

Appendix B

RESOURCE ASSESSMENT

**Eagle Creek
National Wild and Scenic River**

**USDA - Forest Service
Wallowa-Whitman National Forest**

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EAGLE CREEK NATIONAL WILD AND SCENIC RIVER

I. EXECUTIVE SUMMARY

As a result of the Omnibus Oregon Wild and Scenic Rivers Act of 1988, a segment of Eagle Creek, tributary of the Powder River in Northeast Oregon, was designated as a Wild and Scenic River (W&SR). Under this Act the Forest Service is required to prepare a comprehensive management plan to provide protection of the river values of Eagle Creek. This resource assessment is being done to identify the river values that are outstandingly remarkable and not addressed in the legislative history, verify the Congressionally-named values, and determine significance of values not identified as outstandingly remarkable. The resource assessment will also serve as the basis for interim management until the completion of the Eagle Creek Wild and Scenic River Management Plan.

On August 1, 1990, a draft resource assessment was sent to the public, including other agencies and subject area experts, for review and comment. The preliminary findings of the Forest Service interdisciplinary team determined the following resources of Eagle Creek to be outstandingly remarkable values: scenery, recreation, geology, fisheries (habitat), and cultural resources (historic). As a result of our review of public and other agency comments, several changes were made in the resource assessment document. A section was added to discuss vegetation/ecology as a separate resource value, and minor changes and additions have been made in the discussion of fisheries and wildlife values. The following resources of Eagle Creek are considered to be outstandingly remarkable values: Scenery, Recreation, Geology, Fisheries (Habitat), and Cultural Resources (Historic).

II. INTRODUCTION

In 1968, Congress enacted the National Wild and Scenic Rivers Act, and for the first time, established a system for preserving outstanding free-flowing rivers. Eagle Creek was added to this system in 1988 when it was designated as a National Wild and Scenic River by the Omnibus Oregon Wild and Scenic Rivers Act of 1988. As defined by the Act, a National Wild and Scenic River must be free-flowing and have at least one outstandingly remarkable value. The "outstandingly remarkable values" of Eagle Creek identified in the Congressional Record include: scenery, recreation, and geology.

Under the Wild and Scenic Rivers Act, the Forest Service is required to prepare a comprehensive river plan to provide for the protection and/or enhancement of the river values. This river planning process, of which the resource assessment is one step, will comply with the National Environmental Policy Act (NEPA) planning regulations. Through each phase of the planning process, public involvement will be invited, and will be essential for the success of a sound management plan.

III. INTRODUCTION TO THE RESOURCE ASSESSMENT PROCESS

This resource assessment serves as the foundation of the river management planning process. The assessment documents the determination of which river related values or features are outstandingly remarkable or contribute substantially to the river setting or to the functioning of the river ecosystem.

The resource assessment process provides a standardized approach to evaluation of resource values of designated Wild and Scenic Rivers. This assessment will guide interim management, development of the management plan, and determination of boundaries.¹

Although the determination of value significance is a matter of informed professional judgment and interpretation, this process includes the following steps or verification techniques:

- The use of an interdisciplinary team approach
- Consideration of uniqueness and rarity at a regional and national level²
- Values must be river related in that they owe their existence or contribute to the functioning of the river system and its environs.
- The use of qualitative guidelines to help determine significance
- Verification by other experts in the subject area.

The resource value categories that have been considered include:

- Scenic
- Recreational
- Geologic/Paleontologic
- Vegetation/Ecological
- Fisheries
- Wildlife
- Historic
- Prehistoric
- Traditional Use, Cultural Values
- Other River-Related Resource Values

¹The Rationale and full methodology for determining outstandingly remarkable values is found in a letter from Regional Forester John F. Butruille to Forest Supervisors, dated March 9, 1990.

²Based primarily upon the eight geographic regions in the 1989 Statewide Comprehensive Outdoor Recreation Plan for Oregon. See NE Region Scorp Planning Map, Appendix A.

IV. RIVER DESCRIPTION

The Omnibus Oregon Wild and Scenic Rivers Act of 1988 designated 27 miles of Eagle Creek from its headwaters below Eagle Lake in the Eagle Cap Wilderness to the National Forest boundary near Skull Creek approximately 8 miles north of the town of Richland, Oregon. It was classified into the following four segments:

- Segment A **WILD RIVER:** The 4.0-mile segment from its headwaters below Eagle Lake in the Eagle Cap Wilderness to the Wilderness boundary approximately 1.5 miles north of Main Eagle trailhead.
- Segment B **RECREATIONAL RIVER:** The 15.5-mile segment from the Eagle Cap Wilderness boundary to Paddy Creek.
- Segment C **SCENIC RIVER:** The 6.0-mile segment from Paddy Creek to Little Eagle Creek.
- Segment D **RECREATIONAL RIVER:** The 1.5-mile segment from Little Eagle Creek to the Wallowa-Whitman National Forest boundary near Skull Creek.

For the purposes of interim management, the Forest Service, as the lead agency, established a corridor width of 1/4-mile on either side of the river. The interim boundary map included in Appendix B, shows private and federal landownership. The final corridor boundary will be determined during the Wild and Scenic Rivers management plan development.

V. SPECIFIC DESCRIPTION OF VALUES

SCENIC

Criteria for Outstandingly Remarkable Rating

The landscape elements of landform, vegetation, water, color, and related factors result in notable or exemplary visual features and/or attractions within the geographic region. When analyzing scenic values, additional factors such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segment length and not common to other rivers in the geographic region.

