

CHAPTER 1. PURPOSE OF AND NEED FOR ACTION

Document Structure

The Forest Service has prepared this Environmental Impact Statement in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Impact Statement discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document consists of two volumes; the Record of Decision (ROD) is a separate document.

Volume 1 includes the Summary, Table of Contents, Chapters 1 through 6 of the EIS, the map section, and the index:

- *Chapter 1. Purpose of and Need for Action:* This chapter includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- *Chapter 2. Alternatives, including the Proposed Action:* This chapter provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised internally, and by the public and other agencies. This discussion also includes mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Chapter 3. Affected Environment and Environmental Consequences:* This chapter describes the environmental effects of implementing the proposed action and other alternatives. This analysis is organized by resource area.
- *Chapter 4. Consultation, Coordination, and Public Involvement:* This chapter provides a list of preparers and agencies consulted during the development of the environmental impact statement, a summary of public involvement, and it displays both the comments received on the DEIS and agency's response to those comments.
- *Chapter 5. Bibliography:* This chapter lists literature cited during the development of the environmental impact statement.
- *Chapter 6. Glossary:* This chapter is a glossary of terms used in this environmental impact statement.
- *Index:* The index provides page numbers by document topic.

Volume 2 includes the Appendices A through J:

- *Appendices:* The appendices provide more detailed information to support the analyses presented in the Environmental Impact Statement.

Purpose of and Need for Action

The purposes of and needs for action in the Flagtail Fire Recovery Project area (Figure 1, Map Section) are to:

- Reduce future fuel loadings to be responsive to the National Fire Plan,
- Capture economic value of the fire-killed and damaged trees expected to die,
- Provide safe and adequate roaded access in the fire area,
- Reduce the effects of roads on wildlife and water quality,
- Re-establish upland vegetation, and
- Designate suitable Dedicated and Replacement Old Growth areas to replace those degraded by the fire.

This action is needed in order to comply with the goals and objectives outlined in the 1990 Malheur National Forest Land and Resource Management Plan (Forest Plan), which guides natural resource management activities and establishes management standards for lands administered by the Malheur National Forest.

The needs for the proposed action are derived from the differences between current conditions and desired conditions. Desired conditions are based on Forest Plan direction and management objectives, and on recommendations from the Upper Silvies Watershed Analysis (USDA Forest Service 2001). The proposed action is designed to move resource conditions closer to the desired conditions and address the management direction provided by the Malheur Forest Plan as amended.

The two broad categories of purpose for the project are: the acceleration of ecosystem restoration, and timely commodity extraction. Each of the existing and desired conditions relevant to providing improved conditions and accomplishing commodity extraction for jobs and income can be linked to the purpose for the proposed action.

The purpose and need for an action is driven by the difference between the existing and desired condition. The proposed action is developed early in the planning process to address the differences between the existing and desired conditions. For example, the purpose for fuels reduction addressed by the proposed action is linked to the need to establish fuel conditions that will allow for future management actions that move the landscape toward historical conditions. Unit 34 (in Figure 24, Map Section) of the proposed action provides a site-specific look at a burned area that is a priority for reducing the current and predicted fuel levels. Unit 34 historically had a fuel load of around 7 tons/acre. In 10-15 years, unit 34 would have a predicted fuel load exceeding 30-50 tons/acre on the ground (Figure 17, Map Section). Fuel reduction in this unit will provide for the opportunity to implement efficient and effective future management actions consistent with long-term ecosystem recovery, which is responsive to the National Fire Plan. The proposed action utilizes the opportunity to salvage harvest the fire-killed trees or trees expected to die as a result of fire injury. Salvage from this unit is directly linked to the desire to provide jobs and income, as well as the desire to reduce future fuel loading.

Background

In July 2002, the Flagtail Fire burned approximately 8,200 acres; 7,120 acres are located on the Malheur National Forest and the remaining 1,080 acres are on private land (see Figures 1 and 2, Map Section). The Flagtail Fire Recovery Project area consists of these 7,120 acres, of which 6,180 acres are forested, located on the Blue Mountain Ranger District within the Upper Silvies Watershed, approximately 25 miles southwest of John Day, Oregon. Figure 1 (Map Section) displays the project area in relation to the state of Oregon and the Malheur National Forest. The fire burned in four subwatersheds on National Forest land: Jack Creek, Snow Creek, Hog Creek, and Keller Creek (Figure 3, Map Section). A small part of the West Bear Valley subwatershed was also burned, but it is outside the Malheur National Forest boundary.

Fire Suppression Activities, Completed Fire Rehabilitation, and Ongoing Fire Recovery Projects

The following section provides information on the Flagtail Fire and activities associated with the fire. In the following chapters these activities are considered as part of the existing condition as well as in the cumulative effects (see also Appendix J).

Table 1-1: Fire Suppression Lines for the Flagtail Fire

Subwatershed	Total miles interior and exterior fire line	Total miles of cross-country dozer fire line	Number of stream crossings		
			Fish bearing	Perennial	Intermittent
Jack Creek	19	5.8	0	5	1
Snow Creek	8.5	5.5	0	0	4
Hog Creek	4.8	4.8	0	0	0
Keller Creek	3.1	2.0	0	2	2
West Bear Valley	1.2	1.2	0	0	0

About 36.6 miles of fire line was utilized in the Flagtail Fire to contain and control the Flagtail Fire (this includes fire lines both inside and outside the boundary of the project area). Fire lines consisted of open and closed roads, geographic barriers and retardant lines, dozer line, and hand line. Approximately 23.3 miles of fire line were built with dozers (Figure 4, Map Section, and Table 1-1). Included in this figure are about 4 miles of previously closed road that were opened with a dozer to create fire line and 19.3 miles of dozer line built cross-country (see Figure 4, Map Section). Fire fighting and support vehicles traveled cross-country creating unclassified extensions of roads. Cross-country dozer lines crossed perennial streams in about 7 locations (Table 1-1) and traveled down about .3 mi. of an ephemeral draw and across a seep. The figures displayed in Table 1-1 include fire line built outside the project area (including line on private land) as contingency line (in case fire lines did not hold).

Six safety zones were identified along the boundary or outside the project area. Four safety zones were natural openings, such as meadows; two safety zones were constructed by cutting trees, removing vegetation, and exposing mineral soil to provide protection for wildland fire

fighters during the fire (see Figure 4, Map Section). Constructed safety zones covered less than 5 acres.

Rehabilitation of fire lines occurred on roads opened to create a fire line, on dozer lines built cross-country and on constructed safety zones. On previously-closed roads, opened to create a fire line, rehabilitation included keeping the roadbed intact and reinstalling gate closure devices and installing water bars as needed. Other road closure devices such as ditches, woody debris, or other closures have not been reinstalled. Rehabilitation on cross-country dozer lines consisted of knocking down the berm created by the dozer, creating cross ditches (similar to waterbars), and scattering slash, logs, large rocks and other debris on the fire lines to both reduce potential for sediment movement and to blend the fire lines with the landscape. Near a tributary to the Silvies River, a water bar installed to drain fire line initially intercepted flow from a large seep and routed it, and flow from the fire line above, back onto the fire line; the water bar was subsequently modified and informal monitoring of the area shows this rehabilitation to be effective. Another portion of fireline informally monitored in 2003 in an ephemeral draw in the Hog subwatershed showed signs of slight overland flow; as part of fire rehabilitation, this area (less than ¼ acre) will be seeded in 2004 to prevent further erosion.

Rehabilitation occurred in two phases; interior lines were done mainly in September 2002, and exterior lines were rehabilitated in October and November 2002. Rehabilitation work was completed on all fire lines and safety zones before fall precipitation. Recent observation of the rehabilitation measures indicates that most measures are providing expected resource protection; areas of concern in or near draws and seeps and perennial crossings are being monitored and treated as described above.

Other fire suppression related actions included aerial retardant drops on the fire start area, on the northern fire lines, and to protect structures at the Bear Valley Work Center. Fire retardant was used on a limited basis (6 drops). There is no readily observable existing retardant residue in streams, ephemeral draws, or Riparian Habitat Conservation Areas (RHCAs), and no lasting consequences that can currently be observed from retardant applications. The fire camp was located on private property in Bear Valley outside of the Forest boundary and had no effect on National Forest lands.

The Burned Area Emergency Rehabilitation (BAER) team evaluated the fire for resource condition and the need to take action to prevent or reduce additional resource damage caused by the fire and not by suppression (USDA Forest Service 2002, BAER Report). The BAER team made the determination that no emergency rehabilitation of land, stream channels, or side slopes was needed because there were few areas of water repellency observed, slopes were generally gentle, and no severe erosion was expected from the soils found in the area. An important factor contributing to the finding of no emergency conditions under BAER is the gentle topography and presence of flat, wide valley bottoms along the Silvies River and major tributaries. Ground cover seeding was not recommended since it was felt that natural revegetation would be adequate. Monitoring of noxious or invasive weeds was recommended to see if they are expanding their distribution or invading from outside sources.

The BAER team did determine that there were specific emergencies related to life and property. As a result of the analysis, the BAER team recommended posting hazard warning

signs in fire areas and falling and removing hazard trees around the Bear Valley Work Center. Hazard tree removal around the Work Center occurred in winter of 2002/2003 (see below), and the other recommendations are being implemented on an ongoing basis.

Additional Fire Recovery Projects Ongoing or Completed

Additional fire recovery projects are planned (see Actions Outside of this EIS to Address Recovery Needs, this chapter) or are being implemented in the Flagtail Fire project area. The following projects, signed under Categorical Exclusions (CE), are being implemented or are completed in the Flagtail Fire project area:

Conifer and hardwood planting and protection

This project was designed to improve hydrologic and riparian conditions. Hardwoods are being planted, interplanted, and protected on about 25 acres along 6.5 miles of streams. In the spring of 2003, 25 acres of hardwoods were planted and protected. Over the next few years, other native hardwood species will be added to the same area to increase plant diversity. In 2003 native conifer trees were planted on about 190 acres of Riparian Habitat Conservation Areas (RHCAs) and 190 acres of uplands. Riparian hardwood planting was done along the Silvies River and Snow and Jack Creeks to provide shade and shrub detritus and to maintain bank stability. Snow Creek is currently on the State's 303(d) list of Water Quality Limited Waterbodies for temperature. Riparian hardwood planting is expected to increase stream shade and reduce summer stream temperature. Conifer planting was done on the upland portions of the RHCAs to accelerate the establishment of forested stands which provide filter strips, large wood and some shade to the adjacent riparian areas and streams. Upland conifer planting was done on severely burned south slopes to accelerate forest stand establishment and to reduce the likelihood of vegetative competition to the seedlings.

Wood addition to channels

Single pieces or aggregates of coarse woody material are being placed in about 27 miles of Flagtail Fire project area streams and ephemeral draws where woody material is deficient or where there is potential for active erosion to develop. Wood was placed in about 6 miles of stream in 2003; wood placement will continue in the remaining 21 miles. Woody material reduces erosion and sediment transport and maintains and improves channel integrity and fish habitat.

Bear Valley Work Center Hazard Tree Removal

Most of the trees around the Bear Valley Work Center were killed by the fire and presented a hazard to Forest Service employees and to the visiting public. They were removed in the winter of 2002/2003 with a commercial timber sale (14 acres, see Figure 3, Map Section and Appendix J).

Roadside Hazard Tree Removal

The fire-killed trees along County Road 63 as well as many Forest Service roads were determined to be a safety hazard to people driving. Several commercial timber sales were developed and sold in the winter of 2002/2003 to fell and remove those trees. Hazard tree removal (of commercial size trees) was completed in the winter of 2002/2003 on County Road 63 (Izee Hwy), and in the Forest Road 2400-011 area; hazard tree removal was begun in two other areas along Forest Roads 2400-865 (40% of sale area), and 2400-017 (5% of

sale area). Removal of remaining hazard trees under this Categorical Exclusion was enjoined (halted) because of litigation. Hazard trees were removed on about 650 acres (Appendix J). Felling and removal of remaining hazard trees would occur not as described in the CE, but as described in Chapter 2 of this EIS and as analyzed in Chapter 3 of this EIS.

