
- Permissible water resources projects will, to the extent practicable, maintain or enhance the free-flowing characteristics of the river.
- Water resources projects may be permitted even though they may have an effect on free-flowing characteristics if:
  - ➢ the specific purpose of the project is to protect or enhance the values for which the river was designated, restore the natural characteristics of the river, and/or improve the water quality of the river;
  - ➢ associated impacts on the free-flowing characteristics of the river are minimized to the extent practicable; and,
  - ➢ the proponent and manager of the project is a federal, state, or local government entity.

Procedure

Background

In developing this procedure we recognize that:

- It is necessary to provide a temporal and spatial context for evaluating river related proposals. The wild and scenic river management planning process should result in a clear statement of long-term management goals and objectives for free-flow, water quality, riparian areas and floodplains, and the outstandingly remarkable or other significant resource values designated by statute.
- Section 7 and promulgating rules (36 CFR 297 Forest Service) require an analysis of effects associated with a proposed water resources project. The analysis of activities deemed acceptable must clearly demonstrate consistency with management goals and objectives.
- Management of river ecosystems should be designed to achieve management goals and objectives through natural processes and use of techniques that mimic those processes. To insure that long-term goals and objectives are met, careful analysis and evaluation of these processes, time scales, and public perceptions is necessary.
- State fish and wildlife agencies share responsibility with the Forest Service and BLM for fish and wildlife resources in wild and scenic rivers. Identification and evaluation of water resource projects should be coordinated with the States, recognizing and supporting attainment of state fish and wildlife management objectives to the extent they are consistent with the outstanding values for which the river was designated or is being studied.

Step-by-Step Procedure

The following procedure is designed to evaluate proposed activities within a wild and scenic river ecosystem. This procedure is not simply one of disclosure. Rather, it is a framework to identify changes in free-flow conditions and evaluate the effects associated with project proposals.

1) Establish Need and Evaluate Consistency with Management Goals and Objectives

The first step is to define that the need for the proposed activity is consistent with the management goals and objectives for the river. Management goals provide the standard for evaluation of effects. If the activity does not evidence a compelling need or is inconsistent with the management goals and objectives or other applicable laws (e.g. Wilderness Act, Endangered Species Act, etc.), the project may not be considered further.

For projects that appear needed to help attain the management goals and objectives, proceed with the following steps. The scope of analysis should be commensurate with the magnitude and complexity of the project proposal. The procedure should be accomplished via an interdisciplinary team with adequate skills for the analysis. Note that each step requires some professional judgment.

2) Define the Proposed Activity

Provide an objective description of the proposed activity. The level of detail should be proportional to the scope of the proposed project and should indicate whether the project is isolated or part of a more complex or comprehensive proposal.

- Project proponent(s)
- Purpose (clearly state the need for the project)
- Location
- Duration of proposed activities
- Magnitude/extent of proposed activities
- Relationship to past and future management

3) Describe How the Proposed Activity Will Directly Alter Within-Channel Conditions

Address the magnitude and spatial extent of the effects the proposed activity will have on in-channel attributes. Special attention should be given to changes in features which would affect the outstandingly remarkable or other significant resource values.

- What is the position of the proposed activity relative to the stream bed and banks?
- Does the proposed activity result in changes in:
  - ➢ Active channel location?
  - ➢ Channel geometry (i.e. cross-sectional shape or width/depth characteristics)?
  - ➢ Channel slope (rate or nature of vertical drop)?
  - ➢ Channel form (e.g. straight, meandering, or braided)?
  - ➢ Relevant water quality parameters (e.g. turbidity, temperature, nutrient availability)?

4) Describe How the Proposed Activity Will Directly Alter Riparian and/or Floodplain Conditions

Address the magnitude and spatial extent of the effects the proposed activity will have on riparian/floodplain attributes. Special attention should be given to changes in features that would affect the outstandingly remarkable or other significant resource values.

- What is the position of the proposed activity relative to the riparian area and floodplain?
- Does the proposed activity result in changes in:
  - ➢ Vegetation composition, age structure, quantity, vigor, etc.?
  - ➢ Relevant soil properties such as compaction, percent bare ground, etc.?
  - ➢ Relevant floodplain properties such as width, roughness, bank stability, or susceptibility to erosion, etc.?

5) Describe How the Proposed Activity Will Directly Alter Upland Conditions

Address the magnitude and spatial extent of the effects the proposed activity will have on associated upland attributes. Special attention should be given to changes in features that would affect the outstandingly remarkable or other significant resource values.

- What is the position of the proposed activity relative to the uplands?
- Does the proposed activity result in changes in:
  - ➢ Vegetation composition, age structure, quantity, vigor, etc.?
  - ➢ Relevant soil properties such as compaction, percent bare ground, etc.?
  - ➢ Relevant hydrologic properties such as drainage patterns, the character of surface and subsurface flows, etc.?
- Will changes in upland conditions influence archaeological, cultural, or other identified significant resource values?

6) Evaluate and Describe How Changes in On-Site Conditions Can/Will Alter Existing Hydrologic or Biologic Processes

Evaluate potential changes in river and biological process by quantifying, qualifying, and modeling as appropriate.

- Does the proposed activity affect:
  - ➢ Ability of the channel to change course, re-occupy former segments, or inundate its floodplain?
  - ➢ Streambank erosion potential, sediment routing and deposition, or debris loading?
  - ➢ The amount or timing of flow in the channel?
  - ➢ Existing flow patterns?
  - ➢ Surface and subsurface flows?
  - ➢ Flood storage (detention storage)?
  - ➢ Aggradation/degradation of the channel?

- Does the proposed activity affect biological processes such as:
  - ➢ Reproduction, vigor, growth, and/or secession of streamside vegetation?
  - ➢ Nutrient cycling?
  - ➢ Fish spawning and/or rearing success?
  - ➢ Riparian dependent avian species needs?
  - ➢ Amphibian/mollusk needs?

7) Estimate the Magnitude and Spatial Extent of Potential Off-Site Changes

Address potential off-site, or indirect effects of the proposed activity, acknowledging any uncertainties (i.e. a risk analysis).

- Consider and document:
  - ➢ Changes that influence other parts of the river system.
  - ➢ The range of circumstances under which off-site changes might occur (e.g., as may be related to flow frequency).
  - ➢ The probability of likelihood that predicted changes will be realized.
- Specify processes involved, such as water, sediment, movement of nutrients, etc.

8) Define the Time Scale Over Which Steps 3-7 are Likely to Occur

- Review steps 3-7 looking independently at the element of time.
- Consider whether conditions, processes and effect are temporary or persistent. That is, attempt to define and document the time scale over which the effects will occur.

9) Compare Project Analyses to Management Goals and Objectives

Based on the analysis of steps 3-8, identify project effects on achievement of management goals and objectives relative to free-flow, water quality, riparian area and floodplain conditions, and the outstandingly remarkable and other significant resource values.

