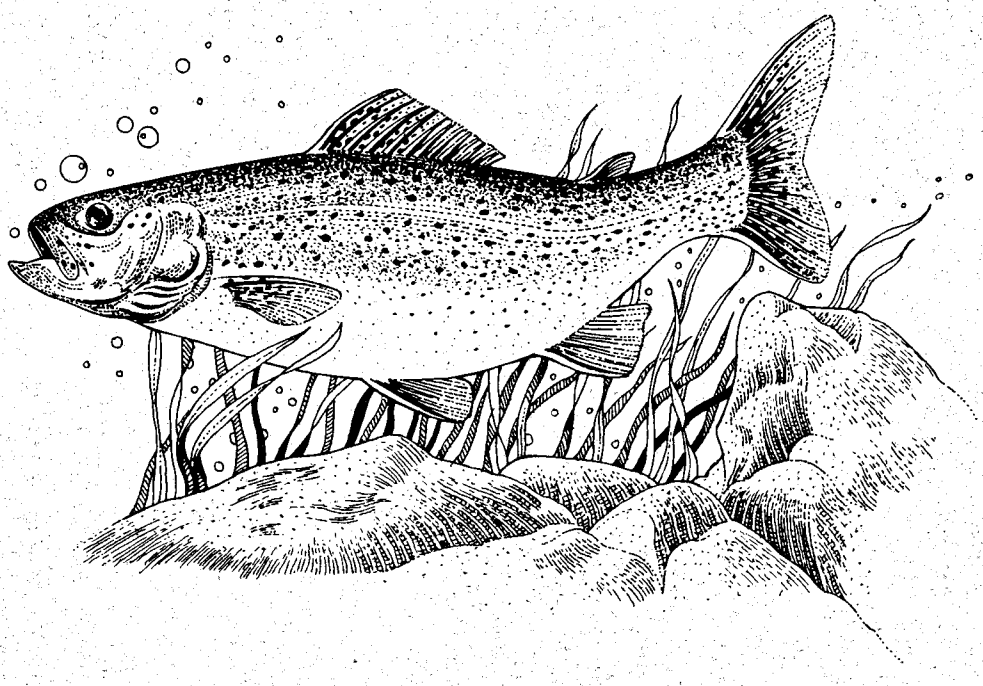
Chapter IV

Environmental Consequences



CHAPTER IV. ENVIRONMENTAL CONSEQUENCES-EFFECTS OF IMPLEMENTATION

This chapter forms the scientific and analytic basis for the comparison of alternatives and the assessment of effects on the Key Issues and the river's outstandingly remarkable values (OR values). This section will also disclose the effect on other specific issues as directed by laws, regulations and policies (See Other Issues). The analysis includes the short-term, long-term, direct, indirect, irreversible, irretrievable, and cumulative effects.

The following is a discussion of the effects of the alternatives by Key Issues:

A. Key Issues

RECREATION

The issue is: What type and level of recreation opportunities will be available within the corridor? Elements used to define this issue are as follows:

The discussion on recreation will be broken out by the two Forests. First will be the effects on the Umatilla National Forest (UMA) and then the Wallowa-Whitman (W-W).

Alternative A

Direct/Indirect Effects (UMA)

Alternative A would maintain the existing ROS within the corridor and would maintain development at current levels with no new facilities planned. Existing management direction defined by the North Fork John Day Wilderness Plan and the Forest Plan MA-A7 would apply.

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternative B

Direct/Indirect Effects (UMA)

Recreation opportunities would be developed to the highest level possible within the ROS designations for the corridor. Existing facilities would be upgraded to handle increased use, and new facilities would be developed. Four new river access points and two recreational panning or sluice box sites would be developed to encourage river use. The level of public information and interpretation would be greatly increased.

Cumulative Effects

Over time the additional development called for with this alternative could lead to a level of public use that changes or reduces the recreation experience for users. It is probable that this high level of use would move the ROS experience into the upper, more developed end of Roaded Natural, and quite possibly into an Urban ROS.

Alternative C

Direct/Indirect Effects (UMA)

This alternative would result in less dispersed camping use near the river and would restrict river access during critical times for fisheries protection. No new river access points, campgrounds, or trailheads would be developed, thereby limiting recreation opportunities for river corridor users. Motorized recreation opportunities would be minimized by the area closure, and no recreational mining would be allowed within the entire corridor.

Cumulative Effects

As recreational opportunities were reduced by closing dispersed sites and restricting river access and motorized travel, recreational use would decrease. These cumulative changes would tend to move the recreational experience towards the Semi-Primitive ROS throughout the corridor. Assuming the number of recreation visitor days on the North Fork John Day Ranger District would not decline (they are actually expected to increase), the restricted opportunities within the corridor would cause increased use at other sites on the District.

Alternative D

Direct/Indirect Effects (UMA)

This alternative would allow for a full range of recreation opportunities and some increased recreational use within the corridor, but it would keep the development level compatible with maintaining the existing ROS. Dispersed sites closed due to resource conflicts would be "replaced" at more appropriate sites. Some reduction of motorized use would occur, but probably not enough to adversely effect recreational opportunities. While some river access points could be closed or restricted, new sites would be developed in areas less likely to cause impacts on fisheries or water resources.

Cumulative Effects

The combination of site and access closures balanced by new locations and future development at low levels would best maintain the existing ROS for the entire corridor. It should maintain a variety of recreation opportunities for river corridor users while protecting the OR values.

Alternative A

Direct/Indirect Effects (W-W)

Alternative A would maintain the existing ROS of Wilderness Semiprimitive for Segment A (the 3.5 mile segment from the river's headwaters in the North Fork John Day Wilderness to the Wilderness boundary) and Roaded Natural for Segment B (the 7.5 mile segment from the Wilderness boundary to Trail Creek). The
existing management direction would be defined by the North Fork John Day Wilderness Plan and the Forest Plan (MA-A7, MA-7).

