

NORTH UMPQUA RIVER Management Plan



A wild and scenic river management plan developed jointly by:

U. S. DEPT. OF AGRICULTURE
FOREST SERVICE
Pacific Northwest Region
Umpqua National Forest



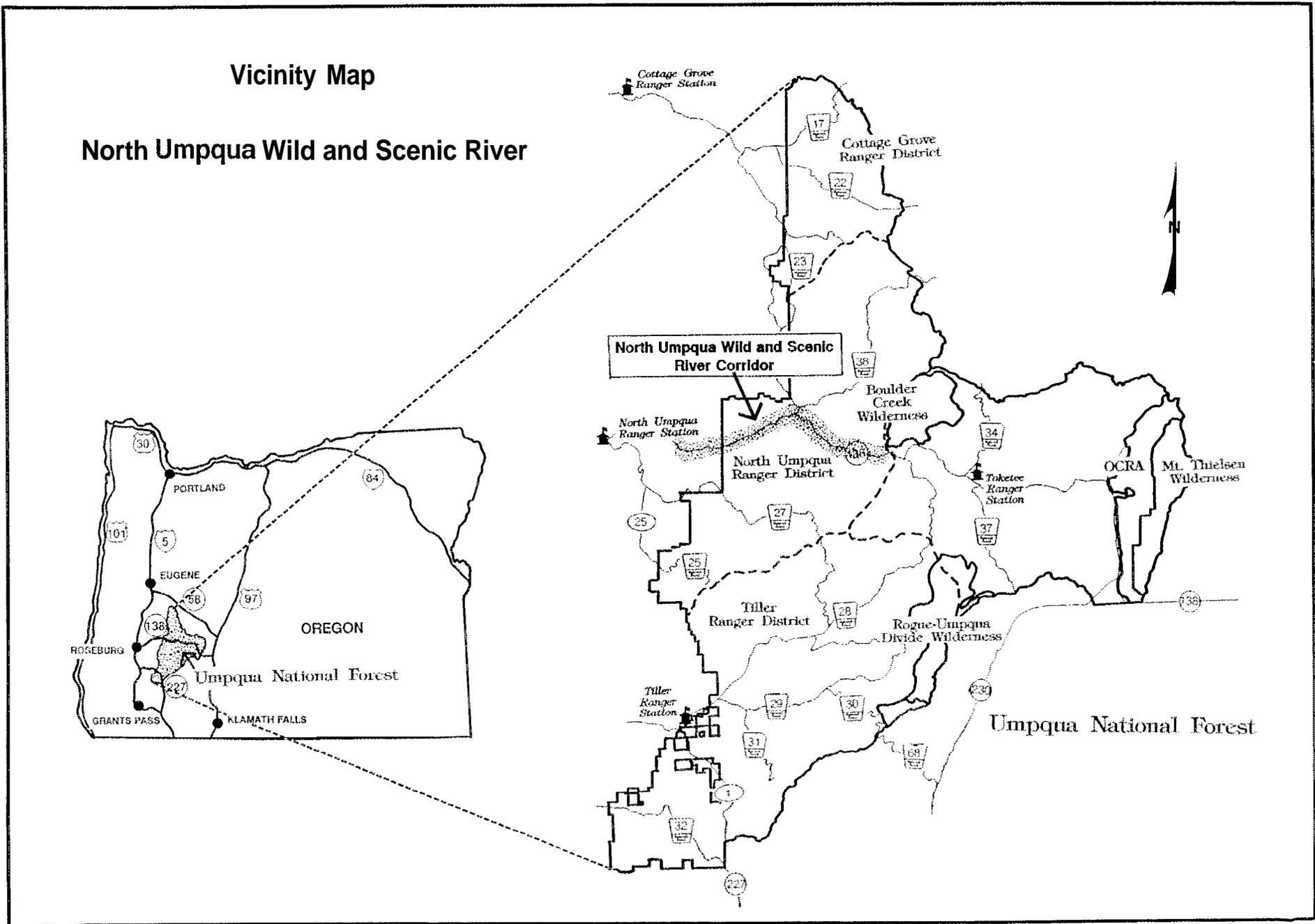
U.S. DEPT. OF THE INTERIOR
BUREAU OF LAND
MANAGEMENT
Roseburg District

OREGON STATE PARKS &
RECREATION DEPARTMENT

JULY 1992

Vicinity Map

North Umpqua Wild and Scenic River





July 28, 1992

Dear River Enthusiast:

Enclosed is a copy of the Management Plan for the North Umpqua Wild and Scenic River. Development of this plan has been a joint two year effort between the public, Umpqua National Forest, Bureau of Land Management, Oregon State Parks and Recreation Department, and Douglas County Planning Department. The primary purpose of this plan is to provide management direction for the Outstandingly Remarkable Values found within the River Corridor.

Specific elements of the plan include a desired future condition description, and standards and guidelines for recreation, fisheries, water, scenery, cultural, transportation, timber, and land acquisition. Also included is a monitoring plan that identifies the elements to be monitored throughout the life of the plan, and a list of possible projects that could be developed.

There is also a separate chapter that describes the State Scenic Waterway Program that includes river classifications and land management rules. This program will be adopted and implemented once it is approved by the State Parks Commission and State Water Resources Commission.

An Environmental Assessment has been completed which identifies issues and analyzes alternatives for management within the River Corridor. That document is on file at the Forest Supervisors Office in Roseburg, Oregon.

Should you have questions about the management of the North Umpqua Wild and Scenic River, contact Ron Murphy, North Umpqua Ranger District (503) 496-3532; or Dave Erickson, Roseburg BLM (503) 440-4930. For information about management of the State Scenic Waterway, call Gary Miniszewski, Oregon State Parks and Recreation Department (503) 3788378.

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North Umpqua River Management Plan

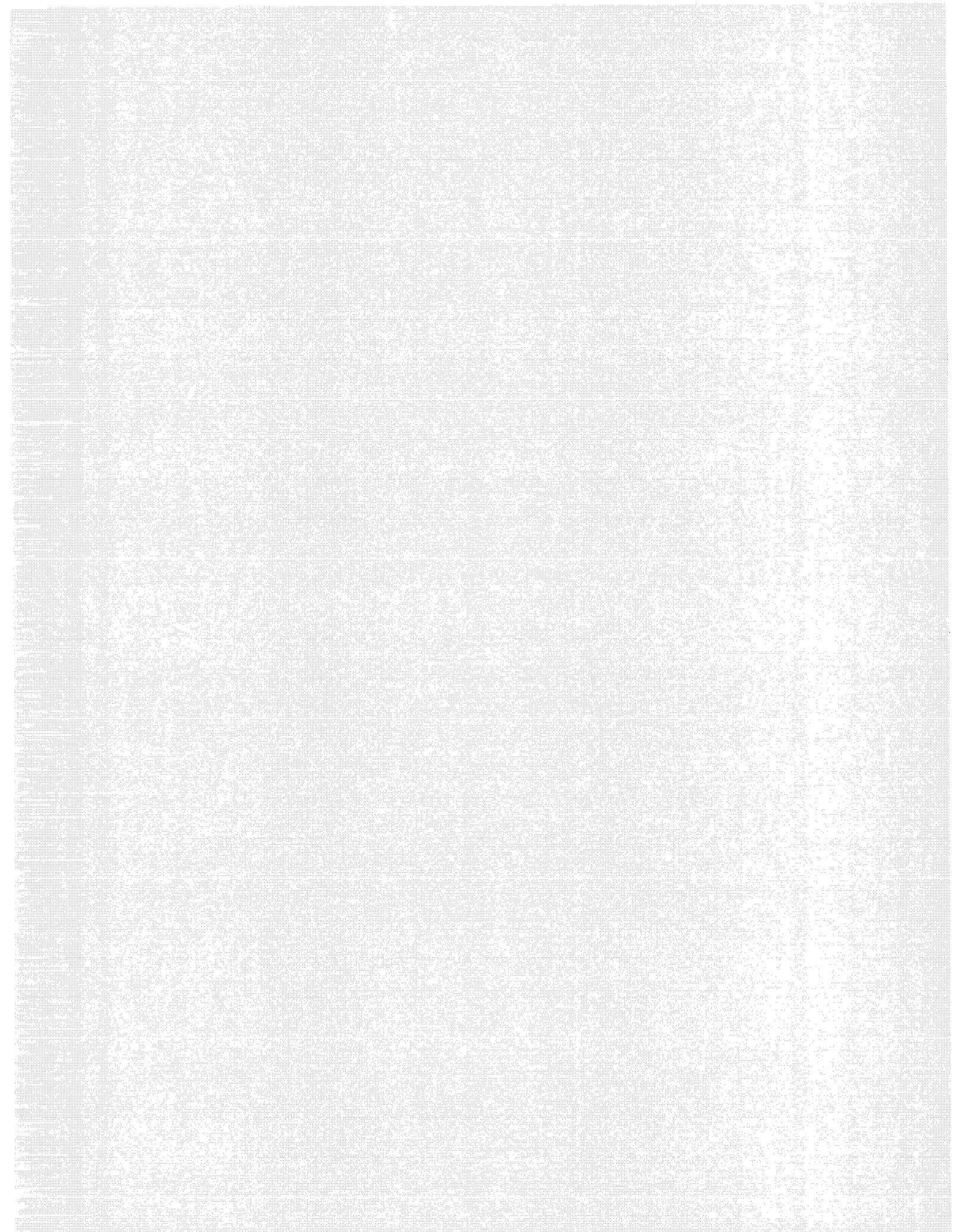
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CHAPTER I

Introduction



CHAPTER I Introduction

The North Umpqua River was designated a recreational river in the National Wild and Scenic River System in the Omnibus Oregon Wild and Scenic Rivers Act of 1988 (Omnibus Act). The Oregon Rivers initiative (1988 Ballot Measure) also designated the North Umpqua as an Oregon State Scenic Waterway. This river management plan establishes a comprehensive approach to manage the free-flowing natural character of the North Umpqua River. This plan is a result of a coordinated effort with many Federal, State and local agencies as well as concerned publics to identify a plan for the protection of river-related values. It establishes boundaries and details specific management direction and resource monitoring for each segment of the river. Covered under this plan are 33.8 miles of the North Umpqua River from Soda Springs powerhouse downstream to the river's confluence at Rock Creek.