Evaluation of the Present Situation

The diversity of landforms, water, color, and vegetation present throughout the designated portion of Eagle Creek is one of the most attractive attributes of the river corridor. The headwaters originate high in a glacial cirque in the Eagle Cap Wilderness. From its beginning at the outlet of Eagle Lake, the creek follows a steep gradient over small waterfalls and bouldery white water rapids as it descends from the mountains. Vegetation in the classic u-shaped glacial valley alternates between high mountain meadows and stands of sub-alpine fir and whitebark pine. Expansive views of the surrounding Wallowa mountains are afforded from every meadow opening. Numerous avalanche chutes, landslides, waterfalls, and scoured rock outcrops create a highly diverse and dynamic landscape that vies for attention with the crystal clear creek.

The valley floor becomes relatively flat and wide at Main Eagle trailhead, and for the next five miles Eagle Creek temporarily slows in its rapid descent from the high mountains. Clear blue-green pools alternate with rapids as the creek winds its way through lush green, boulder-strewn meadows and park-like forests. Vegetation and canyon walls generally limit views to the immediate foreground except for the breathtaking views of the mountains seen from the northern end of the road.

Eagle Creek leaves a landscape dominated by glacial features below its confluence with West Eagle Creek. For approximately the next 10 miles, the valley closes in and canyon walls become abruptly steep, towering 500-1000' above the valley floor in places. Eagle Creek resumes its fast-moving, bouldery descent through the narrow canyon, bordered by lush riparian vegetation and picturesque meadows. Dramatic rock formations extending from rim to canyon floor punctuate otherwise forested hillsides. The road paralleling Eagle Creek offers unrestricted views of the creek in the immediate foreground and surrounding hillsides.

The lower seven miles of the designated portion of Eagle Creek takes on a character more typical of eastern Oregon rivers as it enters the lower elevation basalt-dominated plateaus surrounding the Willowa Mountains. Mixed conifer forests are replaced on drier slopes by grassy openings and park-like stands of ponderosa pine. Unusual rock formations provide visual contrast. By this time Eagle Creek has become substantial in size from the contributions of several major tributaries, and alternates between bouldery rapids, short waterfalls, smooth swift stretches, and deep blue pools. Visitors can enjoy views of the creek and canyon from the Martin Bridge trail which parallels the six-mile scenic segment of Eagle Creek, and from road #7735 which parallels the lower 1-1/2 mile recreational segment.

Throughout the corridor, seasonally abundant wildflowers color the streambanks, cliffs, and forest floor with splashes of red, purple, yellow, white and blue in the spring and summer. Deciduous vegetation including cottonwood, aspen, ninebark, and bracken fern provide attractive contrasting fall colors. Western larch provide a dramatic color contrast in the forest in the late fall as they turn golden, and in the springtime as the new green needles emerge. Picturesque stands of ponderosa pines and other large diameter trees can be seen in places throughout the corridor, including several designated old growth stands.

Human impacts in the Eagle Creek corridor are fairly limited and generally remain subordinate in the landscape. They include several dozen rustic-appearing cabins and mine structures on private land, the road and a few road and trail bridges, a historic guard station/work center, and several small campgrounds and trailheads. Numerous dispersed campsites are visible along the banks of the creek. Some incidental, light timber harvest has occurred on the private lands in the past, and several National Forest timber sales have been conducted partially within or adjacent to the corridor; however, these activities are virtually imperceptible from the river. Probably the most noticeable human impact along Eagle Creek are the road cuts and fill slopes which are occasionally visible from the river. In spite of the continuing interest Eagle Creek has received since before the turn of the century, the river corridor still presents an overall natural and pleasing landscape to viewers. In fact, the outstanding and unaltered scenery of Eagle Creek attracted the attention of movie producers, who used the area as a filming location for "Paint Your Wagon."

Finding

The designated portion of Eagle Creek possesses a great deal of diversity in landform, water, color, and vegetation, notable in the geographic region. Some of the attractions that combine to create Eagle Creek's scenic beauty are the glaciated landscape of the upper portion, the steep forested canyon with numerous rock pinnacles in the middle

portion, and the terraced basalt canyon of the lower portion. In addition, there is the diversity of vegetation, including lush meadows, mixed-conifer and ponderosa pine forests, and grassy openings; and the variety of the stream's rapids, waterfalls, and deep pools. Even though the Eagle Creek drainage has been a focus of human interest since the turn of the century, visual impacts due to human modifications are relatively minor, and the drainage still presents an overall natural landscape pleasing to forest visitors. The preliminary finding agrees with Congress that scenery in the Eagle Creek corridor is an outstandingly remarkable river value.

RECREATIONAL

Criteria for Outstandingly Remarkable Rating

Recreational opportunities are, or have the potential to be, unique enough to attract visitors from outside of the geographic region. Visitors would be willing to travel long distances to use the river resources for recreational purposes. River-related opportunities could include, but not be limited to, sightseeing, wildlife observation, photography, hiking, fishing, hunting, and boating.

Interpretive opportunities may be exceptional and attract or have the potential to attract visitors from outside the geographic region.

The river may provide or have the potential to provide settings for national or regional usage or competitive events.

Evaluation of the Present Situation

The Eagle Creek corridor provides a wide variety of recreational opportunities. Based on field observations and use records, Eagle Creek receives a considerable amount of use beginning as soon as the snow melts in the spring and continues into the late fall hunting season(s). A large portion of the visitors are from the local area, although some visitors come great distances to recreate in the Eagle Creek drainage, drawn by the exceptional scenery, excellent fishing, clean water, and the broad range of recreational opportunities available.