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternative B

Direct/Indirect Effects (W-W)

Alternative B would develop recreation opportunities to their highest level. The recreational setting, over time, would move towards the more developed end of the Roaded Natural Scale for Segment B of the river. This alternative would develop a Level 3 campground in North Fork John Day Meadows where dispersed camping now takes place. This campground would be designed to accommodate group camping. Peavy Cabin and Baldy Lake Trailheads would be upgraded. Current travel management plans would remain in effect and current access in Segment B would not be restricted. In this alternative, a recreational panning site would be designated near North Fork John Day Campground. Recreational panning would be limited to panning or small sluice boxes only. Fuelwood cutting would be allowed in designated areas in Segment B. This alternative would develop an intensive interpretive program consisting of interpretive signs, brochures, turnouts, and on-site interpreters during the summer months. The managerial setting would emphasize a high level of visitor contacts with law enforcement personnel present seven days a week during the summer months.

Cumulative Effects

Over time the additional development called for with this alternative could lead to a level of public use that changes or reduces the recreation experience for users. It is probable that this high level of use would move the ROS experience into the upper, more developed end of Roaded Natural, and quite possibly into an Urban ROS.

Alternative C

Direct/Indirect Effects (W-W)

Under Alternative C, the recreation setting, over time, would continue to be more rustic or towards the less developed end of the Roaded Natural Scale in Segment B. Dispersed campsites that impact OR values would be closed, no new campgrounds would be developed. Peavy Cabin and Baldy Lake Trailheads would be upgraded. Under this alternative, a motorized area closure would be implemented and river access at critical spawning sites and during critical spawning seasons would be restricted. The entire river corridor would be closed to recreational mining. Fuelwood cutting would be more restrictive than in Alternative B. Interpretation under this alternative would consist of interpretive signs only. The managerial setting would emphasize a high level of visitor contacts during high use periods only.

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternative D

Direct/Indirect Effects (W-W)

Alternative D manages the Recreation OR value at a higher level than Alternative C, but not to its potential. Alternative D would allow for some increased development over time, but overall, maintain a more rustic and less developed setting with the ROS of Roaded Natural. Dispersed campsites that impact OR values would be closed, but replacement sites would be identified. Like Alternative B, a Level 3 campground would be developed in North Fork John Day Meadows to accommodate group camping. Peavy Cabin and Baldy Lake Trailheads would be upgraded. Under this alternative, current travel management plans would remain in effect, except where OR values are threatened. These areas would be closed. River access at critical spawning sites would be restricted, but new access sites would be developed at acceptable locations. A progressive interpretive program would provide for interpretive signs, brochures, and turnouts. Like Alternative C, fuelwood cutting would be at designated sites and some seasonal restrictions would apply. The managerial setting would be similar to Alternative C with increased law enforcement presence during high use periods.

Cumulative Effects

No cumulative effects were identified during the analysis process.

WATER QUALITY/FISHERIES

The Issue is: How to protect and enhance the population and habitat of the wild runs of chinook salmon, steelhead, and bull trout. Elements used in addressing this issue include the following: effects on the watershed and fish habitat would occur mainly from (1) recreation, (2) mining, and (3) timber harvest; the effects from these activities would be different for each alternative; and each alternative would have some effect on the watershed and the habitat provided for fish.

Alternative A

Direct/Indirect Effects

Alternative A would use existing management direction for maintaining and enhancing the river corridor and fish habitat. Current direction for habitat management is defined in the two existing Forest Plans and FSM 2345. Other documents providing direction are the Columbia River Basin Anadromous Fish Habitat Policy and Implementation Guide and the John Day River Basin Plan.

Alternative A would utilize current direction for maintaining and improving water quality as it relates to fish habitat, including but not limiting to sediment, stream temperature, shading and large woody debris.

Under this alternative, watershed and fish habitat could slowly improve over time, using current Forest Plan direction. The watershed is currently in only fair condition, reaching the threshold for water temperature, shading and pool habitat. Current management direction is to improve to those standards which are below Forest standards and guidelines.

Under this alternative, visitor use would be expected to increase over time as the North Fork John Day River becomes a more popular area for recreation. Currently, Forest users are impacting riparian areas and fish habitat. Camping occurs within several feet of the river, and vehicles are driven all over riparian areas. As use increases we would expect more impact to fisheries habitat. Vehicles are driven across the river in several places, which usually destroys available habitat and eggs still in the gravel. Streambank stability may continue to decline as visitor use increases. Existing facilities would be maintained and expansion or construction of new facilities, roads and trails would likely occur. Increases in human visitation, facilities, and associated vehicles could result in increased disturbance to riparian areas and fish habitat. Fish species like the bull trout or spawning chinook salmon, which are intolerant of disturbance, would be temporarily or permanently displaced in areas of high recreation use.

Mining operations are currently allowed in the North Fork John Day River corridor with a current approved operating plan. Portions of the lower river are currently excluded from mineral entry with a mineral activity withdrawal. The upper river corridor

is currently proposed for mineral activity withdrawal, but no decision has been made. There are several mining operations within the watershed but very few working within the Wild & Scenic corridor. Current operating plans should protect water quality and fish habitat, if the operating plans are followed. Historical mining has left many mine tailings and mining debris in the river corridor. Many of the tailings are stabilized, but there are areas of sediment production, vegetation loss, and streambank instability that will continue to occur for years. Current operating plans include road building, excavation of vegetation, water use for settling ponds, all occurring within the riparian area. Heavy machinery is used for excavation and for restoring mining areas. This compacts the soil, causing less water retention and impeding vegetation growth. Small scale mineral testing usually has less of an impact to fish habitat because hand tools are used. Vehicles and living quarters established on site during the hand operation can cause some disturbance.

Livestock grazing no longer occurs in the Wild and Scenic corridor on the Wallowa-Whitman National Forest. Grazing is allowed on the lower portion of the river on the Umatilla National Forest. Grazing impacts in the river corridor and watershed no longer occur, but impacts on vegetation are still evident. Hardwoods, streambanks and trails in the riparian areas are slowly recovering. Grazing in the lower portion of the river has been minimal due to steep terrain and good management. Greater use occurs on the tributary streams.