Federal Program

Congress enacted the Wild and Scenic Rivers Act in 1968 in an attempt to balance the need to develop some of the nation's rivers for hydropower purposes and to retain some of our rivers in their natural state. With the passage of the Act (P.L. 90-542), Congress instituted a legislative program to study and protect free-flowing river segments by making them part of the National Wild and Scenic River system. Congress did not intend to protect every remaining American river segment through the national rivers system, but rather sought to conserve a representative sample of many of our most important natural and recreational rivers,

As defined by the Act, a National Wild and Scenic River must be undammed and must have at least one outstandingly remarkable resource value (ORV) to be included in the system. Rivers may be added to the system either by act of Congress or by order of the Secretary of Interior upon official request by a State.

Some of the underlying principles of the Act are:

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

State Program

The Oregon Scenic Waterway Act was established by a ballot initiative in 1970. The original Oregon Scenic Waterways system created by the Act included 496 free-flowing miles of six rivers.

Rivers can be added to the system through designation by the Governor or the legislature. Such actions have added significant mileage to five rivers since passage of the original Act.

Rivers can also be added to the system by the citizens of Oregon. In 1988, Oregon voters passed the Oregon Rivers Initiative (Ballot Measure 7), which added 573 river miles to the system. There is now one lake and segments of 19 rivers (1,148 miles) in the State Scenic Waterway system.

Scenic Waterways are administered under the authority of the Oregon State Parks and Recreation Commission. General administrative rules have been adopted to govern the program (see Appendix G). In addition to the general rules, specific rules are generated for the management of each river in the system. These rules are created through the management planning process and are tailored to the actions necessary to maintain the unique character of the designated river corridor. Management responsibilities are also assigned under the Act. These responsibilities are highlighted under Intergovernmental Relationships in this chapter.

Historical Perspective

Southwestern Oregon has a rich and varied history that has helped shape the lifestyle and people of the area. The aboriginal people that inhabited the North Umpqua Sub-basin to the high Cascades were known as the Umpquas. People of the Umpqua attuned their cultural activities to climatic, flora and faunal fluctuations. Their subsistence activities relied upon the edible plants and animals in rivers, forested zones and open ranges. Settlement ranged from semi-permanent villages located on terraces near stream confluences to temporary encampments at river narrow or higher streams for seasonal use of fish, game and plants.

Early explorations initially brought Euro-American interests to the area during the 16th century. Following the Lewis and Clark Expedition, the fur traders of the American Pacific Fur and Hudson's Bay Companies explored and trapped the central and coastal portions of the Umpqua drainage system. Although primarily interested in beaver pelts, these fur companies also promoted permanent settlement and introduced significant change among aboriginal populations.

By the mid 1830's, the first emigrant wagons crossed the Great Plains, bound for the Willamette Valley. The first settlers in Lane and Douglas Counties came in the mid 1840's. Subsequently, the Donation Land Act of 1850 initiated a "rush" of emigrants to western Oregon. Settlement in the Umpqua Valley was at first restricted to the lower central valley, but soon expanded outward, generally following stream courses. By 1855, the middle portions of the North Umpqua were being homesteaded, primarily in the vicinity of what is now known as Glide. The chief attraction for this expansion toward the study area was the potential for discovering mineral wealth. Mines were being developed in the headwaters of Steamboat Creek by

1860 and a road was surveyed into the area in 1863. Isolated areas produced moderate amounts of gold, but great fortunes were not made. The real significance of these endeavors was the discovery of resources and travel routes which have proven to be far more valuable than all the gold that was removed.

Transportation systems were key factors in the development and continued survival of many communities. A wagon road from Roseburg to near present-day Idleyld Park was completed in 1877. This provided an important link with the central valley and eventually became a trailhead. The Oregon and California Railroad began construction in the mid 1870's. Financed primarily through grants of public domain lands, the project became mired in fraud, disputes, and delays. It took nearly a decade to reach Roseburg, and eventually a large portion of the original grant was revested to the Federal government: it is now managed by the Bureau of Land Management. The coming of the railroad did boost the economic potential of the area. The interior valleys of Oregon were linked to much larger markets for their products. Gradually, local commerce evolved beyond a subsistence base which in turn brought a new wave of emigrants to the area.

Predominant in the economic development of the southwestern Oregon region have been agriculture, mining, fishing, forestry, and later recreation initially, agriculture was subsistence oriented; but through time, the importance of agriculture increased and expanded its base to livestock, wheat and grains, fruits, nuts, and more recently, horticultural specialty crops,

A large commercial fishing industry developed in the lower Umpqua River near Reedsport in the 1870's and continued until the 1940's. Species included shad, striped bass, steelhead, and coho and chinook salmon. Each year hundreds of thousands of salmon were caught, testament to the exceptional productivity of the Umpqua River basin

The timber industry has been of paramount importance in the economy of the area. The native trees were utilized by the early trappers, miners, and settlers for basic subsistence needs. By the early 1850's, sawmills were scattered throughout the area and commercial ventures became somewhat profitable. Townsites were established near the mills and transportation systems developed. By the early 1900's, the timber industry began to develop a substantial market outside the area, relying on the railroad system for transportation of lumber products. The economic boom following World War II had a positive influence on the timber industry in the Northwest. Employment and production reached their highest levels during the 1950's. Today, the economy of the local area still remains strongly dependent upon the timber industry.

Recreation is another component of the area's economy which has gradually expanded, initially, hot springs, hunting, fishing, and camping were the principal forest attractions to residents and tourists. The 1920's saw the development of a few remote resorts and lakes, especially Diamond Lake. Of special historical interest is the Steamboat area within the North Umpqua River Corridor. Visitors were initially drawn to the area because of the excellent fish resources, The first known fish



camp constructed on the river in the 1920's was located in this vicinity. During the 1930's, Federal and State actions, often assisted by the Civilian Conservation Corps, enhanced the recreation potential by establishing campground facilities throughout southwestern Oregon, especially in the National Forests. After World War II came a surge of recreation demand for hunting, fishing, camping, boating, and many other recreational pursuits. Recently, new recreation interests have expanded to include downhill and cross-country skiing, photography, river boating, and many other outdoor pursuits. The development and improvement of the highway and forest road systems in western Oregon have also contributed to increased recreation use along the North Umpqua River and surrounding areas. Recreation demand is projected to continue to increase over the next decade.

Employment in the area has followed the fortunes of the primary industries. Recent changes in southwestern Oregon have produced a shift away from primary production jobs toward service-related jobs. The future will also very likely bring a continually reduced share of employment directly tied to natural resource production. It is expected, however, that the quality of life factors (i.e., climate, recreation opportunities, etc.) associated with southwestern Oregon will continue to attract new industries and people to this area.

Two major population centers are within a 3-hour drive of the North Umpqua River. The larger is the Eugene-Springfield area in Lane County to the north, while the Medford area in Jackson County is to the south. In addition, the complex of cities in central Douglas County, including Roseburg, Winston, Sutherlin, and Oakland, contain significant populations. These nearby population centers are largely dependent on natural resource-related industries and employment. The three counties (Lane, Douglas, and Jackson) rely on timber receipts, agriculture, and recreation for the majority of their revenue. The prospects for employment and an attractive environment have led to a population growth of over 100 percent in the last 30 years. This tremendous growth occurred when the national and State economies were strong, but surprisingly the growth has continued even when the economy has not been so strong. The rate of growth has slowed somewhat, but these three counties continue to grow at a 5 percent higher rate than that for the State as a whole.

Past land Management Planning direction and public involvement decisions that affect the corridor have been helpful in the successful management of the corridor. In 1978, the Umpqua National Forest Land Management Plan stated that the river was to be managed "as if it were" a Wild and Scenic River. In the late 1970's, the Bureau of Land Management (BLM) Resource Management Plan identified the river corridor as an area of critical environmental concern. In the early 1980's, the

Douglas County Comprehensive Plan and Land Use Development ordinance identified the need to protect the scenic qualities of the river corridor.

In the late 1970's, Oregon State Parks conducted a State Scenic Waterway Study on the North Umpqua. While the river was found to qualify for designation, the Transportation Commission did not recommend designation. Subsequently, a state law was passed prohibiting dams and hydroelectric development on the river.

In 1980, the Forest Service and BLM began working closely with various recreation user groups to develop the voluntary river etiquette guidelines that have been used for the past 12 years. Also, a special use permit system has been in effect for those who guide on the river.

Plan Organization

The river management plan is organized in 5 separate parts. Chapter I is an introduction and overview. Chapter II is a description of the management direction that will be applied to the river area. Chapter III identifies the various resource elements that will be monitored within the corridor area, Chapter IV discusses the County Comprehensive Planning regulations and Chapter V discusses the State Scenic Waterway Program. Appendix A identifies the projects to be implemented, Appendix B shows potential land exchange, Appendix C displays Interpretive Opportunities, Appendix D contains the List of Preparers, and Appendix E discusses historical water monitoring. Appendix F is the Memorandum of Understanding between the managing agencies, and Appendix G identifies the State Scenic Waterway General Administration Rules. Appendix H is the Glossary and Appendix I is the List of References.

Method of Plan Preparation

This plan was prepared using an interdisciplinary team approach (a list of river planning team members and resource specialists is included in Appendix D). The planning process provided opportunities for involvement of State and local governments and interested citizens in accordance with the National Environmental Policy Act (NEPA) and the Wild and Scenic Rivers Act of 1968, including all amendments. The plan also meets the requirements of the Oregon Scenic Waterway Act and Oregon Administrative Practices Act.