Section 7 Determination

Based on the analysis of steps 3-9 document:

- Effects of the proposed activity on conditions of free-flow, including identification of the measures taken to minimize those effects.
- Any direct and adverse effects on the outstandingly remarkable and other significant resource values for which the river was designated or is being studied.
- Any unreasonable diminishing of scenic, recreational, or fish and wildlife values associated with projects above or below the area.

The determination should permit those water resource projects that are consistent with the legislation designating the affected wild and scenic river and the management objectives for the river as defined in the comprehensive river management plan, or in the case of study rivers, the proposed activities would not result in a reduced classification recommendation and are consistent with Forest Plan standards and guidelines. Permissible water resources projects will, to the extent practicable,

maintain or enhance the free-flowing characteristics of the river. Water resources projects that have a direct and adverse affect on designated river values or management objectives are **not** to be permitted.

It is important to note that water resources projects may be permitted even though they may have an effect on free-flowing characteristics if:

- The specific purpose of the project is to protect or enhance the values for which the river was designated, restore the natural characteristics of the river, and/or improve the water quality of the river;
- the associated impacts on free-flowing characteristics of the river are minimized to the extent practicable; and
- the proponent and manager of the project is a federal, state, or local governmental entity.

Include the Section 7 determination as part of the broader NEPA analysis of the proposed activity. See the following section for additional information on the relationship of Section 7 determinations and the NEPA process.

Incorporation of Section 7 Determinations in the NEPA Process

The Code of Federal Regulation states:

> *"The determination of the effects of a proposed water resources project shall be made in compliance with NEPA."*

The following discussion offers more specific information regarding incorporation of the Section 7 procedure into the NEPA process. It also includes information relating to the decision document and the responsible official.

A proposed water resources project may be an independent project such as watershed or fish habitat restoration or construction of a boat ramp or fishing pier, or part of a larger program that serves a variety of purposes. In either situation, the Section 7 procedure is to be completed as a separate analysis by an interdisciplinary team. For designated rivers (Section 3a) and congressionally identified study rivers (Section 5a), the Section 7 procedure would be explicitly documented in, or appended to the NEPA document with appropriate reference in the NEPA analysis. Similarly, for rivers identified for study via the land management planning process (Section 5d), an analysis as to the potential effect of a proposed project on free-flow and the outstandingly remarkable values should be incorporated, appended, or available in the analysis file.

The decision document will describe the Section 7 determination for the preferred alternative for a designated or congressionally identified study river. This determination should state whether the proposed project will affect free-flow characteristics, whether it will or will not have a "direct and adverse effect on the values for which the river was designated" (or might be added to the System), or whether proposed projects above or below the area will "unreasonably diminish" those resource values. The Section 7 evaluation may result in identification of water resources projects which protect, restore, or enhance the values for which the river was designated of identified for study. In approval of such project, the decision notice should clearly state that determination.

For study rivers identified via the land management planning process (i.e. Section 5d rivers), utilize the Section 7 procedure with the decision document referencing that an analysis was conducted to evaluate the potential effect of the proposed project on free-flow and the outstandingly remarkable values. Note, that Section 7 is not required for 5d rivers, but agency policy (FSH 1909.12 8.12) provides direction to protect the free-flowing condition and outstandingly remarkable values.

The responsible official changes with the status of the river and whether or not another federal agency is involved. For proposed water resources projects on a 3a or 5a river, in which there is another federal agency "assisting by loan, grant, license, or otherwise . . .," the Regional Forester is the responsible official (reference FSM 2325.04e). If there is no other federal agency "assistance" for a project on a 3a or 5a river, the appropriate line officer signs the decision document. Decision documents for water resources projects on a 5d river are signed by the appropriate line officer.

Oversight and Review

The Regional Offices (Forest Service) and State Offices (BLM) are to provide for review of the Section 7 analysis completed for proposed water resources projects. This review process should be coordinated by the Recreation staff group and involve other appropriate staff areas such as fisheries, watershed, engineering, etc. The intent of this oversight is to ensure a consistent approach to the evaluation of proposed water resources projects in wild and scenic rivers. The review is not intended to make the final decision.

Summary

These procedures were developed to analyze projects that have the potential to affect the free-flowing condition and/or outstandingly remarkable values of designated and study wild and scenic rivers and determine which projects are consistent with the Act by protecting, restoring, or enhancing those river values. The scope of the analysis will vary with the magnitude and complexity of the proposed activity. The procedure requires interdisciplinary analysis and application of professional judgment within the requirements of the Act.

Examples of projects that would likely be subject to Section 7 analysis include, but are not limited to:

- Log removal for recreation user safety;
- Fisheries habitat and watershed restoration and enhancement projects;
- Bridge and other roadway construction/reconstruction projects;
- Bank stabilization projects;
- Recreation facilities such as boat ramps and fishing piers;
- Activities that require 404 permits from the Corps of Engineers.

Appendix C
Consistency with the President's Forest Plan

APPENDIX C: CONSISTENCY WITH THE PRESIDENT'S FOREST PLAN AND ATTAINMENT OF AQUATIC CONSERVATION STRATEGY OBJECTIVES

Introduction

The Record of Decision (ROD) and Standards and Guidelines for the President's Forest Plan requires that this plan address how it will serve to attain the Aquatic Conservation Strategy objectives (Standard and Guideline RM-3). This appendix discusses each objective and how the White River Wild and Scenic River management plan complies with each. In addition, this appendix briefly discusses the consistency between the standards and guidelines listed in the river management plan and those in the President's Forest Plan.

The river management plan was prepared before the Final SEIS and ROD, but strove to incorporate the intent of the President's Forest Plan as discussed in the Draft SEIS and FEMAT report. As such, there are some differences between the two documents. In the event of a conflict between a standard and guideline in the river management plan and one in the President's Forest Plan, the stricter standard and guideline will apply.

Background

White River was designated as a National Wild and Scenic River in 1988. A Resource Assessment that identified the river's outstandingly remarkable values was completed in March 1992. Management plan preparation began in October 1992 and an Environmental Assessment was released for public comment in November 1993. During the period of plan preparation, President Clinton convened a Forest Conference to address management of federal lands within the range of the northern spotted owl. The resulting plan developed new land allocations and standards and guidelines for managing those allocations.

White River and its tributaries were designated as a Tier 2 Key Watershed, at least as far as Graveyard Butte. Riparian Reserves lie along the river, all perennial tributaries, all ephemeral tributaries that meet the definition of an intermittent stream, and around all lakes, ponds, and wetlands. Most of the Forest Service lands within the proposed wild and scenic river boundary were designated as Late-successional Reserve. Under these allocations, any new land management activities require a watershed assessment before management can proceed. The watershed assessment covering that portion of the White River basin within the wild and scenic river boundaries is scheduled to begin in late 1994. No projects can move forward, including projects proposed in this river management plan, until the watershed analysis is completed.