Under the current Forest Plan direction, timber harvest is allowed within the designated Scenic and Recreational portions of the river corridor. Any harvest proposal would need an approved environmental analysis that would mitigate for any harvest activity that had potential to disturb fish habitat or cause water resource damage.

Prior timber harvests have impacted the watershed. Large clearcuts have removed vegetation in riparian areas and along streambanks. Equipment use on most of the harvest units has caused soil compaction, loss of water filtration and holding capacity, vegetation loss and soil displacement.

Streamside shade is expected to increase in old clearcut units as hardwoods and conifers grow. In some locations streamside shade would decline as trees currently under insect attack die. Dead trees would fall over in streams, riparian areas and timber stands creating openings of various sizes throughout the project area. Dead trees and limbs on the ground could help hold ground moisture and snow, depending on the size of the opening. Increased openings would change the ability of the area to accumulate and retain snow. Snowmelt could occur earlier in the natural openings created by dead and dying fir than it would in the unharvested forest. This could result in higher peak flows and lower flows in summer. Lower flows and less shade during the summer months could produce higher stream temperatures. Gradually stream temperatures would decline as new shade was produced and old harvest units planted. No new management-related shade losses would occur.

Cumulative Effects

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

Several factors indicate that cumulative effects on water quality and fish habitat may be occurring in the North Fork John Day watershed due to past and present management activities. Potential and recognizable adverse cumulative effects to stream channels and water quality would include: increased water temperatures from direct removal of streamside vegetation that has occurred on North Fork John Day tributaries prior to the Umatilla and Wallowa-Whitman National Forest Land and Resource Management Plans; increased pool filling by deposited sediment and bedload; increased erosion, resulting in sediment increases; turbidity during runoff events; and embeddedness of spawning gravel associated with high road densities. It is suspected that accelerated timber harvest, associated road building in the 1980's, mining, grazing and streamside recreation/camping have all contributed to the effects on stream channels, water quality, and fish habitat.

In some locations streamside shade would decline as trees currently under insect attack die. Stream temperatures could elevate in the area streams but are not expect to exceed State of Oregon Water Quality Standards.

This alternative would not contribute to cumulative impacts to the watershed or to the North Fork John Day River.

Alternative B

Direct/Indirect Effects

This alternative would provide for the the highest level of recreation and scenic OR values, without adversely impacting the other OR values. There would be new campground development, new trails built, upgrading of existing trails and campgrounds, development of new access areas, mineral entry, interpretation and gold panning. There would be no new recommendations for fish stocking, changes in fish regulations or changes in restoration proposals for the entire river. Alternative B would protect and enhance fish and water habitat better than Alternative A, but not to the degree provided for by Alternatives C and D.

Under this alternative, it is expected that recreational use would increase with recreational development and improvements. The effects on fisheries and watershed condition would be the same as in Alternative A but with greater intensity and at higher levels as anticipated use increased.

Mineral activity would continue in the river corridor with this alternative. Gold panning and mineral interpretation would be promoted at several of the campgrounds. This would increase the level of mining activity in the corridor, as compared to Alternative A. Fish habitat would not be destroyed by the panning and sluicing activity, but there could be further displacement of bull trout and chinook salmon from the increased stream activity. With this alternative additional guidelines for Wild and Scenic River protection would be incorporated into operating plans.

Livestock grazing in the lower portion of the river may have additional guidelines for Wild and Scenic River protection that would be incorporated into the allotment plan. This would give better protection to the watershed and fisheries habitat than Alternative A, but not to the degree provided for by Alternatives C and D.

Under the current Forest Plan direction timber harvest is allowed within the designated Scenic and Recreational portions of the river corridor. Any harvest proposal would need an approved environmental analysis that would mitigate for any harvest activity that had potential to disturb fish habitat or cause water resource damage. This alternative would be similar to Alternate A, but more restrictive. The additional Wild and Scenic River guidelines would be beneficial to the watershed and fish habitat.

Cumulative Effects

This alternative would not contribute to cumulative impacts to the watershed or to the North Fork John Day River.

Alternative C

Direct/Indirect Effects

This alternative would emphasize the highest level of water quality and fisheries management, without adversely impacting the other OR values. This alternative provides for improved fish protection, habitat restoration and enhancement as compared to all the other alternatives.

Under this alternative it is expected that recreational use would not increase to a higher level without new trails or campgrounds. There would be some improvements from upgrading the existing campgrounds and trails. Some dispersed camping areas would be closed that impact fish habitat or riparian areas. River access would be restricted at critical spawning sites and seasons and no new access would be developed. This alternative would be the most beneficial for fish habitat and would protect the watershed by restricting recreational use.

This alternative creates the least impacts to the watershed and fisheries habitat, due to the closure of the river corridor to all recreational panning, sluicing, and dredging. There would be a mineral activity withdrawal proposal for the entire river corridor. This would mean no new mining claims could be established in the river corridor. Only existing valid claims would be allowed to operate in the corridor. These mining operations would have additional guidelines to ensure protection of water quality and fish habitat. This alternative, as compared to the other alternatives, would give fish habitat and water quality additional protection and promote restoration.

Before any operating plan could be approved within the mineral withdrawal, a mining claim validity determination would be conducted to determine valid existing rights. These examinations are costly and ofter result in lenthy court cases. Only claims with valid existing rights could operate within the withdrawal.

Livestock grazing in the lower portion of the river may have additional guidelines for Wild and Scenic River protection that would be incorporated into the allotment plan. This alternative would be similar to Alternate A, but more restrictive than Alternatives B and D. The additional Wild and Scenic River guidelines would be beneficial to the watershed and fish habitat.