Existing Land Management Plans

The land management plans for Douglas County, the Roseburg District of the BLM and the Umpqua National Forest all recognize special values for the North Umpqua River and the adjacent lands. The Douglas County Comprehensive Plan focuses on the recreational and scenic qualities of the river corridor as being outstanding. Direction for implementation of the plan is contained in the County land use and development ordinance, which specifies acceptable uses for lands within the County. Four zoning categories and two overlays are applied to the area under consideration. Eighty-four percent of the private land within the 1/4 mile boundary (6 per cent of the total area) is zoned as Timberland Resource, a designation which emphasizes the protection of lands for the continued production of forest products and related uses. Another 10 percent of the private land (less

than 1 per cent of the total area) is classified as Tourist Commercial which is intended to provide for commercial uses oriented to the tourist and recreating public. Six percent is designated Rural Residential-5, which is intended to provide for low-density, rural homesites. The private land from Rock Creek to the National Forest boundary is also constrained by the "North Umpqua Park and Public Recreation Overlay." This classification constrains any underlying uses which would detract from the park or recreational use, or aesthetic or visual values associated with the river corridor. The second overlay, which is referred to as an Architectural Overlay, is similar in purpose, but applies to non-resource uses only. It deals with design features such as landscaping, yard dimensions, methods of ingress and egress and related matters through a review and approval process for each proposed project within the river corridor.

The BFM plan designates the section of the river for 1/4 mile on each bank from Rock Creek to the National Forest boundary as an "Area of Critical Environmental Concern" (ACEC). The management objectives for the ACEC are to provide roaded natural recreation opportunities on the north bank of the river with an emphasis on motorized and non-motorized sightseeing, fishing, rafting, kayaking, canoeing, hiking, camping, and day use activities that occur in conjunction with these activities. Semi-primitive, non-motorized recreation opportunities will be provided on the south bank of the river with an emphasis on hiking, fishing, camping, canoeing, whitewater sports, equestrian travel, mountain biking, nature study, photography, and enjoyment of natural features,

The Land and Resource Management Plan for the Umpqua National Forest (FLRMP) designated the 1/4 mile river corridor within the National Forest as a Management Area. The Plan identifies various standards and guidelines that are applicable to the river area. The overall management emphasis is oriented towards protecting and enhancing the river values, The FLRMP also designated the North Umpqua Highway (Hwy. 138), which passes through the river corridor, as a transportation and visual corridor. The highway is part of a larger system that has been designated as a National Forest Scenic Byway.

Inter-Governmental Relationships

The Umpqua National Forest, Roseburg District BLM, and the State Parks and Recreation Department cooperated with a number of Federal, State, and local agencies in development of this plan. Coordination with additional agencies provided a comprehensive approach to management of the river and protection and enhancement of its associated values.

Oregon State agencies that have responsibilities related to the North Umpqua River are described below:

The Oregon State Parks and Recreation **Department** is responsible for administration of the State Scenic Waterways Program. Scenic Waterways are administered under the authority of the Oregon State Parks and Recreation Commission (ORS 390.805 to ORS 390-925). Administrative rules (OAR 736-40-005 to 736-40-095) have been adopted to govern the program, In addition to the general rules governing

the program, specific rules are generated for the management of each river segment in the system. These rules are created through the planning process to help maintain the existing character of the designated river corridor.

The Scenic Waterway Act and the Commission's rules require the evaluation of proposed land use changes within one-quarter mile from each side of the river for their potential impacts on aesthetic and scenic values, as viewed from the river. Private property owners wanting to build roads or houses, harvest timber, or carry out other similar projects, must provide written notification to the Oregon State Parks and Recreation Department. Parks evaluation of the project will be coordinated with other natural resource agencies (Federal and State) having regulatory responsibility, and with the local County jurisdiction. The Parks department relies on its river classification and land management rules for each river segment to determine whether the proposed project is incompatible or inconsistent with the designated classification. State Parks will work with the landowner to reach mutually satisfactory resolution of any conflicts. Where such a resolution cannot be reached, the Commission must decide, within one year of the original notification, whether to pay the property owner for the land or the development rights. If State Parks does not purchase the land or reach agreement with landowner within one year of the original proposal the landowner may proceed with the original proposal, unless the commission has instituted proceedings to acquire the land.

State Parks works closely with Federal agencies such as the US Forest Service, and the BLM to assure their actions are compatible with scenic waterway laws, rules, and resource management recommendations. In addition to working with Federal agencies, the State Parks Department works closely with County Planning Staff and other State agencies to insure development on private lands is compatible with the river environment (see Appendix G). State Parks is authorized to apply for instream water rights for scenic and recreational purposes.

Oregon Water Resource Department (**WRD**). WRD is responsible for the management and allocation of the state's water resources. A citizen body, the Water Resources Commission develops policy and has authority on various water related issues. These policies are included in basin programs. Sixteen of Oregon's 18 river basins have a basin program that is periodically updated. Basin programs generally classify the streams and lakes. The classifications include domestic, livestock, municipal, irrigation, power, industrial, mining, recreation wildlife and fish life cycle uses. The programs are adopted as administrative rules which reflect how water is currently used, and its future use and allocation.

The State Water Resources Board (predecessor to current Water Resources Commission) established restrictions on water appropriations from the North Umpqua River in 1958.

The Scenic Waterway act prohibits new dams, impoundments, and placer mining in Scenic Waterways and on tributary streams within Scenic Waterway boundaries. The Scenic Waterways Act requires Water Resources Commission concurrence on proposed land condemnations, new scenic waterway management plans and

scenic waterway additions proposed by State Parks and Recreation Department for designation by the governor, The Water Resources Commission must also assure its actions have no adverse effects on flows that support fish, wildlife and recreation in downstream Scenic Waterways. The Department issued a preliminary Draft Scenic Waterway Flow Assessment for the North Umpqua River in March, 1992.

WRD issues instream water rights to protect streamflows for public purposes. The only instream water rights presently held for the mainstem of the North Umpqua River are considerably downriver from the scenic waterway. Instream water rights can be granted in two ways: 1) by conversion from minimum perennial stream flows and 2) by application from the three state agencies: Department of Fish and Wildlife, Parks and Recreation Department, and Department of Environmental Quality.

Division of State Lands (DSL). DSL regulates removal, fill, or alteration of 50 cubic yards or more of material in all waterways (including lakes and wetlands) in the State. In Scenic Waterways, State Land Board approval is required for any alteration of the bed and/or banks of a river or wetlands within the Scenic Waterway, regardless of the amount of material moved. The DSL is also responsible for managing certain lands for their maximum benefit to the Common School Fund, consistent with best conservation practices, and public trust values.

Oregon Department of Fish and Wildlife (ODFW). The ODFW is charged with management and protection of Oregon's fish and wildlife resources and for recommending seasons, methods, and bag limits for recreational and commercial take of the resources. The ODFW prepares fish and wildlife management plans which are implemented through administrative rules. The North Umpqua River Fish Management Plan is designed to solicit effective management of the fish resources in that river. It is prepared to inform interested citizens and agencies of management objectives and promote their input in choosing the appropriate courses of action. This plan is consistent with the goals published in the *Comprehensive Plan for Production and Management of Oregon's Anadromous Salmon and Trout*. This plan is also consistent with the Oregon Department of Fish and Wildlife's wild fish management policy.

ODFW is authorized to apply for instream water rights for fish and wildlife purposes, and has applied for instream water rights on the North Umpqua River.

Department of Land Conservation and Development (DLCD). The DLCD works with cities, counties, and State agencies to develop and maintain Oregon's comprehensive land use plans and regulations. One aspect of these responsibilities is to ensure that jurisdictions have included State Scenic Waterways in their Goal 5 (Natural Resources) planning. To comply with Goal 5, counties must inventory the resource, identify conflicting uses which could impact the resource, and develop implementation strategies to resolve conflicting uses as identified. This would include a program to notify State Parks of proposed changes in land use within

scenic river corridors. The resources identified in the inventory are then required to be protected through mandatory plans, policies, and zoning requirements.

Department of Environmental Quality (DEQ). The DEQ is responsible for the implementation of the Statewide Water Quality Management Plan, which establishes standards of water quality for each of WRD's 18 basins in Oregon. Beneficial uses of rivers and streams that are to be protected by DEQ are: public, private, and industrial water supplies, irrigation, livestock watering, anadromous fish passage, salmonid rearing and spawning, resident fish and aquatic life, wildlife and hunting, fishing, boating, and aesthetic quality. Dissolved oxygen is to be kept to the highest possible levels. Temperature, bacteria, dissolved chemical substances, and toxic material are to be maintained at the lowest possible levels. The DEQ antidegradation policy states that high quality waters are to be protected from degradation unless the Environmental Quality Commission finds it necessary to make an exception based on economic or social needs.

The Oregon Department of Environmental Quality has recently revised the State antidegradation policy. DEQ will be developing a guidance document describing the process to follow in identifying waters it will consider for nomination as outstanding resource waters. The North Umpqua River has not, at this time, been evaluated for outstanding resource waters designation,

DEQ regulates direct discharges of waste into waters of the State. Industrial and municipal dischargers must obtain a permit and comply with permit provisions for protection of water quality. DEQ also has standards and procedures for on-site sewage systems, issues permits for dredge and fill of wetlands, and maintains water quality monitoring stations throughout Oregon.

Department of Forestry (**DOF**). DOF responsibilities include fire protection of 16 million acres of private, State, and Federal forests, detection and control of forest pests and forest tree diseases on State and private lands, and the management and rehabilitation of 785,000 acres of State-owned forest lands. DOF also administers the Oregon Forest Practices Act (OFPA), adopted in 1971 and most recently amended in 1991, which is governed by rules developed by the Board of Forestry. The purpose of the Act and rules is to encourage and enhance the growth and harvesting of trees while providing for the overall maintenance of air, scenery, water and soil resources, and fish and wildlife resources. Forest practice rules regulate reforestation, road construction and maintenance, harvesting, application of chemicals, and disposal of slash.

Included within the OFPA are rules designed to protect "riparian management areas." Under these rules, a proposed commercial forest operation within the riparian management area of a Class I stream must be described in a written plan. The OFPA does not contain special requirements for operations within a State Scenic Waterway. These plans are submitted to the DOF for approval. Written plans required for the purposes of the OFPA must describe how the operation will be conducted to meet the minimum standards prescribed by the Act.