Visitors travel to the area primarily to fish, hunt, camp, sightsee, hike, picnic, or try their hand at panning for gold. Dispersed camping associated with fishing, hunting, and prospecting is by far the heaviest use, evidenced by the numerous dispersed campsites within the corridor. Other recreation opportunities in the drainage include horseback riding, photography, nature study, swimming, wildlife viewing, berry and mushroom picking, and various winter sports such as cross country skiing and snowmobiling. Hazardous whitewater, waterfalls, and low seasonal flows preclude floating or kayaking opportunities. The Main Eagle Trailhead serves as the major south side access route into the Eagle Cap Wilderness for visitors pursuing solitude and wilderness recreation opportunities.

The entire designated portion of river is accessible by either gravel road or trail. Good quality gravel roads parallel the recreational segments of the river. Main Eagle Trail #1922, a wilderness trail that parallels the wild river segment for four miles, provides access to the headwaters at Eagle Lake and connects with several other trails in the Wilderness. The unroaded six-mile segment of Eagle Creek is paralleled by the Martin Bridge trail #1878, providing anglers, hikers, and hunters access from early spring to late fall. Several other trails which begin in the vicinity of Two Color Guard Station provide access to the surrounding foothills that are adjacent to the W&SR corridor. A portion of the river road is part of a popular maintained snowmobile route during the winter months.

Recreation developments in the corridor are fairly limited and generally primitive in design. Eagle Forks, Tamarack, and Two Color Campgrounds provide a developed camping experience in a primitive setting. Dozens of dispersed camping areas in the river corridor receive heavy use, providing a base for summer and fall recreational pursuits. Additional dispersed campsites are available nearby in the West Eagle and East Eagle drainages. The Main Eagle Trailhead (formerly called Boulder Park) has recently been reconstructed to add limited campsites, and to improve the toilets, stock facilities, vehicle turnaround, viewpoint access, and long-term parking. Other trailheads in the corridor, Martin Bridge, Fake Creek, and Two Color, are minimally developed and generally have only signs and parking.

A variety of recreational improvements have been suggested for the designated corridor. One project under consideration involves installing improved facilities at Tamarack Campground to provide fishing access and camping opportunities for physically-challenged visitors and their families. Future improvements of Main Eagle Trailhead are being considered to provide adequate stock loading and camping facilities, and to install interpretive signing at the viewpoint overlooking the natural landslide which occurred on the east side of Eagle Creek in 1983 (see Geologic section, page 10). There are outstanding opportunities to interpret the area's rich natural and cultural history that could potentially attract visitors from outside the geographic region and enhance their recreational experiences.

Finding

The quality and diversity of recreational opportunities available along the Eagle Creek corridor makes it a popular area almost year-round. There are exceptional opportunities to develop interpretive sites or tours to explain the area's unique natural and cultural history. Interpretation of the area's gold mining history could be developed to complement the other nearby historic sites such as the Oregon Trail Interpretive Center, potentially attracting visitors from outside the geographic region. The preliminary finding agrees with the outstandingly remarkable value determination made by Congress of the recreational resource.

GEOLOGIC/PALEONTOLOGICAL

Criteria for Outstandingly Remarkable Rating

The river or the area within the river corridor contains an example(s) of a geologic feature, process, or phenomena that is rare, unusual, one-of-a-kind, or unique to the geographic region. The feature(s) may be in an unusually active stage of development, represent a "textbook" example and/or represent a unique or rare combination of geologic features (erosional, volcanic, glacial, and other geologic structures.)

Evaluation of the Present Situation

Eagle Creek begins high in the southern Wallowa Mountains, an area with a complex geologic record. The granitic Wallowa batholith dominates in the upper Eagle Creek drainage. The Wallowa Mountains were glaciated at least three times and perhaps as many as seven times between 11,000 and 500,000 years ago. The numerous cirque lakes, steep ridges, and craggy peaks in the upper Eagle Creek drainage were created by the sculpting of valley glaciers flowing out from a central point near Eagle Cap Mountain. Visible in the upper and middle reaches of the Eagle Creek drainage are metamorphosed greenstones and tuffs, sedimentary rocks of the Clover Creek formation, fossiliferous limestones of the Martin Bridge formation (known locally as black marble), and slates, shales, and sandstones of the Hurwal Formation. The three formations represent ancient sea floor sediments formed

about 100 million years ago. The rock pinnacles just south of Paddy Creek are limestone spires of the Martin Bridge formation. Widespread volcanism occurred 15-30 million years ago, which resulted in the formation of basalt plateaus surrounding the Wallowa Mountains uplift. The lower end of the scenic and the recreational portion of Eagle Creek is dominated by columnar-jointed olivine basalts of the Columbia River Basalt Group. Feeder dikes from some of the local eruptions can be seen exposed in the older rocks and in the glacially carved granites in the upper glaciated reaches of Eagle Creek.

As is typical throughout the Wallowa Mountains, the river valley is geologically unstable. Freezing and thawing contribute to periodic rockslides along cliffs in the drainage, with a recent occurrence evident the northeast of the Main Eagle trailhead. Occurring in 1983, this substantial slide brought down large amounts of rock and soil from a height of about 1,000 feet, crossing and temporarily blocking the stream, and ultimately coming to rest on the opposite side of the valley in the immediate vicinity of the old trailhead. The trailhead has since been relocated downriver approximately 1/4 of a mile to a more stable area. The new turnaround at the trailhead offers an excellent vantage point to view this impressive natural landslide.

The ancient sea floor sediment formations found in the Eagle Creek drainage contain the silicified shells of oyster-like bivalves, and fragments of corals and sponges. At least one significant paleontological discovery has been made in the corridor in the recent past. The oldest vertebrate fossil to be discovered in Oregon was found in the Eagle Creek corridor, which pushed back the known geologic record of vertebrate animals in the state by 50 million years. The corridor continues to be a focus of interest for paleontology field classes and scientific research.