Existing Condition

The existing condition in the project area is the result of past activities as well as the Flagtail Fire, fire suppression activities, suppression rehabilitation activities, and restoration activities that occurred from July 2002 through October 2003. Resource specialists referred to the Upper Silvies Watershed Analysis (USDA Forest Service 2001) for pre-fire conditions. Because the Flagtail Fire occurred after that document was printed, the current condition information in this EIS is more up-to-date than the information in the Watershed Analysis; information in this EIS will be used to update that analysis. The following is a brief description of the existing conditions in the Flagtail Fire area. An expanded discussion can be found by resource area in Chapter 3.

Forest Vegetation/Structure

Within the 6,180 forested acres that burned on National Forest land in the Flagtail Fire, 3,150 acres burned with high severity to the forest vegetation (90-100% tree mortality), 2,400 acres burned with moderate severity (60-90% tree mortality), 460 acres burned with low severity (30-60% tree mortality), and 170 acres of forest were unburned (Figure 2, Map Section). The remaining 940 acres in the Flagtail Fire on National Forest land are classified as woodland (juniper) and shrub and grasslands. These areas burned in a mosaic pattern that varied from total mortality to no burn at all.

The majority of the surviving trees are ponderosa pine and western larch. Few lodgepole pine, Douglas-fir, or grand fir are expected to survive the fire and post-fire insect attacks. The seed source for natural reforestation is limited in about one-third of the fire area because of the high mortality and distance to the nearest seed source. The remaining two-thirds of the fire has live trees or is within 800' of live trees and is in the seed dispersal zone.

In the areas that burned with high severity (stand replacement), fire converted all of the previous structural stages to stand initiation (very few or no surviving trees), while the areas of moderate and low severity fire converted many stands to understory reinitiation (a partial overstory with no understory). Low severity fire burned through several stem exclusion single-strata stands killing only scattered trees and leaving a thinned stand that is still stem exclusion single-strata. As a result of the fire, there is little or no young forest multi-strata, old forest single-strata, and old forest multi-strata within the fire area.

Fuels

One goal of the National Fire Plan (2002) is to reduce hazardous fuels to reduce the risk of wildland fire to communities and the environment. The fuels in the Flagtail Fire area currently exist as standing dead fuels but will become surface fuels as they fall. Standing dead trees are not considered to be hazardous fuels because standing dead trees provide no

vertical or horizontal continuity of fuels to carry a fire. As snags fall and the vegetation re-establishes, ground fuels contribute to fire spread as well as fire intensity and severity.

Fuel loadings on the ground have been reduced significantly from pre-fire levels of an estimated 10-40 tons/acre to 0-10 tons/acre. Fire intensity and severity is expected to be low to moderate for the next 10 years because of the lower fuel loads. Standing dead fuels in most units proposed for treatment are very high. For example, in unit 34 (Figure 24, Map Section) there are 343 standing dead trees per acre (total), with about 230 of those being smaller than 9 inches diameter at breast height (DBH), about 100 that are 9-16 inches DBH, and 11 trees per acre larger than 16 inches DBH. The standing dead is starting to contribute to the fuel bed and will increase in 10 to 15 years to levels exceeding 30-50 tons/acre (Figure 17, Map Section). The current snag densities and future down fuel loadings are outside the historical range for these areas with a frequent and low severity fire regime.

Approximately 25 percent of this future fuel loading will be in 0 to 3 inch material and 75 percent will be in material larger than 3 inches. This higher fuel loading will lead to increased fire intensity and severity. An important concept in fuel reduction is that concerns about future fire severity and extent in areas burned in 2002 are directed more toward fires in decades to come, rather than fires in the immediate future.

Priority treatment area of the National Fire Plan is the Wildland Urban Interface, which has been mapped for the Malheur National Forest. In addition to the communities listed in the Federal Register, other interface areas include single residences, ranches, camps, and other developments on private lands within or adjacent to the Forest (Malheur National Forest Fire Management Plan). There are several structures located with close proximity to the Flagtail area, making parts of the Flagtail Project Area a Wildland Urban Interface area.

If fuels remain untreated, risks are raised and could pose a threat to human safety and natural resources. High severity fire would increase the risks future fires will pose to human health and safety, including firefighter safety, property and improvements, and resources. Fire severity outside the historical regime can affect watershed health by reducing stream shade and by increasing erosion and sedimentation. High severity fire also delays reestablishment of habitats such as those for old-growth dependent species, neotropical birds, and big game.

There is a limited window of opportunity in which to utilize salvage harvest as a tool to reduce fuels because the value of many fire-killed trees for forest products deteriorates relatively rapidly.

Roads/Access

A Roads Analysis was completed (Flagtail Fire Recovery Roads Analysis, USDA Forest Service 2003) consistent with current direction. Most roads are native surface that receive inadequate maintenance due to limited funding.

Within the Flagtail Fire Recovery Project Area, stream systems have been impacted by road density, location, and inadequate maintenance. Several native-surface roads are less than 100 feet from tributaries and springs. Some of these roads directly influence channel morphology, limit woody debris recruitment, and contribute sediment to the stream channel.

Roads near streams chronically transport sediment. The presence and use of these roads will continue to supply sediment to streams and impact water quality by channeling water and

breaking down the road surface from vehicular traffic. The sediment from the roads will maintain degraded conditions of fish habitat. Of particular concern is Road 2400133 which parallels Snow Creek. Additional roads and unclassified extensions of roads affect other streams and draws similarly as described in the Roads Analysis.

Use by fire fighting equipment degraded conditions further. For example, on road 2400048 (Figure 9, Map Section), drainage structures that were previously constructed, drainage dips, grade sags, cross ditches or waterbars, are now in need of reshaping. Another example is road 2400133. The road is in the bottom of the draw and becomes wet and muddy when used under wet conditions. It also has an undersized culvert. Other roads only need blading to reshape the surface. There are also areas where rock will need to be placed to create a surface that will be resistant to rutting during the wet times of the year, to protect the roadbed and to prevent any sedimentation going into streams (e.g. road 2400033). One road in particular is in need of decommissioning. Road 2400205 crosses Snow Creek over a log culvert which is not in good shape. If this culvert should collapse it could cause increased sediment to be deposited into the creek. Following the fire, all roads except County Road 63 (the Izee Highway) were temporarily closed to public access. This closure was necessary due to the numerous fire-damaged trees along roads, which presented a hazard to the users of the road. These trees will need to be felled prior to the road being reopened to the public or used for hauling logs.

High open road density and poor road distribution can reduce habitat effectiveness for deer and elk (Thomas et al, 1979, Rowland et al. 2001). Motor vehicles and associated human activities can induce stress in big game animals, particularly elk, which leads to poor distribution of animals within available habitat. This becomes even more of a concern when there is a lack of security/hiding cover, as has occurred as the result of the fire. Open road densities in the Jack, Snow and Hog subwatersheds are in excess of Forest Plan standards. Within areas impacted by moderate to high-severity burns, these high road densities coupled with a lack of hiding cover, creates concerns over deer and elk distribution and habitat utilization.

Road-related impacts, specifically negative impacts to water quality, fish habitat, and wildlife habitat, would decrease if roads within RHCA's are reconstructed, closed or decommissioned. There is a need to minimize road-related sediment delivery to water sources to improve water quality and increase fish habitat. The road condition inventory identified specific segments as improperly functioning drainage features.

Terrestrial Wildlife Habitat

The Malheur Forest Plan, as amended, identifies 15 Management Indicator Species (MIS) and their associated habitat requirements. MIS habitat requirements are presumed to represent those of a larger group of wildlife species, and act as a barometer for the health of their various habitats. Pine marten, pileated woodpecker, and northern three-toed woodpecker represent old growth habitats, Rocky Mountain elk represent big game habitats, and primary cavity excavators (most woodpeckers) represent dead wood habitats.

Post-fire habitats are very different from pre-fire habitats. There is essentially no old growth habitat remaining in the fire area. Dedicated Old Growth (DOG) areas 220 and 221 and Replacement Old Growth (ROG) area 221 were burned over, creating gaps in the Forest's

old growth network (see Figure 14, Map Section). The DOG/ROGs no longer function as old growth. Forest canopy cover has been reduced or eliminated, reducing nesting habitat for such species as the pileated woodpecker and northern goshawk, and eliminating denning and foraging habitat for such species as the pine marten.

The fire impacted elk and deer habitat. Very little thermal or hiding cover remains and forage has been temporarily eliminated, particularly in severely burned areas. Open road densities in the Jack, Snow and Hog subwatersheds are in excess of Forest Plan standards. Within areas impacted by moderate to high-severity burns, these high road densities coupled with a lack of hiding cover, creates concerns over deer and elk distribution and habitat utilization. As forage recovers, big game will likely forage in the burn area, primarily during the night, and retreat to security cover in adjacent unburned areas during the day. During the hunting season, elevated human use will likely reduce big game use of the burn area.

Conversely, fire can temporarily increase some wildlife habitats. Snag levels are now greatly elevated, maximizing habitat for many woodpecker species; black-backed woodpeckers in particular respond positively to post-fire habitats. However, the availability of this snag habitat is limited in time. Most snags are likely to fall in the next 10 to 30 years, reducing snag habitats while creating abundant down log habitats.

Prior to the fire, the forested communities in the Flagtail Fire project area provided limited habitat for threatened, endangered and sensitive species, possibly due to the extent of past management activities, particularly timber harvest and road construction. Forested areas may have provided travel or dispersal habitat for large, wide-ranging carnivores; however, post-fire loss of cover has reduced the quality of travel habitat even further. Light mortality and unburned areas (10% of the fire area) currently provide the best connectivity in the area, and are likely the only stands that meet Forest Plan standards for corridors.

Soil and Geology

Rocks underlying Flagtail Fire are mostly sedimentary with some volcanics on the south side. Mass movement is very rare.

Soils are generally not inherently highly erodible (except for some non-forested soils), due to relatively dry climate and relatively gentle topography. However, management has the potential to cause erosion of these soils.

About 4,000 acres burned at moderate or high soil severity. In most of these areas, the fire reduced ground cover below Forest Plan Standards. For 1-5 years, this reduction raises the risk of erosion and sedimentation to streams if a high intensity storm occurs.

The Forest Plan Standard of less than 20% detrimental impact is currently met in all activity areas. The highest existing detrimental impacts are 16-18%, on about 100 acres.

Watershed and Fisheries

Most stream channels and draws as shown on Figure 16 (Map Section) are not functioning properly due to sedimentation or erosion problems caused by historical grazing (sheep and cattle), railroading, roading, logging and other past management activities implemented without Best Management Practices (BMPs). Past activities have affected most draws in the

burn area with less than 45% slope, varying from insufficient vegetation to gullying. About 70% of intermittent channels, particularly in tributaries to Jack and Snow Creeks and to the Silvies River have downcut and extended upslope. About 80% of perennial and fishbearing streams, particularly tributaries to and fishbearing segments of Snow Creek and the Silvies River have downcut, altering channel function. The Silvies River on private land appears to be in similar condition, based on observations from County Road 63. The condition of smaller streams on private land is unknown.

Snow Creek (see Figure 16, Map Section) and the Silvies River (river miles 0 to 20, which is about 65 miles downstream of the project area) are on the Clean Water Act Section 303(d) List of Water Quality Limited Waterbodies for summer rearing temperature for salmonids (redband trout). The Silvies River segment is also listed for dissolved oxygen and spawning temperature. Scotty Creek is the only other stream in the Upper Silvies Watershed included on the 2002 303(d) List (see Figure 3, Map Section). It is included for summer rearing temperature. This stream does not drain the project area.

Over 90% of streams and ephemeral draws in the Flagtail Project Area are deficient in coarse wood, which is a major sediment-trapping or channel/pool-forming element. Fire-killed trees are expected to fall into channels and draws in increasing numbers over the next 20-30 years, beginning with a few trees now.

About 70% of the streams, primarily meadow dominated segments, were deficient in shade prior to the fire, particularly due the lack of shrubs. Most of these meadows did not burn or burned with low severity. Post-fire tree mortality reduced shade to a minor degree in these areas, contributing to further elevation of stream temperatures.