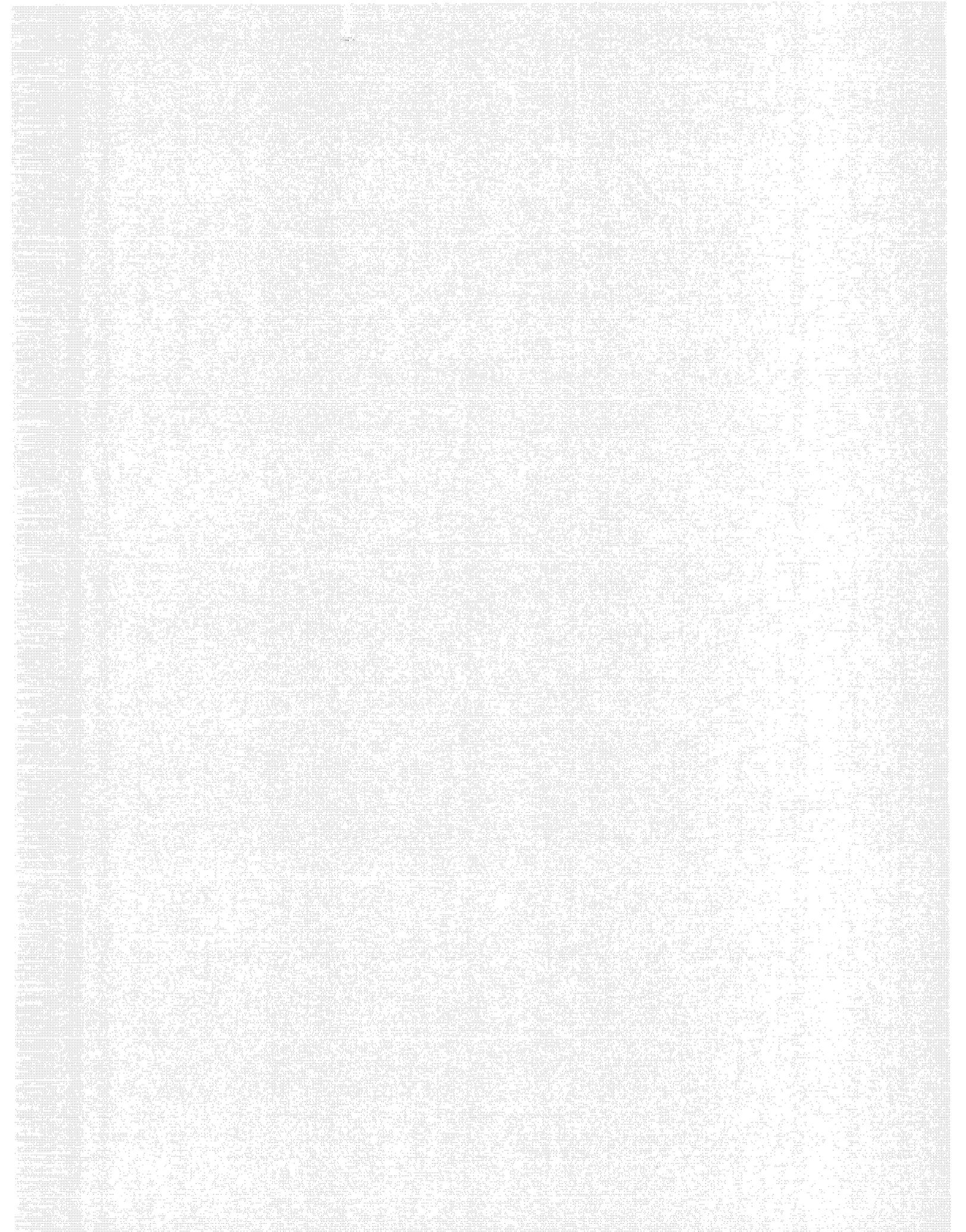
in these sensitive areas, close coordination is required. For operations that occur within the State Scenic Waterways system, DOF directive (S-1 -0-002) outlines specific procedures for coordinating the Forest Practices Program and the Oregon Scenic Waterways Program on private lands. This coordination is designed to facilitate the involvement of DOF and State Parks personnel with the affected landowners and operators. The goal is to keep all parties informed of obligations, requirements, and planned activities so as to make the whole process, from planning to accomplishment, as efficient and effective as possible.

Department of Transportation (ODOT), Highway Division. ODOT is responsible for planning, designing, reconstructing, signing, and maintaining State highways for the safety and use by the public. ODOT is also responsible for the management of motor vehicle use on State Highways. These responsibilities include the North Umpqua Highway (CR 138), a portion of which is located within the North Umpqua Wild and Scenic River corridor. A Memorandum of Understanding approved by the State Highway Engineer and Regional Forester for the Pacific Northwest Region, Forest Service provides the basis for coordinating issues related to State highways through National Forest lands. ODOT does not have special requirements for highways within State Scenic Waterways. However, ODOT must prepare a section 4(f) evaluation under the Federal-Aid Highway Act of 1968 for any federally funded highway project which requires the use of any publicly owned land used as a recreation area, beyond the existing highway improvement. Since the North Umpqua Wild and Scenic River is classified as a recreation river, it has been determined that the 4(f) requirement is applicable to the North Umpqua Wild and Scenic River Corridor.

State Marine Board. The State Marine Board registers motorized craft, establishes equipment and operating requirements, and regulates the use of boats on Oregon waters, including regulations for boats and boat use on Scenic Waterways. In accordance with OAR 23X30-030, permit systems for commercial and noncommercial boating activities can be established by the State Marine Board on both state Scenic Waterways and federal wild and scenic rivers.

The Marine Board provides training to sheriffs and the Oregon State Police, who have the responsibility for patrolling Oregon's waterways to enforce boating laws. All outdoor hunting, fishing, and rafting guides must register with the Marine Board.

CHAPTER II
Management Direction
for Federal Lands



CHAPTER II Management Direction for Federal Lands

Relationship of this Plan to the Forest Plan and Resource Management Plan

The Wild and Scenic Rivers Act requires that a comprehensive River Management Plan be prepared to provide for the protection of river values. The Act also requires that the plan address resource protection, development of lands and facilities, user capacities, and other management practices as needed. The Act directs that the River Management Plan shall be coordinated with and may be incorporated into resource management planning for affected adjacent federal lands,

The North Umpqua River Management Plan will amend the Umpqua Land and Resource Management Plan. The Forest Plan provides direction for all resource management programs, practices, uses, and protection measures on the Umpqua National Forest. Since the Forest Plan is already in effect, it will be amended to incorporate the River Management Plan. The Bureau of Land Management Roseburg District (BLM) Resource Management Plan (RMP) is scheduled for completion in 1993. The River Management Plan will be incorporated into the RMP at that time.

Planning for National Forests has two levels. The first level of planning, the programmatic level, is the Forest Plan and Resource Management Plan. This level provides forest-wide and area-specific standards and guidelines. The River Management Plan is in this category. The second level of planning is site-specific project planning. Implementation of any of the specific projects identified in this plan must go through this level of NEPA analysis,

Outstandingly Remarkable Values

The following is a summary of the Outstandingly Remarkable Values (ORV's) that are incorporated within this document,

The Resource Assessment validated the Congressional Record that states fish, water, recreation, and scenery are Outstandingly Remarkable Values (ORV's), in the Federal Wild and Scenic Corridor and Special Attributes in the State Scenic Waterway. In addition, the Resource Assessment recognized cultural resources as an ORV within the North Umpqua Wild and Scenic Corridor.

Fisheries

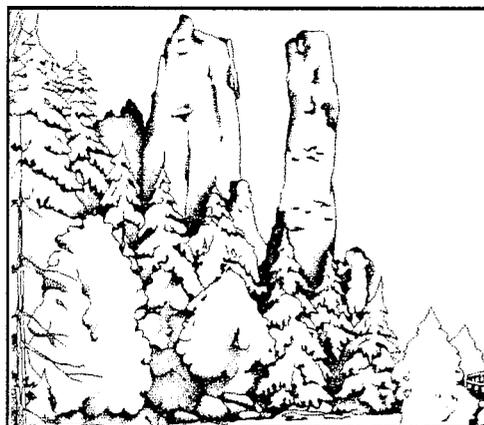
Historically, the combination of large summer run steelhead, fly-angling only restriction, and majestic scenery has drawn anglers from all over the world. The river serves as needed habitat for a variety of resident and anadromous fish species including summer and winter steelhead, fall and spring chinook, coho and searun cutthroat trout, and is distinguished from other rivers by the large and consistent numbers of native (non-hatchery) fish in the run. The North Umpqua summer steelhead fishery is considered to be one of the most outstanding on the West Coast.

Water Quality and Quantity	<p>The North Umpqua River sustains a dependable flow of high quality water. Several components combine to produce the high water quality of the river. These attributes are: low turbidity (except during peak flow periods), low levels of contaminants and pollutants, cool water temperatures, and stable minimum instream flows. The water quality and quantity of the North Umpqua River is the foundation for the other outstandingly remarkable values. The North Umpqua River produces a steady flow sufficient for both recreational uses and the maintenance of fish and aquatic life.</p>
Recreation	<p>The area is readily accessible to a broad segment of the population and provides a variety of river-related recreational opportunities such as non-motorized boating activities, fly angling, developed and dispersed camping, day use picnicking and swimming, horseback riding, hiking, sightseeing, bicycling, photography, nature study, and scenic driving. The corridor route (Highway 138) serves as the primary access to Diamond Lake Recreation Area and Crater Lake National Park. Visitors from all over the world travel through the North Umpqua River Corridor to enjoy these major destination attractions. This highway has received both national and regional recognition for its exceptional scenic quality and accessibility to a myriad of recreational and interpretive opportunities.</p>
Scenic	<p>This truly distinctive canyon landscape is generally characterized by the combination of clear jade green rushing water, vertical rock cliffs and spires within a mosaic of mountain meadows and Douglas-fir/western hemlock forests. Adding to the natural scenic quality of the North Umpqua Wild and Scenic Corridor, are the locations of numerous prominent geologic features of columnar basalt, large basalt rock cliffs, boulders and spires which are currently managed as the Umpqua Rocks Special Geologic Area. Few river systems in the region expose as much of the volcanic and geologic history of the formation of the Cascades in one nearly straight, east-west direction.</p>
Cultural	<p>The North Umpqua River area was used by prehistoric peoples for more than 6,000 years. Radiocarbon dating places prehistoric occupation of the North Umpqua River as early as 6,300 years ago, while stratigraphic dating indicates that the occupation may have pre-dated the eruption of Mt. Mazama 6,600 years ago. The presence of the time sensitive artifacts indicates the occupation may go as far back as 8,000 years. This long period of occupation resulted in the formation of a number of sites within the Corridor that have unusual characteristics when compared with other sites in the region.</p> <p>Of historical interest is the Steamboat area within the North Umpqua River Corridor. Visitors were initially drawn to the area because of the excellent fishing. The first known fish camp constructed on the river in the 1920's was located in this vicinity. Also found in this area is the historic Mott Bridge, a recognized Oregon Historic Civil Engineering Landmark. Constructed by the Civilian Conservation Corps in 1935-36, the Mott Bridge is possibly the only surviving example of three such structures built at that time in the Pacific Northwest.</p>