Eagle Creek flows through the border zone of the Wallowa batholith, which in places has been mineralized and contains deposits of gold, silver, and copper. The erosion of these mineral-bearing rocks has resulted in the deposition of placer gold in the alluvial benches and stream gravels of Eagle Creek and its tributaries. Much of the early interest in Eagle Creek was related to gold. Since the discovery of gold in the region around 1860, at least 10 properties have been worked in the Eagle Creek mining district, a large area encompassing the Eagle Creek drainage and its tributaries. Production from other lode deposits in the mining district has been small. Today, gold mining is a well-established activity in the Eagle Creek corridor, and a majority of the drainage is currently under claim. Other minerals such as silver, copper, lead, and zinc have also been produced in small quantities.

Finding

The variety of rare and exemplary geologic features in the corridor, particularly in the upper reaches of Eagle Creek, and the opportunities for paleontological research and interpretation merit the recognition of geology as an outstandingly remarkable value. This preliminary finding agrees with the determination made by Congress for Eagle Creek.

VEGETATION/ECOLOGICAL

Criteria for Outstandingly Remarkable Rating

The river or area within the river corridor contains nationally or regionally important populations of indigenous plant species. Of particular significance are species considered to be unique or populations of federally listed or candidate threatened and endangered species.

When analyzing vegetation, additional factors such as diversity of species, number of plant communities, and cultural importance of plants may be considered.

Evaluation of the Present Situation

There is a wide variety of vegetation and plant communities found in the Eagle Creek corridor. This is due to the large elevational gradient between the headwaters and the lower boundary of the designated corridor, an elevation change of nearly 4600 feet. A significant representation of the plant communities of the Wallowa-Snake Province may be found in the corridor.

Eagle Creek begins at the outlet of Eagle Lake high in the Wallowa Mountains, and for the first four miles travels through the Eagle Cap Wilderness. Ecosystems are relatively undisturbed and natural processes dominate within this undeveloped river reach. At 7600 feet, the lake is nearly at timberline, and is dominated by wet and dry meadows of sedge, rush, alpine grass, and heather. Stringers of whitebark pine and subalpine fir reach these elevations. As the stream progresses down the valley from the headwaters to the Wilderness boundary, the true subalpine forests of whitebark pine, subalpine fir, and heathers gradually change to high elevation forests of Englemann spruce, subalpine fir, and grouse huckleberry. Forests are interspersed with shrubs and brushfields in the unstable snow chutes, mountain mahogany and sagebrush communities on the drier south and east facing slopes of the drainage, and wet meadows in the valley bottom. Further downstream, mixed conifer forests of grand fir, Douglas-fir, and ponderosa pine become more dominant, and cottonwood, aspen, and alder grow in the riparian areas fringing the riparian meadow openings.

The next seven miles, from the Wilderness boundary to the confluence of West Eagle Creek, is also a relatively undeveloped river reach. Grand fir, Douglas-fir, ponderosa pine, Englemann spruce, and western larch are the major tree species adjacent to Eagle Creek and on the moister, more favorable sites. The canyon slopes are typified by stringers of trees adjacent to rock outcrops and grassy openings on the drier sites. Ponderosa pine and Douglas-fir are the predominate tree species on southerly aspects. Moist and wet meadows fringed by deciduous trees are found adjacent to the creek. Disturbances to the riparian area are limited to dispersed campsites and spur roads along this stretch, and the road is located several hundred yards upslope and away from the river.

As the river continues to lose elevation as it progresses down the canyon, the mixed conifer forests become drier, and the open grassy slopes become more prevalent. Ponderosa pine, Douglas-fir, and western larch are the major tree species. Deciduous trees and riparian meadows are found along the creek bottom. The extent and condition of the riparian communities has been affected somewhat by the road that parallels the east bank of Eagle Creek. Continuing recreational use of the streamside meadows for camping, fishing, and picnicking also has some affect on the riparian communities.

There are ten stands of designated old growth forest that occur partially or wholly within the portion of the Eagle Creek corridor outside of the Eagle Cap Wilderness. Predominantly ponderosa pine stands, the overstory is often scattered and trees average over 40" in diameter. The open areas have a grass stand of predominantly bluebunch wheatgrass and pine grass. Associated tree species often include aspen and poplar along the Creek.

The corridor has not been extensively surveyed for the presence of unique plants. Of the surveys completed, no plants have been found within the Wild and Scenic River corridor which are classified as threatened, endangered, or sensitive by the U.S. Fish and Wildlife Service. Several populations of Bridge's cliffbrake (*Pallaea bridgesii*), on the U.S. Forest Service Region 6 Regional Forester's Sensitive Plant List, have been documented in the

upper portion of the corridor. Threats to this species, which is found on granitic, talus slopes in this and several other drainages, are thought to be minimal. Prior to any potential ground disturbing activities within the Wild and Scenic River corridor, surveys for threatened, endangered, or sensitive plant species will be conducted (FSM 2670.31).

Finding

While the diversity of plant species and the number of plant communities found in the Eagle Creek corridor is notable, due primarily to the elevational change from the headwaters to the end of the W&SR corridor, it is fairly typical of other rivers in the region (Scorp Region 12). Therefore, vegetation and ecologic values were not found to be outstandingly remarkable within the Eagle Creek corridor. Some of the important values identified include:

- * reported sightings within the corridor of Bridge's cliffbrake (Pallaea bridgesii), a plant listed as sensitive on the Regional Forester's Sensitive Plant List.
- * the ten designated old growth stands that occur partially or wholly within the W&SR corridor.