Attainment of the Aquatic Conservation Strategy Objectives

The Aquatic Conservation Strategy consists of nine objectives. This section lists each objective and how the White River Wild and Scenic River management plan would attain these objectives. This section applies only to National Forest system lands within the White River management boundary.

1. *Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.*

   White River environmental assessment and plan used an ecosystem approach in developing the desired future conditions, management strategy, management area boundary, and associated

standards and guidelines. The overall strategy is to maintain the wild and scenic river corridor in as natural a condition as feasible while allowing restoration activities. The restoration is intended to return landscape-scale vegetation patterns, plant communities and distributions, and disturbance processes typical of the area prior to the mid-1800s.

2. *Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.*

   Maintaining connectivity with adjacent landscapes and watersheds is a part of the desired conditions for White River. Road densities and the desired percentages of the various stand structures should maintain these physically connections both between the White River corridor and adjacent lands and within the river corridor. The proposed management area boundary will help maintain chemical connectivity by including all the intermittent streams that drain directly into White River.

3. *Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.*

   Standards and guidelines under recreation, range management, vegetation management, minerals and energy management, transportation systems/facilities, and fire prevention and suppression are designed to protect the shorelines, banks, and bottom configurations of White River and those portions of perennial tributaries within the management area boundary. Recreational facilities, such as trails, trailheads, and developed campsites, must be properly located in relation to the river and riparian areas and wetlands (A1-WR-010, 020, 025, and 034). If needed, facilities should be moved (A1-WR-027 and 034).

   Both recreational and commercial livestock use and grazing must protect the river banks and riparian vegetation (A1-WR-012 and 053). The plan prohibits construction of new river and stream crossings (A1-WR-024), watercraft facilities (A1-WR-032), and new campgrounds (A1-WR-026). All river banks must be protected during any logging operations (A1-WR-060) and fire suppression activities (A1-WR-110 and 111).

   The White River plan does allow for one more entry into the White River pit. However, this last entry must serve to attain the aquatic conservation strategy. In addition, the area must be restored to a more natural condition (A1-WR-073 through 075). There are two main concerns over whether another entry can still occur and meet the Aquatic Conservation Strategy objectives.

   The first concern relates to the structural integrity of the channel. The material removed comes from a high bank of sandy ash along the west bank. During flood years, reducing the height of this bank may allow the river to move and change channels much more drastically than if the confining wall had remained. No such problems are anticipated during normal water years.

   The second concern relates to sediment timing. The mining will likely result in additional sediment reaching WHite River at a time when the sediment load is low. further, the sediment could result in altering the river's color during the operational period and altering how the river would have behaved (channel movement) if this sediment were added to the natural sediment load.

   Locatable minerals are withdrawn from entry and no other permits can be issued for salable minerals (A1-WR-069 and 072). Leasible minerals remain available but with a no surface occupancy stipulation (A1-WR-071).

   Lastly, the White River plan recommends replacing the Highway 35 bridge across White River with a design that allows for the relatively unimpeded flow of the natural glacial outwash floods and debris

torrents (A1-WR-094). Redesign of the Highway 35 bridge should occur in the event that a glacial outwash flood or debris torrent severely damages or destroys the existing bridge.

4. *Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian ecosystems.*

   The hydrologist and fish biologist on the White River planning team believe that management activities and recreational use have had some, but relatively little impact on water quality in White River. Most of the resulting standards and guidelines in the river plan are designed to maintain water quality. The river plan does reduce potential sediment sources by reducing the open road density from that allowed in the Mt. Hood Forest Plan (A1-WR-096), prohibiting new road construction in Segment A, except that needed in the Mt. Hood Meadows permit boundary (A1-WR-090), and prohibiting off-road driving except for over snow vehicles and emergencies (A1-WR-098) unless and until further study indicates that a designated off-road vehicle trail and crossing are feasible. The Forest Service cannot use chemicals to control noxious weeds in riparian zones (A1-WR-064).

   The implementation plan calls for obliterating road 4885 from the canyon rim to White River and stabilizing cutbanks along Road 48 and on Barlow Butte. Both the Forest Service and Prineville BLM need to collect five years of baseline data on the river's water quality and quantity and conduct an in-stream flow study to determine biologically appropriate flows. The monitoring plan establishes management standards for water temperature, color, pH, dissolved oxygen, chemicals (oil and gas, herbicides and pesticides, and salt), and aquatic macroinvertebrates.

5. *Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.*

   The White River aquatic ecosystem evolved under a sediment regime of glacial milk in late summer and fall coupled with episodes of glacial outwash flooding and debris torrents from Mt. Hood and episodes of debris torrents from some of the tributaries. Lastly, periodic large wildfires in the upper portions of the river may have resulted in sediment delivery from the adjacent slopes and tributaries.

   The most influential sediment regime originates on Mt. Hood and is composed primarily of volcanic ash and sands. The annual flow of glacial milk gives the river its distinctive color and name and greatly reduces the development of deep pools and suitable spawning gravels. The episodes of flooding and debris torrents shift the river channel up to mile in Segment B, fill pools, bury vegetation, and appears to remove most logs across the river. The effects of the flooding and debris torrents on the tributaries remains unclear. The management strategy for White River is designed to allow these processes to operate as fully as possible.

6. *Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.*

   The management strategy within the White River corridor, including the management area boundary, are designed to maintain the existing in-stream flows and the timing, magnitude, duration, and spatial distribution of peak, high, and low flows. However, one major influence on the hydrologic regime of White River lies outside the scope of any wild and scenic river plan. Most of the tributaries to White River have one or more irrigation withdrawals outside the management area boundary. All the water rights predate the designation of White River as a wild and scenic river and as a Key Watershed. Many of the withdrawals have been occurring since the late 1800s. The river's ecosystem may have already adjusted sufficiently to account for this change in the hydrologic regime.

7. *Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.*

   There are no meadows within the White River management area boundary. Most wetlands occur within the river floodplain or on steep, rocky slopes. The management strategy would allow the water table to fluctuate as annual precipitation and precipitation events dictate and would permit the floodplain to serve its ecological purpose. The wetlands on steep, rocky slopes are protected by their location, which generally precludes recreational development, livestock grazing, and harvesting.

8. *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 distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

   White River plan is intended to allow natural processes, such as flooding, insects, disease, and fire, to operate as freely as possible given constraints such as management corridor size, river location, risk to adjacent resources and land owners, adjacent management area management objectives, and so forth. Within the corridor, regulated timber harvest is prohibited (A1-WR-058). Little restoration work is anticipated in riparian plant communities and wetlands. Most of these communities appear to fall within their natural range of conditions and show little impact from vegetation management, recreational use, and livestock grazing. The vegetation management strategy within riparian and wetland plant communities is to allow natural forces to determine species compositions, stand structure, and ecosystem functioning.

   The only restoration work anticipated within this context is the possible need to restore large cottonwoods along the river. During the planning phase, the White River team noted that the few large cottonwoods still alive along the river were becoming overtopped and crowded out by conifers. Since these large cottonwoods are part of the outstandingly remarkable value of plant species diversity, vegetation management is allowed (A1-WR-059). Vegetation management may occur when degradation of an outstandingly remarkable value is strongly suspected to occur within the next five years (A1-WR-061).