Streamside trees and shrubs burned with moderate or high severity along up to 30% of some perennial and perennial fish-bearing streams (primarily, Snow Creek and tributaries, see Figure 16, Map Section) eliminating most shade. Streamside trees and shrubs along about 30% of fishbearing streams (primarily Snow Creek) burned with moderate or high severity, eliminating most shade. Most existing shade along Jack Creek and its narrower stringer meadows was eliminated when the trees surrounding the meadows were killed. Similarly, most of the relatively limited, pre-fire shade along the Silvies was provided by trees located approximately .5 to 1 tree length away from the river; most of these stands burned with moderate to high severity, eliminating the pre-fire shade. Loss of shade along these perennial and fish-bearing streams is likely to result in increased stream temperatures.

The fire further impacted Snow Creek and outer portions of other RHCAS throughout the fire area where ground cover was burned with moderate or high severity, reducing sediment filtering capacity. Vegetation, including ground cover, along about 15-20% of intermittent channels (Jack, Snow, and Silvies River tributaries) burned with moderate or high severity, also reducing sediment filtering capacity. About 60% of ephemeral draws also burned with moderate or high severity, similar to the adjacent upland, increasing erosion risk due to the loss of ground cover.

Streams provide reduced rearing and spawning habitat quality and quantity based on the historical conditions and effects of the fire listed above. This has diminished native redband trout and Malheur mottled sculpin distribution and populations in the project area (see Figure 16, Map Section). These are Management Indicator Species on the Malheur National Forest.

Scenery

High severity burn areas cover about 90 percent of the visual corridor, which is along County Road 63. The foreground of the visual corridor has stumps resulting from the removal of hazard trees. In the area outside the visual corridor, the visible landscape is a mosaic of burn severities with color differences created by live trees and dead trees. Roads, landings, and skid trails from previous land management activities are more visible on the landscape due to the loss of live vegetation screening. There are two scenery rating systems. The effects of the fire and hazard tree removal have changed the scenery from appearing slightly altered from activities to moderately altered, which has lowered the Scenic Integrity rating to “low.” The Visual Quality rating has been reduced to “modification” over the entire fire area, which is still within Visual Quality Objectives but falls short of meeting the visual corridor foreground objective of partial retention.

Recreation and Recreation Opportunity Spectrum (ROS)

This area plays an important role by providing settings for various types of outdoor recreation – hunting, camping, driving in the woods, hiking, winter activities, firewood cutting, mushroom gathering, horn hunting and other activities. The project area is managed as roaded modified and roaded natural. County Road 63 provides the main access for roaded and other recreational activities. Except for County Road 63, roads are gravel-surfaced, one-lane, and native surface routes initially developed to provide timber and mineral access, and which now provides access for recreation activities.

The project area has one administrative site, the Bear Valley Work Center, which includes some buildings that are in the Recreation Rental program. Prior to the Flagtail Fire, the Work Center was staffed during the summer months by fire crews and rented during the off-season. One of two buildings that burned to the ground was in the rental program.

There are about 3 miles of bike trail within the planning area on the paved County Road 63 which was not impacted by the fire. The fire damaged the trailhead at the Bear Valley Work Center. One inventoried dispersed campsite is located within the project area in a meadow area that did not burn.

The Flagtail Fire area is a small part of an outfitter guide permitted area that is administered under an annual special use permit.

The ROS is classified as roaded modified, which is characterized by a substantially modified natural environment (see Glossary, Chapter 6).

Rangeland

Three grazing allotments were impacted by the Flagtail Fire. They are the Flagtail, Jack Creek, and Scotty Cattle and Horse Allotments. The fire burned 5,660 acres on these allotments. Of those acres burned, only 3,570 acres were identified as receiving a moderate to high severity burn. Most of the Jack Allotment, the Swamp Creek Unit of the Flagtail Allotment, and about 40 acres of the Scotty Creek Allotment were burned, temporarily reducing forage species. The Flagtail Fire destroyed an estimated 5.8 miles of boundary and interior fences. The burned areas are planned for a rest of at least two growing seasons in compliance with the Forest’s post-burn grazing guidelines.

Culturally Important Plants

The project area lies within the boundaries of the ceded lands of the Confederated Tribes of Warm Springs and is also a traditional and current use area for this tribe, the Burns Paiute Tribe and the Confederated Tribes of the Umatilla Indian Reservation. Many native plants have been and are still used by Native Americans, and are considered an essential link to their ancestors and heritage.

Many culturally important plants are found within riparian areas. The fire burned nearly all ground vegetation outside riparian areas, and an estimated 1/3 of the Snow Creek riparian area. Most of Jack Creek and the Silvies River riparian and grassland areas were unburned, preserving important plant species. Within unburned riparian areas, a high percentage of shrub species are in fair to poor condition. They are old and are not reproducing successfully because of age and repeated animal browsing.

Sensitive Plant Species

Three species of sensitive plants have been documented on 4.9 acres at two riparian sites within the Flagtail Fire project boundary: two species of botrychium, a plant related to ferns, and a sedge. The sites were relatively unburned and, although burned trees fell across the riparian area or downed logs burned in place, the fire killed few riparian plants in these locations.

Invasive Species

The fire and suppression activities have created ideal conditions for noxious weed spread. The fire removed competing plants and shade, providing large expanses of bare soil and areas of soil receiving increased amounts of light. Suppression activities may have spread weeds from other areas since none of the fire suppression equipment was cleaned before entering the fire area. Suppression equipment used many miles of local roads to access the fire, and constructed fire lines, safety zones, and drop points.

Eleven “noxious weed” species occur within or adjacent to the project area: Canada thistle, field bindweed, houndstongue, dalmatian toadflax, yellow toadflax, yellow knapweed, spotted knapweed, scotch thistle, tansy ragwort, teasel, and white top. Sixty-seven sites have been identified covering an estimated 56 acres within the project area, most sites are near roads (Figure 22, Map Section).

Economics/Social

The affected area or impact zone for the Malheur National Forest consists of Grant County and Harney County in Oregon. Agriculture, manufacturing (particularly wood products), and retail trade are important sources of employment and income in this region. Grant County, for example, has a low level of economic diversity, a high dependence on federal timber and forage, and a low resiliency for change. Reliance on timber and forage from federal lands is moderate to high in counties in the impact zone (Haynes et al. 1997).

Many communities in the impact zone are closely tied to the Forest in both work activities and recreation. Communities such as John Day, Canyon City, Mt Vernon, Prairie City,

Burns, and Hines are geographically isolated from larger cities such as Pendleton, Ontario, Bend, Baker City and La Grande (Reyna et al. 1998).

Management Areas and Objectives

Relationship to the Forest Plan

This environmental impact statement (EIS) tiers to and relies upon the analyses for the Malheur National Forest Land and Resource Management Plan (Forest Plan), as amended. Amendments include but are not limited to the Regional Forester's Eastside Forest Plans Amendment #2 and the Inland Native Fish Strategy (INFISH). Those analyses are documented in the Final Environmental Impact Statement and Record of Decision for the Forest Plan, and the environmental assessments for the Inland Native Fish Strategy and the Interim Management Direction Establishing Riparian Ecosystem and Wildlife Standards for Timber Sales (Regional Forester's Eastside Forest Plans Amendment #2), and other related documents. These documents are incorporated by reference, as appropriate, throughout this EIS. The Forest Plan, as amended, contains both Forest-Wide Standards and Guidelines as well as Standards and Guidelines for specific management areas (such as MA-1 General Forest).

Regional Forester's Forest Plans Amendment

Regional Forester's Eastside Forest Plans Amendment #2 (1995) is Forest-Wide Standards and Guidelines that contain direction for the development of timber sales. Amendment #2 changed standards for harvest of live trees, snag and down logs, goshawk habitat, connectivity of old forest, and riparian habitat. Salvage sales that do not harvest live trees, except for incidental live trees, are exempt from the ecosystem standards; but the riparian and wildlife standards still apply. The ecosystem standards do not apply since the only incidental live trees to be cut are for road and landing construction, or for safety. The riparian and wildlife standards still apply since they have concerns for resources still present in a recently burned forest (and could be affected by salvage harvest).

Management Areas

The Flagtail Fire Recovery Project area includes approximately 7,120 acres of National Forest lands that are allocated by the Forest Plan, as amended, to management areas (see Figure 23, Map Section). Management area designations overlap; when a specific segment of land falls under the goals or standards of two or more management areas, acres are assigned to the higher priority management area. The following is a description of management areas in the Flagtail Fire project area:

Management Area 1 – General Forest (4,350 acres)

This management area provides for timber production on a sustained yield basis while providing for other resource values. The goal is to develop equal distribution of age classes to optimize sustained timber production. Generally, acres for MA 1 and MA 2 (see below) are combined (see Figure 23, Map Section).

The Forest Plan establishes an objective in MA 1 of creating a healthy forest condition characterized by a variety of age classes, through control of stocking levels, species mix, and protection from fire, insects, disease, and other damage.

Management Area 2 - Rangeland

Management Area 2 consists primarily of non-forested grasslands and low elevation ponderosa pine sites unsuitable for timber production, and is usually included as non-forested lands within other management areas, primarily MA 1 – General Forest. The goal of this MA is to emphasize forage production on a sustained yield basis while providing for other resources and values. See MA 1 for acres.

Management Area 3A – Non-Anadromous Riparian Areas and Riparian Habitat Conservation Areas (RHCAs) (800 acres)

Management Area 3A consists of lakes, perennial streams and seasonally flowing streams; lands adjacent to lakes, perennial and seasonal streams; floodplains and wetlands; wet, moist areas such as meadows, springs, seeps, bogs, and wallows; and quaking aspen stands in watersheds that do not support anadromous fish (see Figure 23, Map Section). The goal of this MA is to protect or enhance riparian-dependent resources in watersheds supporting resident fish. MA 3A includes areas not addressed in INFISH, for which standard Riparian Habitat Conservation Area (RHCA) buffers were not defined but which are protected under Forest Plan standards for MA 3A; these areas include dry aspen stands and ephemeral draws.

The 1995 Inland Native Fish Strategy (INFISH) Decision Notice and subsequent correction amended the Malheur Forest Plan, establishing interim standards and guidelines for management of riparian resources. One standard establishes RHCAs across all management areas. RHCAs are generally wider than the riparian buffers established as MA 3A and incorporates both MA 3A and adjacent MAs. The Flagtail project area contains 800 acres of RHCA; 250 acres of RHCA is designated as MA 3A. Riparian-dependent resources receive primary emphasis in all RHCAs. All project actions must be in compliance with INFISH.

The project area is not under the direction from Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (1995) (PACFISH) because it is located at the northern end of the Great Basin with no connection to the ocean and hence contains no anadromous fish. Therefore, PACFISH direction was not used for this project.

Standard Riparian Habitat Conservation Area widths are as follows:

Fish-bearing streams (Category 1) such as the Silvies River and Snow and Jack Creeks: The area on either side of the stream extending from edges of active stream channel to the top of the inner gorge, or the outer edges of the 100-year floodplain, or the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet, including both sides of the stream channel), which ever is greatest.

Permanently Flowing Non-fish-bearing Streams (Perennial Streams or Category 2) such as the upper segments of Snow and Jack creeks, Cold Creek, and unnamed tributaries: The area on either side of the stream extending from edges of active stream channel to

the top of the inner gorge, or the outer edges of the 100-year floodplain, or the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential trees, or 150 feet slope distance (300 feet, including both sides of the stream channel), which ever is greatest.

Ponds, lakes, reservoirs, and wetlands greater than 1 acre (Category 3): the body of water or wetland and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs or from the edge of the wetland, pond or lake, whichever is greatest.

Intermittent Streams and Wetlands Less Than 1 Acre (Category 4): (1) The intermittent stream channel and the area to the top of the inner gorge, (2) the intermittent stream channel or wetland and the area to the outer edges of the riparian vegetation, and (3) the area to the edge of the channel or wetland to a distance equal to the height of one-half site potential tree, or (4) 50 feet slope distance, which ever is greatest.

Best Management Practices (BMPs) are the primary mechanisms to enable the achievement of water quality standards (Environmental Protection Agency 1987). BMPs have been selected and tailored for site-specific conditions to arrive at the project level BMPs for the protection of water quality.

Management Area 13 – Old Growth (880 acres – additional acres of MA-13 are overlapped by RHCAs)

Management Area 13 is composed of mature and over mature trees (150 years or older). It is managed to provide: habitat for wildlife and plant species dependent on mature and over mature forest conditions; ecosystem diversity; and preservation of aesthetic qualities across the landscape. These areas are equally distributed across the Forest, providing an old growth network. Wildlife species dependent on these habitats include the pileated woodpecker and pine marten. MA-13 includes both Dedicated Old Growth (DOG) and Replacement Old Growth (ROG) areas (see Figure 23, Map Section).

