Appendix C

RESOURCE ASSESSMENT

Imnaha River
National Wild and Scenic River

USDA - Forest Service
Wallowa-Whitman National Forest

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TABLE OF CONTENTS

IMNAHA
NATIONAL WILD AND SCENIC RIVER

I. EXECUTIVE SUMMARY

As a result of the Omnibus Oregon Wild and Scenic Rivers Act of 1988, the entire length of the Imnaha River, including the South Fork, was designated as a National Wild and Scenic River (W&SR). Under this Act, the Forest Service is required to prepare a comprehensive management plan to prescribe protection for the values of the Imnaha River. This resource assessment is being done to identify the river values that are outstandingly remarkable.

On January 22, 1992, a draft resource assessment was sent to the public, including other agencies and subject experts, for review and comments. The preliminary findings of the Forest Service interdisciplinary team determined the following values of the Imnaha River to be outstandingly remarkable values: scenery, recreation, wildlife, fisheries, cultural resources (both historic and prehistoric), vegetation/botanical, and traditional use-lifestyle adaptation. As a result of our review of public and other agency comments, several changes were made in the resource assessment document. A section clarifying the recreation opportunities on private lands was added, the discussion on future construction of an additional fish hatchery was removed, and the results of the stream survey was added. No new information was provided that merited changing any of the original findings

The following resources of the Imnaha River are considered outstandingly remarkable values: Scenery, Recreation, Fisheries (Populations and Habitat), Wildlife (Populations and Habitat), Cultural Resources (Historic and Prehistoric), Vegetation/Botanical, and Traditional Values/Lifestyle Adaptation.

II. INTRODUCTION

In 1968, Congress enacted the National Wild and Scenic Rivers Act, and for the first time, established a specific system for preserving outstanding free-flowing rivers. The Imnaha River 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 Congressional Record states that "The outstandingly remarkable values of the Imnaha River are: scenic, wildlife and fisheries."

Under the Wild and Scenic Rivers Act, the U.S. Forest Service is required to "prepare a comprehensive management plan for such river segment to provide for the protection 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. Public involvement will be invited throughout each phase of the planning process and will be essential in the development of a sound river management plan that can be implemented.

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. 1/

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

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 level. 2/
- 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

Fisheries

Wildlife

Historic

Prehistoric

1/ The 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.

2/ Based partially on the eight geographic regions described in the 1989 Statewide Comprehensive Outdoor Recreation Plan for Oregon. See NE Region SCORP Planning Map, Appendix A.

Traditional Use, Cultural Values

Vegetation/Botanical

Traditional Use, Lifestyle Adaptation

Other River-Related Resource Values

IV. RIVER DESCRIPTION

The Omnibus Oregon Wild and Scenic Rivers Act of 1988 designated 77 miles of the Imnaha River from its headwaters on the South Fork near Cusick Mountain, in the Eagle Cap Wilderness, to its confluence with the Snake River. It was classified into the following segments:

WILD RIVER: The 6.0 mile segment from its confluence with the North and South Forks of the Imnaha River to Indian Crossing and, the 9.0-mile segment of the South Fork Imnaha from its headwaters to its confluence with the Imnaha River.

RECREATIONAL RIVER: The 58.0 mile segment from Indian Crossing to Cow Creek.

SCENIC RIVER: The 4.0 mile segment from Cow Creek to its mouth.

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 as part of the Wild and Scenic Rivers management planning process.

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

A systematic and inclusive visual resource inventory of the Hells Canyon National Recreation Area (HCNRA) was conducted in the late 1970's by Forest Service contractor, EDAW Incorporated. The Imnaha River Valley was the subject of a detailed river corridor visual analysis as part of the project. All of the designated Imnaha River is within the HCNRA with the exception of two sections: the six and one-half miles from the town of Imnaha, downstream, and that portion of the mainstem and the South Fork which are in the Eagle Cap Wilderness, upstream from the HCNRA boundary. The results of the detailed study concluded that the Imnaha River Valley, for the most part, was worthy of the highest visual quality objectives and sensitivity ratings used in the National Forest Visual Resource Management System.

At the headwaters of the South Fork, the setting is above timberline in the glaciated headwalls of the Wallowa Mountains. This is an area where winter snows dominate the landscape for over half the year. The scenery in these upper reaches is one of snow capped mountain peaks. These headwaters are located in the center of this mountain range, which is the general area from which all the major rivers, flowing out of the Wallowas, get their start. It is a breath-taking and unique visual experience that is not available elsewhere within this geographic region between the Cascade and Rocky Mountains.

Access along the South Fork of the Imnaha River is by wilderness trail. It is 15 miles from the source of the South Fork to the nearest road access on the river at Indian Crossing Campground and Trailhead. Fourteen and one-half of those fifteen miles are within the Eagle Cap Wilderness. The scenery along this trail is quite diverse. Leaving the alpine meadows above timberline, the trail leads into increasingly dense stands of coniferous forest. As the river drops 3500 feet to the trailhead at Indian Crossing, the volume of water increases substantially when the North Fork joins to form the mainstem of the Imnaha River six miles above the trailhead.

The river characteristics change noticeably below Blue Hole. The valley bottom broadens and the river meanders more as the gradient lessens. Many opportunities to view the river's riffles and pools are afforded the visitors that day-hike the two and one-half miles up from the trailhead to this area. The Blue Hole is a location where rock formations have narrowed the river course. Approximately 100 yards of the river has been pinched into a narrow canyon that is only 20-30 feet wide, and in places 50 feet below the rock rim above. The resulting deep holes give the water new color contrast from the blue-greens common to the river.