9. *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.*

   White River plan is intended to allow natural forces to be the primary determinants of plant and animal communities, species, and distribution within the riparian zones (see responses to previous Aquatic Conservation Strategy objectives). Most recreation use occurs in the riparian zone and mostly in Segment B. Recreation has the highest probability of disrupting riparian-dependent plant and animal species, particularly those sensitive to disturbance. The river's recreation strategy is designed to manage and reduce existing and potential impacts to riparian areas and wetlands from both developed and dispersed recreation use. Top priority in the implementation plan is a Limits of Acceptable Change study. This study is intended to establish recreational carrying capacity in terms of the ecological capability of each river segment as well as in terms of ROS class and physical capability.

In addition to complying with the Aquatic Conservation Strategy, White River Management Plan must be consistent with the standards and guidelines common to all land allocations as well as Late-successional Reserves, Key Watersheds, and Riparian Reserves. The sections below briefly discuss how the White River Plan complies with these other standards and guidelines.

Consistency with Standards and Guidelines Common to All Land Allocations

This section of the President's Forest Plan Record of Decision consists of nine standards and guidelines. One standard and guideline, concerning coordination of management along the Oregon-California border, does not apply to the White River plan.

1. Current Plans and Draft Plan Preferred Alternatives.

   White River Management Plan should be consistent with standards and guidelines in the 1984 Regional Guide, as amended in 1988, and the Mt. Hood Forest Plan. White River plan is assumed to be consistent with the Regional Guide, since the Regional Guide was used to prepare the Mt. Hood Forest Plan and the Mt. Hood Forest Plan was used as a starting point for the White River Plan. White River Management Plan amends the Mt. Hood Forest Plan to incorporate standards and guidelines specific to White River National Wild and Scenic River. White River Plan has stricter standards and guidelines and is expected to provide greater benefits for late-successional forest related species that the Forest Plan.

2. Exceptions

   None of the exceptions listed in the ROD (Standards and Guidelines C-3) appear to either apply to the White River Management Plan or differ from the standards and guidelines in the river plan. The desired future condition within the river corridor was written with an emphasis towards late-successional species, such as northern spotted owls, pie martens, and pileated woodpeckers, and assumed a higher level of green tree retention than in the Forest Plan. The actual level of green tree retention was not specified in the river plan since all Forest Service lands would be removed from the timber base and the ID Team recognized that the President's Forest Plan had already proposed a green tree retention level that any future harvests would need to meet. No Adaptive Management Areas occur within the river corridor.

3. Unmapped Late-Successional Reserves

   Most of the wild and scenic river corridor already lies within a Late-successional Reserve. Some areas currently or potentially in Matrix Lands may lie within 100 acres around known spotted owl activity centers. Until the districts receive higher quality maps of the Late-successional Reserves, we cannot be certain how much of the river corridor lies within Matrix Lands and ,therefore, potentially within one or more unmapped Late-successional Reserves.

4. Watershed Analysis

   The White River Management Plan does not attempt to establish Riparian Reserves widths. Standards and guidelines in the White River Plan appear to comply with Aquatic Conservation Strategy Objectives (see above).

5. Research

   There are no known research projects currently on-going within the White River corridor. The river plan proposes several research projects. The overall goal of all these projects is to better understand ecological processes and past, present, and future human uses within the wild and scenic river corridor.

6. Survey and Manage

   The Implementation Plan and Monitoring Plan for White River identified some specific survey needs to determine presence, absence, and some measure of abundance for certain fish, wildlife, and plant species. The desired future condition and standards and guidelines for the wild and scenic river corridor were designed to protect or enhance the outstandingly remarkable values associated with the resident redband rainbow trout; diversity of threatened, endangered, and sensitive wildlife species; plant species and plant community diversity; and unique plant communities. Survey

protocols were not specified in the White River Plan to allow use of the most current and suitable protocols for the species or life forms in question.

7. Manage Recreation Areas to Minimize Disturbance to Species

   A Limits of Acceptable Change (LAC) study is needed within the corridor and is identified as a top priority in the Implementation Plan. One of the LAC study goals is to determine appropriate levels of recreation use in keeping with the ecological capabilities of the wild and scenic river corridor. Standards and guidelines for developed recreation facilities limits recreation use to current levels while redesigning sites to protect the river's outstandingly remarkable values (A1-WR-025, 027, 034). These standards and guidelines were not written with the specific species listed in the President's Forest Plan ROD and FSEIS in mind, but these species fall within the outstandingly remarkable values associated with threatened, endangered, and sensitive plant and wildlife species diversity.

8. Protect Sites from Grazing

   The wild and scenic river corridor includes parts of two grazing allotments. Standards and guidelines for the river plan would remove grazing from developed recreation sites (A1-WR-057) and allows grazing elsewhere provided river banks and riparian areas are protected from adverse impacts (A1-WR-053). Grazing would be restricted to Segment B. Grazing within the allotments depends on transitory range, forage created by harvest or stand replacing fire. Since the wild and scenic river corridor is removed from the timber base, transitory range created by harvest would be very limited. The amount of transitory range created by either wildfire or prescribed burning is very difficult to estimate. These measures would likely provide adequate protection to the mollusks and vascular plants identified in the FSEIS and ROD, assuming the species listed occur within the river corridor.

Consistency with Standards and Guidelines for Key Watersheds

White River corridor does not contain any unroaded portions of inventoried (RARE II) roadless areas. Standard and guideline A1-WR-094 limits open road density to 1.5 miles per square mile within the wild and scenic river corridor. This standard and guideline is a reduction from the open road density allowed in the Forest Plan. The Implementation Plan for White River identifies some watershed restoration projects; however a watershed analysis is needed to fully address watershed restoration needs and to establish further guidelines for harvest activities. Timber harvest is allowed only to protect, enhance, or maintain the river's outstandingly remarkable values. The wild and scenic river corridor is removed from the forest's timber base ('A' land allocation under the Forest Plan descriptors).

Consistency with Standards and Guidelines for Designated Areas and Matrix

White River National Wild and Scenic River falls within the following designated areas under the President's Forest Plan:

a. Congressionally Reserved Areas (national wild and scenic river)
b. Late-successional Reserve
c. Administratively Withdrawn Areas (A1 land allocation under the Mt. Hood Forest Plan)
d. Riparian Reserves

1. Congressionally Reserved Areas

   Congressionally Reserved Areas should follow the direction provided in the applicable legislation or plans. White River plan is designed to establish the management direction to follow.