The Forest Plan (Management Area 13) provides direction for designating, refining, and managing Dedicated Old Growth and Replacement Old Growth areas. Direction recommends making these changes in conjunction with the timber sale planning process.

Replacement areas may not have all the characteristics of old growth, but are managed to achieve those characteristics so that when a Dedicated Old Growth area no longer meets the needed habitat requirements, the Replacement Old Growth can take its place.

Management Area 14 – Visual Corridors (1,090 acres)

Management Area 14 consists of visible and potentially visible landscapes along major travel routes, and state scenic waterways where the traveling public has a high to medium sensitivity to scenery. The project area is within the Izee Viewshed, which is Management Area 14 (Viewshed Corridors) and encompasses those areas that are seen from County Road 63 (see Figure 23, Map Section). The goal of MA 14 is to manage corridors within scenic viewsheds with primary consideration given to their scenic quality and the growth of large

diameter trees. Forest Plan Correction #1, dated January 31, 1995, allows salvage harvest in a visual corridor without a corridor viewshed plan. The direction is to manage the Izee Viewshed with visual quality objectives of partial retention in the foreground and modification in the middleground while providing for other uses and resources.

Management Area 19 – Administrative Sites (no acres mapped)

Management Area 19 includes work centers and other administrative sites. Bear Valley Work Center is covered under Management Area 19. These sites are not displayed on management area maps, though Bear Valley Work Center can be found on Figure 3 (in the Map Section). The goal of MA 19 is to provide and maintain sites for facilities necessary for the administration of Malheur National Forest lands. The direction is to manage these sites for administrative needs. Consideration of these sites' historic and architectural value is part of the management direction for this management area.

Other Ownership

Approximately 1,080 acres within the fire area are private property (see Figure 2, Map Section). None of the private lands are within the Flagtail Fire Recovery Project boundary, but conditions and actions on private lands are considered for cumulative effects. Most of the fire-killed trees on private land have already been salvaged, and planting is underway (see Appendix J).

Desired Condition

The desired character of this area is an environment that is healthy, sustainable, and supports the uses of the National Forest. Sustainability refers to the ability of forest vegetation, non-forest vegetation, and other resources to endure despite natural disturbances such as fire, insects, disease, and invasive species. Desired conditions are based on Forest Plan direction and management objectives, and on recommendations from the Upper Silvies Watershed Analysis (USDA Forest Service 2001). The proposed project activities described in this FEIS do not address all the desired conditions in the project area.

Because of the major changes caused by the stand-replacing Flagtail Fire, desired condition should be considered on two time frames.

In the short-term (2-20 years), the desired condition for the project area is the following:

Short-term Desired Forest Vegetation/Structure

- Areas deforested by fire and salvaged are reforested within 5 years and deforested areas not salvaged are reforested as soon as practicable – all forested areas are adequately stocked to meet resource and Management Area objectives (Regional Forester Letter dated 11/19/2002).

Short-term Desired Fuel Loads

- The potential for extreme fire behavior over extensive areas is reduced.
- A higher degree of defensible conditions with increased levels of firefighter safety exists.

- The project area is at historical fuel levels (5-25 tons/acre) allowing for maintenance of reduced fuel levels through future low intensity burning and is at low risk for future fire.

Short-term Desired Roads/Access

- Project area roads provide safe and adequate roaded access for forest-users while at the same time protecting wildlife and aquatic resources.
- Roads not needed for future management activities or for public access are closed and/or decommissioned to move open road density towards Forest Plan standards.
- Roads which are not decommissioned are improved to a more self-maintaining status so that less maintenance is needed and impacts from road sediment are decreased.

Short-term Desired Terrestrial Wildlife Habitat

- Dedicated Old Growth and Replacement Old Growth areas are distributed evenly across the landscape to provide for old-growth associated species on a Forest-wide basis.
- Snags and down logs are retained at a density, size and distribution that address the needs of cavity dependent species in post-fire environments.
- Areas severely or moderately burned in the fire are reforested.
- Open road densities are reduced in the fire area to reduce the potential for disturbance to various wildlife species.

Short-term Desired Soil Condition

- Ground cover meets Forest Plan Standards, so soil erosion is at acceptable levels.
- Detrimental compaction, displacement, puddling, and burning are at a practical minimum, and do not exceed 20% of the total acreage within an activity area.

Short-term Desired Watershed and Fisheries Conditions

- Gullies and areas of active erosion in uplands are stabilized and revegetating.
- Upland vegetation is re-established as described under Forest Vegetation/Structure Section.
- Roads that are impacting streams and needed for future management activities are stabilized or improved to reduce chronic sediment sources.
- Roads that are impacting streams and not needed for future management activities are decommissioned or obliterated.
- Sediment from existing open roads is reduced by applying Best Management Practices (BMPs). Self-maintaining drainage is installed on closed roads to improve hydrologic function.
- Culverts that create migration barriers to fish passage or do not pass 100-year flow events are improved, replaced, or removed as per INFISH direction.
- Riparian areas are protected to prevent adverse effects on stream channel stability and fish habitat.
- Native hardwoods, sedges, rushes and grasses are colonizing and expanding in riparian areas and contributing to improved riparian and aquatic habitat. Stream shade from riparian hardwood shrubs is re-established.

- Large and coarse woody debris exists in stream channels within Forest Plan Standards to improve habitat complexity and quality for fish and in draws to reduce erosion and sediment movement.
- The project area provides snags that are available to fall into streams and ephemeral draws now and in the future.
- Channels are narrowing and deepening channels to improve hydrologic conditions and fish habitat.
- There are no reductions in water quality caused by land management activities.
- State water quality standards are met by applying soil and water conservation practices.
- Water for non-consumptive uses including fish habitat, recreational uses, stream channel maintenance, and aesthetics is protected.
- Late season flows are increased.
- Populations and distribution of redband trout and Malheur mottled sculpin increase as fish habitat improves.

Short-term Desired Condition of Scenery

- Visually the public will recognize that a wildfire took place because enough burned snags and logs are present to show that a wildfire was the cause of the openings.
- Vegetation includes vigorous growing native forbs grasses, sedges, shrubs, hardwoods and conifers providing visual diversity of colors and textures.
- Evidence of past management activities such as roads, stumps, skid trails and skyline corridors results in only a slightly altered landscape in the visual corridor.

Short-term Desired Condition Recreation and Recreation Opportunity Spectrum (ROS)

- The area continues to provide a variety of recreational opportunities within the “roaded modified” ROS classification (see Chapter 6, Glossary).
- Hazard trees are felled and open roads are safe to drive for recreational uses.
- Opportunities are present to view wildlife, fish, and plant species, especially those that are found in a more open environment.

Short-term Desired Rangeland Condition

- In areas burned, the vegetative communities have recovered to the point of being able to support grazing by domestic livestock while maintaining or improving habitat conditions.
- Range improvements damaged in the fire are repaired and functioning correctly.
- Additional improvements (i.e. fences and water developments) necessary to promote distribution of livestock are present.

Short-term Desired Conditions of Culturally Important Plants

- Regeneration is vigorous and aspen stands and shrubs have developed several age classes. Native grasses, sedges, and forbs are more common because exotic plant species have decreased.
- Aspen stands are beginning to expand and individual remnant stands are beginning to connect to form stringer stands within the small drainages. Shrubs regeneration has

expanded and plant numbers and density has increased along the Silvies River, and Jack and Snow Creeks.

- American Indians are able to access traditional use areas to harvest culturally important plants and visit potential sacred areas that nourish their cultural identity.

Short-term Desired Conditions for Desired Sensitive Plant Species

- Habitat for botrychium and sedge species has begun to expand as roads are decommissioned, reconstructed, and relocated away from associated riparian habitats.
- Riparian vegetation, and downed wood from fallen snags or standing live trees provide shade and physical protection to maintain and expand botrychium and sedge populations.
- Invasive species are less common and do not compete with these species.

Short-term Desired Condition for Invasive Species

- Weeds are treated quickly to control further spread and restrictions to management activities, and prevention measures controlling permitted or public uses, prevents weeds and non-native species populations from expanding.

Short-term Desired Condition of Heritage

- All significant cultural resources have been identified and protected from the effects of management activities.
- Cultural resources have been interpreted to educate the public concerning the significance and sensitivity of the resource.

Short-term Desired Condition Economics/Social

- The project area provides a mix of goods and services to meet public needs while protecting other resource needs.

In addition to the desired conditions above, the long-term (20-150+ years), desired condition for the project area is the following:

Long-term Desired Forest Vegetation/Structure

- In Hot Dry and Warm Dry plant association groups (Figure 5, Map Section), large diameter ponderosa pine and western larch trees grow in open park-like stands dominated by large trees with occasional dense patches of small diameter stands. Stand density is maintained to achieve good growth rates for insect resistance (>1.0-inch DBH per decade). There are few understory trees to serve as ladder fuels spreading fire into tree crowns and the tree crowns are spaced wide enough to keep crown fires from spreading across whole stands of trees.
- In the Cool Dry plant association groups (Figure 5, Map Section), lodgepole pine, western larch, and ponderosa pine grow in mostly even aged patches. These habitats have a medium to long fire return interval and regenerate in dense thickets following disturbances.

- In moist areas of the Hot Dry/Warm Dry/Cool Dry plant association groups, Douglas-fir and grand fir are present in areas that have a longer fire return interval and provide both species and structural diversity.

Long-term Desired Fuel Loads

- Fuels are at historical fuel levels (5-15 tons/acre in ponderosa pine/mixed conifer, 10-25 tons/acre in lodgepole and riparian area), allowing for maintenance of reduced fuel levels through future low intensity prescribed or natural fires.
- The potential for extreme fire behavior over extensive areas is reduced.
- A higher degree of defensible conditions with increased levels of firefighter safety exists.

Long-term Desired Roads/Access

- Transportation system is reduced so that road maintenance occurs at regular intervals with limited funding to minimize resource impacts.
- Roads will be maintained at a level that minimizes their impact on water quality and fish habitat. Road densities and location provide necessary access and are compatible with the needs of wildlife and aquatic resources. Access is available for management activities, fire fighting, dispersed camping, hunting, fishing, sight-seeing, and other activities that the public enjoys. Native Americans are able to access traditional use areas.
- Road densities will be lowered through the closure or decommissioning of roads no longer needed for forest management or public access to meet Forest Plan Standards.

Long-term Desired Terrestrial Wildlife Habitat

- Healthy, sustainable ecosystems provide for all life stages of management indicator species (MIS).
- Old growth habitat is common and connected to nearby similar habitat. A portion of this old growth is designated as Dedicated Old Growth or Replacement Old Growth and contributes to the Forest's old growth network.
- Snags and downed logs are developing or are present at historical levels, and provide quality habitat for species such as woodpeckers and martens.
- Open road densities are consistent with Forest Plan Standards, reducing the potential for humans to disturb wildlife species sensitive to human interaction.
- Habitats better provide for species that are currently listed as threatened, endangered and sensitive.

Long-term Desired Soil Condition

- Soil productivity is maintained by maintaining ground cover, vegetative cover, and forest litter.
- Detrimental compaction, displacement, puddling, and burning are at a practical minimum, and do not exceed 20% of the total acreage within an activity area.

Long-term Desired Watershed and Fisheries Conditions

- Riparian areas along streams and in smaller meadow and seep areas are properly functioning with a diverse variety of native grasses, sedges, shrubs, hardwoods and conifers providing habitat for wildlife and fish.
- Stream channel integrity and function provide quality habitat for rearing and spawning to support healthy, native fish populations.
- Effective ground cover and stream shade are re-established. Temperatures are reduced in all streams. Streams are removed from the 303(d) list.
- Sediment from existing roads is minimized due to regular maintenance.
- Watersheds are healthy and resilient.
- Fish habitat and populations of redband trout and Malheur mottled sculpin are maintained or enhanced.

Long-term Desired Condition of Scenery

- Natural appearing landscapes with high scenic diversity provide interesting and pleasant views for visitors.
- Visual quality objectives of partial retention and modification in the visual corridor and maximum modification outside the visual corridor are met or are higher than the minimum rating.
- Scenic integrity is high in the visual corridor and moderate or better outside the visual corridor.