The mid-section of the Imnaha River is an area of many transitions. Access is provided to the section of river between Indian Crossing and Cow Creek by a road that parallels the river. Most of the visitors to this part of the river experience the scenic beauty while traveling this road. From Indian Crossing down to Gumboot Creek there are six Forest Service campgrounds located near the river in a forested setting. At these destination campgrounds, park-like stands of Ponderosa Pine cover the river bottom and continue up the side slopes. The portion of the Imnaha River road between Dry Creek and Gumboot Creek is part of a proposed National Scenic Byway. In addition to the main Byway route, the Imnaha River road from Gumboot Creek to the town of Imnaha is a proposed satellite route to reach the town of Joseph.

Traveling downstream, below Gumboot Creek, the forested river bottom and canyon slopes begin to intersperse with natural openings that add variety to the landscape. Upon reaching the first private lands in the vicinity of the junction with Crazyman Creek, the natural openings are complemented by pasture lands, many of which were cleared by the original homesteaders. The scenery here begins a rapid transition into the native grasslands that predominate on the lower river. Canyon slopes that face more to the north are still heavily timbered. However, southerly slopes that face the drying effects of the sun are able only to support less demanding plant communities such as bunch grasses.

The river canyon downstream from Crazyman Creek to the town of Imnaha is interspersed with family residences and ranch headquarter facilities. These developments provide a pleasing ranch-oriented pastoral setting that blends well with the timbered stringers and layered basalt rimrock that dominate the canyon walls. Below the town of Imnaha the native bunch grasses occupy most of the canyon slopes. In the river bottom, ranch operations share this more fertile ground with orchards and truck gardens that provide fresh produce to a large surrounding area.

The balance of the roaded section of the Imnaha River canyon from Fence Creek to Cow Creek takes on yet another scenic face. The road climbs up the western canyon wall and provides some of the best views of the river from a more distant perspective. Adjacent, and sometimes distant, landscapes become visible. The side canyons and feeder ridges have a very different appearance when viewed from this elevated perspective. What may have seemed a walled-in, narrow canyon is now part of a

more complex geologic landform. As the road drops down into the river bottom near Horse Creek, it is apparent that the climatic conditions have harshened. The river seems to take on an even more welcoming, life-supporting role. There are noticeably fewer ranch headquarters located along this section of river. This is testimony to the hot, dry, harsh summers that are typical in the lower river canyon. There are rewards, however, for those ranch operations that manage the forage in this section of the river enjoy a more moderate winter season.

The last four miles of the Imnaha River is accessible only by trail. The trail from the Cow Creek bridge to the mouth of the Imnaha River has been recently reconstructed and offers visitors easy access to Eureka Bar on the Snake River. The canyon environment that this trail passes through is quite different from the majority of the river upstream. The canyon closes in so there is only room in the bottom for the river and trail. The side-drainage canyons, that partially open up the horizon for the viewer, are pleasing opportunities to see the basalt rims that band both sides of the main canyon.

Preliminary Finding

The Imnaha River is recognized nationally for its scenic qualities. All, or sections of the river, have been designated as Wilderness, National Recreation Area and/or National Wild and Scenic River. It traverses the climatic spectrum from glaciated mountains and alpine meadows, at over 8,000 feet in elevation, to a rattlesnake and cactus canyon environment of 1,000 feet above sea level at the mouth. The Imnaha River corridor, perhaps, provides the greatest contrasts and variety of landforms, vegetation, color and climate of any of the Wild and Scenic River System components in the inland Northwest. The pastoral setting of the predominately ranch-oriented middle section of the river evokes images of a classic western landscape.

The preliminary findings of this draft resource assessment agree with the Congressional Record that scenery in the Imnaha River Canyon is an outstandingly remarkable 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 may 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

Forty-five percent of the Imnaha River corridor (this includes most of the Recreational section of the river) is privately owned. For the most part, recreational activities for the public on private land is limited to sightseeing and photography from the County Road. Most of the discussion that follows pertains to recreational activities on public lands.

The recreational opportunities within the Imnaha River Canyon are as varied as the scenery. The Hells Canyon National Recreation Area (HCNRA) is truly a destination of national caliber. The HCNRA is an important complement to the other Congressionally-designated special areas within the National

Forests of the Pacific Northwest. The other three areas are the Oregon Dunes National Recreation Area, the Mt. St. Helens National Volcanic Monument and the Columbia Gorge National Scenic Area. The Imnaha River Canyon provides a diversity of recreational opportunities that help make the HCNRA worthy of national designation.

Visitors travel to the area primarily to fish, hunt, camp, sightsee, hike, picnic and pursue opportunities for solitude. Dispersed camping associated with fishing and hunting is by far the heaviest use. Numerous dispersed campsites within the corridor offer opportunities for visitors who are seeking a more primitive form of recreational pursuit. 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.

Desirable floating or kayaking opportunities are limited due to a combination of factors. These factors are, 1) lack of public access to put in, take out, or to stop along the way. A large section of the river is private property including the bed and banks, 2) low seasonal flows, and 3) stream channel characteristics that don't provide the interesting and challenging rapids and pools sought by floaters.

The upper section is the destination of most visitors to the Imnaha River Canyon. There is a significant amount of travel through the remainder of the river corridor. However, it is usually associated with viewing for pleasure while driving and/or while traveling to destinations outside the Imnaha River Canyon. Indian Crossing Campground/Trailhead, at the end of the road on the upper Imnaha River, serves as the major east-side access route into Eagle Cap Wilderness for visitors pursuing solitude and wilderness recreation opportunities.

Historically, the major influx of visitors into the Imnaha River area has been during the big game hunting seasons in the fall. Recently, the anadromous fishing seasons have been an attractant for late fall and winter recreationists that enjoy fishing for steelhead. The Hells Canyon National Recreation Area has proposed nearly 6 million dollars worth of recreation facilities (re)construction for the Imnaha River Canyon. Local managers feel that the demand for developed recreation opportunities has not been adequately addressed. It may be that the high percentage of use at dispersed type sites is the result of insufficient opportunities at developed sites. The NRA office has estimated use in the Imnaha River Canyon, by recreationists during 1990 to be approximately 57,700 visits.