FISHERIES

Criteria for Outstandingly Remarkable Rating

Fish values may be judged on the relative merits of either fish populations or habitat - or a combination of these river-related conditions:

***Populations.** The river is nationally or regionally an important producer of resident and/or anadromous fish species. Of particular significance is the presence of wild stocks and/or threatened and endangered species.*

***Habitat.** The river provides exceptionally high quality habitat for fish species indigenous to the region. Of particular significance is habitat for wild stocks and/or federally listed or candidate threatened and endangered species.*

Evaluation of the Present Situation

Populations

Eagle Creek supports populations of native and stocked rainbow trout, eastern brook trout, bull trout, and non-game species including mountain whitefish, and sculpin. Fishing for both native and stocked trout is a popular recreational activity in Eagle Creek. The Oregon Department of Fish and Wildlife (ODFW) currently stocks the creek with approximately 9,000 rainbow trout annually from mid-June through mid-August. Bull trout (*Salvelinus confluentus*) is listed on the Regional Forester's Sensitive Species List, and is listed as a candidate threatened and endangered species (Category 2) species by the U.S. Fish and Wildlife Service (USFWS). Historically, bull trout populations had a wide distribution in Oregon, but many populations are extinct or near extinction. The existence of bull trout in Eagle Creek has been documented; however, the extent and viability of bull trout population in Eagle Creek is unknown at this time. Eagle Creek provides the specific habitat requirements for bull trout, which are dependent on cold, high quality water.

Prior to the construction of Hells Canyon Dam on the Snake River, Eagle Creek had abundant populations of a variety of anadromous and resident game fish. Eagle Creek was regularly

visited and fished by members of several Native American tribes historically, and although anadromous fish are now extinct in Eagle Creek, Native Americans still travel to the area to fish and camp. Long-time local residents still can recall the excellent fishing Eagle Creek once provided. Construction of three hydroelectric dams on the Snake River eliminated the anadromous fish runs in Eagle Creek; however, ODFW has considered establishing a downstream hatchery at some time in the future with the purpose of reintroducing chinook salmon to the drainage.

Habitat

Habitat for fish is of generally good to high quality despite a variety of factors which have locally affected habitat conditions. Starting as early as the 1860's, a variety of activities have occurred within the corridor which have generally decreased the quality of habitat and affected populations, including road construction, mining, timber harvest, and grazing of sheep and cattle.

The natural flow regime of the designated section has been slightly altered by minor diversions and small irrigation dams on several high mountain lakes at the headwaters of Eagle Creek and tributaries. This near natural flow regime is notable for a watershed of this size in the western states (195 square miles). The stream follows a steep gradient in the upper five miles, losing an average of 432 feet per mile, and an average of 113 feet per mile over the rest of the W&SR corridor. The waters of Eagle Creek are highly-oxygenated, cold and clear, and water quality is excellent, due in part to the undeveloped upper 11 miles, and to undeveloped tributary reaches, which begin mostly within the Eagle Cap Wilderness.

Habitat conditions in the upper reaches of Eagle Creek within the Wilderness are excellent, and have been minimally impacted by the low dam at the outlet of Eagle Lake (headwaters of Eagle Creek), minor trail building, wood removal, and vegetation disturbance due to the development of campsites along the stream banks. This undeveloped river reach is important for providing the high quality, cold water downstream.

The remainder of the river corridor, with the exception of a six-mile unroaded portion, has been altered somewhat by road construction. This has diminished the quality of habitat due to encroachment of road fill, rip-rapping, channel straightening, sediment delivery to the stream, removal of streamside shading vegetation, and removal of in-stream woody debris. Mining activities have a short seasonal impact on water quality by temporarily increasing sediments in the stream. Additionally, portions of this lower reach fall within three active grazing allotments. The riparian zone is considered to be of fair to good quality within allotment boundaries.

Overall, there is good variety of deep pools, glides, and riffles which provide ample spawning, rearing, and holding habitat for native and stocked trout species, and potentially for reintroduced anadromous fish. Relatively moderate disturbance to Eagle Creek's stream bed and banks has occurred; however, good-to-high quality habitat for native and hatchery trout is still present. In addition, Eagle Creek meets the specific habitat requirements for bull trout, a species that is dependent on cold, high quality water.

There is some potential for restoration or improvement of habitat conditions through improved control of activities within the floodplain and riparian area, as well as some potential for improvement of water quality from major tributaries entering the mainstem which would benefit the designated portion of the river.

Finding

Eagle Creek is known for its excellent trout fishing and supports a significant amount of fishing activity throughout the season. Although the diversity of resident and non-game species is typical of other rivers in the region, the importance of the existing good to high quality habitat which supports native trout, including the sensitive bull trout, and potential for supporting reintroduced anadromous fish in the future, qualifies fisheries habitat in Eagle Creek as an outstandingly remarkable value. The excellent water quality and near natural hydrologic regime are important factors contributing to the outstanding fisheries habitat values.

Eagle Creek does not presently contain anadromous fish; however, ODFW has considered establishing a downstream hatchery at some time in the future with the purpose of reintroducing chinook salmon to the drainage. Re-establishing anadromous fish in the future would likely qualify fish populations as a potential outstandingly remarkable value.

WILDLIFE

Criteria for Outstandingly Remarkable Rating

Wildlife values may be judged on the relative merits of either wildlife populations or habitat - or a combination of these conditions.

***Populations.** The river or area within the river corridor contains nationally or regionally important populations of indigenous wildlife species. Of particular significance are species considered to be unique or populations of federally listed or candidate threatened and endangered species.*

***Habitat.** The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for federally listed or candidate threatened and endangered species. Contiguous habitat conditions are such that the biological needs of the species are met.*

Evaluation of the Present Situation

Populations

Many species of wildlife typical to the region inhabit the area including elk, deer, black bear, cougar, bobcat, beaver, other fur-bearers and small mammals, reptiles, and amphibians. A large variety of birds can be found along Eagle Creek, including goshawks, golden eagles, osprey, pileated woodpeckers, great horned owls, blue and ruffed grouse, and many species of song birds. Although suitable habitat exists for the federally-listed endangered American peregrine falcon (Falco peregrinus anatum) and threatened northern bald eagle (Haliaeetus leucocephalus), and for candidate threatened and endangered species (Category 2) including the Preble's shrew (Sorex preblei) and Blue Mountain cryptochian (Cryptochia neosa), no threatened or endangered animal species are known to inhabit the Eagle Creek drainage. Peregrine falcon sightings have been reported in the drainage, and bald eagles have been sighted below the designated portion of Eagle Creek; however, no nests have been reported in the designated portion of Eagle Creek.