Long-term Desired Condition Recreation and Recreation Opportunity Spectrum (ROS)

- A variety of recreational opportunities exist in the project area in accordance with the “roaded modified” ROS classification.
- The area continues to provide roaded recreation and hunting opportunities.

Long-term Desired Rangeland Condition

- The diversity of vegetative communities will be maintained or increased.
- All vegetation communities will be in a satisfactory or excellent condition.

Long-term Desired Condition of Culturally Important Plants

- Aspen populations form continuous stringers from the smaller draws, joining with larger, sprawling stands in valley bottom meadows. Populations of native shrubs, grasses, sedges, and forbs are more common and there is a wider variety of species.
- Native vegetation occupies historical habitats. American Indian peoples are able to gather a wide diversity of species to provide for traditional uses.

Long-term Desired Condition of Sensitive Plant Species

- Plants that are uncommon because of limited habitat areas can be found in suitable sites throughout the project area.

Long-term Desired Condition of Invasive Species

- Prevention strategies, for such management activities as timber harvest, livestock grazing, firewood cutting, recreation activities and hunting, have reduced or eliminated the spread of new noxious weed populations.
- Aggressive control methods have decreased the number and types of existing exotic plant species and noxious weeds. Small populations of noxious weeds and non-native, invasive species grow, at most, only in localized areas near major travel routes, such as Grant County Highway 63 and Forest Road 2400.
- Habitat conditions favor establishment and reproduction of native plants and non-native plants species are uncommon in both riparian and upland areas. By using native seed and planting native vegetation, the diverse and healthy native plant populations occupy their traditional habitats.

Long-term Desired Condition of Heritage

- All significant cultural resources have been identified and protected from the effects of management activities.
- Cultural resources have been interpreted to educate the public concerning the significance and sensitivity of the resource.

Long-term Desired Condition Economics/Social

- Long-term economic and social stability is maintained by sustaining healthy forests and watersheds while providing sustainable harvest.
- The project area provides a wide range of social and economic benefits and opportunities through increased biological diversity (example, restoration of large trees and improvement of the watershed) in the area.

Proposed Action

The proposed action is an alternative developed early in the NEPA planning process to accomplish stated purposes, needs, and goals based on the best information available at the time. It is the first alternative offered and is used to identify issues and develop other alternatives for further study. Alternative 2, described below and in Chapter 2, is the proposed action that was mailed to interested parties during public scoping.

Purpose and Design:

This alternative was designed to maximize recovery of the economic value of fire killed and damaged trees and to reduce future fuel loadings. The economic return would be further enhanced by providing local jobs. Reducing fuels is responsive to the hazardous fuel reduction element of the National Fire Plan. By intensively treating the burned acres, future fuel loads will be within their historical range which will help reduce the impacts of future wildfires on the environment and restore health to fire-adapted ecosystems.

This alternative meets the other identified needs, including providing safe and adequate access, reducing the effects of roads on wildlife habitat and water quality, re-establishing upland vegetation, and designating suitable Dedicated and Replacement Old Growth areas to replace those degraded by the fire.

Description of Specific Features:

Forest Vegetation/Structure

In Alternative 2, approximately 4,340 acres of timber burned in 98 units (including 10 helicopter landings) would be harvested to reduce future fuel loadings and capture the economic value of fire-killed and damaged trees (Table 2-1, Figure 24, Map Section and Appendix A). Total net volume of commercial timber harvested is expected to be about 20 million board feet (MMBF). In 4 units (units 124, 134, 148, and 152 totaling 140 acres) small diameter trees (3-9 inches DBH) in addition to commercial size trees, would be removed commercially as posts and poles during harvest. Only fire-killed trees or trees expected to die as a result of fire injury would be removed, or live trees that would jeopardize the safety of the harvest operation, would be harvested. Incidental live trees may be removed during road building and landing construction.

Harvest would be accomplished with helicopter yarding on 870 acres, skyline yarding on 800 acres, and tractor yarding on 2,670 acres; helicopter, skyline, and tractor unit landings are included in these acreages. The purchaser would subsoil about 40 acres of skid trails; landings (approximately 180 acres) would be subsoiled by the purchaser and planted with trees. Fourteen helicopter landings would be constructed and then rehabilitated after use (Figure 24, Map Section and Management Requirements, Constraints, and Mitigation Measures). Four of these helicopter landings, totaling 7 acres, are outside of harvest units. Four landings (H01, H07, H08, and H09) would be used as fueling sites as well as landings for timber. One landing site, H13, would only be used for helicopter service/fueling. All helicopter landings will be located outside of RHCAs.

For analysis purposes, the utilization standards: in helicopter units for all saw-log dead trees is 12 inches DBH; in tractor and skyline harvest units is 8 inches DBH for all species of saw-logs except ponderosa pine which is 10 inches DBH; top diameter for all species is 6 inches in diameter. These utilization standards are based on merchantability standards from previous fire salvage projects.

Roadside hazard trees along open roads and along any roads used for implementation of this project would be felled to provide safe and adequate roaded access in the fire area. Felled hazard trees in RHCAs would be left on site or used as in-channel wood; felled hazard trees outside of RHCAs would be removed as a commercial product. Roadside hazard trees not associated with a unit may only be removed without tracked or wheeled equipment leaving the road. Commercial timber harvested through roadside hazard tree removal is included in the acres and volumes listed above.

Non-commercial sized trees determined to be hazard trees would also be felled. Many of these hazard trees occur within fuel reduction units or in areas planned for riparian fuel reduction; fuels would be reduced as described below under Fuel Loads or as described in Chapter 1 under Actions Outside of this EIS to Address Recovery Needs. In the visual corridor along County Road 63 and part of Forest Road 24 (mostly in RHCAs) wood from non-commercial sized hazard tree felling (trees averaging 2-7 inches DBH) would be left on site, used for planned riparian enhancement projects (in-channel wood or aspen fencing as described in Chapter 1, Additional Fire Recovery Projects Ongoing or Completed, and Actions Outside of this EIS to Address Recovery Needs) or, where needed to meet visual

quality objectives or to reduce the likelihood of ditch failure, reduced through handpiling and burning; no commercial removal of these small diameter trees would occur, these trees would be moved by hand, and burning would be done above the road and/or outside the riparian vegetation zone. This treatment would also meet visual quality objectives in the visual corridor.

Approximately 3,960 acres within the harvest units and 330 acres outside of the harvest units would be planted to reforest areas that sustained high tree mortality. Planting would be done to accelerate recovery of forest habitats. The species and spacing for planting in each area will vary depending on the Plant Association Group. Spacings are wider than normal and are to be varied to duplicate the irregular patterns of natural reforestation. Non-forested openings up to an acre are permissible to provide vegetation diversity and wildlife forage. One hundred ninety acres of uplands have been planted through a CE (Background, Chapter 1). Natural regeneration would occur on approximately 300 acres within the project area in areas that are expected to successfully reforest within 5 years due to the availability of a seed source. The remaining acres of the burned area are adequately stocked and would not require reforestation.

Fuel Loads

Fuels, including those created by the fire and by salvage activity, would be reduced to within the range of historical levels on about 3,230 acres within the harvest units. Fuel loadings after harvest and post harvest treatments, including standing dead, will be within historical range varying from 5-25 tons per acre (Figure 18, Map Section and Appendix A), depending on plant association group. Fuel loading in units adjacent to private lands will be reduced to the lower end of the historical range to provide additional protection from wildfire. When desired fuel loadings of 5-25 tons per acre would be achieved through harvest, no post harvest treatment was proposed. Post harvest treatments were proposed when needed to further reduce fuels to the desired range. Fuel loading on remaining harvested acres would be moved toward historical levels. After treatment, down woody material is expected to meet Forest Plan standards as described in Chapter 2, Management Requirements, Constraints, and Mitigation Measures.

Fuel treatment methods on 4,320 acres salvage harvested would include yarding with tops attached, felling dead and dying trees 8-inch DBH and less, grapple piling and burning or post and pole removal, and handpiling and burning (see Glossary). Approximately 1,820 acres would have yarding with tops attached during harvest; 1,230 acres would have yarding with tops attached during harvest, with a post harvest treatment of felling the small diameter trees, grapple piling and burning piles; 140 acres in 4 units (124, 134, 148, and 152) would have yarding with tops attached, with felling the small diameter trees and removing them commercially as posts and poles during harvest; 290 acres would have yarding with tops attached during harvest, with a post harvest treatment of felling the small diameter trees, handpiling and burning piles; and helicopter units (840 acres) would only have a post harvest treatment of felling the small diameter trees, and handpiling and burning (see Figure 27, Map Section). Utilization of the biomass in landing piles could occur if there is a market, or the piles would be burned. Acres of post-harvest treatment will be verified after harvest. No fuel treatment would be necessary on about 20 acres because post harvest levels would be within Forest Plan standards and guidelines.

Fuel reduction would occur on an additional 70 acres where no harvest is occurring (Figure 27, Map Section). Treatments would reduce fuels 8 inches DBH and smaller. Fuel reduction would occur in units with smaller tree fuel levels that, if treated, would move units to be within the range of historical levels or move them closer to historical levels. Post treatment loadings, including standing dead, in these units would vary from 8 to 44 tons per acre, depending on plant association group. The upper end of this range is represented by a 7-acre unit in the cool dry plant association group and treatment would reduce the fuel loading from 61 to 44 tons per acre. The remainder of the acres are in the warm dry plant association group and average 19 tons per acre after treatment. Treatment would include felling the small diameter trees, grapple piling and burning piles on approximately 20 acres and handpiling and burning piles on 50 acres (Appendix A).

No fuel treatment would occur on about 390 acres (of the original units described in Alt. 1, Appendix A). About 20 acres are salvaged but do not have a post-harvest treatment (as described above), and 370 acres did not have the fuel levels in trees 8 inches and less that would affect the total fuel loading enough to make it worth treating.

Roads/Access

Based on roads analysis (USDA Forest Service 2003), the following proposed actions for roads and access were developed. Alternative 2 would construct 0.3 miles of new system road to replace about 1 mile in the Snow Creek RHCA (see Figure 10, Map Section). The segment in the RHCA would be decommissioned. The new road location is designed to improve water quality in Snow Creek while still providing access.

Alternative 2 would construct 3.9 miles of temporary road to allow access for harvest (Figure 10, Map Section). Temporary roads would consist of 19 short spur roads, ranging from 0.1 to 0.5 miles each. Temporary roads would be stabilized and decommissioned after harvest activities (as described in Chapter 2, Management Requirements, Constraints, and Mitigation Measures). Approximately 0.3 miles of road would be reconstructed, including 1 culvert replacement for improvement of fish passage and water quality. Sixty miles of road (including haul routes outside the fire area) would have maintenance performed to allow for access to harvest and to reduce impact to other resources.

Approximately 13.1 miles of classified road and 3.9 miles of temporary road would be decommissioned, (see Chapter 6, Glossary), and 6.6 miles of classified road in the fire boundary (plus an additional 1.7 miles of road outside the boundary to the roads' terminus) would be closed year-round to all motorized vehicles to reduce the effects of roads on wildlife and water quality. About 2 miles of unclassified road extensions would also be decommissioned. Decommission activities would include removal of 15 metal and 2 log culverts and replacement with self-maintaining natural stream channel drainage to improve water quality.

Following post sale activities, about 29.2 miles of road in the fire area would remain open year-round for public motorized access (Figure 10, Map Section).

Wildlife Habitat

Snags

In all salvage harvest units, snags 21 inches DBH or greater would be retained at the Forest Plan standard of 2.39 snags per acre to provide habitat for cavity dependent species. If snags greater than 21-inch DBH are not available, an appropriate number of snags of the largest representative diameter class would be retained. The snags would be averaged on a 40-acre basis and would be left in small clumps where possible.

Although this snag strategy prescribes 2.39 snags per acre, helicopter units will actually retain all 10-12-inch DBH snags because of utilization standard limitations described under Alt. 2, Forest Vegetation/Structure. These snags, ranging from about 5-30 snags per acre, provide additional benefit to wildlife.