Preliminary Finding

The Imnaha River is recognized nationally for its recreational opportunities. All, or sections of the river, have been designated as Wilderness, National Recreation Area and/or National Wild and Scenic River. The opportunities to camp, fish, hunt, view wildlife, enjoy outstanding scenery and solitude, and have a pleasurable vacation are perhaps unsurpassed in the Inland Northwest. These recreational opportunities are enhanced as they are nestled between the beautiful Wallowa Mountains and the awe-inspiring Hells Canyon of the Snake River. Another important attribute of the Imnaha River is the year-round access and opportunities that are available.

The Congressional Record did not include recreational opportunities as an outstandingly remarkable value. The preliminary findings of this Resource Assessment, however, do conclude that the Imnaha River corridor does qualify as having outstandingly remarkable recreation values.

This value, however, should be tempered on private lands. The Wild and Scenic designation does not alter private land rights. In most cases, the recreational opportunity available to the public on private land is limited to sightseeing and photography, unless permission from the land owner is acquired.

GEOLOGIC

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

The Imnaha River originates in the highly glaciated Wallowa Mountains. In the area of the South and North Forks of the Imnaha River, classic alpine glacial features are seen, such as cirques, carved peaks, ridges, cliffs and pinnacles. Elongated carve knobs, called roche moutonnees, are found on the valley walls parallel to the direction of the glacier movement. At the junction of the Forks of the Imnaha, morainal material forms a thick veneer along the north wall of the valley.

The predominate rock type in the headwaters area is the massive, Late Triassic age Martin Bridge limestone. The limestone shows some deformation and recrystallization into marble, related to the emplacement of the Wallowa batholith. The limestone produces a fine calcite gravel that is rapidly eroded from the steep glaciated valley walls. As a result, some of the largest exposures of lighter-colored bare rock in the Wallowa Range are of this formation.

Further downstream to Coverdale Campground the bedrock consists of darker, older rocks of the Late Triassic Clover Creek Greenstone formation. This formation includes a variety of volcanic rocks such as andesite, basalt and flow breccia, and volcanoclastic sedimentary sandstones, tuff, siltstone, chert, conglomerates, and some limestone. Some of these rocks have been metamorphosed obscuring the original igneous textures.

From Coverdale Campground downstream to Lightning Creek, the Imnaha River has cut down through younger basalts and andesites of the Miocene age Columbia River Group. The basalts of this group lie unconformably over the older rocks, and cover the flanks of the Wallowa Range. They also occur as scattered remnants of ridge crests. Later glaciation carved these rocks into a u-shaped valley.

Below Lightning Creek to the mouth, Triassic to Permian quartz diorite, diorite and gabbro are exposed and represent a basement complex of highly metamorphosed intrusive rocks.

The rocks older than the Miocene Columbia River basalts (Pre-Cenozoic) represent displaced fragments of volcanic, island arc, plutonic and oceanic crust, and sediments which were accreted (welded) to the Mesozoic Continental margin by folding and thrust faulting.

Placer mining was done in the early 1900's along the upper end of the Imnaha from Cliff Creek to Ollokot Campground. Piles of hand stacked boulders can still be found.

The area near the mouth of the Imnaha River was prospected for gold and silver, but mostly for copper. Evidence of past mining such as old mine portals, dumps, and prospect holes can be found in this area. The Mountain Chief tunnel, originally a copper prospect in the early 1900's, passes through a fault zone and opens to both the Imnaha and Snake Rivers through the ridge separating the two rivers.

Preliminary Finding

The geology of the Imnaha River is an interesting resource of this rugged canyon country. It has been an attraction to several generations of residents and prospectors. The geologic features found here, however, are not unique to the region. The preliminary findings of this resource assessment are that geology is not an outstandingly remarkable value. It is an important resource value with many features that should be interpreted for the public. This finding concurs with the Congressional Record.

FISHERIES

Criteria for Outstandingly Remarkable Rating

Fish values may be judged on the relative merits of either fish populations, habitat, or Native American cultural use - or a combination of these river-related conditions. Considerations shall be given for potential as well as existing values.

Populations. The river is internationally, nationally or regionally an important producer of resident and/or anadromous fish species. Of particular significance is the presence of wild stocks and/or federal or state listed threatened, endangered, and sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Habitat. The river provides or has the potential to provide exceptionally high quality habitat for fish species indigenous to the region. Of particular significance is habitat for wild stocks and/or federal or state listed or candidate threatened, endangered, and sensitive species. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Evaluation of the Present Situation

Populations

The Imnaha River supports populations of fish species that are regionally and nationally important. The Imnaha is unique in several ways. For example, bull trout, which is an indicator of high quality, clean and cold water habitat, is represented in this river by a healthy population. Another example is the unique spring/summer Chinook run which remains in the ocean one to two years longer than most Oregon salmon runs. The result is the largest body size spring Chinook in the Snake River System.

The Imnaha River subbasin was historically an important producer of spring chinook. Escapement to the river prior to the settlement of the area by non-Indians is unknown. However, today's runs are probably a small fraction of the historical runs. Over fishing in the lower Columbia River in the late 1800's and early 1900's and the construction of hydroelectric dams on the mainstem Columbia and Snake Rivers were the major causes of decreased runs. Prior to construction of the four lower Snake River Dams, it is estimated that 6,700 spring chinook escaped to the subbasin. The escapement between 1977-1987 was estimated to range between 132 to 1,428 adults, with the run size in 1987 estimated to be 480.

The Lower Snake River Compensation Plan calls for the release of 490,000 spring chinook smolts each year when full hatchery production is reached. As is the case with steelhead, native stock salmon are expected to be used for the present hatchery supplementation programs.