Desired Future Condition

Scenery and Vegetation

The desired future condition of the Wild and Scenic River Corridor is one in which the existing natural appearing landscape condition is maintained. The overall existing character and appearance of this Corridor will remain basically unchanged from the present condition. With no scheduled harvest from the public lands in the corridor the mature, old-growth timber type that now predominates on the public lands in the Wild and Scenic River Corridor will remain essentially unchanged except for the slow process of natural succession, barring an unforeseen natural catastrophic event. Travelers in the Corridor, be they motorists on the highway, floaters or anglers on the river, or hikers on the trails, will be able to continue to observe the jade-green waters of the North Umpqua River framed by mostly undisturbed mature stands of mixed conifers. In selected areas vistas of the river will be enhanced while in others, growth of riparian vegetation will obscure views of the River from roads and trails. On the seven percent of the lands within the Wild and Scenic River Corridor which are privately owned, disturbances may be apparent. Old disturbances will become less obtrusive, however, as revegetation and forest regrowth occurs. Future disturbance will be less obtrusive as natural screening is left.



Human-made shoreline facilities will remain relatively inconspicuous to boaters, anglers, and trail users on or near the river.

Water Quality and Quantity

Water quality will be regularly monitored at established stations along the river, and the information gathered will be analyzed and compared with historical monitoring results.

The high water quality, which is a major contributor to the ORV's of water, scenery, fishery and recreation will remain high. The river will remain in a free-flowing, stable condition with reliable flows and with water quality levels at least as high as they were when the river was designated. Water quality and yield will not be significantly reduced or degraded as a result of human activity, and in fact will improve as riparian areas on disturbed sites throughout the basin revegetate, and as new forest management practices on lands outside the Corridor give greater protection to these riparian areas. Water quality will be protected by the required use of Best Management Practices for any projects in the North Umpqua Basin.

Fish and Fish Habitat

Existing fish resting, rearing and spawning habitat will not be further degraded as a result of human activities, Habitat quality will gradually improve in the North Umpqua River and its tributaries as previously disturbed riparian areas revegetate, and as new land management practices afford better protection for these areas in the future. Fish habitat restoration measures will speed this process. Sufficient habitat will be provided, both in terms of quality and quantity, to achieve the ODF&W objectives as contained in the North Umpqua Fish Management Plan,

The future condition of the North Umpqua River and its tributaries will be one in which abundant high quality habitat will be capable of supporting healthy anadromous resident fish populations,

Recreation

Expectations of high quality recreation experiences will continue to attract visitors to the North Umpqua River, While recreation use levels will rise slightly over 1990 levels, the user will still be able to experience solitude and tranquility in many areas of the Corridor. The recreation opportunity experience will continue as roaded natural. The entire River Corridor will be managed for multiple recreation experiences. However, different segments will receive different management emphasis, so that a user can have an enhanced experience by utilizing the segment which best meets his or her objective. For instance, the segment from Soda Springs to Gravel Bin will emphasize white water boating, with fewer restrictions placed on boating use. The segment from Gravel Bin to Bogus Creek will be managed to maintain a high quality fly fishing environment, with additional restrictions and seasonal closures to control boating use, and to limit encounters by anglers during the peak fishing season. The Bogus Creek to Susan Creek segment will be managed to provide diverse recreation experiences to a variety of users including, but not necessarily limited to boaters anglers, hikers, and campers. The segment from Susan Creek to Rock Creek will also provide diverse recreation opportunities. Conflicts between recreation users and private land owners along this segment will be minimized through an expanded education effort aimed at all users.

Boating. The boating experience in the future will remain much the same as it is today. While a slightly increased number of boaters is anticipated, management techniques will be utilized to insure that overuse does not occur. Boating use will remain relatively heavy on weekends and holidays and be relatively quiet during the week. Boaters who choose to float during the week will experience relative solitude, and will have minimal encounters with other floaters. Boaters who choose to float on weekends and holidays will experience more of a social setting, with some congestion at put-ins and more encounters with other floaters on the river.

Facilities. To accommodate existing uses, existing improvements and high visitor use areas will be upgraded and improved to provide the visitor with clean, modern facilities which blend with the natural setting. Special emphasis will be placed on

facility upgrade to provide barrier free access. Restroom facilities will be present at all sites where recreation use is concentrated so that proper sanitation is maintained. New facilities built in response to visitor demands will be limited in the Corridor. The basic natural character of the River Corridor will not be compromised by any new developments.

Trails. Existing trails in the corridor, particularly the North Umpqua Trail, will receive greater use than at present, not only from hikers, but also from mountain bikers and equestrians as well. Trails will be maintained to a high standard to safely accommodate this greater use, and to control impacts to other resources. Educational and interpretive media will be used at most trailheads to provide informative material and to educate trail users about proper etiquette when hiking and riding these trails. There will be more opportunity for disabled people to explore the outdoors as existing trails are improved and new trails are constructed to barrier-free standards, where feasible. Motorized vehicle use will occur only on open roads and marked trails within the Wild and Scenic River Corridor.

North Umpqua Highway. The North Umpqua Highway, which is a part of the National Scenic Byway System, will continue to provide the primary route of access to the River Corridor. Recreation visitors will travel on an improved, reconstructed highway which will provide safer travel through the Corridor and better off-highway ingress and egress. Highway improvements, while offering better travelling safety, will not alter the general appearance or character of the River Corridor. In keeping with this, the highway will remain two-lane, with the existing alignment maintained with very limited exceptions. No additional large cuts or fills will be readily visible from the river.

Off Highway Vehicles. Motorized vehicle use in the Corridor will be confined to the roads and trails marked as open for this use,

Overnight Camping. Campgrounds will be improved and in some cases enlarged to meet demand for camping space. Smaller, more primitive camping areas constructed in the Corridor will allow boaters and trail hikers an opportunity for a more primitive camping experience away from vehicle campers.

Overnight camping will be discouraged in undeveloped sites within the Corridor and should occur only in designated camping areas where facilities exist,

As the carrying capacities of the campgrounds in the Corridor are approached, visitors will be directed by information boards and campground hosts in the recreation sites to use other facilities on BLM and Forest Service lands outside the Corridor.

Boating Access. Boating access will be improved at several sites along the river to provide safer, more convenient access. Conflicts between boaters and campers will be reduced by isolating boat launch sites from camping sites. On the Soda Springs to Gravel Bin segment where recreation management emphasis will be on the white water boating experience. Improved launch sites at Soda Springs,

Boulder Creek and Gravel Bin will provide boaters safer and faster river access and takeout.

Fishing. Anglers will continue to enjoy a high quality fishing experience on the North Umpqua River. On the river segment from Gravel Bin to Bogus Creek where recreation management emphasis will be on the fly fishing experience, the angler could expect few encounters with white water craft, and no encounters from July 15 to October 31. Anglers choosing to fish on weekends and holidays outside the Gravel Bin to Bogus segment and between the hours of 10:00 a.m. and 6:00 p.m. may experience numerous encounters with white water boaters. During the week and in late summer there could be many opportunities for a pristine angling experience with few boater encounters. Greater education efforts regarding proper fishing etiquette will help to alleviate conflicts between increasing numbers of anglers vying for a limited number of fishing holes.

Cultural. Prehistoric cultural resources will be maintained or enhanced, and will not be degraded as a result of human activity. Cultural sites will remain stable, and where necessary, stabilization measures will be taken to prevent deterioration caused by natural processes. Vandalism will be deterred by an increased management presence, and by an expanded interpretive and educational effort.

Private Property. Private property rights will be protected. A proactive user education program will create greater awareness by recreation users of landowners' concerns and rights and will result in a reduction in the number of conflicts between user groups and private landowners.

Relationships. Cooperation between the Forest Service, the Bureau of Land Management, the State agencies, and the county government should continue to be good, resulting in efficient, consistent management of the North Umpqua Wild and Scenic River Corridor. The public will be given a meaningful opportunity to participate in decision making that affects the management of the river. Organized user groups will be self-policing, and greater use of partnerships between these groups and the government agencies will occur.

Biodiversity/Wildlife. Old-growth forest condition will be maintained in the Wild and Scenic River Corridor. The canopy will provide shading of tributary streams running through the Corridor and partial shading of the North Umpqua River itself. With limited timber harvest on the federal lands in the Corridor, successional changes over a long period of time can be expected to alter the species composition of the forest stand somewhat. However, a mature forest type will continue to provide habitat and cover for old-growth dependent species. When and if catastrophic events such as the Apple Creek Fire occur in the Corridor, these successional changes could occur much more rapidly, and the mature forest type may be partially or completely converted to an early successional stage. A quality habitat will be available for all threatened, endangered or sensitive species known to use the Corridor.

The level of biodiversity that currently exists within the Corridor will at a minimum be maintained, and may actually be improved somewhat as timber harvest occurs on adjacent private lands, improving forage habitat for deer and elk, and providing vegetation species and age diversity.

Safety. Safe use within the North Umpqua River Corridor will be a paramount objective. While it's realized that recreational pursuits that occur in the river Corridor have certain inherent safety risks, everything reasonable will be done to provide the visitor a safe recreational experience. Facilities will be designed and/or maintained with user safety in mind. Opportunities to educate visitors on safe use of the river will be continued.