2. Late-Successional Reserves

Silviculture and Guidelines for salvage

Late-Successional Reserves require a management assessment before habitat manipulation activities can proceed. *It is unknown whether the White River Management Plan is sufficient to serve as a management assessment.* Timber harvest and salvage is allowed within the river corridor in order to enhance, maintain, or protect the river's outstandingly remarkable values and the corridor is removed from the Mt. Hood National Forest timber base (Administratively withdrawn). The river management plan assumes that some timber harvest will occur and that most cuts will remove only a portion of the trees at any one entry. Timber harvest and salvage may occur for insect and disease control, fire, public safety, to enhance or protect the outstandingly remarkable values, achieve the desired future conditions, or under specified conditions on valid mining claims (A1-WR-058). This general standard and guideline appears consistent with the many standards and guidelines listed under Salvage in the President's Forest Plan and vice versa.

Segment C and a small portion of Segment B are considered at high risk of large-scale disturbance in forest conditions outside the range of natural conditions. The desired condition within these dry portions of the river corridor is to restore a forest condition characterized by a fire regime of underburning. The plan anticipates using a combination of timber harvest and prescribed burning to reduce this risk and achieve this condition. However, the plan anticipated creating forest communities dominated by early successional plant species, albeit with an old-growth stand structure, within the dry portion of the river corridor. *It is uncertain whether this desired condition fully meets the intent of the Late-Successional Reserves.* The plan also anticipated entry into stands older than 80 years of age since very few stands are younger than 80 years of age within the dry portion of the corridor.

Standards and guidelines for multiple-use activities other than silviculture

Standards and guidelines and management direction within the White River management plan do not appear to conflict with standards and guidelines for multiple-use activities other than silviculture in the Late-Successional Reserves. The White River plan does not include a fire management plan but recommends that one be prepared. Some fire management planning may occur in conjunction with fire planning for the nearby Badger Creek Wilderness.

Protection buffers

The ROD lists several species afforded additional protection buffers within Late-Successional Reserves. No surveys have been conducted in the wild and scenic river corridor to know if any of these species occur there. Of those listed, *Aleuria rhenana, Otidea leorina, O. onotica, O. smithii,* and great gray owls may reside in the river corridor, based on the habitat and range descriptions provided in the ROD.

3. Administratively Withdrawn Areas

Changing the land allocation for the White River corridor from B1 to A1 also changes the river corridor to an Administratively Withdrawn Area. As discussed under Late-Successional Reserves and Key Watersheds, the White River management plan either incorporated some of the standards and guidelines proposed in the DSEIS or assumed that the FSEIS and ROD would establish standards and guidelines for certain specific uses and resource areas. For example, the river planning team assumed that the President's Forest Plan would provide the main direction for fuelwood gathering and special forest products so did not specifically address these areas in the wild and scenic river management plan. Some additional guidance from the Mt. Hood Supervisor's Office and the Regional Ecosystem Office will be needed to determine which standards and guidelines are more restrictive when conflicts between the river management plan and the President's Forest Plan arise.

4. Riparian Reserves

The White River management plan allows for timber harvest and salvage in order to protect or enhance the outstandingly remarkable values (A1-WR-059). One of the outstandingly remarkable values is plant species diversity, which includes the large cottonwoods growing along White River. Cottonwoods, particularly large trees, are uncommon at these elevations on the Mt. Hood National Forest east of the Cascade crest. However, the timber management standards and guidelines for Riparian Reserves apparently would not allow for timber harvest or salvage to maintain the presence of large cottonwoods (TM-1 a.).

Standards and guidelines for roads, grazing, recreation, minerals, fire/fuels, general riparian, fish and wildlife management, and lands, watershed and habitat restoration, and research are consistent or do not conflict between the two plans. In some cases, the standards and guidelines for the wild and scenic river management plan are more restrictive that the President's Forest Plan. For example, the President's Forest Plan allows for salable mineral activities provided Aquatic Conservation Strategy objectives can be met (MM-6). The White River management plan prohibits removal of salable minerals, with the exception of the White River Pit (A1-WR-072, 073, and 074). One additional entry is allowed into the White River Pit; however this entry must meet the standards and guidelines for minerals management in the President's Forest Plan.

The beginning of this appendix addresses how the White River management plan will attain the Aquatic Conservation Strategy objectives.

Appendix D

White River Falls

APPENDIX D--WHITE RIVER FALLS

When Congress designated White River as a Wild and Scenic River, they excluded 0.6 miles of the river around White River Falls. This exclusion was to allow Northern Wasco County People's Utility District (PUD) the option of rehabilitating or reconstructing the abandoned power generation facilities. The PUD had obtained a conditional permit from the Federal Energy Regulatory Commission (FERC) and a water right from Oregon Water Resources Department. In addition, PUD made a cooperative agreement with Oregon Department of Parks and Recreation to manage Tygh Valley State Park.

In early July 1993, the PUD Board of Directors decided to discontinue the White River Falls hydroelectric project. The agency plans to return both the water right to the state and the permit to FERC. Management of Tygh Valley State Park has been returned to the state. The PUD would not object to including White River Falls into the wild and scenic river designation and recommends that the managing agencies secure the water right permit being abandoned by PUD.

White River Falls has at least three Outstandingly Remarkable Values that make it worthy of consideration. First, the Congressional Record - Senate of October 7, 1988, specifically recognizes the scenic value of White River Falls. Several residents along White River and in Tygh Valley and Maupin have expressed confusion and dismay as to why White River Falls was excluded. They also believe the Falls are one of the scenic values in Tygh Valley.

Second, the abandoned hydroelectric facilities constitute an outstandingly remarkable cultural resource value. This plant was constructed in the 1920s and operated until the 1960s. The dam and diversion facilities on White River, portions of the penstocks , a dam on a side drainage above the powerplant, and the powerhouse itself remain along with miscellaneous other facilities associated with the plant.

Third, the Falls offers outstanding recreational opportunities for the area. It lies within the boundaries of Tygh Valley State Park. Visitors to the park view the falls, photograph them, and hike to the old powerhouse and the diversion dam to explore them. Opportunities exist for short day hikes to the ridges above the falls and along the river below the falls. While the upper falls is unrunnable, kayakers occasionally run the lower falls and the short series of rapids below the falls. The river next to the old powerhouse is a popular swimming hole.

These events have taken place too late for the IDT to respond in a more comprehensive manner than an appendix to the White River Management Plan EA. The Team recommends the following:

1. The managing agencies conduct the necessary studies to recommend to Congress inclusion of White River Falls in the White River Wild and Scenic River designation.
2. The 0.6 miles of river around White River Falls should become part of Segment F and that Segment F be designated a Scenic river.
3. Adopt the selected management, corridor boundary, and designated viewshed boundary alternatives as the management plan for the area around White River Falls. The corridor boundary should follow the same rim-to-rim concept used in the current Segment F. The designated viewshed alternatives, except Alternative I, would require only minor adjustments to include a viewshed around White River Falls.

Based on input received to date, the ID Team believes this recommendation would not cause any great controversy in the local area. Little or no additional private land would be affected by inclusion. The inclusion would recognize and protect one of the major scenic, cultural, and recreational values in Tygh Valley. This proposal is not intended to preclude options to upgrade existing recreational facilities or construct new ones, such as buildings, picnic areas, campgrounds, or trails.