Summer steelhead are also an important anadromous fish species in the Imnaha River system. Prehistoric and early historic run sizes are unknown, but it is estimated that 4,000 steelhead were entering the subbasin prior to construction of the four lower Snake River dams. The escapement is

currently estimated at 1,000. Under present hatchery plans, native stock are expected to be used for the present and planned hatchery supplementation programs, which call for the release of 330,000 smolts annually. A wild stock component will continue to make up a portion of the hatchery program.

Habitat

The riverine habitat of the Imnaha is probably not too dissimilar from what it was prior to settlement. Sedimentation rates have increased somewhat due to logging, road building and farming/ranching practices, but this is not the major factor limiting production of spring chinook.

This is supported by the recent stream survey (Hankin and Reeves Method) which indicates that the Imnaha River on Forest Service land is in good to excellent condition. Management activities on some private lands have caused reduction in the quality of fish habitat.

Land and water uses have had a minimal impact on water quantity and quality. Irrigation within the subbasin is generally limited to hay fields which are located on the basalt terraces. The only major irrigation withdrawal is from the Big Sheep Creek drainage where 162.6 CFS are removed from the system and diverted to the Wallowa Valley.

Preliminary Finding

The Snake River system spring chinook salmon is being considered for Federal listing under the Threatened and Endangered Species Act. The Imnaha subbasin contains a unique run of larger and older fish. The fact that both the Imnaha salmon and steelhead production objectives rely upon native stocks also makes this river system uniquely important. Sport fishing for chinook and steelhead was closed in 1974. Sport harvest of marked steelhead was reopened in 1986. Indian harvest has been negligible during the same period, but the Nez Perce Tribe maintained their right to take fish when they ceded the area to the U.S. Government in 1863. The results of this preliminary finding are that both fisheries populations and habitat are outstandingly remarkable values. This assessment concurs with the testimony in the Congressional Record.

WILDLIFE

Criteria for Outstandingly Remarkable Rating

Wildlife values may be judged on the relative merits of either wildlife populations habitat, or Native American cultural use - 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 federal or state listed or candidate threatened, endangered and sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

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 federal or state listed and candidate threatened, endangered, and sensitive species. Contiguous habitat conditions are such that the biological needs of the species are met. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Evaluation of the Present Situation

Populations

Many species of wildlife typical and unique to the region inhabit the area including Rocky Mountain bighorn sheep and elk, both mule deer and whitetail deer, cougar, black bear, bobcat, wolverine, river otter, pine marten, beaver, blue and ruffed grouse, chukar, ptarmigan, valley and mountain quail, turkey, Lewis woodpecker, Townsend's big-eared bat, spotted bat, peregrine falcon, bald eagle, tailed frog, Wallowa rosy finch, black rosy finch, and other small mammals, reptiles, and amphibians. This area of Northeast Oregon is well known for its variety and abundance of wildlife populations.

Habitat

Wildlife habitat within the Imnaha River drainage is varied, ranging from high elevation subalpine meadows and forests to mid elevation ponderosa pine forests and ultimately to the lower elevation native grasslands. The Imnaha River habitat supports the largest and strongest Rocky Mountain bighorn sheep herd within the State of Oregon. The lower Imnaha River is the major lambing area for this herd. The upper Imnaha River area is a migration corridor for large elk herds, and also serves as mule deer and elk summer range. The high population of predators such as bear and cougar are indicators that the habitat is supporting a large big-game population.

Other habitats support threatened, endangered or sensitive wildlife species such as mountain quail, Lewis woodpecker, peregrine falcon, Townsend's big eared bat, spotted bat, bald eagle and rosy finches.

Preliminary Finding

The wildlife habitat and population diversity of the Imnaha River canyon offers unparalleled opportunities for sport and viewing. It was one of the contributing factors to the National Recreation Area designation. These preliminary findings concur with the Congressional Record that both wildlife populations and habitat are outstandingly remarkable values.

HISTORIC AND PREHISTORIC

Criteria for Outstandingly Remarkable Rating (Historic)

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.

Criteria for Outstandingly Remarkable Rating (Prehistoric)

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 significance are sites or features listed or eligible for inclusion in the National Register of Historic Places.

Evaluation of the Present Situation

In 1986, a preliminary archaeological survey of the Dug Bar road number 4260 was conducted. The survey was undertaken in response to the proposed reconstruction of the road. Although preliminary in nature, the survey resulted in the identification of eighteen prehistoric archaeological sites and twelve historic sites. The prehistoric sites included prehistoric pit house villages, open camp sites and human burials. Historic sites are related to homesteading and later, ranching activities along the Imnaha River. It is important to note that while the survey involved the entire Dug Bar road, (Fence Creek to Dug Bar) the majority of the cultural resource sites occur along the Imnaha River (Horse Creek to Cow Creek). The Nee-Me-Poo National Historic trail parallels the Imnaha River from Corral to Cow Creek.

In the mid-1980's, cultural resource inventories along the Upper Imnaha River found extensive groves of aboriginally scarred ponderosa pine trees. Tree ring chronologies indicate these trees were peeled from the mid-1700's up until approximately 1877. It is quite probable this activity can be attributed to the Imnaha band of the Nez Perce Tribe.

When considered together, the prehistoric and historic cultural resources discussed above, represent the tangible evidence of prehistoric American Indian and historic Euro-American land use patterns and adaptations along the Imnaha River. Many of the sites possess exceptional scientific, and human interest (interpretive) values. They are therefore eligible for inclusion in the National Register of Historic Places.

The Mountain Chief Mine lies on the east side of the Imnaha River near its confluence with the Snake River. The Mountain Chief tunnel passes through a fault zone and opens onto both the Imnaha and Snake Rivers. It is the only mine tunnel known to connect two Scenic River corridors. Constructed ca. 1890, the mine and associated stone structures are listed on the National Register of Historic Places. The Eureka Bar complex lies on the west side of the Imnaha River opposite the mine tunnel. This complex, consisting of an immense mill foundation, hotel foundation and other historic features, is also listed on the National Register. Together, these sites represent one of the most significant historic site complexes within either the Imnaha or Snake River corridors.