General Resource Management Objectives

The following are management objectives for the North Umpqua River Corridor:

- Manage land and water use activities so as to maintain and restore habitat within the Wild and Scenic River Corridor and in tributary watersheds to prevent degradation of any ORV.
- Maintain, protect, and restore habitat on the public lands within the Wild and Scenic River corridor and tributary watersheds so as to provide sufficient habitat to meet or exceed population goals identified by ODFW in the North Umpqua River Fish Management Plan for all species.
- Provide diverse river and land based recreational opportunities.
- Emphasize specific recreational opportunities by segment and strive for levels of use that will provide for high quality recreational experience levels.
- Manage the watershed within the Corridor to protect water quality by utilizing Best Management Practices.
- Educate all users on river etiquette and conflict prevention.
- Minimize conflict between private land owners and recreational river users,
- Manage archeological sites to educate the public about past uses of the river corridor.
- Manage, maintain and enhance transportation facilities for safe access to recreation facilities and opportunities within the corridor.
- Accommodate commercial and other public traffic traveling through the corridor on the North Umpqua Highway, while minimizing conflicts with recreation users within the corridor and protecting ORV's.

- Require all developments to harmonize with the natural environment.
- Provide for a system of developed river launch sites.
- Preserve and enhance the opportunities for viewing the existing distinctive natural landscape within the Wild and Scenic River Corridor.
- Encourage a separation of user groups where appropriate.
- Promote safe recreational use within the corridor.
- Construct new facilities to barrier free standards, where practical to provide recreation opportunities for the physically challenged.
- Maintain current wildlife species composition within the corridor.



Management Direction and Guidelines

Management standards and guidelines (S&G's) have been identified for each of the key resources on Federal lands within the river area. Following the S&G's is a listing of the projects (Table II-1) that may be implemented with this plan.

River management segments have been established to facilitate recreational opportunity diversity. Each segment listed below specifies objectives based on past management and desired future condition,

- Soda Springs to **Gravel** Bin *segment* will be managed to provide the optimum recreational use, while preventing crowding and conflicts at access points, and minimizing resource impact.
- Gravel Bin to Bogus Creek *segment* management emphasis will be placed on maintaining a fly fishing environment, with seasonal rafting closures,
- Bogus Creek to Susan Creek *segment* will be managed to provide diverse recreational opportunities.
- Susan Creek to Rock Creek *segment* management will provide recreational opportunities while minimizing private landowner conflicts.

In addition to the following Standards and Guidelines, the direction found in the Umpqua National Forest Land and Resource Management Plan and the Roseburg District BLM Resource Management Plan will be implemented. It should be noted that the following Standards and Guidelines apply to lands within the Wild and Scenic River Corridor boundary unless otherwise specified. Lands outside the Corridor will be managed in compliance with agency land management plans. All existing but unsold timber sale plans within the watershed will be reviewed for compliance with this River Management Plan.

Standards and Guidelines

Recreation

- Encourage a wide diversity of recreation activities in the corridor. There are several lesser pursued recreational uses (hiking, mountain biking, picnicking, horseback riding, photography, sightseeing) that are appropriate within the area.
- In the Wild and Scenic River Corridor, overnight camping will be discouraged in undeveloped sites.
- Enhance interpretive and public education services in the Corridor for all river users (see Appendix C). Implement the interpretive contract designed for the corridor.
- Current and future emphasis should be placed on identifying opportunities for barrier free recreational facilities,

- Law enforcement needs to direct its attention to fishing regulations, surveillance for poachers, and vandalism control.
 - Increase awareness of the need for litter abatement through public involvement and education.
 - Angling, boating, and viewing the river are examples of recreation activities that vary with river flows. River flows will be recorded when monitoring recreation user perceptions for these flow-dependent activities. Future decision on water withdrawals and flow regulation will be made to assure that no adverse effects occur on flows that support recreation.
 - The following policies will be implemented to alleviate conflicts associated with overuse on weekends, holidays, and peak use periods. They are for gauging purposes only, and may be used to indicate a need for change in the future:
 - Limit all boating groups to a maximum party size of 20 persons, or 5 boats, whichever is greater.
 - Upon reaching a 15% increase in boating use (above 1990 levels), the 2,300 service days for commercial guides and 5,750 user days for private users will serve as trigger points for an acceptable change evaluation. A group consisting of private citizens representing various river users and government representatives will assess the impacts of this use, and determine if additional use up to a 25% increase will be permitted.
 - Make the voluntary boating guidelines mandatory. Requirements are:
 - Soda Springs to Gravel Bin
 - Open to boating year round.
 - Closed to boating 6 pm to 10 am July 1 to Oct. 31.
 - Gravel Bin to Bogus Creek
 - Closed to boating 6 p.m. to 10 a.m. July 1 through 14.
 - Closed to boating July 15 through Oct. 31.
 - Bogus Creek to Susan Creek
 - Closed to boating 6 p.m. to 10 a.m. July 1 to October 31.
 - Susan Creek to Rock Creek
 - Closed to boating 6 p.m. to 10 a.m. July 1 to October 31.
- Any deviations from the above guidelines will be by written permission only.

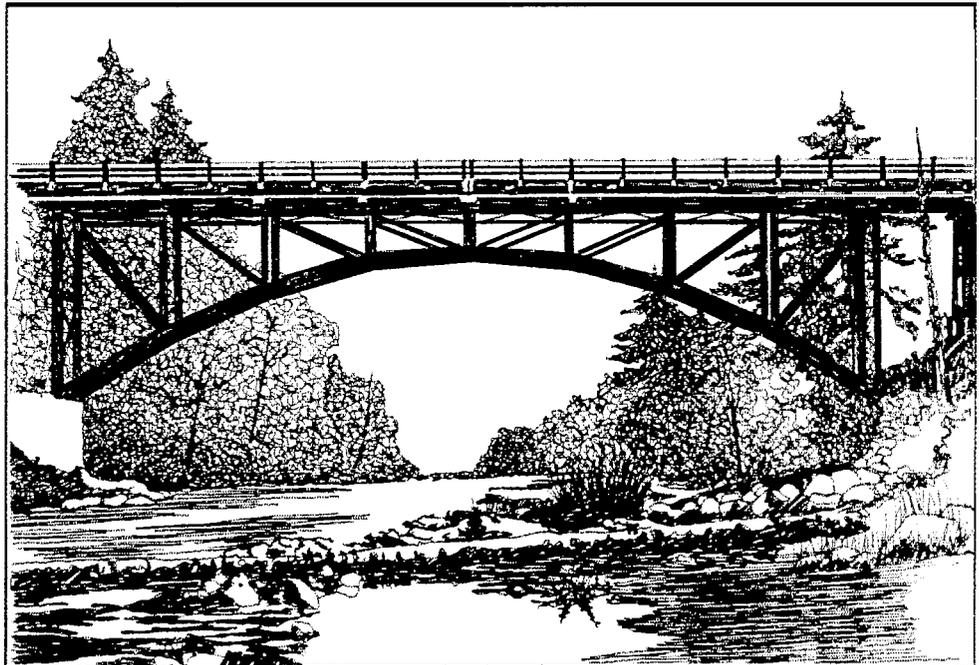
- Fifteen commercial white water guides will be allowed to serve a set number of clients during peak times May 20 to September 30. Additional use will be permitted during non-peak times,
- All types of recreational safety concerns whether human-caused or naturally occurring, will be evaluated, and if deemed necessary the hazard will be eliminated.
- A Limits of Acceptable Change (LAC) process will be developed that analyzes such indicators as parking capacities, congestion or crowding at launch sites, anglers encountering water craft, total boating use, etc., and triggers appropriate management actions.
- All commercial users of the Corridor (ie: fishing guides, floaters, photographers, mountain bicyclists, etc.) will be required to have a special use permit.
- Continue to issue annual outfitter guide permits: consider implementing a multi-year river outfitter guide permit system.
- Establish an annual river outfitter guide application deadline of March 1.
- Require all institutional and semi-public outfitting groups to have permits (FS Handbook 2709.11 Chapter 41.531).
- Recreation management setting will be Recreation Opportunity Spectrum (ROS) Roded Natural,
- The management techniques shown below would be imposed on non-commercial floaters if the established standards and guidelines contained in this plan are not met or are violated. The justification for implementing the next technique will be based on the river managers inability to resolve conflicts using the established standards and guidelines contained in this management plan. The underlying premise for the process is that by educating users about conflicts, and resolving user needs that create conflicts, recreationists can be better accommodated with less impact on each other and on the resource.
- Boating will be monitored annually. If in any two successive years boater use exceeds those numbers shown on the preceding page in the Recreation Standards and Guidelines section, the impacts of this use will be analyzed. If this level of use is resulting in adverse impacts to any of the ORV's, unacceptable levels of conflict, or appears to be inconsistent with the Desired Future Condition for the river, as determined by the Area Manager and the District Rangers, the next, more restrictive management technique could be implemented. Additionally, if future river use monitoring shows that unacceptable impacts are occurring to the ORV's with boating numbers less than those shown on the preceding page, more restrictive management techniques could be implemented. Public educational efforts will continue to be used in conjunction with all management

techniques, Should conditions return to an acceptable level, restrictions may be relaxed to the previous technique. The following techniques would be implemented in the order listed below.

MANAGEMENT TECHNIQUE #1 : if the Standards and Guidelines contained in the Plan fail to achieve the desired results, a mandatory but self issuing permit system will be implemented for ail non-commercial floaters. These boaters will be required to obtain a permit at major access points before launching, This permit system would insure agency contact with the private boater for the purpose of education and reducing visitor impacts and conflicts.

MANAGEMENT TECHNIQUE #2: Should the self issuing permit system fail to educate users, mandatory use permits could be issued to all non-commercial private boaters at the North Umpqua Ranger District. At this point it will be necessary to schedule launch times, specify launch sites, limit launches per day, and specify days, allowing reservations when necessary. Reservation fees will be charged at this time.

MANAGEMENT TECHNIQUE #3: When standards are not met with mandatory use permits and conditions continue to deteriorate, a total use rationing system will go into effect. Implementation of this system would be the last resort.