Introducing anadromous fish above White River Falls has been an issue since the 1960s. Under the terms of the Northwest Regional Power Planning and Conservation Act, the anadromous fish passage project constitutes an enhancement opportunity to compensate for other losses to anadromous fish runs in the Columbia River basin that are directly associated with hydropower development. It also constitutes an opportunity to increase anadromous fish production in the Deschutes River basin. This plan does not analyze the current status regarding introduction of anadromous fish above White River Falls because the affected area is greater than the wild and scenic river boundary. The Confederated Tribes of Warm Springs would like to retain the opportunity to evaluate the introduction of anadromous fish above the Falls. This proposal is not intended to preclude chances to explore this option or to construct facilities designed to introduce anadromous fish above White River Falls, such as fish handling facilities and access roads if the project is allowed to proceed.

Appendix E List of Preparers

APPENDIX E: LIST OF PREPARERS

Interdisciplinary Team Members

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Appendix F

Glossary

GLOSSARY

Airshed - a geographical area that shares the same air due to topography, meteorology, and climate.

Allowable Sale Quantity (ASQ) - the quantity of timber that may be sold from the area of land covered by the Forest Plan for a time period specified in the plan, usually expressed on an annual basis as the average annual allowable sale quantity. Applies only to the lands determined to be suitable for timber production and to utilization standards specified in the Forest Plan.

Anadromous fish - those species of fish that mature in the ocean and migrate into streams to spawn, such as salmon steelhead, and shad.

Andesite - a volcanic rock composed essentially of plagioclase feldspar, resembling trachyte in appearance.

Animal Unit Month (AUM) - the quantity of forage required by one mature cow (1,000 pounds) or the equivalent for one month, based on average daily forage consumption of 26 pounds of dry matter per day (800 pounds per month).

Aquatic ecosystems - stream channels, lakes, marshes, ponds, and so forth and the plant and animal communities they support.

Aquatic habitat - habitat related directly to water.

Aquifer - a geologic formation or structure that contains and transmits water in sufficient quantity to supply the needs for water development, usually saturated sands, gravel, or fractured rock.

Archaeological Site - a place where human activity occurred and material remains were left.

Archeology - a method for studying past human cultures and analyzing material evidence (artifacts and sites).

Artifact - any object made or used by humans

Background - the visible terrain beyond the foreground and middleground where individual trees are not visible but are blended into the total fabric of the landscape.

Best Management Practices (BMPs) - a practice or combination of practices that are the most effective and practical means of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with water quality goals, includes technological, economic, and institutional considerations.

Big game - those species of large mammals normally managed for sport hunting.

Biological control - the use of parasites, predators, or disease pathogens (bacteria, fungi, viruses, etc.) to control pest populations.

Biomass - the total quantity at a given time of living organisms of one or more species per unit if space (species biomass) or the total quantity of all the species in a biotic community (community biomass).

Clearcutting - harvesting in one entry all trees in an area for the purpose of creating a new, even-aged stand; usually at least 3 acres in size.

Climax species - the species that would dominate the landscape in either numbers per unit area or biomass if no factors, environmental or human, were to disturb the site.

Commercial thinning - selective removal of felling of trees in an immature stand, primarily to accelerate growth on the remaining stems, maintain a specific stocking or density range, and improve the vigor and quality of the trees that remain where the trees harvested are sold for various wood products.

Created opening - breaks in the forest canopy resulting from human activities, such as timber harvest for regeneration purposes.

Critical habitat - specific areas within the geographic area occupied by threatened or endangered species which provide physical or biological features essential to conservation of the species. This habitat may require special management considerations or protection. Protection may also be required for additional habitat area outside the geographical area currently used by the species if the Secretary of the Interior finds that such areas are essential for the conservation of the species.

Cultural resources - includes the remains or records of districts, sites, areas, structures, buildings, networks, neighborhoods, memorials, objects, or event from the past which have scientific, historic, or cultural value. They may be historic, prehistoric, archaeological, or architectural in nature and usually are more than 50 years old.

Cumulative effects - the combined results or impacts of two or more management activities. The impacts may be related to the number of individual activities or the number of repeated activities on the same piece of ground. They may result from individually minor but collectively major actions taking place over a period of time.

Data recovery - the systematic removal of the scientific, prehistoric, historic, or archaeological information that provides a cultural resource property with its research of information value.

Debris torrent - a large slide charged with water and confined to a steep stream channel; may travel several thousand feet to several miles.

Developed recreation - outdoor recreation that takes place in designated areas where a certain level of facilities are provided, such as picnic tables, outhouses, fireplaces, and so forth.

Dispersed recreation - outdoor recreation that takes place outside developed recreation sites or the wilderness.

Diversity - the distribution and abundance of different plant and animal communities and species within the area covered by a land and resources management plan (36 CFR 219.3).

Ecosystem - an interacting system of organisms considered together with their environment, for example a riparian ecosystem or pine-oak ecosystem.

Effects - environmental consequences resulting from or expected to result from management activities. **Direct effects** are caused by the activity and occur at the same place and time. **Indirect effects** are caused by the activity but occur later in time or further removed by distance and are reasonably foreseeable. Indirect effects may include changes induced by population growth; changes in land use patterns, population densities, or growth rates; and related changes to air and water and other natural systems, including ecosystems.

Effects may be related to ecological (such as changes in natural resources and on the components, structures, and functioning of ecosystems), scenic quality, historic, cultural, economic, social, or health related, whether direct, indirect, or cumulative. Effects resulting from actions may have both beneficial and detrimental aspects, even if on balance the agency believes that the overall effects will be beneficial (40 CFR 1508.8).

11-40 Rule - a guideline for managing northern spotted owl habitat; tree diameter at breast height must average 11 inches or greater and crown closure must average 40% or greater. Also known as the **50-11-40 Rule** or **50-11-40** since 50% of each quarter township containing spotted owl habitat must meet this guideline.

Endangered species - any species of animal or plant which is in danger of extinction throughout all or a significant portion of its range. Members of the class Insecta are not included which the Secretary of the Interior has decided constitute a pest whose protection under the provisions of the Endangered Species Act of 1973 would present an overwhelming and overriding risk to

humans. An endangered species must be designated in the Federal Register by the appropriate Federal Agency Secretary.

Endemic plant - a plant confined to a certain country or region and with a comparatively restricted geographic distribution.

Environmental assessment (EA) - a concise public document required by regulations implementing the National Environmental Policy Act (NEPA).

Escaped fire - any wildland fire which is burning outside prescription parameters and cannot be brought back into prescription with available project funds; any wildland fire which is burning more rapidly that initial attack forces and available reinforcements can contain within a reasonable period of time. All escaped fires are also wildfires.

Essential habitat - areas designated by the Regional Forester of the Forest Service that possess the same characteristics of critical habitat as those designated by the Secretary of the Interior or Commerce.