Under the current Forest Plan direction, timber harvest is allowed within the designated Scenic and Recreational portions of the river corridor. Any harvest proposal would need an approved environmental analysis that would mitigate for any harvest activity that had potential to disturb fish habitat or cause water resource damage. This alternative would be similar to Alternate A, but more restrictive than Alternatives B and D. The additional Wild and Scenic River guidelines would be beneficial to the watershed and fish habitat.

With this alternative there would be additional protection of fish habitat and PETS fish species. This alternative recommends implementation of a native fish stocking program, closing fishing for bull trout, and closing areas of critical habitat to all fishing. These changes would be monitored and reviewed annually to see if objectives were being met.

Cumulative Effects

This alternative would not contribute to cumulative impacts to the watershed or to the North Fork John Day River.

Alternative D

Direct/Indirect Effects

The goal of this alternative is to emphasize and manage for a high level of water quality and fisheries, without adversely impacting the other OR values. Recreation would be managed at a higher level than Alternative C but not at the level proposed in Alternative B.

Under this alternative recreational use would increase with recreational development and improvements, but to a lesser degree than Alternative B. Some dispersed campsites would be closed but other sites could be built as replacements that would impact the OR values less. There would be development of additional facilities and upgrading of existing trails.

This alternative recommends a mineral activity withdrawal for the area from the North Fork John Day Campground to the headwaters, which would benefit fisheries habitat. This alternative proposes the development of two recreational areas for mining. This would increase the level of mining activity in the corridor as compared to Alternatives A and B. Fish habitat would not be destroyed by the panning and sluicing activity but there could be further displacement of bull trout and chinook salmon from the increased stream activity. With this alternative there would be additional guidelines for Wild and Scenic River protection that would be incorporated into operating plans.

Before any operating plan could be approved within the mineral withdrawal, a mining claim validity determination would be conducted to determine valid existing rights. These examinations are costly and ofter result in lenthy court cases. Only claims with valid existing rights could operate within the withdrawal.

Livestock grazing in the lower portion of the river would have additional guidelines for Wild and Scenic River protection that would be incorporated into the allotment plan. This alternative would be similar to Alternate A, more restrictive than Alternative B, but not as restrictive as Alternative C, which is the best alternative for protecting the watershed and fish habitat. The additional Wild and Scenic River guidelines would be beneficial to the watershed and fish habitat.

Under current Forest Plan direction,timber harvest is allowed within the designated Scenic and Recreational portions of the river corridor. Any harvest proposal would need an approved environmental analysis that would mitigate for any harvest activity that had potential to disturb fish habitat or cause water resource damage. This alternative would be similar to Alternate A, more restrictive than Alternative B, not as restrictive as Alternative C, which is the best alternative for protecting the watershed and

fish habitat. The additional Wild and Scenic River guidelines would be beneficial to the watershed and fish habitat.

Cumulative Effects

This alternative would not contribute to cumulative impacts to the watershed or to the North Fork John Day River.

B. Other Issues

BIODIVERSITY (Diversity)

The health and maintenance of a functioning ecosystem is dependent on its diversity. There are three OR values that are important to diversity: Fisheries, Wildlife, and Vegetation/Botanical. The protection and enhancement of these OR values would be part of the objective of the management plan. Each project, as it is proposed, would be analyzed for its effect on the OR values, which would include a discussion on biodiversity. The management of the OR values should protect and enhance the biodiversity of the area.

FOREST HEALTH

The Umatilla and the Wallowa-Whitman have been looking at Forest Health for several years now. Within the framework of existing laws and regulations, the river management plan would conform to the direction set in the Forest Plans. However, as stated in Chapter I, given the size of the river corridor, its location, and the existing laws, there is little that can be done to deal with Forest Health that will effect the situation as a whole.

Because the health of the forest is necessary for the protection and enhancement of the OR values, Forest Health would be a part of any analysis for any proposed projects.

The environmental impacts to forest health would be similar in all of the alternatives. All alternatives would protect and enhance outstandingly remarkable values, while emphasizing recreation or water quality/fisheries. Managing stand health under the Forest Plans and the Umatilla Interim Direction of August 18, 1992, would provide for protecting and enhancing the OR values.

Only dead and dying fir would be removed in the short term. In some stands, a mix of age classes and large diameter trees would be maintained where non-fir species is a major component. Landscapes would be rehabilitated from the catastrophic conditions that exist today. Planting would be done with seral species (predominately ponderosa pine and western larch) with no more than 65 percent in a single species. By converting these stands to seral components, the likelihood of repeated damage to climax species (grand fir and Douglas-fir) would be reduced.

In the Scenic and Recreational segments of the river, some timber harvest may improve some of the OR values for which the river was designated. Harvest practices, consistent with Scenic and Recreational river objectives, would be used. Uneven-aged management would be the most commonly used silvicultural system, but even-aged management could be used to meet desired future conditions.

PRIVATE LANDS

Approximately 12 percent of the river corridor is in other ownership. Of this, the majority of the other ownership (90 percent) is by either Oregon Department of Fish and Wildlife (80 percent) or Louisiana Pacific (15 percent).

Oregon Department of Fish and Wildlife has many of the same objectives for the OR values of the river. The other landowners are covered by local, State, and Federal regulations and laws that provide for the protection of river-related values. Because most of the river is also a Oregon State Scenic Waterway, the regulations governing it would also be used to guide the Forest Service in working with private landowners. All alternatives provide for the use of existing laws and the Interdisciplinary Team felt they would adequately protect the river values.

Acquiring all of the private land (other than ODF&W) was determined desirable in all alternatives. This would be from willing sellers only. However, two areas were determined important to managing the river corridor. These were Wood Camp for camping, river access, boat launch, and interpretation and Texas Bar for camping, boat launch, river access, and other recreation needs. These two areas were identified in all action alternatives.

Acquiring easements along the river was also identified for riparian protection. Although this would not be critical at this time, it was felt it would be desirable over time.

MINERAL

The extraction of minerals has always be a dynamic process rather than a static process. Because of the the wording in the Mining Laws, market values, technology, and operational expenses the ability remove to minerals from Federal land is always changing. As an example the term "reasonable" is used in the Mining Laws to determine resource protection. What was reasonable in 1870, or 1940, or even 1990 may or may not be reasonable in 1993 or on into the year 2000. A practice of hydraulic mining was reasonable at one but is not in today setting.