Preliminary Finding

Much of the Imnaha River corridor has not been inventoried for the presence of archaeological resources. Those areas that have been surveyed were found to contain a dense concentration of sites. It can be safely assumed that many more sites are yet to be discovered. Extrapolating from the known sites that are either named to the National Register of Historic Places, or are eligible to be named, it appears the Imnaha River canyon contains a unique concentration of both historic and prehistoric sites. As a consequence of the known cultural resources present in the corridor, and surely to be strengthened by future discoveries, this preliminary finding has determined that cultural resources, both historic and prehistoric are of outstandingly remarkable value. This resource assessment raises the status of cultural resource values to the level of outstandingly remarkable. The Congressional Record did not include cultural resources in this category.

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

The entire Imnaha River drainage is within 1855 reservation lands that were ceded as a result of the 1863 Treaty between the U.S. Government and the Nez Perce Indian Tribe. Archaeological surveys and historic records testify to the fact that the Nez Perce Indians have used the Imnaha River area for many thousands of years. As was discussed in the Prehistoric Cultural Resource section of this assessment, there are many sites that attest to this fact. In more recent times, use by American Indians of the Imnaha River area has diminished to a few visits each year.

Preliminary Finding

The Imnaha River drainage is within ceded reservation lands of the Nez Perce Indians and is visited by members of this tribe. 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 Nez Perce Tribe. Traditional use and cultural values are found to be important in the Imnaha River corridor; however, these values were not found to be outstandingly remarkable as they are fairly typical of other rivers in the region.

TRADITIONAL USE, LIFESTYLE ADAPTATION

Criteria for Outstandingly Remarkable Rating

The river or area within the river corridor contains regionally unique or rare remnants of original Euro-American cultural adaptation. Traditional use(s) identified under this value category must be; 1) current uses that have been continuously present since early Euro-American settlement of the area; 2) representative of the early lifestyle with evidence of modernization being subordinate to the way the traditional use was carried out historically; 3) directly tied to uncommon or unique river characteristics/climate; and 4) compatible with the legislative intent of the National Wild and Scenic Rivers Act and river classification(s).

Evaluation of the Present Situation

For many thousands of years, up until the 1870's, the Nez Perce Indians occupied the Imnaha River Valley. Archaeological evidence and testimony from the Nez Perce Tribe indicate that the lower Imnaha River canyon was used as the winter camp of the Imnaha Band of the Nez Perce Tribe. One of the unique attributes of the Imnaha River Canyon was, and is, the close proximity of an ideal winter range (lower Imnaha River with mild winter) to an ideal summer range (upper Imnaha River) all within the same drainage. This idea situations also exists vertically within the canyon including the uplands above the canyon on either side. The yearly cycle for the Nez Perce Indians was to winter in the lower Imnaha and move up into the Wallowa Mountains, which includes the upper Imnaha River, or move vertically up the canyon to the uplands for the summer.

After the Nez Perce Tribe acquired horses, the Imnaha Valley became additionally important for wintering their livestock. The excellent productivity of this canyon grassland, in combination with the availability for grazing during the winter, annually sustained the tribe's horses through the winter.

Through trial and error the early homesteaders soon learned, as the Nez Perce had, that the best use of the Imnaha River drainage was to use the lower Imnaha valley for winter range and the upper

Imnaha River for summer range. What developed is a part of history which continues much the same way today.

The mild climate of the lower Imnaha River was not only desirable for wintering livestock, but also for raising fruits and vegetables. The combination of a fertile valley bottom, long growing season, and available irrigation water soon produced some of the best (and most dependable) fruit and vegetables in the geographic region. At first, the gardens and orchards were planted to provide self-sufficiency, which was necessary in this remote location. As it became obvious that the Imnaha Valley could produce food items that were impossible to grow outside the area, valley residents increased production. Families from the surrounding high mountain plateaus and valleys would travel to the Imnaha River to pick and process fruit and vegetables that otherwise would have been unavailable or prohibitively expensive. During the homesteading era, small family farms and ranches were built in nearly every suitable part of the Imnaha River Valley.

Homesteading declined by World War I and a process of consolidation began. The economy of the post-war period favored larger operations. Inflation and a changing marketplace forced ranchers to expand or to sell out. By the 1930's this led to a much smaller number of sheep and cattle operations.

Present day land use patterns show few noticeable changes from the mosaic of farms and ranches that developed between World War I and World War II. Properties still change ownership but many descendants of the original settlers remain in the Imnaha Valley. While some new structures have appeared, many original barns and houses remain, providing a vigorous reminder of the "Old West." Few changes to the lifestyle has occurred over time due to the character of the river canyon itself. The narrow canyon, rugged terrain, and close proximity between the summer and winter ranges, have not been conducive to many of the modern developments.

Congress, when designating the Hells Canyon NRA, recognized the unique Euro-American lifestyle that had developed and still continues in this area. Both the Act and the Comprehensive Management Plan for Hells Canyon recognizes the uniqueness of the area and associated lifestyles.

Preliminary Finding

The uniqueness of this traditional use is derived from the river related climatic and geographic conditions that has suspended in time a part of history. Adding to the uniqueness of this traditional use in the Imnaha Valley is the reality that similar areas have ceased to provide this important land use or have modernized to a point that no longer represents the traditional use.

The Nez Perce and later the Euro-Americans adapted to what the river corridor had to offer. Although the Nez Perce lifestyle is not evident in the Imnaha River, except through historical and prehistorical sites, the Euro-American traditional lifestyle is still very visible.