Ethnography - description of a culture based on observation of and interaction with living people.

Even-aged management - the application of a combination of actions that results in the creation of forest stands composed of trees of essentially the same age. The difference on age between trees forming the main canopy levels of a stand usually does not exceed 20% of the age of the stand at harvest rotation age. Regeneration in a particular stand occurs over s short period or nest the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands (36 CFR 219.3)

Fluvial - produced by or found in a river.

Forbs - non-woody plants other than grasses.

Foreground - the area immediately adjacent to a selected viewpoint.

Fumarole - a hole, in or near a volcano, from which vapor arises.

Fumarole field - a group of two or more fumaroles.

GIS - Geographic Information System. A computer modeling and mapping system based on data such as elevation, waterbodies, roads, trails, vegetation, and other mappable information.

Group selection cutting - removal of trees in an area ranging from less than one acre to no more than two acres.

Habitat - the place where a plant or animal naturally or normally lives and grows.

Habitat capability - the estimated ability of an area to support a selected plant or animal species population, measured in terms of the potential population and based on existing or predicted conditions.

Historic - people, places, things, and events which have occurred or pertain to the last 50 years.

History - people, places, things, or events which have occurred or pertain to the time of written record. For the Pacific Northwest, the history of written documentation is approximately 1600 AD.

Indicator species - a wildlife management scheme in which the welfare of a selected species is presumed to represent the welfare of other species which require similar habitat conditions.

Instream flow - a prescribed level or levels of stream flow, usually expressed as a stipulation in a permit authorizing a dam or water diversion, for the purpose of meeting federal land management objectives.

Integrated pest management (IPM) - a process for selecting strategies to regulate forest or rangeland pests in which all aspects of the pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of unregulated pest population on various resource values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural or range management practices and ecology of the pest-host system and consist of a combination of tactics, such as timber stand improvement, plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable (36 CFR 219.3).

Interdisciplinary team (IDT or ID Team) - a group of people that collectively represent several resources areas and whose duty is to coordinate and integrate planning activities.

Irretrievable - the loss of production, harvest, or use of renewable natural resources for an extended period of time, such as several years or several decades. The loss may or may not be permanent.

Irreversible - the loss of the use of nonrenewable resources, such as minerals or cultural resources, or of those factors that are renewable only over very long time periods, such as soil productivity. Includes the loss of future options.

Key Site Riparian - large riparian areas exhibiting high habitat diversity and outstanding capabilities for producing high quality water; excellent fish spawning and rearing habitat; high quality waterfowl breeding, nesting, and rearing habitat; wildlife cover; and diverse plant communities.

Landscape Unit - a portion of a larger area united by some common feature or set of features, such as vegetation, landform, or dominant use.

Leasable mineral - all minerals except salable minerals on acquired lands. All minerals on the Outer Continental Shelf. Coal, phosphate, oil, gas, sulphates, carbonates, borates, silicates or nitrates of sodium and potassium, native asphalt, solid and semi-solid bitumen and bituminous rock including oil impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is mined.

Locatable Mineral - those hardrock minerals which can be obtained by filing a claim on Public Domain or National Forest System lands reserved from the Public Domain. In general, the locatable minerals are those hardrock minerals which are mined and processed for the recovery of metals, but may include certain nonmetallic minerals and uncommon varieties of mineral materials.

Loess - a loamy deposit formed by wind.

Middleground - the visible terrain beyond the foreground where individual trees are still visible but do not stand out distinctly from the stand.

Mineral potential - a rating system for mineral resources based on the degree to which certain criteria indicates favorable potential for development of mineral resources

Mining claim - that portion of the public estate held by law for mining purposes in which the right of exclusive possession of locatable mineral deposits is vested to the locator of a deposit.

Modification - a visual quality objective where human activity may dominate the characteristic landscape but must, at the same time, utilize the naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in the foreground or middleground.

Monitoring - a process to collect data from defined sources to identify departures or deviations from expected plan or project outputs or effects.

Mop-up - actions taken to completely extinguish a fire.

National Environmental Policy Act (NEPA) - an Act, to declare a National policy which will encourage productive and enjoyable harmony between humans and their environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate human health and welfare; to enrich the understanding of ecological systems and natural resources important to the nation; and to establish a Council on Environmental Quality.

Non-point - area sources of water pollution, such as a watershed or field.

Off road vehicle - any motorized vehicle designed for or capable of cross country travel on or immediately over land, water, snow, ice, or other natural terrain.

Old growth - the stage in stand development where large gaps develop in the tree canopy, the existing advanced regeneration begins to grow and develop, and a new layer of regeneration may appear; the start of a multi-storied stand.

Outstandingly remarkable value - river-related resource features or processes that are considered rare, unique, or exemplary and are significant at a regional or national level.

Partial Retention - a visual quality objective where human activities may be present but subordinate to the characteristic landscape.

Particulates - a component of polluted air consisting of any liquid or solid particles suspended or falling through the atmosphere; the main component of smoke that reduces visibility and causes human health problems

Patented mining claims - a mining claim in which the applicant receives title to the property and over which the United States has no property rights, except as may be covered in the patent. After a mining claim is patented the owner does not have to comply with requirements of the General Federal Mining Law, but is required to meet state regulations.

Payment in lieu of taxes - payments to local or state governments based on ownership of Federal lands and not directly dependent on production of outputs or receipt sharing. Specifically they include payments made under the Payments in Lieu of Taxes Act of 1976, P.L. 94-565 Stat. 2662; 31 USC 1601-1607 (these payments are in addition to payments made from gross receipts from forest products made under the Twenty-Five Percent Fund Act of May 1908).

Plant associations - the collection of plants believed to represent the climax plant community in the absence of disturbance, such as fire, wind, insects, disease, or harvest and in the absence of climate change.

Plant communities - a vegetation complex unique in its combination of plants which occur in a particular location under particular influences. A plant community reflects the integrated environmental influence on a site such as soils, temperature, elevation, solar radiation, slope, aspect, and precipitation.

Pool - a portion of a stream with reduced water velocity and often deeper than surrounding areas, frequently used by fish for resting and cover.

Precommercial thinning - selective removal of felling of trees in a young stand, primarily to accelerate growth on the remaining stems, maintain a specific stocking or density range, and improve the vigor and quality of the trees that remain but that does not produce salable wood products.

Prehistory - people, places, things, and events which have occurred or pertain to the time before written record.

Prescribed fire - any wildland fire burning under a preplanned set of environmental and management parameters which will accomplish certain planned objectives.

Primitive - a category on the recreational opportunity spectrum describing an environment of fairly large size and essentially unmodified by human activities and development. Interaction between visitors is very low and evidence of other users is minimal. The area is managed to be

essentially free from evidence of management restrictions and controls. Motorized use within the area is prohibited.

Pyroclastic flow - debris torrents composed chiefly of rock fragments of volcanic origin, such as aggregate, tuff, and certain other rocks.