The guidelines set out in all alternatives are within the the framework of the Mining Laws, Forest Plan, and 36 CFR 228(A) Locatable Minerals Regulations. They are a starting point in determining what is reasonable given the miners rights in the protection of Wild and Scenic River values. They are flexible to deal with site specific concerns (the Forest Service or the miner).

The effects on the extraction of minerals is difficult to determine. The greatest effect will be on those sites that are low in minerals. This is due to the additional protection measures that may increase the cost to extract the mineral beyond the value recovered. On the other hand, it may have beneficial effects by miners conduction more testing. In some cases the additional testing may indicate that there is not as much mineral as once thought, saving the time and money of starting a major operation.

Before any operating plan could be approved within the mineral withdrawal (Alternatives C and D), a mining claim validity determination would be conducted to determine valid existing rights. These examinations are costly and ofter result in lenthy court cases. It is possible that every current mining claim within the proposed withdrawals would have to be examinid for validity.

There should be little effect on the time and cost to produce operating plans, environmental analysis, and administration as these are required already with consideration on water, fish, wildlife, vegetation, cultural resource, recreation and other resource values. The guidelines in the alternative only help to define how to deal with the OR values, water quality, and free-flow as directed by the Wild and Scenic Rivers Act.

OREGON SCENIC WATERWAY

All alternatives recommend close cooperation between the various State agencies and the Forest Service in managing the river to meet both the Wild and Scenic Rivers Act and the Oregon Scenic Waterways Act. In all action alternatives a Memorandum of Understanding would be developed between the two agencies to identify the process by which the cooperation would be accomplished.

CONSUMERS, CIVIL RIGHTS, MINORITY GROUPS, AND WOMEN

No additional impacts to any of these groups were identified outside of what has already been addressed in the Forest Plans, CMP, or covered in other sections of this document.

WETLANDS AND FLOODPLAINS

Wetlands and floodplains do exist within the planning area. Any proposed project would address the specific impacts to these areas. Because of the Fisheries OR value and the direction within the Act to protect water quality, this issue has been discussed in a previous section. No negative impacts from the development of this management plan were identified.

THREATENED AND ENDANGERED SPECIES

Threatened and endangered species and their habitat have been located within or adjacent to the river corridor. Protected, endangered, threatened, and sensitive (PETS) species have also been identified within the river corridor. These include wildlife, plants, and fish. All of these are part of an OR value to be protected and enhanced. Therefore, any action should improve upon the existing condition. Each individual proposed project in the river corridor would analyze the impact on these species. A biological evaluation (BE) has been completed for this Environmental Assessment (EA) and is in the analysis file.

CULTURAL RESOURCES

Cultural resources have been identified as an OR value. These would be protected and enhanced as described in the alternatives. See Historic/ Prehistoric under the section, Outstandingly Remarkable Values.

PRIME FARMLANDS, RANGELANDS, AND FOREST LANDS

The river corridor contains rangelands and forest lands. The effects on these lands would be directly related to the use of easement or special protection measures needed to manage the river values. Alternative A would have the least impact because it would be least likely to pursue easements. Alternatives B, C, and D all would pursue easements. However, because of the language in the Wild and Scenic Rivers Act, the impact should be minor. The Act states "...that such control shall not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement." The majority of the rangeland and forest land is in Federal ownership.

ENERGY REQUIREMENTS

No energy requirements were identified during the analysis process.

PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

No adverse environmental effects that cannot be avoided were identified during the analysis process. The impact to private landowners cannot be avoided as Congress designated the river a part of the National Wild and Scenic System. The Forest Service is charged with developing the management plan.

RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

During the development of the alternatives, neither long-term or short-term productivity would be affected.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

No alternative represents an irreversible or irretrievable commitment of resources.

POTENTIAL CONFLICTS WITH PLANS AND POLICIES OF OTHER JURISDICTIONS

No conflicts were identified with plans or policies of other agencies during the analysis process.

C. Outstandingly Remarkable Values

SCENIC

The discussion on the Scenic OR value will be addressed individually for the two Forests. The effects on the Umatilla National Forest (UMA) will be discussed first and then the Wallowa-Whitman (W-W). All alternatives provide for maintaining the existing visual objective of Retention and Preservation throughout the river corridor.

Alternative A

Direct/Indirect Effects (UMA)

Alternative A would maintain the current visual quality objectives of Preservation in the Wild section, Retention in the Scenic section, and Partial Retention in the Recreational section. It would not set any direction for protecting or enhancing the scenic resource beyond current levels. Existing management direction is defined by the Forest Plan, MA-A7.

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternative B

Direct/Indirect Effects (UMA)

Visual quality within the Recreational section of the corridor, as related to human structures and activities, would improve over time as higher standard visual quality objectives were implemented. Visual quality of the vegetation would be dependant upon management levels. Areas where timber management activities emphasize silvicultural systems such as thinning and uneven-age management would visually improve through time as the level of dead and dying trees in the visual zone was reduced

through harvest and new, green trees were regenerated.

The large number of dead and dying trees has created a large amount of natural fuel in the forest, and a wildfire occurrence under these conditions would have immediate, negative visual impacts. The visual quality would gradually improve following the fire as charred snags were removed or fell down and new vegetation became established.

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternatives C and D

Direct/Indirect Effects (UMA)

The direct and indirect effects of Alternatives C and D would be very similar to Alternative B. The exception would be if increased emphasis on water quality and fisheries led to a reduction in timber salvage within the corridor. Then the chances of a wildfire and the associated negative visual impacts would be increased.

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternative A

Direct/Indirect Effects (W-W)

Alternative A would provide the least amount of scenic enhancement because it would not set any direction for protecting or enhancing this scenic resource.

Cumulative Effects

No cumulative effects were identified during the analysis process.