Habitat

Wildlife habitat within the Eagle Creek drainage is varied, ranging from high elevation sub-alpine meadows and forests to low elevation ponderosa pine forests and grasslands. Except for small campsites and light grazing by recreational livestock, wildlife habitat is near pristine in the Wilderness portion of Eagle Creek. Suitable habitat exists for the endangered American peregrine falcon, threatened northern bald eagle, and candidate threatened and endangered Preble's shrew and Blue Mountain cryptochian; however, none of these species are known to inhabit the Eagle Creek drainage. The corridor provides high value elk summer range, and falls within the ODFW Keating elk management unit which supports approximately 500 head of Rocky Mountain elk. Portions of ten designated old-growth stands occur within the 1/4 mile interim boundary below the Wilderness boundary, providing suitable habitat for old-growth dependent species and cavity nesters. While riparian habitat is near pristine in the Wilderness portion of the drainage, the lower Eagle Creek corridor has been somewhat altered by the construction of a gravel road, which reduced the extent of the riparian floodplain and narrowed and straightened the river course. The lower corridor includes portions of three livestock allotments, and the riparian conditions within the allotments are estimated to be fair to good.

Finding

Wildlife was found to be important in the Eagle Creek corridor; however, it was not found to be an outstandingly remarkable value as it is typical of wildlife on other rivers in the region. Some of the important values identified include:

- * reported sightings within the corridor of threatened, endangered, and sensitive species such as the peregrine falcon and bald eagle.
- * habitat diversity; high quality elk summer habitat; suitable habitat for the bald eagle and peregrine falcon, and candidate threatened and endangered species Preble's shrew and Blue Mountain cryptochian.
- * potential for interpretation tied to wildlife.

HISTORIC

Criteria for Outstandingly Remarkable Rating

The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare, unusual or one-of-a-kind in the region. A historic site(s) and/or feature(s) in most cases is 50 years old or older. Of particular significance are sites or features listed in, or are eligible for inclusion in, the National Register of Historic Places.

Evaluation of the Present Situation

Many cultural resource sites exist throughout the Eagle Creek corridor, including evidence of Native American use, old mining activity, ranching, and early Forest Service structures.

A number of Native American cultural groups utilized the Eagle Creek drainage during historic times, following the traditional patterns of use that were established prior to the coming of the white man. Members of the Nez Perce, Umatilla, and Cayuse tribes regularly travelled to the area to camp, fish, hunt and gather. Other cultural groups were reported to periodically travel to the area, including the Shoshone Bannock and the Northern Paiute. Little physical evidence of this historic Native American use remains today.

The activity that attracted the greatest number of people into the Eagle Creek corridor historically and in turn had the most significant impact on the land, was the mining of gold and copper ores, beginning in the early 1860's. Every gulch in the Eagle Creek area seemed to hold the gold dream and the creek's water was a much-needed tool. Mining activities modified the landscape that today can be interpreted as historic features. They include mining test holes, adits, tunnels and tailing from hard rock mines; and gravel windrows, backdirt piles and ditches from placer mining activities.

The Eagle Creek corridor and the surrounding area was tied together by a web of wagon roads, stage routes and horse trails. Traversing through a portion of the Eagle Creek corridor, the "Union-Cornucopia Wagon Road" connected the Eagle Creek and Cornucopia mining districts with the county seat in Union, Oregon. Most of the gold from the lode mines in these districts was transported out of the mountains over this route. Among the various stops along the route was the Martin Bridge stage station and toll bridge. Situated on Eagle Creek approximately 1/4 mile northwest of Paddy Creek, Martin Bridge was a welcome stop for early travelers, and included a two story hotel, outbuildings, corrals, and garden plots.

According to a 1913 USFS map, other activities recorded in the area included roads and houses along Eagle Creek, a Ranger cabin, and the "Eagle Creek Electric Power Company" at the mouth of Dixie Creek. This was one of the earliest hydroelectric power plants in the state, with transmission lines extending from the power station south to the Sanger Mine and on to Baker City. Although nothing remains of the old plant, the site is considered a potentially valuable historic resource.

One of the most outstanding historic sites originating within the Eagle Creek corridor is the old Sparta mining ditch. The ditch, hand-dug by Chinese work crews in the early 1870's, transmitted water from Upper Eagle Creek to mines near the town of Sparta 32 miles away. The 300-person crew of excavators dug the ditch in 5 months and 3 days. The Sparta Mining Ditch is an excellent example of civil engineering practices during the 1860's and 1870's, and is eligible for the National Register of Historic Places.

Finding

The settlement of Northeast Oregon is tied to the discovery of gold, and Eagle Creek has much evidence of this history. The Sparta Ditch, eligible for the National Register of Historic Places, is a significant historical feature. Outstanding opportunities exist to interpret a number of features located in fairly close proximity within the corridor. These features qualify historic cultural resources as an outstandingly remarkable value.