The Western farm and ranch lifestyle is to the Imnaha River what the Cajun hunting and fishing lifestyle is to the Mississippi River Delta. Over a time period of many generations, the pioneers of both areas developed a lifestyle that adapted to the given environment.

The values and uniqueness of both the Imnaha River Valley and the local lifestyles are recognized nationally. The Act which created the Hells Canyon National Recreation Area (within which most of the Imnaha Wild and Scenic River is located) states the following:

> **Section 7.** **....the Secretary shall administer the recreation area....in a manner compatible with the following objectives:**

.....

(6) preservation and restoration of historic sites associated with and typifying the economic and social history of the region and the American West;

Section 13. Ranching, grazing, farming, timber harvesting, and the occupation of homes and lands associated therewith, as they exist on the date of enactment of this Act, are recognized as traditional and valid uses of the recreation area.

The Imnaha River canyon represents a living vestige typifying the economic and social history of the region and the American West. It is very difficult to describe the mystique which glorifies the frontier cowboy west that is so important to the American psyche. More specifically, and worthy of recognition and protection, is the fact that the Imnaha River setting is a unique remnant of Euro-American adaptation of the mountainous inland Northwest. The findings documented in this Resource Assessment have determined that Traditional Use-Lifestyle Adaptation is a value that meets the legislative intent of "historical, cultural or other similar value," of the Wild and Scenic Rivers Act and therefore is an Outstandingly Remarkable Value of the Imnaha Wild and Scenic River.

VEGETATION/BOTANIC

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

The Imnaha River comprises three distinct geological/elevational zones which define, to a large degree, the composition of the vegetation as well as some of the unique plant species found along its course.

The headwaters and upper reaches of the Imnaha (above Indian Crossing) are dominated by limestone and metavolcanic rock which support subalpine plant communities. These communities are dominated by subalpine fir (Abies lasiocarpa) and Engelmann spruce (Picea engelmannii). Associated with the limestone of the South Fork of the river, are a number of species endemic to the Wallowas, that is, they are unique to this area and are found nowhere else. These include fraternal paintbrush, Castilleja fraterna, Robbin's milkvetch, Astragalus robbinsii var. alpiniformis and a buckwheat species, Eriogonum scopulorum. In addition, green spleenwort, Asplenium viride, a fern with a circumboreal distribution is rarely found over its range. With the exception of Robbin's milkvetch, these species are classified as threatened or endangered by the Oregon Natural Heritage Program.

The middle reaches (Imnaha to Indian Crossing) include those areas dominated by volcanic geomorphology and forest of grand fir, Abies grandis, Douglas-fir, Pseudotsuga menziesii and ponderosa pine, Pinus ponderosa. The Wallowa primrose, Primula cusickiana, an endemic of northeast Oregon and adjacent Idaho can be found here. Oregon bolandra, Bolandra oregana is found in the Columbia River Gorge and is disjunct in Wallowa County meaning it is separated from the main population. Both of these species are found within the Imnaha W&SR corridor and both are classified as threatened or endangered by the Oregon Natural Heritage Program.

The lower reaches of the Imnaha (below Imnaha) are rich in rare and endemic plant species. Macfarlane's four-o'clock, Mirabilis macfarlanei, was first described in 1936, a relative late-comer to the botanical world. It was named in honor of Ed MacFarlane, the Snake River boat captain who pointed out the species to botanists Reed Rollins and Lincoln Constance who then went on to describe and name it. The four-o'clock also has the distinction of being the only plant species on National Forests in Region 6 listed under the Endangered Species Act. Of the fifteen populations known, two occur within the Imnaha W&SR corridor.

Geyer's onion, Allium geyeri, Fee's cheilanthes, Cheilanthes feei and Hazel's leptodactylon, Leptodactylon pungens var. hazeliae all occur within the Imnaha W&SR corridor and are listed as either threatened or endangered in Oregon. In addition, there are several species which are locally common, but endemic to the lower Imnaha and Snake drainages. These include the Snake River phlox and Snake River lomatium, Phlox colubrina and Lomatium serpentinum as well as a variety of the wax current found only in this area, Ribes cereum var. colubrinum.