Alternatives B, C, and D

Direct/Indirect Effects (W-W)

Alternatives B, C, and D would provide the highest level of scenic enhancement by adopting the "Wild and Scenic River North Fork John Day East and West Viewshed Corridor Plan" completed by Walker and Macy, May 1992. This plan makes recommendations for specific activities such as vegetative management, developed recreation, dispersed recreation, transportation facilities, administrative sites, private land development and other uses. This plan addresses clean-up for previous management activities including sawing off exposed stumps, removing slash, planting trees along main travelways, and modifying the edge of the previous cut area in pure stands of lodgepole pine. These alternatives would improve the scenic quality over time as nonconforming visual impacts were brought into conformance.

Cumulative Effects

No cumulative effects were identified during the analysis process.

RECREATION

See "Key Issues" listed previously.

FISHERIES

See "Key Issues" listed previously.

WILDLIFE

Effects on wildlife species and wildlife habitat would occur mainly from four activities: recreation, mining, timber harvest, and grazing. The type and degree of effects in relation to the four alternatives is discussed below. All alternatives would affect the quality and diversity of habitat to some extent. None of the alternatives would result in a loss of diversity or species using the river corridor, which contributed to its designation as an OR value.

Disturbances to wildlife would be mitigated by the presence of Wilderness adjacent to large areas of the river corridor. Approximately 35 miles (65% of the total corridor length) is bordered by Wilderness. The large tracts of natural habitat available to wildlife would have a buffering effect on human activities that cause harassment to various animal species.

Alternative A

Direct/Indirect Effects

Alternative A would use existing management direction for maintaining and enhancing wildlife habitat, as stated in the Forest Plans for the Wallowa-Whitman and Umatilla National Forests and the Bridge Creek Wildlife Area Cooperative Management Plan for the Oregon Department of Fish and Wildlife. This alternative would provide the least protection of wildlife habitat and the least opportunity for enhancement.

Under this alternative, visitor use is expected to increase over time as the general population increases, and as the area becomes better known due to the river's designation as Wild and Scenic. The wide variety of recreational uses which now exist within the river corridor would continue and probably expand. Existing facilities would be maintained and expansion or construction of new facilities, roads and trails would likely occur. These increases in human visitation, facilities, and associated vehicles and noise would result in increased disturbance to wildlife species which are resident in the same areas or which use these areas for foraging and travel avenues. Species which are intolerant of disturbance could be temporarily displaced, or may abandon territories in areas of high recreation use. There would be little to no impact on species which are not highly sensitive to the presence of people and associated sounds.

Fuelwood cutting would cause minor losses to wildlife habitat and snag levels.

There would also be increased impacts to vegetation in the vicinity of campgrounds and other facilities and a loss of vegetation where there was new construction of roads, trails, interpretive sites, boat landings and other such facilities. The major impacts would be to ground vegetation and shrubs, with some tree removal necessary. Riparian areas would be impacted the most, but this could be mitigated by management of heavily used areas.

Wildlife harassment from vehicular travel could be mitigated by seasonal and/or permanent road closures.

Mineral exploration and extraction, where allowed, could involve new road construction or reconstruction of old roads, severe ground disturbance and excavation, clearing of vegetation and tree cutting, construction of settling ponds, and creation of piles of tailings. Use of heavy machinery, equipment and vehicles would be necessary for such mining operations. Smaller scale testing could involve use of hand tools only. Impacts from mining would be similar to those described above for recreational activities, except more severe where heavy equipment and vegetation removal were involved. The presence of people, machinery and high noise levels would temporarily displace some animals, potentially disrupting foraging and travel patterns and possibly nesting and roosting activities. There would be a temporary loss of habitat in many instances, until the mining sites were revegetated and rehabilitated. Depending upon the site characteristics and availability of native plant materials, many mining sites could undergo a long-term habitat alteration. However, valuable wildlife habitat could still be created, and various types of habitat restoration would be accomplished over time.

Timber harvest would be allowed within the designated Scenic and Recreational portions of the river corridor. This is true for all the alternatives. If timber harvest occurred, it would result in long-term wildlife habitat alteration and changes in seral stages. The degree of alteration would depend on how many trees were removed and the type of equipment used. There would be an increase in the amount of forage and in habitat types containing forage. There would be some loss of thermal and hiding cover for big game. Snag levels would be less than optimal, and there would be some loss of potential nesting, roosting and foraging trees. General effects on wildlife would be similar to those of increased recreation, due to the presence of people, heavy equipment, and high noise levels. Ground disturbance and removal of vegetation would cause temporary to long-term changes in microsites and species composition of grasses, forbs, and shrubs. There may be local increases in soil erosion and stream sedimentation, though these should be minimal due to constraints of existing standards and guidelines.

The effect of livestock grazing on wildlife habitat would result in an overall reduction in the amount of forage available for deer and elk. There may be impacts to vegetation, especially in riparian zones, from feeding, trampling, bedding, and trailing. Increased erosion of streambanks and general soil erosion in areas of heavy use could occur. Such

adverse effects could be mitigated by improvement in allotment management plans. This would occur to some degree under all alternatives. There would also be some displacement of elk and deer by the presence of cattle or other livestock.

Cumulative Effects

No cumulative effects on wildlife were identified during the analysis process.

Alternative B

Direct/Indirect Effects

This alternative would provide for the highest level of Recreation and Scenic OR values. There would be numerous new recreational developments, both structural and non-structural. There would also be increased opportunity for implementation of wildlife improvement projects and for habitat management that would enhance values to wildlife, as compared with Alternative A, but not to the degree provided for by Alternatives C and D.

In this alternative, it is expected that visitor use would increase above levels associated with Alternative A, due to greater development of recreational facilities. Effects on wildlife species, habitat, and general vegetation would be the same as described for Alternative A, but at higher levels or intensities due to increased visitor use and facilities.