PREHISTORIC

Criteria for Outstandingly Remarkable Rating

The river or area within the river corridor contains a site(s) where there is evidence of occupation or use by Native Americans. Sites must be rare, one-of-a-kind, have unusual characteristics or exceptional human interest value(s). Sites may have national or regional importance for interpreting prehistory; may be rare and represent an area where a culture or cultural period was first identified and described; may have been used concurrently by two or more cultural groups; or may have been used by cultural groups for rare or sacred purposes. Of particular value will be pristine sites that have not been disturbed.

Evaluation of the Present Situation

Written and oral history sources report the use of the Eagle Creek drainage by Native Americans primarily for fishing and hunting purposes. The corridor was periodically and seasonally visited by small groups from several cultural groups, including the Umatilla, Cayuse, Nez Perce, and to a lesser extent by the Northern Paiute and Shoshone Bannock. The Eagle Creek drainage is the boundary between lands ceded by the Confederated Tribes of the Umatilla Indian Reservation (Cayuse, Walla Walla, and Umatilla Tribes) on the west and the Nez Perce Tribe on the east. Surveys on federal land completed to date in the river corridor have identified only a few prehistoric sites.

Finding

Since extensive cultural resource inventories have not been completed in the Eagle Creek corridor, it is undetermined what level of significance prehistoric use had in the corridor. In the meantime, known and discovered sites are protected under existing statutes, regulations and policy. The historic importance in the corridor will maintain the outstandingly remarkable value for cultural resources.

TRADITIONAL USE, CULTURAL VALUES

Criteria for Outstandingly Remarkable Rating

The river or area within the river corridor contains regionally unique location(s) of importance to Indian tribes (religious activities, fishing, hunting, and gathering). Locations may have unusual characteristics or exceptional cultural value being integral to continued pursuit of such activities. Locations may have been associated with treaty rights on ceded lands or activities unprotected by treaty on ceded lands or in traditional territories outside ceded lands.

Evaluation of the Present Situation

Eagle Creek is the boundary between lands ceded by the Confederated Tribes of the Umatilla Indian Reservation (Cayuse, Walla Walla, and Umatilla Tribes) on the west and the Nez Perce Tribe on the east. As described in historic and prehistoric discussions above, the corridor was regularly visited by small groups from several tribes such as the Umatilla, Cayuse, Nez Perce, Northern Paiute and Shoshone Bannock in historic and prehistoric times. Native Americans from these tribes still travel to the area to hunt, fish, camp, and gather, continuing the traditions taught to them by their elders.