Project Proposals A number of recreation projects have been identified for potential implementation under the Wild and Scenic River Management Plan. The justification-rationale for these projects falls into one or more of eight categories which are listed below:

1. (H) Health and Sanitation
2. (S) Safety
3. (C) User Conflict Resolution
4. (I) Visitor Interpretation
5. (U) User Service and Convenience
6. (P) ORV Protection and/or Enhancement
7. (M) Infrastructure Improvement and/or Maintenance
8. (A) Conversion to Barrier Free Accessibility

Table II-1 shows which projects would be recommended for implementation, the projected time frames, and also shows the justification/rationale for each project. Projects are broken into two categories; A shows existing facilities and the type of improvements, and B shows proposed new developments. When possible, priority will be given to implementing projects that accomplish the objectives of achieving the desired future condition and enhancing the ORV's. These proposals attempt to identify major projects that could resolve current and projected needs, As public expectations and needs change, other projects that have not been identified here, may be implemented using the Desired Future Condition as a guideline. Conversely, some projects identified here may not be implemented because of changing needs and priorities.

Specific project implementation and development would be based on the availability of funding. Federal agencies involved will make every effort to identify opportunities for partnerships that would reduce the actual cost to the government. Appendix A contains a project description for each project listed in Table II-1. Prior to implementation of any of these projects, additional site specific National Environmental Policy Act (NEPA) analysis will be done.

For all river segments, State and County agencies shall be notified of project level planning activities on National Forest and Bureau of Land Management lands within the corridor to assure coordination of management actions with State Scenic Waterway requirements,

Table II-1

Project Proposals

(See Appendix A for a detailed description of each project)

	Project Implementation Time Table ¹	Justification/ Rationale ²	Development Category
A. EXISTING SITE IMPROVEMENTS			
1. Boulder Flat- rafting and picnic facilities	0-2	S, C, I, U	Reconstruction
2. Umpqua Rocks Geologic- interpretative area	2-5	I	Reconstruction
3. Eagle Rock Campground- toilet facilities	2-5	H, A, P	Maintenance
4. Horseshoe Bend Campground Area			
Beaver Flat Loop- access, trail, platform	5+	A, U	Reconstruction, Construction
Deer Flat Reservation Area- accessibility	5+	A	Maintenance
Water system improvements	5+	H, U, M	Maintenance
Electrical system upgrade	5+	S, U, M	Maintenance
5. Apple Creek Campground			
paving	2-5	P, U	Maintenance
toilets	2-5	H, A	Reconstruction
6. Steamboat Area			
Island Campground- accessibility improvements	5+	U, P, A	Maintenance
Gravel Bin Rafting Facility- parking, toilets	2-5	H, S, I, P	Reconstruction
Mott Trailhead- interpretative display	2-5	I	Maintenance
Steamboat Reservation Area- well, electricity	5+	H, U, C	Maintenance
Riverview Trail- improvements	0-2	S, U	Reconstruction
Canton Creek Campground- accessible toilet	5+	H, U, A, S	Reconstruction
Highway 138 & F.S. Road 38 Area- Rehabilitation	5+	S, P	Reconstruction
7. Wright Creek Area			
Bogus Creek Raft Launch Site- toilet	0-2	S, I, H	Reconstruction
Bogus Creek Campground- accessibility improvements	5+	M, A, U	Maintenance
Wright Creek Trailhead- parking, toilet	2-5	S, U, I	Reconstruction
8. Fall Creek Area			
Fall Creek Trailhead- paving	2-5	U, P	Maintenance
9. North Umpqua Trail			
Mott FoSegmentsbridges	2-5	M, U, S	Maintenance
10. Susan Creek Falls barrier trail	2-5	A, I	Reconstruction
11. Susan Creek Campground Expansion			
5-S walk-in tent sites at west end	2-5	P, U, C	Expansion

Table II-1 (Continued)

Project Proposals

	Project Implementation Time Table ¹	Justification/Rationale ²	Development Category
A. EXISTING SITE IMPROVEMENTS (Continued)			
12. Susan Creek Campground Restroom Facility	0-2	H, U, M	Reconstruction
13. Group Reservation Area At Susan Creek	2-5	U, C, P	Reconstruction
14. Swiftwater/Rock Creek Day Use Area	0-2	U, A, I	Improvement
15. Scenic Quality			
Rehabilitation, screens, restoration inventory	5+	P, U	Maintenance
Scenic enhancement	2-5	U	Maintenance
B. NEW PROJECTS			
1. Soda Springs - rafting facilities	5+	C, I, U	Construction
* 2. Marsters Bridge Trailhead - parking and toilet	2-5	U, H, P, I	Construction
3. Dry Creek Paving, Toilet, Interpretive Exhibits	2-5	H, U, I, A	Construction
4. Horseshoe Bend Area Old Growth Grove - spur trail	2-5	U, I	Construction
Calf Creek Trailhead - parking and toilet	5+	H, I, U	Construction
Horseshoe Bend - rafting picnic sites & toilet	2-5	H, C, I, U	Construction
* Deer Flat Reservation Area - pavilion	5+	U	Construction
5. Apple Creek Area - Interpretive sign, trail	2-5	U, I	Construction
Panther Trailhead - toilet	5+	H, I, U	Construction
6. Old Growth Grove/Trails	2-5	U, I	Construction
7. Fall Creek Area Jobs Garden extension trail	2-5	U, I	Construction
8. North Umpqua Trail Eagle Creek Bridge	2-5	U, S	Construction
* 9. Suspension Footbridge at Susan Creek	5+	U, P	Construction
* 10. North Umpqua Trail Primitive Campsite	2-5	C, U	Construction
11. Scenic Vista Spur Trails	0-2	U, P	Construction
12. Waste water dump station	2-5	U, H	Construction
* 13. Baker County Park Conversion to overnight facility	5+	U, C	Construction

¹Estimated number of years.²Justification/Rationale

H = Health and Sanitation
S = Safety
C = User Conflict Resolution
I = Visitor Interpretation
U = User Service and Convenience
P = ORV Protection and/or Enhancement
M = Infrastructure improvement and/or Maintenance
A = Conversion to Barrier Free Accessibility

* Projects which are not currently needed given existing demand, and/or current level of conflict. Should demand grow with changing needs, or should conflicts arise which could be alleviated by project implementation, then the project would be done.

Water **Quality** and Quantity

- Use of North Umpqua River water will be provided for all water-related activities which are consistent with the outstandingly remarkable values. These include instream flow-dependent uses (angling, rafting, fisheries and river viewing), as well as consumptive uses in the basin for camping, wildlife, resorts, construction, and livestock.
- Existing diversion works, rip rap and other minor structures may be maintained provided the waterway remains generally natural in appearance, and the free-flowing nature of the river is not affected.
- If the free flowing nature of the river is maintained, instream work to improve fish habitat and/or fish passage will be allowed with approval from ODFW.
- Existing flood control and protection works may be maintained. New structures to provide bank stabilization must not affect the free-flowing characteristics nor conflict with the ORV's.
- Recreation use along the river banks will be managed to minimize erosion and limit siltation.
- Restore vegetation along denuded river banks, and where feasible take measures to stabilize areas of mass soil movement which threaten debris discharge either into the river or any of its major tributaries.
- Provide toilets at all areas where recreation use is concentrated. Discourage overnight camping at dispersed recreation sites along the river where no sanitation facilities exist.
- Encourage flow levels that maintain or enhance the ORV's.
- Riparian areas of all streams in the Wild and Scenic River Corridor will be protected. Where trees must be cut to build or maintain recreation facilities, riparian objectives, which include streamside shading, channel and bank stabilization, maintenance of wildlife (including fish) habitat, and mitigation for any damage to riparian areas, must be met.
- Riparian areas on public lands in the North Umpqua River watershed, but outside the Wild and Scenic River boundary, will be protected according to riparian prescriptions of the Umpqua National Forest and Roseburg District BLM land management plans. Activities within riparian areas on private lands outside the Wild and Scenic River corridor will be protected to standards prescribed under the Oregon Forest Practices Act.

- Riparian objectives will be met during construction and maintenance of the North Umpqua Highway and other roads in the Corridor. Vegetation may be cut to provide safe site distance and roadside safety, but ORV's will be protected.
- Down and stable woody material, including tree boles, roots, and limbs will be removed from streams only on the recommendation of a fish biologist or hydrologist unless it is an immediate threat to safety. Stable material is defined as that material which will not float downstream and cause unacceptable damage during a 25-year flood. Fallen trees will not be removed from the river unless they pose a hazard to human life or to one of the ORV's. Where practical, hazard trees will be repositioned in the river, to remove the hazard and retain fish habitat.
- Pesticides and fertilizer will not be used in riparian areas except along seasonal streams during the season that flow does not occur. Forest Service and BLM transportation of pesticides, petroleum products, dust control agents, fertilizer, and other potentially hazardous materials will follow procedures outlined in agency Spill Prevention and Response Plans, This includes notifying the agency spill coordinator of plans to transport these materials, and any spills involving such materials. Caches of clean-up materials for small diesel spills are located at Steamboat and Glide.
- The application of Best Management Practices (BMP's) to protect water quality and beneficial uses (fish habitat, scenic quality of the river water, or potable water, for example) will be monitored on ground-disturbing activities. Specific BMPs will be listed for each activity unit at the time of environmental analysis. On each unit, each item will be monitored for accomplishment at the close of the activity (for example, before a campground construction project is accepted for payment to a contractor). Best Management Practices are specified in the Umpqua National Forest, Roseburg District BLM and North Umpqua Wild and Scenic River Standards and Guidelines, in compliance with the Clean Water Act. The Forest Service and BLM define BMP's in their role as Designated Management Agencies by the Oregon Department of Environmental Quality.
- The Oregon Forest Practices Act applies to any woods operations on private lands, with special emphasis on ground-disturbing activity along tributary channels or along the main river.
- Systematic sampling of the stream macroinvertebrate population will be done to measure the health of the aquatic community. Aquatic insects are relatively sensitive to a change in their environment, are abundant in aquatic ecosystems, and can be directly linked to the beneficial use of fisheries.
- Floodplain and wetland actions require a formal declaration and public notification under Executive Orders 11988 and 11990. These are areas below the 100-year flood elevation (500-year for critical activities), and wet areas with vegetation that requires some period of saturated soil conditions. Activities in floodplains

and wetlands will be declared in an environmental decision notice, and 30-day public notice will be given.