Impacts from mining activities would be the same as those for Alternative A, except there would be a more detailed and comprehensive evaluation process for proposed and existing operating plans to ensure protection of water quality and all the OR values. Operating plans could be modified, where practical, to meet standards and guidelines for Wild and Scenic River protection. Additional measures to maintain high water quality and protect vegetation would benefit wildlife and maintain or enhance existing habitat values.

Effects of timber harvest on wildlife and habitat would be similar to those for Alternative A, but would be somewhat mitigated by more restrictive standards and guidelines to protect all Wild and Scenic River values. Also, snags would be managed at the 100 percent level within the entire river corridor, providing high quality habitat for cavity nesting species and primary excavator species (which are also management indicator species).

Impacts from livestock grazing would also be similar to those described for Alternative A, except, as with other activities impacting resources, allotment management plans would be modified to better protect all Wild and Scenic River values, and management techniques to protect and enhance these values would be implemented.

Impacts to wildlife from all activities would be offset by monitoring for and implementing habitat improvement projects. Wildlife harassment from vehicular use would be mitigated by seasonal and/or permanent road closures. Development of interpretive signs and brochures could include information about various wildlife species, habitats, and rare/sensitive plants. This would provide benefits through public education and increased awareness of protection for natural resources.

Cumulative Effects

No cumulative effects on wildlife were identified during the analysis process.

Alternative C

Direct/Indirect Effects

Alternative C would place the greatest emphasis on water quality and fisheries. Management practices to preserve and enhance these values would also benefit wildlife. This alternative would provide the greatest protection of wildlife habitat and opportunities for enhancement.

In Alternative C, a slower increase in visitor use is expected to occur, compared to other alternatives, due to a lower emphasis on recreation and less development of facilities. However, visitor use is still expected to increase over time as the general population increases and as the area becomes better known due to the river's designation as Wild and Scenic. Effects on wildlife and vegetation would be the same as those described for Alternative A, except the extent and intensity of impacts from recreational activities would be at a lower level.

Impacts of mining activities would be the least of all the alternatives, due to closure of the river corridor to all recreational mining, and a mineral withdrawal

for the entire corridor. This would reduce the extent of mining to valid existing claims, with no establishment of new claims. Where mining does occur, the effects on wildlife and habitat would be the same as those described for Alternative A, except some additional mitigation measures would be required. There would be a more detailed and comprehensive evaluation process for proposed and existing operating plans to ensure protection of water quality and all the OR values. Operating plans would be modified, where practical, to meet standards and guidelines for Wild and Scenic River protection. Additional resource protection measures for water quality and fisheries under this alternative (and Alternative D) would further help to mitigate impacts from mining on wildlife habitat.

Effects of timber harvest on wildlife and habitat would be similar to those described for Alternative A, but would be mitigated by more restrictive standards and guidelines to protect all Wild and Scenic River values. Additional resource protection measures for water quality and fisheries would further help to mitigate impacts from timber harvest on wildlife habitat. Snags would be managed at the 100 percent level within the entire river corridor.

Impacts from livestock grazing would also be similar to those described for Alternative A, except, as with other activities impacting resources, allotment management plans would be modified to better protect all Wild and Scenic River values, and management techniques to protect and enhance these values would be implemented. Additional resource protection measures for water quality and fisheries under this alternative would further help to mitigate impacts from livestock grazing.

Impacts to wildlife from all activities would be offset by monitoring for and implementing habitat improvement projects. Wildlife harassment from vehicular use would be mitigated by seasonal and/or permanent road closures. Development of interpretive signs could include information about various wildlife species, habitats, and rare/sensitive plants. This would provide benefits through public education and increased awareness of protection for natural resources.

Cumulative Effects

Alternative C could have long-term beneficial effects to wildlife through implementation of habitat improvement projects, a greater degree of protection of water quality and fisheries values than under Alternatives A or B, and public environmental education.

Alternative D

Direct/Indirect Effects

Alternative D would emphasize and manage for a high level of water quality and fisheries values while also providing for a high level of recreational values. Management practices to preserve and enhance fish habitat would also benefit wildlife, but to a somewhat lesser extent than in Alternative C.

Recreation developments and facilities would be intermediate between those of Alternatives B and C. A gradual increase in visitor use is expected over time as the general population increases, and as the area becomes better known due to the river's designation as Wild and Scenic. Effects on wildlife and vegetation would be the same as those described for Alternative A, except the extent and intensity of impacts from recreational activities would be at a lower level than either Alternatives A or B, but greater than in C.

Impacts of mining activities would also be less than in Alternatives A or B, but greater than in C. A mineral withdrawal would be recommended for approximately seven miles within the river corridor, and recreational mining would be permitted in designated areas. Where mining does occur, the effects on wildlife and habitat would be the same as those described for Alternative A, except some additional mitigation measures would be required. There would be a more detailed and comprehensive evaluation process for proposed and existing operating plans, to ensure protection of water quality and all the OR values. Operating plans would be modified, where practical, to meet standards and guidelines for Wild and Scenic River protection. Additional resource protection measures for water quality and fisheries under this alternative (the same as in Alternative C) would further help to mitigate impacts from mining on wildlife habitat.

Effects of timber harvest on wildlife and habitat would be similar to those described for Alternative A, but would be mitigated by more restrictive standards and guidelines to protect all Wild and Scenic River values. Additional resource protection mea-

sures for water quality and fisheries (the same as in Alternative C) would further help to mitigate impacts from timber harvest on wildlife habitat. Snags would be managed at the 100 percent level within the entire river corridor.

Impacts from livestock grazing would also be similar to those described for Alternative A, except, as with other activities impacting resources, allotment management plans would be modified to better protect all Wild and Scenic River values, and management techniques to protect and enhance these values would be implemented. Additional resource protection measures for water quality and fisheries under this alternative (the same as in Alternative C) would further help to mitigate impacts from livestock grazing on wildlife habitat.

Impacts to wildlife from all activities would be offset by monitoring for and implementing habitat improvement projects. Wildlife harassment from vehicular use would be mitigated by seasonal and/or permanent road closures. Development of interpretive signs could include information about various wildlife species, habitats, and rare/sensitive plants; this would provide benefits through public education and increased awareness of protection for natural resources.