Preliminary Finding

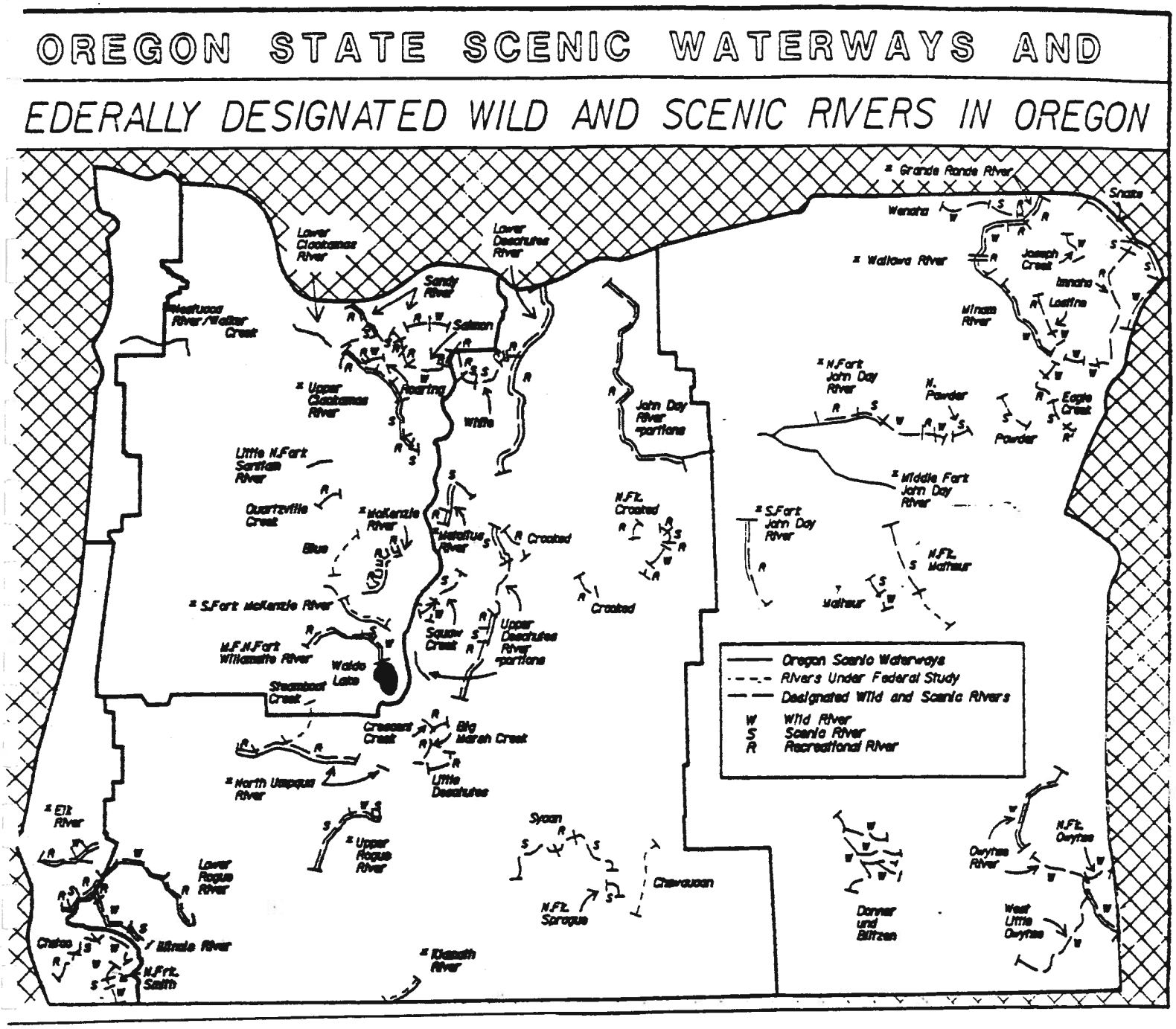
The Imnaha River drainage contains no less than thirteen rare and/or endemic plant species including the only federally listed plant species in Region 6. Unique plant communities are found within the lower reaches of the river as well as those upper reaches of the river where limestone is abundant. Most of these species are found in other drainages as well, although often they are limited to only one or two others. The Imnaha is unique in that all of the plant species or communities mentioned are found within one drainage. This occurs nowhere else and points to the great diversity of vegetation along the Imnaha's course due to the range of elevation and geomorphological features. For these reasons this analysis has determined that the vegetation/botanical character is an Outstandingly Remarkable Value of the Imnaha Wild and Scenic River.

OTHER SIMILAR VALUES

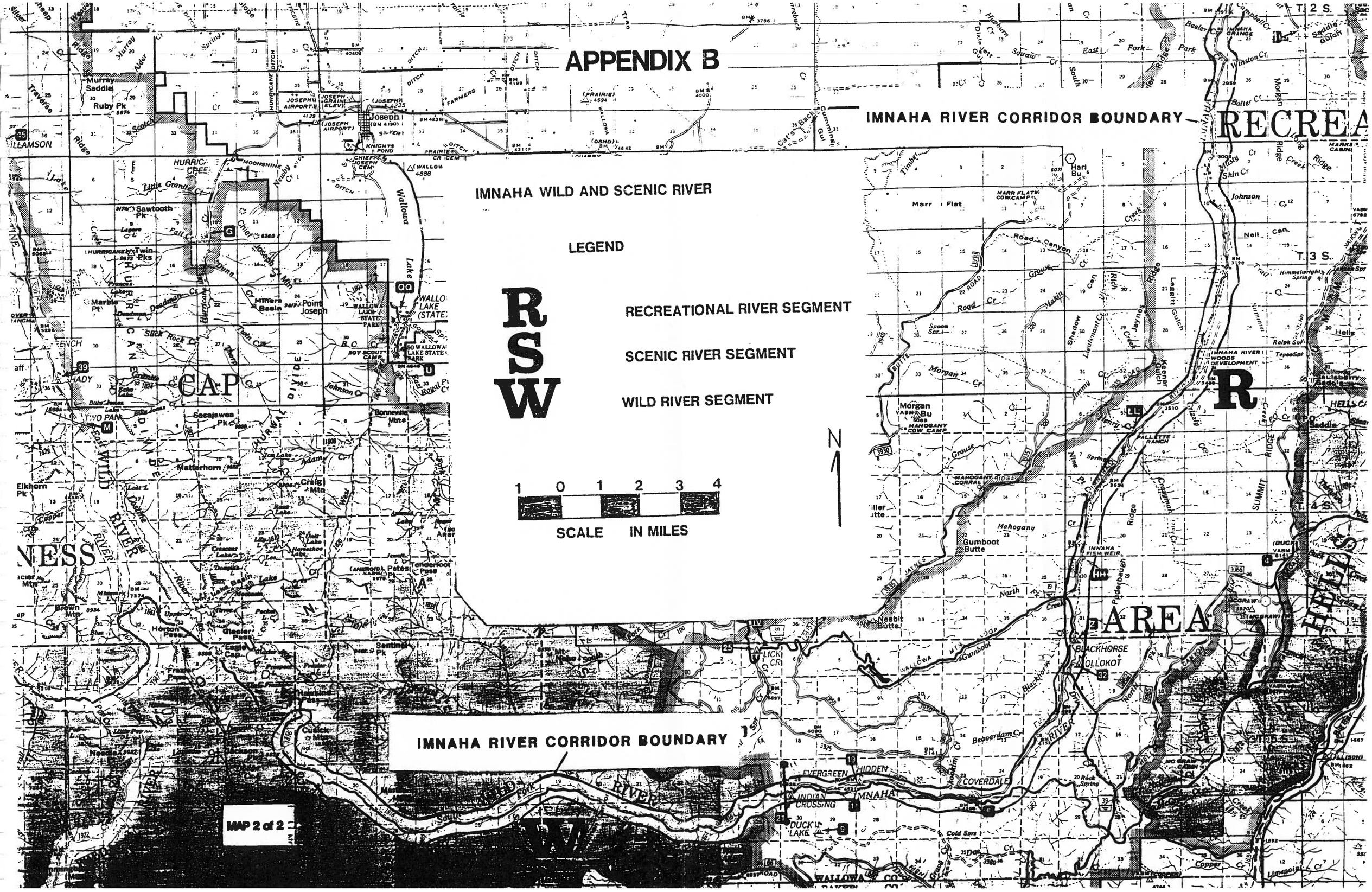
Additional river-related values were considered during the assessment process, including but not limited to hydrologic, and ecologic resources. Preliminary information on these "other similar values" was considered but did not warrant the need to fully develop separate sections on additional values. Hydrologic, and ecologic values are included in the discussions of the major value areas (See preceding sections, specifically scenery, fisheries, and wildlife values). The assessments of river-related values will be completed upon receiving the results of subject expert solicitations for information and significance.