Outside salvage units, all snags would be retained except those felled along open roads to reduce safety hazards and those felled to provide coarse woody material for streams, draws, and uplands (Chapter 1, Additional Fire Recovery Projects Ongoing or Completed, Actions Outside of this EIS to Address Recovery Needs).

Forest Plan Management Area 13 (MA-13) - Dedicated Old Growth (DOG) and Replacement Old Growth (ROG)

Alternative 2 would designate new old growth areas to replace those lost to the fire (see Figure 14, Map Section, for original and replacement DOG/ROG locations). The relocation of Dedicated Old Growth and Replacement Old Growth areas should maintain the integrity of the Forest's old growth network.

Dedicated Old Growth 220 will be converted to a Replacement Old Growth 220. Although this area burned with moderate to severe tree mortality, a sufficient number of large live trees remain to manage this area as replacement old growth. A new DOG 220 would be designated immediately outside the fire perimeter in the Hog subwatershed, and within a ¼ mile of the former DOG 220.

Dedicated and Replacement Old Growth 221 will be relocated outside the fire perimeter. These areas burned with severe mortality of trees; few live trees remain. Areas outside the fire perimeter do not provide a similar sized block of mature and old growth habitat. Consequently, *two* new DOG/ROGs would be established to replace the one lost in the fire. DOG/ROG 221-A will be relocated approximately 3 miles northwest in the Wickiup subwatershed. DOG/ROG 221-B will be established about 2 miles southeast in the Jack subwatershed. The new locations provide better opportunities to manage for old growth given the level of fire damage in the original location. Existing DOG/ROG 221 would be converted to General Forest (MA-1).

Proposed Treatments within Replacement Old Growth (ROG)

Existing Dedicated Old Growth 220 would be converted to Replacement Old Growth 220. Within the replacement ROG 220 salvage harvest, fuels reduction, and tree planting as discussed earlier would be conducted on 277 acres of the 325-acre area; within these acres, snags would be retained at 2.39 snags per acre. The remaining 48 acres would not be harvested because they are in RHCAs.

Existing DOG/ROG 221 would be converted to general forest (MA-1). Harvest and fuel reduction would occur as described under Forest Vegetation/Structure, Fuels Loads, Roads/Access, and Wildlife Habitat.

Forest Plan Amendments

Two non-significant Forest Plan amendments would be required to implement Alternative 2.

Selecting Alternative 2 would include two site-specific, non-significant amendments (one being Management Area designations, the second being a short-term reduction in Visual Quality Objectives) to the Malheur National Forest Plan, as amended. Alternative 2 was designed, in part, to replace Dedicated Old Growth that is now unsuitable due to the fire. One amendment would create a new DOG 220 and convert the old DOG to a ROG. A second part of the amendment would relocate DOG and ROG 221 and convert the original acres to MA-1. Alternative 2 would permit removal of snags to Forest Plan levels which would reduce Visual Quality Objectives to below Forest Plan standards in the visual corridor. The second amendment would permit a short-term (less than 15-year) reduction in the Visual Quality Objective.

Selection of this alternative, including these two amendments, would be consistent with the Forest Plan, as amended (36 CFR 219.10 (c)).

Timber harvest and closely associated activities are expected to be completed in 2004; all other activities are expected to be completed before 2010. A Project Schedule for the proposed action is found in Chapter 2 under Project Schedule. See also Chapter 2, Alternative 2 for a description of this alternative.

Actions Outside of this EIS to Address Recovery Needs

The proposed project activities described in this FEIS do not address all the desired conditions in the project area. Several projects located within the Flagtail Fire project area were identified through the planning process to help move the project area towards desired conditions.

The Forest Service will complete several watershed restoration projects associated with the Flagtail Fire under separate NEPA decisions on Categorical Exclusions or Environmental Assessments. Projects still in the planning stage are described below and in Appendix J (Cumulative Effects); projects completed or currently underway are described toward the beginning of Chapter 1 of this EIS (see Background) as well as in Appendix J. The following projects are scheduled to be completed in the next five years in the Flagtail Fire Recovery area:

- Flagtail Aspen Enhancement (aspen fencing) - Fence an estimated 240 to 250 acres of 76 inventoried aspen sites. Fences will be built to increase the size of individual aspen stands, expand their range within suitable habitat, and protect regeneration from big-game or domestic livestock. Trees may be felled for safety, to enhance conditions for aspen regeneration, or for fence alignment.

- Riparian fuel treatment – treat fuels on about 100 acres of forested RHCA within the Flagtail Fire project area. Snags less than 8 inches DBH would be thinned, then hand piled and burned outside of riparian areas to reduce the severity of future fires.
- Bald Hills erosion control – place course wood in 3-5 acres of eroding uplands to control erosion and slow runoff (which allows more water to percolate into the soil).

The following are implemented through administrative decisions outside of this EIS:

- Commercial and personal use firewood cutting would be delayed until 2004 for Alternatives 1 and 4, or until harvest is completed (expected to be 2005) in Alternatives 2, 3, and 5.
- To allow vegetation and riparian areas to recover, livestock grazing would be delayed for two or more growing seasons depending on fire severity and whether monitoring shows that the range resource is ready after two growing seasons or not. This will comply with the Forest's post burn grazing guidelines (Appendix H). Grazing may be delayed for a longer period if necessary to meet other resource objectives.
- The fire area would be open to all other usual Forest-wide accepted activities, including mushroom gathering, hunting, and recreation, which are outside the scope of this project. Designated roads would be opened to the public after hazard trees are felled.

The effects of these activities and decisions are discussed in the cumulative effects sections of Chapter 3.

Decision Framework

The Responsible Official for this proposal is the Forest Supervisor of the Malheur National Forest. Based on response to the Draft EIS and the analysis disclosed in this Final EIS, the Responsible Official will make a decision and document it in a Record of Decision (ROD) which will follow within 30 days of the Final EIS. The Responsible Official can decide to:

- Select the proposed action, or
- Select an action alternative that has been considered in detail, or
- Modify an action alternative, or
- Select the no-action alternative.

Alternatives 2, 3, 4, and 5 will require a non-significant Forest Plan amendment related to MA 13 (old growth) designation. Alternative 2 will require a non-significant Forest Plan amendment related to visual quality objectives (see Chapter 2, Alternatives Considered in Detail). The Responsible Official will also determine if the selected alternative is consistent with the Forest Plan, as amended, or whether to amend the Forest Plan.

Public Involvement

The analysis of the Flagtail Fire Recovery Project began in October 2002. Following the Project Initiation Letter, dated October 11, 2002, the Proposed Action was developed using the District Ranger's specific directions. Public participation to review and comment on proposed activities in the Flagtail Fire area began in February 2003. A Notice of Intent to prepare an Environmental Impact Statement (NOI) was published in the Federal Register on February 6, 2003 and a correction was published on February 26, 2003. The NOI asked for public comment on the proposal from February 6, 2003, to March 7, 2003. The project was

also listed in the Schedule of Proposed Activities (SOPA) starting in the Summer/Fall of 2002 and continuing through the Summer/Fall of 2003.

A news release announcing a fire recovery open house that included the Flagtail Fire was published in the Blue Mountain Eagle on February 12, 2003. This fire recovery open house was held at the Federal Building in John Day on February 13, 2003; on February 14, 2003, the agency mailed a scoping letter seeking public comment to approximately 130 groups, other agencies, and individuals who had previously shown interest in Malheur National Forest projects.

In response to these scoping efforts, written comments were received from 12 interested parties that ranged from citizens to industry and natural resource organizations to federal agencies. In addition to comments supporting the project, the District received comments reflecting concerns related to potential adverse impacts on soils, wildlife and aquatic habitat, and economics. Public comments were used in the development of the reasonable range of alternatives and the identification of the significant issues. The Project Record contains all written scoping comments received.

In June 2003 the Flagtail Fire Recovery Project Draft Environmental Impact Statement was published by the Malheur National Forest, and a Notice of Availability (NOA) was published in the Federal Register by the Environmental Protection Agency on July 3, 2003. A news release announcing the availability of the DEIS was also published in the Blue Mountain Eagle on July 2, 2003. The DEIS was mailed to over 80 individuals, organizations, or agencies, as well as the Confederated Tribes of Warm Springs, the Confederated Tribes of the Umatilla Indian Reservation, and the Burns Paiute Tribe. The DEIS was made available to the public for a 45-day review and comment period which ran from July 3, 2003 through August 18, 2003. Using comments received on the DEIS (see FEIS, Chapter 4), this FEIS was refined and developed.

Coordination with Other Governments and Agencies

In November 2002, the Blue Mountain Ranger District staff contacted the three tribes that have rights or interests in the Flagtail Fire Recovery area: the Confederated Tribes of the Warm Springs Reservation, the Confederated Tribes of the Umatilla Indian Reservation, and the Burns Paiute Tribe. Based on a government-to-government relationship, as directed in Executive Order 13175 (EO 13175), Consultation and Coordination with Indian Tribal Governments, November 6, 2000, the purpose of the contact was to exchange information, answer questions, and to work closely and continuously with each other to integrate tribal rights and interests in the planning process. In March and April (2003), meetings to discuss the Flagtail Project were held with representatives from the Burns Paiute Tribe and the Confederated Tribes of the Warm Springs Reservation. Both Tribes provided verbal comments (Flagtail Project Record). A general concern regarding cultural plant habitat and access management within all areas burned in the fire season of 2002 was expressed by the Burns Paiute tribe. The effects of the Flagtail Project on these tribal concerns are discussed under Culturally Important Plants in the Botany section of Chapter 3 of this EIS. No concerns were raised in the discussion with the Confederated Tribes of the Warm Springs Reservation. A meeting held in October 2003 with representatives of the Confederated

Tribes of the Umatilla Indian Reservation provided general comments on the overall NEPA process. No concerns were received specific to the Flagtail Project. Copies of the DEIS were mailed to the Tribes in July 2003.

Coordination has also occurred with federal, state, and local government officials (see also Chapter 4). The National Oceanic and Atmospheric Administration-Fisheries (NOAA), and U.S. Fish and Wildlife Service have been kept informed of proposed activities. Information has been provided to and exchanged with state agencies. Grant County Judge Dennis Reynolds has been provided with information on the proposal and was offered the opportunity to have the County be a cooperating agency.

Key Issues

Significant issues, otherwise known as key issues, for the Flagtail Fire Recovery Project came from the public, other agencies, organizations and businesses, and Forest Service resource specialists in response to the Proposed Action. Issues are defined as a point of discussion, debate, or dispute about environmental effects. Key issues are used to formulate alternatives, prescribe mitigation measures, and analyze environmental effects. Issues are “significant” because of the extent of their geographic distribution, the duration of their effects, or the intensity of interest or resource conflict (40 CFR 1508.27). Five key issues were originally identified by the Interdisciplinary Team (IDT) and most were emphasized by the public. A sixth key issue, on scenery, was elevated from other analysis issues to a key issue based on analysis conducted between Draft and Final EIS, and to be responsive to public involvement. All key issues were approved by the Responsible Official.

Key issues are normally considered the basis for alternative development. However, there are a variety of ways to address key issues within any specific alternative. Key issues may be addressed by simply avoiding environmental consequences by elimination of an action that would impact a given resource. For example, if impacts to a specific stream segment are a key issue, the project alternatives that avoid all potential impacts to the stream segment address this issue. Mitigation attached to specific alternatives may also address key issues.

In addition to key issues identified by the IDT, there are “other analysis” issues addressed in the effects analysis and often used to compare alternatives. For example, heritage resources will always be addressed in actions that have site-specific ground disturbing actions. Although alternatives may not be designed specifically to address heritage resources, the consequences of all the alternatives must be measured against compliance with direction to provide adequate protection for these resources (see Other Analysis Issues and Concerns, this chapter).

The environmental consequences of the proposal are disclosed in Chapter 3 for each resource affected by the significant or key issues. Each key issue has indicators to allow members of the public and the Responsible Official to determine how well issues are addressed by the alternatives (see Tables 2-2 and 2-3, Chapter 2 for effects of the alternatives on significant issues). A summary of each issue and its indicators is given below.

Key Issue #1 – Fuels

At the heart of this issue is the scientific controversy relevant to the benefits of using salvage harvest to reduce fuels in order to reduce potential effects of future fire events. Some

advocate a passive approach to fuels management in burned areas and recommend natural processes are best for management of fuels. Others suggest that salvage harvest is the best way to reduce the potential for another cycle of heavy fuel accumulations therefore, limiting future management opportunity to use prescribed fire to restore the landscape to historical conditions.