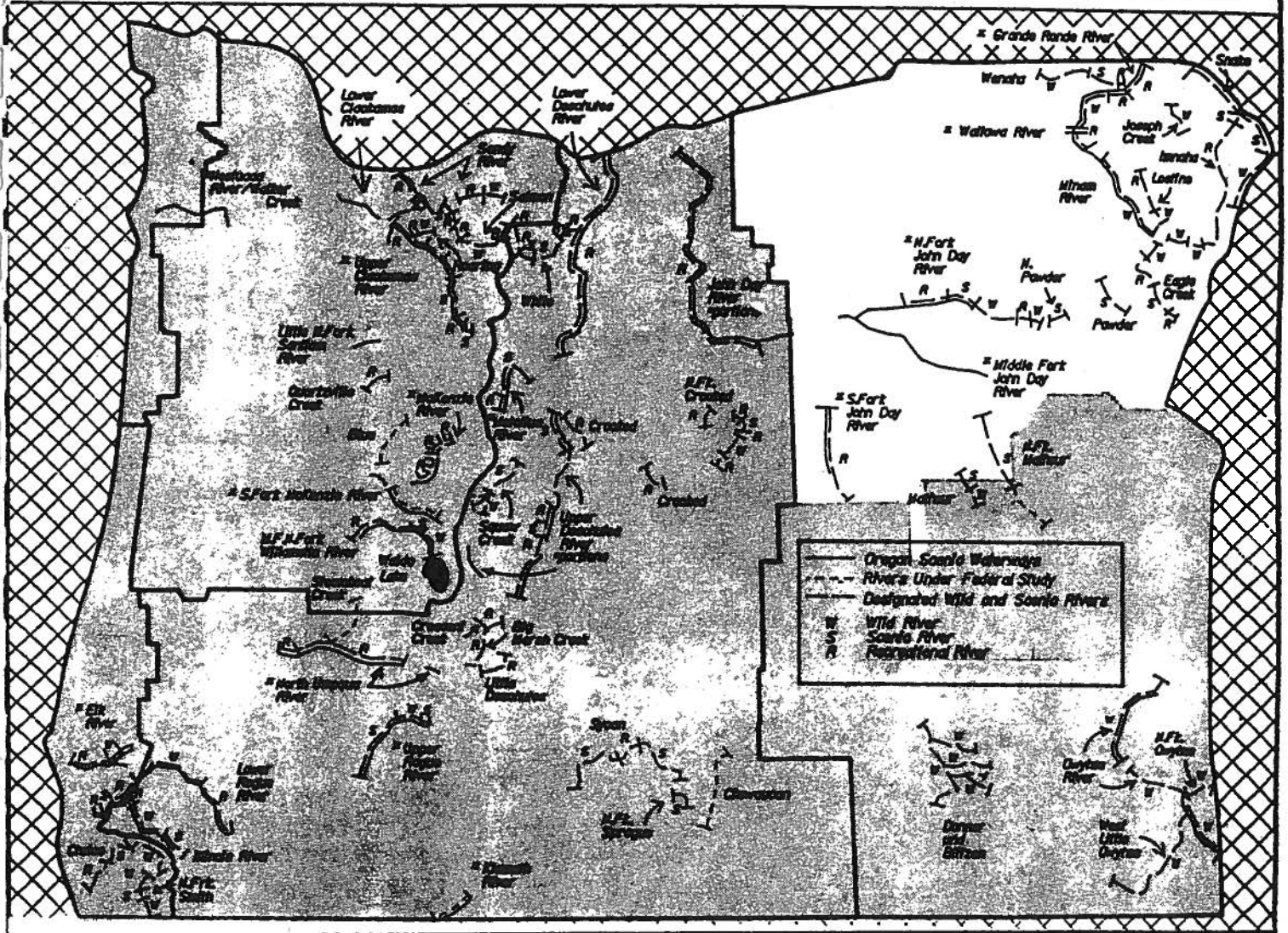
Finding

The Eagle Creek drainage is the dividing line between ceded lands of the Confederated Tribes of the Umatilla Indians (CTUIR) and the Nez Perce Indians and is regularly visited by members of these tribes. Although no regionally unique locations of importance have been reported by the tribes that would qualify this value as outstandingly remarkable, it is recognized that all significant drainages in northeastern Oregon have special cultural value to the CTUIR and Nez Perce tribes. Traditional use and cultural values are found to be important in the Eagle Creek corridor; however, these values were not found to be outstandingly remarkable as they are fairly typical of other rivers in the region.

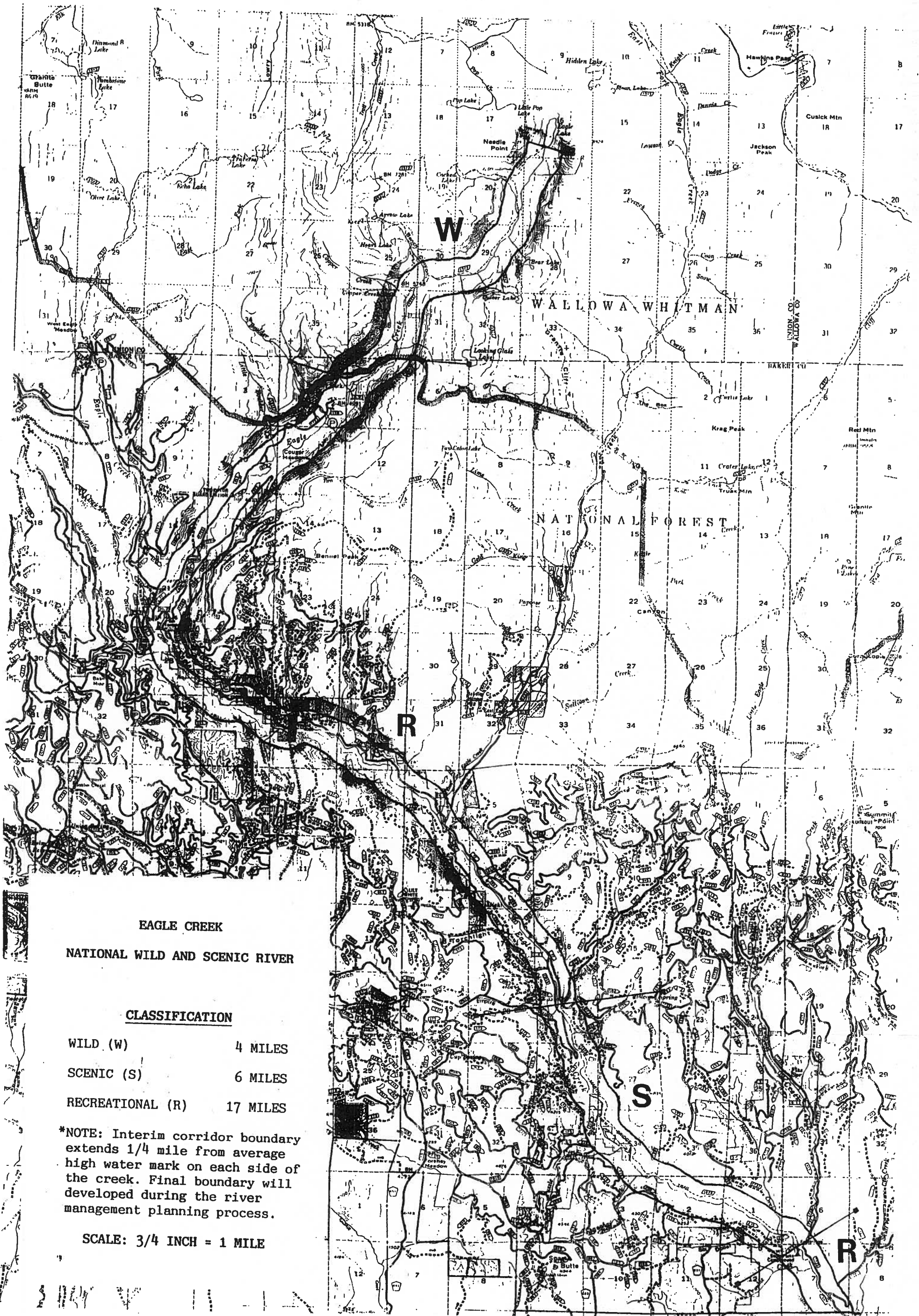
APPENDIX A

OREGON SCORP PLANNING REGION
 NUMBER 12
 NORTHEAST OREGON

OREGON STATE SCENIC WATERWAYS AND
 FEDERALLY DESIGNATED WILD AND SCENIC RIVERS IN OREGON



EAGLE CREEK WILD AND SCENIC RIVER CORRIDOR MAP



**EAGLE CREEK
NATIONAL WILD AND SCENIC RIVER**

CLASSIFICATION

- WILD (W) 4 MILES
- SCENIC (S) 6 MILES
- RECREATIONAL (R) 17 MILES

*NOTE: Interim corridor boundary extends 1/4 mile from average high water mark on each side of the creek. Final boundary will be developed during the river management planning process.

SCALE: 3/4 INCH = 1 MILE