APPENDIX A

OREGON SCORP PLANNING REGION
NUMBER 12
NORTHEAST OREGON



APPENDIX B


IMNAHA RIVER CORRIDOR BOUNDARY
IMNAHA WILD AND SCENIC RIVER
LEGEND
RSW
RECREATIONAL RIVER SEGMENT
SCENIC RIVER SEGMENT
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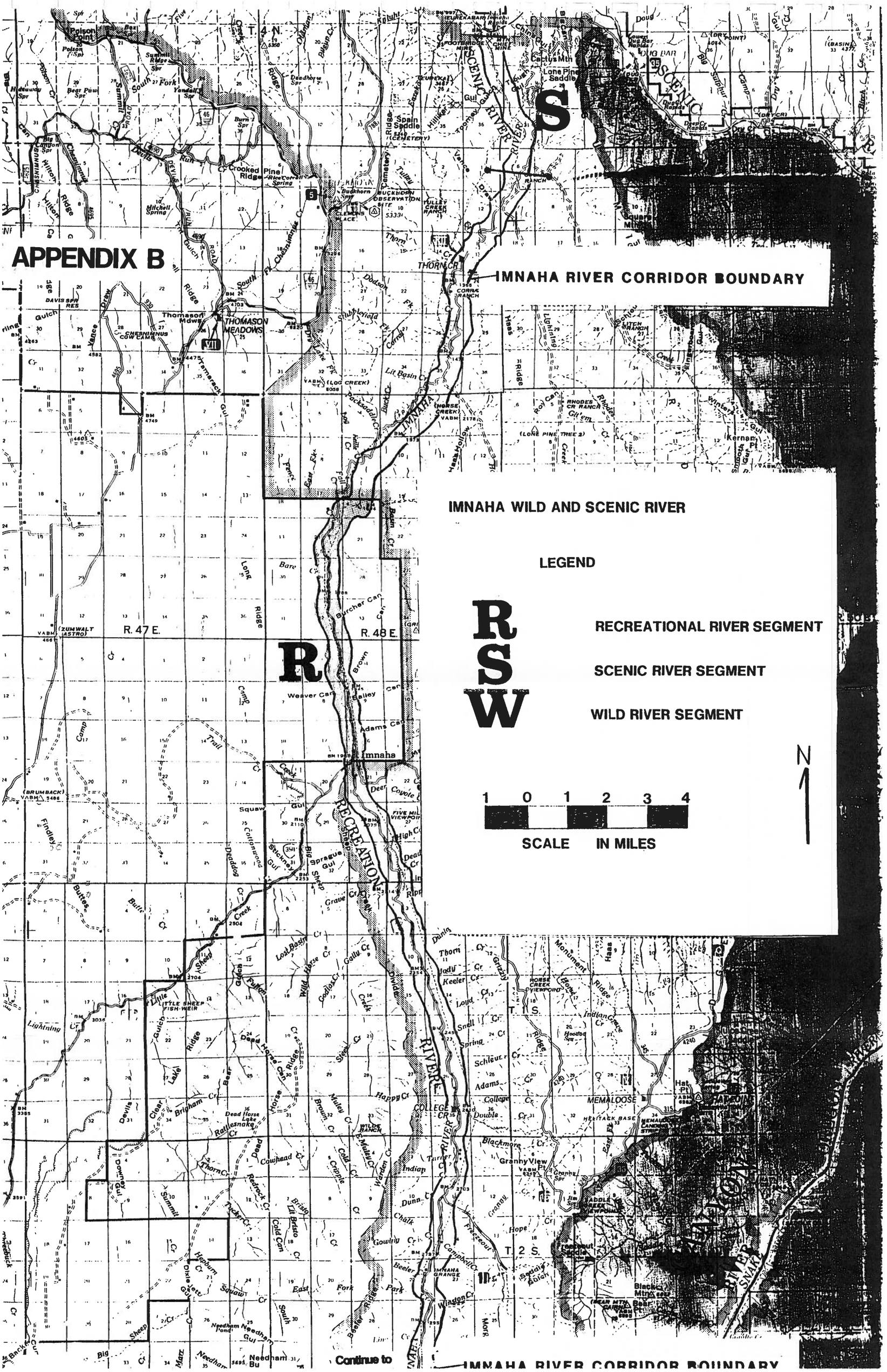
SCALE IN MILES
IMNAHA RIVER CORRIDOR BOUNDARY
MAP 2 of 2

APPENDIX B


IMNAHA RIVER CORRIDOR BOUNDARY
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