Measurements -

- Fire severity and fire intensity in 20 years as predicted by fuel loading (tons/acre).
- Fire intensity in 20 years as predicted by flame length.

Key Issue #2 - Wildlife

Several public letters raised concern over the snag strategy.

Wildlife species use burned forest habitats differently than live, green forests. In post-fire habitats, minimum Forest Plan snag standards may not be sufficient to assure use by all primary cavity excavators. Snag density, size and distribution influence use levels and vary by individual species. Salvage logging could potentially have negative impacts on cavity dependent species, particularly such species as the black-backed woodpecker. The alternatives retain varying levels and sizes of snags.

Measurements -

- Snag density (number of snags per acre) which indicates the alternatives' ability to provide for 100% of the potential populations of primary cavity excavators,
- Cavity excavator use levels as described in the DecAID analysis tool (Mellen et al.2003).
- Number of untreated acres providing natural, post-burn snag levels

Key Issue #3 - Soil

Concern has been expressed that using mechanized equipment to reduce future fuels through timber sales would increase soil erosion and decrease soil productivity (mainly through compaction, displacement of soil, or a decrease in ground cover). Ground-based yarding systems may increase erosion on soils burned with high and moderate severity.

Measurement -

- Acres of ground-based (tractor) salvage harvest on severely and moderately burned soils.

Key Issue #4 – Water

The issue centers on whether or not the salvage harvest of fire-killed trees is consistent with the need to maintain aquatic habitats. This issue is linked to the current watershed and stream channel conditions resulting from the fire but also includes concern over conditions from a variety of past and ongoing activities such as grazing, logging and road building and the resulting transportation system. Some suggest that any ground disturbing activity following a fire like Flagtail should be avoided. Others suggest that some level of activity can be conducted, such as salvage harvest, without interrupting the processes of long-term ecosystem recovery. While there is no immediate ecological reason to salvage harvest fire-killed trees, there are opportunities to improve watershed function, such as relocating roads out of riparian areas, replacing drainage structures, and decommissioning roads near streams.

Measurements -

- Sediment input from roads
- Miles of road within 100 feet of stream channels
- Number of road/stream crossings
- Stream temperature

Key Issue #5 – Scenery

The Flagtail Fire has reduced the visual quality rating in the visual corridor along Grant County Highway 63 from a Visual Quality Objective (VQO) of Foreground Partial Retention to Modification. Harvest of fire-killed trees in units located in the foreground could further reduce the visual quality rating to Maximum Modification.

Measurements -

- Snags 10 inches DBH and larger remaining per acre in foreground units
- Resultant VQO in visual corridor

Key Issue #6 – Socio-Economics

Due to decay and checking of wood, there is a need for immediate harvest to recover the economic value from fire-killed trees. The design of restoration treatments may make timber harvest uneconomical. Economically viable timber sales are important to local communities. The social and economic well-being of residents and local governments is dependent on employment and revenues generated from timber sales, fuel treatment, and reforestation.

Measurements -

- Volume of commercial harvest (MMBF)
- Value of commercial harvest (million dollars)
- Jobs provided

Other Analysis Issues

Other analysis issues are issues addressed in the effects analysis and used to compare alternatives. The following issues raised by the public and Forest Service Resource specialists are important and were considered as this project was developed and analyzed. These issues did not drive alternatives, but they were addressed or used in this analysis. Other analysis issues are listed here, and analyzed in Chapter 3. Some issues are already addressed through other processes or in the Forest Plan, some led to mitigation measures (see Management Requirements and Mitigation Measures in Chapter 2), and some are analyzed in Chapter 3.

Some issues fit into the following categories; they were 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7: “identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3).”

The following is a list of other issues, and reasons regarding their categorization as non-significant or a reference to a location in this EIS where that issue is addressed. A brief response follows the issue in italics.

Forest Vegetation/Structure

There are issues that remaining live trees may be at risk from insect attacks or catastrophic reburn in the future. *This is discussed in Chapter 3 in the Forest Vegetation, Living Trees section.*

There is an issue that removing burned trees may reduce crucial shade for the reestablishment of seedlings. *This is discussed in Chapter 3 in the Forest Vegetation, Shade and Microclimate section.*

There is an issue that natural reforestation may not be successful, and conversely, that planting may not be necessary to establish reforestation. *This is discussed in Chapter 3 in the Forest Vegetation, Reforestation section. This is also considered in Chapter 2, Alternatives Considered but Eliminated from Detailed Study.*

There is an issue that the future forest vegetation needs to be more resilient and sustainable and able to withstand periodic natural disturbances. *This is discussed in Chapter 3 in the Forest Vegetation, Future Stand Resiliency section.*

There is an issue that management focuses on reestablishment of the historic range of structural stages. *This is discussed in Chapter 3 in the Forest Vegetation, Structural Stages section.*

Fuels

There is an issue that piling and burning could result in air quality impacts with the potential to exceed standards. *This is discussed in Chapter 3 in Fire and Fuels under the Air Quality section.*

There is an issue that the many continuous acres of standing dead trees in the Flagtail Fire area could pose a risk to for public and firefighter safety. *This is discussed in Chapter 3 in Fire and Fuels under the Public and Firefighter Safety section.*

Roads/Access

Some members of the public question the need to close or decommission roads. *This is discussed in Environmental Consequences for the alternatives in the Roads, Wildlife, Watershed, and Fisheries sections in Chapter 3.*

There is an issue that closing and decommissioning roads could affect forest users. *This is discussed in Environmental Consequences for the alternatives in the Recreation and Botany sections in Chapter 3.*

Wildlife Habitat

There is an issue that salvage logging and fuels reduction activities could adversely affect management indicator species (MIS) and featured species identified in the Forest Plan. *This is discussed in Chapter 3, Environmental Consequences in the Terrestrial Wildlife section.*

There is an issue that salvage logging and fuels reduction activities could adversely affect threatened, endangered and sensitive wildlife species. *This is discussed in Chapter 3, Environmental Consequences in the Terrestrial Wildlife section and in the Biological Evaluation in Appendix D.*

Many populations of neotropical migratory bird species are considered in decline (Saab and Rich 1998, Altman 2000, Sharp 1996). Habitat loss is considered the primary factor for population declines. There is an issue that salvage logging and fuels reduction activities could contribute to further population decline. *This is discussed in Chapter 3, Environmental Consequences in the Terrestrial Wildlife section.*

There is an issue that relocating Dedicated Old Growth (DOG) and Replacement Old Growth areas burned in the fire is not an action connected to salvage logging and therefore, should not be analyzed under this NEPA document. *Relocating DOG/ROG areas is a connected action because in order to salvage harvest the burned DOG/ROG areas, there is a need to convert MA-13 Old Growth to MA-1 General Forest, and to analyze the effects of these land use changes to the Forest's old growth network. The Forest Plan recommends making changes to DOGs/ROGs in conjunction with the timber sale planning process. The analysis of effects on the old growth network is discussed in Chapter 3, Environmental Consequences in the Terrestrial Wildlife section under Old Growth Forest.*

Soils and Geology

There are issues about existing soil conditions and quality, adverse impacts to soils (especially impacts from ground based logging equipment and subsoiling on erosion, displacement, and compaction), and loss of nutrients. *These concerns are discussed under Soil in Chapter 3.*

There are issues about salvage logging impacts on mycorrhizae fungi and other soil biota, and impacts on burrowing animals and soil aeration. *These concerns are discussed in Chapter 5 in Comments Received on the Draft Environmental Impact Statement and Agency Responses. See responses to Letter #11, Comment 11-32g, 11-44, 11-46, and 11-48b.*

Watershed and Fisheries

There is an issue that proposed activities may aggravate previously degraded hydrologic conditions. *This is discussed in Effects Analysis Methods, Affected Environment, and the Cumulative Effects section of Environmental Consequences in the Watershed section of Chapter 3.*

There is an issue that Best Management Practices (BMPs) may not be effective. *This is discussed in Effects Analysis Methods in the Watershed section of Chapter 3.*

There is an issue that proposed activities may degrade watershed conditions downstream of the project area. *This is discussed in the Cumulative Effects section of Environmental Consequences in the Watershed section of Chapter 3.*

Fish species distribution and populations are controlled by water quality and habitat quantity/quality. There is an issue that salvage harvest, fuels reduction and road activities could further impact populations of redband trout and Malheur mottled sculpin by degrading water quality, fish habitat quantity/quality by directly or indirectly modifying stream channel morphology. *This is measured by Riparian Management Objectives (RMOs), fish habitat connectivity, total road density by subwatershed, and bankfull width to depth ratio in Environmental Consequences in the Fisheries section of Chapter 3.*

Scenery

There is an issue that visual quality objectives for the visual corridor foreground would not be met if the area is left untreated and fuels accumulate over time. *This is discussed in Environmental Consequences for Alternative 1 in the Scenery section in Chapter 3.*

There is an issue that a delay in reforestation will prolong the negative impacts to scenic integrity caused by the wildfire. *This is discussed in Environmental Consequences for the alternatives in the Scenery section in Chapter 3.*

Recreation and Recreation Opportunity Spectrum (ROS)

There is an issue that proposed activities could affect recreation. *This is discussed in Environmental Consequences for the alternatives in the Recreation section in Chapter 3.*

There is an issue that proposed activities could affect an outfitter/guide whose permit includes part of the project area. *This is discussed in Environmental Consequences for the alternatives in the Recreation section in Chapter 3.*

Rangeland

There is an issue in how the fire and proposed actions will affect livestock management in the project area. *This is discussed in Environmental Consequences for the alternatives in Rangeland Resources in Chapter 3.*

There is an issue that there needs to be a recovery period after burning before grazing is resumed. *A recovery period will occur in all alternatives. This is discussed under Actions Outside of this EIS to Address Recovery Needs (Chapter 1), and in Rangeland Resources in Chapter 3.*

Culturally Important Plants, Sensitive Plant Species, Plant Diversity

Native Americans are concerned that proposed activities may impact culturally important plants and tribal uses of these plants in the project area. *This is discussed in Environmental Consequences in the Botany section of Chapter 3.*

Known sensitive plants may be impacted by work done on roads. *This is discussed in Environmental Consequences in the Botany section of Chapter 3.*

There were concerns that proposed salvage harvest and related activities would irreparably damage plant diversity (in terms of maintaining a variety of native and locally adapted species) and that the document did not consider fire's necessary function of promoting plant diversity. *No irreparable damage is expected because plant diversity would be protected by avoiding sensitive plant species habitat, and by restoring native trees, shrubs, and, where possible, grass species. Many areas, both burned and unburned, within the Flagtail Project area would not be treated, retaining remaining plant species. Plant diversity found in Juniper woodlands, meadows, and shrub-steppe would be unchanged because habitat would not be treated. Plant diversity in most riparian habitat would also be unaffected, because treatments are only proposed in a small proportion of the total area and, where treatments are proposed, additional native riparian species would be planted and other treatments would not decrease plant diversity. Proposed tree planting would restore tree species expected in Plant Association Groups in a spacing designed to mimic the irregular patterns of natural reforestation (see Chapter 2, Alternatives Considered in Detail), providing areas and openings for a variety of plants. The benefits of fire on plants and plant diversity are discussed in Chapter 3, Botany, Background and have been expanded in the FEIS in Chapter 3, Botany, Culturally Important Plants. The FEIS discusses effects on forest and non-forest vegetation in Chapter 3, Forest Vegetation and Botany.*

Invasive Species

There is an issue that proposed activities could spread invasive plant species: both noxious weeds and non-native, introduced species. *This is discussed in Environmental Consequences in the Botany section of Chapter 3.*

Heritage

Archaeological and historic sites could be affected by proposed activities. *This is discussed in Environmental Consequences for the alternatives in the Heritage section in Chapter 3 and is addressed by mitigation measures in Chapter 2.*

Wilderness/Roadless/Unroaded

There is an issue that the Flagtail Fire Recovery Project may affect wilderness and/or roadless areas. *There are no federally designated wilderness areas or inventoried roadless areas within five air miles or downstream of the project area. Because the Flagtail Fire Recovery Project area is not within or adjacent to any wilderness or roadless areas identified in the Forest Plan or in the maps identified in the Forest Service Roadless Area Conservation FEIS, Vol. 2 (USDA Forest Service 2000), federally designated wilderness and inventoried roadless areas would not be affected by activities proposed in the Flagtail project area. The proposed treatments are consistent with management direction in the Malheur Forest Plan (1990) and current Forest Service roadless direction.*

Unroaded areas identified by groups who commented on the DEIS were considered in the FEIS and are discussed in Chapter 3 of the FEIS under Other Disclosures.