Cumulative Effects

Alternative D could have long-term beneficial effects to wildlife through implementation of habitat improvement projects, a greater degree of protection of wildlife values than under Alternatives A or B. Beneficial effects to wildlife and habitat would be somewhat less than under Alternative C.

HISTORIC/PREHISTORIC

Alternative A

Direct/Indirect Effects

All of the alternatives would utilize current direction to protect, enhance and interpret the historic/prehistoric OR values. Alternative A would provide the least enhancement opportunities.

Alternatives B, C, and D

Direct/Indirect Effects

Alternatives B, C, and D would provide for the research and development of an interpretive site for the gold dredge tailings in the vicinity of Gold Dredge Camp. Alternatives B and D would also provide for incorporating cultural information at campgrounds and other appropriate interpretive sites. These alternatives would provide for the highest level of enhancement for the OR values.

Cumulative Effects

The increased recreation developments and opportunities provided by Alternative B would lead to an increased number of recreational visitors in the corridor. Greatly increased numbers of users could reduce the ability of Federal and State agencies to protect the historic and prehistoric sites located there.

PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

No adverse environmental effects that cannot be avoided were identified during the analysis process. The impact to private landowners cannot be avoided as Congress designated the river a part of the National Wild and Scenic System. The Forest Service is charged with developing the management plan.

RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

During the development of the alternatives, neither long-term or short-term productivity would be affected.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

No alternative represents an irreversible or irretrievable commitment of resources.

POTENTIAL CONFLICTS WITH PLANS AND POLICIES OF OTHER JURISDICTIONS

No conflicts were identified with plans or policies of other agencies during the analysis process.

Chapter V

Agencies and Persons Consulted

CHAPTER V. AGENCIES AND PERSONS CONSULTED

The development of this environmental analysis involved numerous people, agencies, groups, and governments. The following is a list of the person(s) and agencies consulted.

Government

State of Oregon
Confederated Tribe of the Umatilla Indian Reservation
Confederated Tribe of the Warm Springs Reservation
Grant County
Umatilla County

Agencies and Organizations

American Camping Association
American Fisheries Society
American Rivers, Inc.
Antler & Fin Club
Army Corps of Engineers, Dist. Engineers
Audubon Society of Portland
Baker Resources, USA
Blue Mountain Audubon Society
Blue Mountain Intergovernment Council
Blue Mountains Protection Alliance
Bonneville Power Administration
Bureau of Indian Affairs
Bureau of Land Management
Bureau of Reclamation
Columbia River Inter-tribal Fish Commission
E. O. Sportsmen Council
East-Central Oregon Organization of Counties
Eastern Oregon Mining Association
Eastern Washington University
Federal Energy Regulatory Commission
Forestry & Range Sciences Lab
Grant County Chamber of Commerce
Grant County Soil and Water Conservation District
National Forest Products Association
National Park Service
National Wildlife Federation
Native Plant Society of Oregon
Natural Heritage Advisory Council
Nez Perce Fisheries Management
Nez Perce Tribe
Northwest Forestry Association
Northwest Indian Fisheries Commission
Northwest Power Planning Council
Northwest Rivers Council
Northwest Steelheaders
Northwest Trailriders Association
Oregon Cattlemen's Association
Oregon Division of State lands

Agencies and Organizations (cont.)

Oregon Department of Agriculture
Oregon Department of Environmental Quality
Oregon Department of Fish & Wildlife
Oregon Department of Forestry
Oregon Department of Geology
Oregon Department of Transportation
Oregon State Land Conservation and Development
Oregon Hunter's Association
Oregon Kayak & Canoe Club
Oregon Natural Resources Council
Oregon Nordic Club, Inc.
Oregon Rivers Council
Oregon State Marine Board
Oregon State Parks Department
Oregon State University Extension Service
Oregon State Water Resources Department
Oregon Trout
Our National Forest, Inc.
Point No Point Treaty Council
Rural Electification Administration
Sierra Club, Blue Mountain Group
Sierra Whitewater Expeditions
Special Protection Inc., Ag.
The Nature Conservancy
Tri-State Steelheaders
Umatilla County Planning Department
Umatilla County Weed Control Supervisor
Umatilla County Watermaster
U. S. Department of Interior, Bureau of Mines
U. S. Environmental Protection Agency
U. S. Fish & Wildlife Service
U. S. Soil Conservation Service
Western Land and Minerals
Wilderness Society

Individuals Representing Government

Les Aucoin (U.S. Representative)
Ray Baum (State Representative)
Larry Craig (State Representative)
Peter Defazio (U.S. Representative)
Mark Hatfield (U.S. Senator)
Denny Smith (U.S. Representative)
Robert Smith (U.S. Representative)
Eugene Timms (State Senator)
Ron Wyden (U.S. Representative)

Private Landowners and Individuals

Private landowners that live within a half a mile of the North Fork John Day River were put on a mailing list to keep them informed as we proceeded through the process. Other interested private individuals were also kept informed throughout the process. There are over 130 people on this list.

Interdisciplinary Team

We have participated in this analysis and believe the significant issues have been identified and addressed:

MARTY GARDNER, River Planner	Date
ALAN GUTTRIDGE, NFJD Resource Assistant	Date
LYNN ROEHM, Baker District Resource Assistant	Date
JACKIE DOUGAN, Baker District Fishery Biologist	Date
HEIDI HAID, Baker District Botanist	Date
GORDON STRUTHERS, Baker Dist. Resource Coordinator	Date
BOB CLEMENTS, NFJD Silviculturist	Date

Recommended by:

CRAIG SMITH-DIXON NFJD Dist. District Ranger	Date
CHUCK ERNST, Baker Dist. District Ranger	Date

I believe this assessment meets the requirements of the National Environmental Policy Act of 1969.

BRUCE McMILLAN, Forest Environmental Coordinator	Date