Recreation Opportunity Spectrum (ROS) - a framework for understanding and defining various classes of recreation environments, activities, and experiences. The classes are defined in terms of the opportunities to have different kinds of experiences; examples are "roaded natural" and semi-primitive.

Reforestation - restocking an area with trees by natural means or by planting, most commonly used to refer to tree planting.

Regeneration - the actual seedlings and saplings in a stand; the act of establishing young trees naturally or artificially.

Regeneration harvest - any removal of tree to make regeneration possible.

Regulated harvest - harvest that contributes chargeable timber volume to the allowable sale quantity.

Retention - a visual quality objective where human activities are not evident to most visitors.

Riffle - a stream feature having swift-flowing, turbulent water; can be either deep or shallow and are generally cobble- or boulder-dominated.

Riparian areas - geographically delineate areas with distinctive resource values and characteristics that are comprised of aquatic and riparian ecosystems. Riparian areas typically include areas adjacent to all streams, lakes, ponds, and areas comprising seeps, springs, and wetlands.

Riparian ecosystems a transition between the aquatic ecosystem and the adjacent terrestrial ecosystem, identified by soil characteristics and distinctive vegetation communities that require free or unbound water

Riparian vegetation - plants growing on or near the banks of a stream or body of water in soils that exhibit some wetness characteristics during some portion of the growing season.

Roaded Natural - a category on the recreational opportunity spectrum describing areas that appear predominantly natural with high evidence of the sights and sounds of humans. Such evidence may not harmonize with the natural environment. Interaction between visitors is moderate to high with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and facility design.

Rural - a category on the recreation opportunity spectrum describing areas characterized by a natural environment that has been substantially modified by structure development, vegetation manipulation, or pastoral agricultural development. Resource modification and utilization practices may be used to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate user densities are present away from developed sites. Facilities for intensified motorized use and parking are available.

Salable mineral - minerals available for purchase from the government, usually very common such as sand and gravel.

Scenic easement - the right to control the use of a piece of private land, including the air space above the land, within the authorized boundaries of a component of the Wild and Scenic River system for the purpose of protecting the natural qualities of a designated river area. Such control shall

not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement.

Scenic wayside - a parking area located along a scenic road intended for use by visitors to stop and enjoy or photograph scenery.

Sediment - solid material, both mineral and organic, in suspension and being transported from its site of origin by air, water, gravity, or ice or has come to rest on the earth's surface. Most commonly refers to material carried in water.

Selection cut - the periodic removal of mature trees individually or in small groups from an uneven-aged forest. Both regeneration cutting and thinning are accomplished at each entry.

Semi-Primitive Motorized - a category on the recreation opportunity spectrum describing an area where natural or natural-appearing characteristics dominate in a moderate to large sized environment. Concentration of visitors is low but there is often evidence of others. On site controls are minimal and restrictions may be present but subtle. Motorized recreation use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.

Semi-Primitive Nonmotorized - a category on the recreation opportunity spectrum describing an area where natural or natural-appearing characteristics dominate in a moderate to large sized environment. Concentration of visitors is low but there is often evidence of others. On site controls are minimal and restrictions may be present but subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities.

Sensitive species - species of plants and animals that have appeared in the Federal Register as proposed for classification and are under consideration for official listing as endangered or threatened species, that are on an official state list, or are recognized by the Regional Forester as needing special management to prevent being placed on federal or state lists.

Seral - a biotic community which is a developmental, transitory stage in an ecological succession

Shelterwood cutting - any regeneration cutting in a more or less mature stand designed to establish a new stand under the protection, or shelter, of the old stand, usually involving two entries. The first entry is designed to create space and seed production to establish new trees. The second entry is designed to remove the remainder of the old stand before it interferes with the growth of the new stand and usually occurs within 10 years of the first entry.

Silvicultural system - a management process for tending, harvesting, and replacing forests resulting in a forest of distinctive form. Systems are classified according to the logging methods that removes the mature crop and provided for regeneration and according to the type of first produced (36 CFR 219.3).

Silviculture - the art and science of growing and tending trees for specific management goals.

Snag - a standing dead tree.

Smolt - a young salmon during its migration downstream to the sea.

Stand - trees possessing uniformity with regard to type, age class, risk class, vigor, size class, and stocking class.

Stand reinitiation - the stage of stand development where small gaps develop in the tree canopy allowing forest floor herbs and shrubs and regeneration again appear and survive in the understory; the start of a two-story stand.

State Historic Preservation Officer (SHPO) - the official appointed or designated pursuant to Section 101(b)(1) of the National Historic Preservation Act to administer the state historic preservation

program or a representative designated to act for the SHPO. Among other duties, the SHPO advises and assists federal agencies and state and local governments and cooperates with these agencies and others to ensure that historic properties are considered at all levels of planning and development.

Stream discharge - the volume of water flowing past a point per unit of time, commonly expressed as cubic feet per second (cfs), million gallons per day, gallons per minute (gpm), or cubic meters per second.

Stream scour or channel scour - erosion of the channel bottom or banks caused by high flows, loss of channel stability, or debris torrents.

Stream structure - the arrangement of logs, boulders, and meanders which modify the flow of water and cause the formation of pools and gravel bars in streams. Generally, there is a direct relationship between complexity of structure and fish habitat and watershed stability.

Stem initiation - the stage of stand development that occurs after a natural or human caused disturbance when tree regeneration appears, also known as the seedling/sapling stage.

Stem exclusion - the stage of stand development when new individuals do not appear and some of the existing ones die. The surviving trees grow larger and express differences in height and diameter; first one species and then another may appear to dominate the stand. Can occur at two different times in stand development; between the stem initiation and stand reinitiation stages, also known as the pole stage; and between stand reinitiation and old growth stages, also known as the mature stage.

Suppression - the act of extinguishing or confining a fire.

Threatened species - any plant or animal species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and which has been designated in the Federal Register by the Secretary of the Interior.

Turbidity - the degree of opaqueness or cloudiness produced in water by suspended sediment, measured by light filtration or transmission and expressed in Jackson Turbidity Units (JTU).

Uneven-aged management - applying a combination of actions needed to simultaneously maintain high forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes and providing a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection (36 CFR 219.3).

Unregulated harvest - cutting trees from those lands which are not organized to provide sustained yields of timber.

Viewshed - the total landscape seen or potentially seen from all or a logical part of a travel route, use area, or water body.

Water quality - the biological, physical, and chemical properties of water that make it suitable for given specified uses.

Wetlands - are inundated by surface or ground water with a frequency sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction (Executive Order 11990).

Wildfire - any wildland fire which does not meet land management objectives and is not designated and managed as a prescribed fire within an approved prescription; any formerly prescribed fire which is no longer burning within prescription parameters and cannot be brought back into prescription with available project funds.

Winter range - the area available to and used by big game through the winter season.

Withdrawal - an order removing specific land areas from availability for certain uses.

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