Special Uses/Forest Road Development Agreement

There is an issue that the Flagtail Fire Recovery Project may affect special use permits/permittees and/or a Forest Development Road Agreement. *There is one special use permit (SUP) and one Forest Road Development Agreement (FRDA) in the Flagtail Project area: SUP - Gander Ranch spring development and water transmission line to convey livestock water, and FRDA – an agreement between Grant County and the Forest Service for road maintenance performed by the County (County Rd. 63) (Flagtail Fire Recovery Project Record).*

The spring and water transmission line for Gander Ranch are on the Malheur National Forest. Field reconnaissance for the Flagtail project revealed that the wooden fence originally constructed around this spring was burned in the Flagtail Fire. Neither the spring development nor the transmission line are expected to be affected by this project because treatment will not occur near these developments: in Alternatives 3, 4, and 5, units are not located near the developments; in Alternative 2 the developments are located within the Eddington Creek RHCA buffer and no harvest or tractor activity is allowed in this buffer.

County Road 63 is the main access between John Day and the Izee area. Grant County has a FRDA that allows them to maintain this road across Malheur National Forest land. The Flagtail Fire Recovery efforts (timber harvest) would increase the traffic on this road, which could affect maintenance needs and road use safety. No conflict is expected between the increased haul and the existing uses of this road because this road was designed for the type of heavy haul that this project requires (so use related to this project is not expected to cause undue wear on this road), and because the road will be properly signed by the timber purchaser to warn travelers about the increased truck traffic (see Chapter 2, Management Requirements, Constraints, and Mitigation Measures).

Issues Relating to the Beschta Report (1995)

There is an issue that the Flagtail Fire Recovery Project EIS did not consider Beschta (1995) recommendations and that the EIS did not consider an alternative based on the Beschta Report (1995). *Beschta (1995) recommendations were considered throughout development of the Flagtail Fire Recovery Project. An updated discussion of the issues brought up in the Beschta report is found in Other Disclosures in Chapter 3. Additionally, an alternative based on Beschta Report (1995) recommendations was considered by the IDT and the Responsible Official (see Chapter 2, Alternatives Considered but Eliminated from Detailed Study).*

Laws and Regulations

This EIS adheres to the following legal requirements and coordination, and regulations:

The Preservation of American Antiquities Act of 1906:

This Act makes it illegal to “appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated.”

The National Historic Preservation Act:

This Act requires Federal agencies to consult with State and local groups before nonrenewable cultural resources, such as archaeological sites and historic structures, are damaged or destroyed. Section 106 of this Act requires Federal agencies to review the effects project proposals may have on the cultural resources in the Analysis Area.

The Endangered Species Act of 1973, as amended:

The purposes of this Act are to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.” The Act also states “It is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act.”

The Migratory Bird Treaty Act of 1918:

The purposes of this Act are to establish an international framework for the protection and conservation of migratory birds. The Act makes it illegal, unless permitted by regulations, to “pursue, hunt, take, capture, purchase, deliver for shipment, ship, cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in this Convention. . .for the protection of migratory birds. . .or any part, nest, or egg of any such bird” (16 USC 703). The original 1918 statute implemented the 1916 Convention between the United States and Great Britain (for Canada). Later amendments implemented treaties between the United States and Mexico, Japan, and the Soviet Union (now Russia).

The National Environmental Policy Act (NEPA) of 1969, as amended:

The purposes of this Act are “To declare a national policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality” (42 U.S.C. Sec. 4321). The law further states “it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans” [42 U.S.C. Sec. 4331(a)]. NEPA establishes the format and content requirements of environmental analysis and documentation, such as the Flagtail Fire Recovery Project.

The National Forest Management Act (NFMA) of 1976:

This Act guides development and revision of National Forest Land Management Plans and has several sections to it ranging from required reporting the Secretary must submit annually to Congress to preparation requirements for timber sale contracts. There are several important sections within the act, including Section 1 (purpose and principles, Section 19 (fish and wildlife resource), Section 23 (water and soil resource), and Section 27 (management requirements).

The Clean Water Act, as amended in 1977, 1982, and 1987:

The primary objective of this Act is to restore and maintain the integrity of the nation's waters. This objective translates into two fundamental national goals: 1. Eliminate the discharge of pollutants into the nation's waters; and 2. Achieve water quality levels that are fishable and swimmable. This Act establishes a non-degradation policy for all Federally proposed projects.

The Clean Air Act, as amended in 1990:

The purposes of this Act are “to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population; to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution; to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and to encourage and assist the development and operation of regional air pollution prevention and control programs.”

Multiple-Use Sustained-Yield Act of 1960:

The Multiple Use - Sustained Yield Act of 1960 requires the Forest Service to manage National Forest System lands for multiple uses (including timber, recreation, fish and wildlife, range, and watershed). All renewable resources are to be managed in such a way that they are available for future generations. The harvesting and use of standing timber can be considered a short-term use of a renewable resource. As a renewable resource, trees can be re-established and grown in again if the productivity of the land is not impaired.

Treaty with the Walla Walla, Cayuse, and Umatilla Tribes, June 9, 1855, and Treaty with the Tribes of Middle Oregon, June 25, 1855:

These treaties established “That the exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians, and at all other usual and accustomed stations, in common with citizens of the United States, and of erecting suitable house for curing the same; also the privilege of hunting, gathering roots and berries, and pasturing their stock on unclaimed lands, in common with citizens, is secured to them.” All actions to be taken must fully consider and comply with native American treaty rights.

The project area falls within lands ceded by the Confederated Tribes of the Warm Springs Reservation and within lands that have an overlap of use with the Umatilla Tribes. These tribes have reserved rights to anadromous fish, and Federal court decisions have specifically

established that the tribes have treaty rights to an equitable share of the Columbia Basin fishery resource (CRITFC 1995, Vol. I, p. 4-1 – 4-3).

Public law 92-488:

This law recognizes the Burns Paiute Tribe and their reservation. As a Federally recognized tribe, the Burns Paiute Tribe retains rights of inherent sovereignty. The project area is within the traditional and current use area of the Burns Paiute Tribe.

Migratory Bird E. O. 13186:

On January 10, 2001, President Clinton signed an Executive Order" (E.O. 13186) titled "Responsibilities of Federal Agencies to Protect Migratory Birds." This E.O. requires that *“environmental analysis of Federal actions, required by NEPA or other established environmental review processes, evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.”*

Natural or Depletable Resource Requirements and Conservation Potential:

The Flagtail Fire Recovery Project has been designed to conform to applicable laws and regulations pertaining to natural or depletable resources, including minerals and energy resources. Regulations of mineral and energy activities on the National Forest, under the U.S. Mining Laws act of 1872 and the Mineral Leasing Act of 1920, are shared with the Bureau of Land Management. The demand for access to National Forest System lands for the purpose of mineral and energy exploration and development is expected to increase over time.

Environmental Justice:

On February 11, 1994, President Clinton signed Executive Order 12898. This order directs each Federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. On the same day, the President also signed a memorandum emphasizing the need to consider these types of effects during NEPA analysis. On March 24, 1995, the Department of Agriculture completed an implementation strategy for the executive order. Where Forest Service proposals have the potential to disproportionately and adversely affect minority or low-income populations, these effects must be considered and disclosed (and mitigated to the degree possible) through the NEPA analysis and documentation (see Environmental Justice, Chapter 3).

Prime Farmland, Rangeland, and Forestland:

All alternatives are in accordance with the Secretary of Agriculture Memorandum 1827 for prime farmland, rangeland, and forestland. "Prime" forestland is a term used only for non-Federal land, which would not be affected by proposed alternatives. Regardless of the alternative selected, National Forest System lands would be managed with sensitivity to adjacent private and public lands.

Floodplains and Wetlands (E. O. 11988 and 11990):

The purpose of these 1977 orders are to "...avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development..." and similarly "...avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands..."

Wetlands that meet the Jurisdictional Definition (Corps of Engineers) are found in the Flagtail Burn Area. These areas will be mapped as described in the Mitigation and avoided during harvest and fuel treatments.

Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 (as amended):

This act directed the Secretary of Agriculture to prepare a Renewable Resources Assessment and updates. These assessments include "an analysis of present and anticipated uses, demand for, and supply of the renewable resources, with consideration of the international resource situation, and an emphasis of pertinent supply, demand and price relationships trends." The USDA Forest Service Forest Inventory and Analysis unit provides updates for this assessment.

Executive Order 12962 (aquatic systems and recreational fisheries):

This 1995 order's purpose is to conserve, restore, and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide. It requires federal agencies to evaluate the effects of federally funded actions on aquatic systems and document those effects relative to the purpose of this order.

Executive Order 13112 (invasive species):

This 1999 order requires Federal agency whose actions may affect the status of invasive species to identify those actions and within budgetary limits, "(i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species... (iii) monitor invasive species populations... (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded;... (vi) promote public education on invasive species...and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species...unless, pursuant to guidelines that it has pre-scribed, the agency has determined and made public...that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions."

Executive Order 13287 (preserve America):

This 2003 order's intent is to preserve America's heritage through "actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal Government...The Federal Government shall recognize and manage the historic properties in its ownership as assets that can support department and agency missions while

contributing to the vitality and economic well-being of the Nation's communities and fostering a broader appreciation for the development of the United States and its underlying values..." The Bear Valley Work Center is a historic property that was rented out to the public as a recreational rental prior to and after the Flagtail Fire.

Consumers, Civil Rights, Minorities, and Women:

All Forest Service actions have potential to produce some form of impacts, positive or negative, on the civil rights of individuals or groups, including minorities and women. An analysis of this potential impact is required by Forest Service Manual and Forest Service Handbook direction (see Socio-Economics, Chapter 3).

The National Fire Plan:

The purpose of the National Fire Plan is to help protect communities and natural resources, and most importantly, the lives of firefighters and the public. An overall framework for implementing fire management and forest health problems was presented in the September 2000 report *Managing Impacts of Wildfires on Communities and the Environment* (The National Fire Plan). The *Cohesive Strategy* was approved in October 2000. This report provides a strategic framework for reducing hazardous fuels buildup within priority areas such as the wildland-urban interface. The *10-Year Comprehensive Strategy* was signed August 2001. It established four goals and a set of actions for each to facilitate progress in attaining each goal. The *10-Year Comprehensive Strategy Implementation Plan* was signed in 2002 establishing a collaborative, performance based framework for achieving the goals and actions set forth in the Comprehensive Strategy. The Implementation Plan also provides framework for measuring progress toward achieving the goals of the 10-year Strategy.

Project Record

This EIS hereby incorporates by reference the Project Record (40 CFR 1502.21). However, Chapter 3 provides a summary of the Specialist Reports in adequate detail to support the rationale for the decisions and the appendices provide supporting documentation. The Project Record contains Specialist Reports and other technical documentation used to support the analysis and conclusions in this EIS. These Specialist Reports are for Forest Vegetation, Fire and Fuels, Roads, Wildlife, Soil, Water, Fisheries, Scenery, Recreation, Range, Botany, Heritage, and Socio-Economics .

Incorporating these Specialist Reports and the Project Record helps implement the CEQ Regulations' provision that agencies should reduce NEPA paperwork (40 CFR 1500.4), that EISs shall be "analytic rather than encyclopedic," and that EISs "shall be kept concise and no longer than absolutely necessary" (40 CFR 1502.2). The objective is to furnish enough site-specific information to demonstrate a reasoned consideration of the environmental impacts of the alternatives and how these impacts can be mitigated, without repeating detailed analysis and background information available elsewhere. The Project Record is available for review at the Blue Mountain Ranger District Office, 431 Patterson Bridge Rd., John Day, Oregon, Monday through Friday, 7 a.m. to 5 p.m.