- Where required by section 404 of the Clean Water Act and Oregon's Removal-Fill Law, permits will be obtained from the US Army Corps of Engineers and the Oregon Division of State Lands for removal, filling, or alteration of the North Umpqua, its tributaries, or wetlands, (Special restrictions apply to the North Umpqua Wild and Scenic River, and State Scenic Waterway,)
- Drinking water and sewage effluent within the Wild and Scenic River Corridor will be treated and monitored according to the standards of the Oregon Department of Environmental Quality (DEQ) and US Environmental Protection Agency (EPA).
- Water uses on National Forest and BLM streams will be compatible with the instream needs and water rights reserved by the United States Application for nonreserved water rights for uses compatible with agency plans and the North Umpqua River ORV's will be applied for through the Oregon Water Resources Department.
- All activities including mining, oil and gas leasing, exploration energy transmission corridors, road construction and maintenance, and hydroelectric facilities, will be managed in a manner which will meet riparian objectives and maintain the ORV's of the North Umpqua River. (In particular, Forest Service recommendations to the Federal Energy Regulatory Commission will require that the ORV's be maintained when Pacific Power and Light's North Umpqua Project is relicensed in 1997.)
- All environmental analyses of Forest Service and BLM activities within the North Umpqua watershed will list the Wild and Scenic River ORV's as beneficial uses for streams affected by the proposed activities, The use of Best Management Practices in the basin, including monitoring and improving those practices where necessary, must be designed to protect beneficial uses.

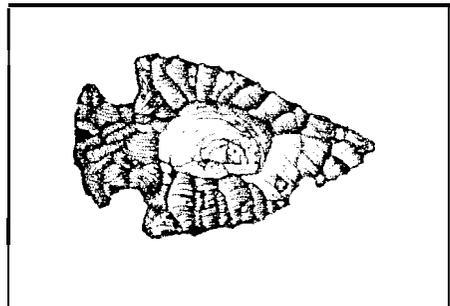
Fish

- All site-specific project planning within the Wild and Scenic River Corridor and in tributary watersheds will identify the existing habitat conditions, determine habitat objectives, develop a range of alternatives, and discuss the potential consequences (including cumulative effects) of the alternatives to the fisheries ORV.
- Site specific planning will be provided by an interdisciplinary team including a journey level professional fisheries biologist.

- Minimize conflicts with spawning spring chinook.
- Avoid developing new facilities near over-summering pools or spawning areas.
- Review all existing, but un-sold, timber sale plans for compliance with these standards and guidelines.
- All fish producing streams tributary to the North Umpqua River below Soda Springs would be inventoried using the sub-basin analysis procedure and limiting factors would be determined. Streams that are demonstrably below potential due to habitat limitations would be rehabilitated using appropriate techniques. Fish habitat enhancement plans, on a sub-basin scale, would be prepared within two years after the inventories are completed.
- Within two year after signing of the Record of Decision (ROD), an Information and Education program would be developed to discuss spring chinook life cycles and their susceptibility to disturbance. Possible products include a brochure for distribution at Forest Service and BLM offices, and for posting at recreation sites and boater launch sites
- Within two years after this plan is adopted, develop a cooperative law enforcement plan with the Forest Service, BLM, Douglas County, and the State Police to evaluate and respond to fishing regulation violations, and particularly, poaching of adult spring chinook and summer steelhead in the North Umpqua River and major tributaries,

Cultural

- Protect cultural resource sites within the River Corridor to the extent required by law, regulation, and policy, This may involve the implementation of evaluation and mitigation procedures to minimize impacts resulting from recreation developments,
- Utilize cultural resources for interpretation and public education purposes. These efforts should enhance the visitor experience by informing the public about past uses of the River Corridor. These efforts should also stress the value of cultural resources and the need for their protection.
- Inventory all public lands within the Corridor for cultural resources. Initial emphasis will be given to those areas which may be impacted by proposed developments or project work.
- Stabilize cultural resource sites which have been threatened by natural or human-caused disturbance.



- Implement a monitoring plan to assess the effects of natural and human-caused processes on cultural resource sites.

Scenery

North Umpqua Corridor

- All lands within the Wild and Scenic River Corridor boundary will be managed to retention Visual Quality Objectives (VQO).
- Recreation management setting will be Recreation Opportunity Spectrum (ROS) Roaded Natural.
- Visual enhancement and rehabilitation will be completed within parameters of soil and water standards and guidelines. (See Agriculture Handbook 462.)
- Enhancement of views from the highway to the river entailing treatment of intermediate vegetation will conform to riparian standards and guidelines and will maintain the ORV's as seen from the river.
- Proposed exceptions to meeting assigned VQO's will be identified through project environmental analysis.
- Foreground and middleground landscapes seen from Highway 138 and the River Corridor shall be managed to retention visual quality objectives. Background seen landscapes shall be managed to partial retention visual quality objectives.

Botanical

- Should any Federal or State listed species be found in the River Corridor: they will be protected as specified under federal and state law.
- interpretive opportunities should be considered for some trail segments in the River Corridor which would highlight the vegetation diversity of the Umpqua River basin.

Fire

- Fire management in the Wild and Scenic River corridor will consist of a policy of aggressive suppression of wildfire while minimizing or mitigating activities that would cause long-term negative impacts on the river and its adjacent lands.
- Mitigate potential adverse effects from the fire management program through the use of Forestwide multi-resource Standards and Guidelines and Best Management Practices.

- Agency resource advisors will be present on all fires within the River Corridor to assess the resource values and to make these values known to the fire suppression overhead team.
- implement a proactive fire prevention public education campaign which targets the recreation users of the Corridor with particular emphasis on those users of the less developed south side of the river.
- Wildfires that threaten life, property, public safety, improvements, or investments will receive aggressive suppression action using an appropriate suppression response.
- Develop a fire management plan for the Wild and Scenic River Corridor.

Timber

General:

- All Federal lands within the corridor will have no scheduled timber harvest. Forestry practices on private lands will be governed by the Oregon State Forest Practices Act and the State Scenic Waterway Program.
- There may be opportunities to harvest timber within the Wild and Scenic River Corridor on a case-by-case basis. Cutting and/or removal of trees on federal lands within the Wild and Scenic River Corridor may be allowed if any of the following conditions are met:
 1. The vegetation poses a safety hazard along the highway, the river, a trail, powerline, or in a developed use recreation area.
 2. The vegetation is located within an easement or right of way agreement area, and no suitable alternate route can be found.
 3. The vegetation is in the way of a planned facility development or improvement project.
 4. The vegetation needs to be cut to enhance a significant or outstandingly remarkable value.



5. A catastrophic natural event (such as wildfire, insect infestation, or blowdown storm) has left large numbers of dead, salvagable trees in the Corridor.
6. An insect infestation threatens adjacent timber lands outside the Corridor.

Bureau of Land Management:

- No timber harvest will be scheduled within the Wild and Scenic River Corridor.
- The current land management plan calls for leaving a 200-foot uncut buffer (100 feet on either side) along any third order or larger stream outside the Corridor. A third order stream is defined as the resultant stream after two second order streams merge,

This restriction provides for both wildlife riparian habitat and streamside shading. As a matter of practice, first and second order streams which run water year around are also being buffered.

- Historically silvicultural practices in Western Oregon old growth Douglas-fir forests has been to clearcut and burn, and then replant a new crop of trees the first year after burning. In the lands within the North Umpqua watershed but outside the Wild and Scenic River Corridor these same prescriptions would apply, with the exception that 6-8 live trees per acre would be retained. However, on any of these lands which are classified as Visual Resource Management (VRM) II, management approaches to meet VRM II objectives would employ single tree selection, uneven aged harvest, retention of shelter-wood overstory trees, or group selection management in seen areas.

Forest Service:

- No timber harvest will be scheduled within the Wild and Scenic River Corridor.
- Unwanted vegetation will be managed consistent with "A Guide to Conducting Vegetation Management Projects in the Pacific Northwest Region", and the Record of Decision and final Environmental Impact Statement for Managing Competing and Unwanted Vegetation (Dec. 1988).
- Landscapes that are seen from the river and highway, that lie outside the Wild and Scenic River boundary will be managed by the following prescriptions:

Foreground - No scheduled timber harvest.

Middleground - Scheduled timber harvest and salvage shall be programmed on lands under 50 percent slope at a rate of 10 percent created openings at any time (rotation age 220 years). Created openings are defined as areas having trees averaging less than 20 feet in height.

Background - Scheduled harvest and salvage shall be programmed on lands regardless of slope at a rate of 20 percent created openings at any one time (rotation length of 10 years).

Transportation **Facilities**

- Stabilize the roadsides and trails where necessary to prevent undercutting by the river.
- Inspect the outlet ends of culverts and where serious bankside erosion is occurring, stabilize the outflow area.
- Maintain and enhance safe parking and pull-off areas along Highway 138 for day use visitors including anglers, hikers, and sightseers.
- Coordinate with Oregon Department of Transportation in the identification of and treatment of projects within the highway right of way. Treatment of highway vegetation to maintain safe site distance, and cleaning of roadside ditches, are two examples.
- Prohibit soil and rock waste disposal in the river or in any areas within the Wild and Scenic River Corridor where such wasting would degrade the view from the River.
- Implement signing standards for all agencies to encourage consistency, compatible color and design, and readability.
- Encourage recreation day uses on local roads and trails where compatible, such as hiking, mountain biking, and horseback riding.
- Clearly mark both off-road motorized and non-motorized use areas,
- Identify opportunities to construct new trails to scenic vistas and to other unique natural scenic areas.
- Before new roads are constructed in the Corridor, explore options to relocate these roads so that they do not infringe on the Corridor. If relocation is not feasible, take any mitigating steps necessary to minimize impacts on ORV's.
- Where possible, convert existing trails to barrier-free standards and construct new trails to barrier free standards.
- Encourage driving for pleasure and scenery viewing along the North Umpqua Highway.
- Provide safe ingress and egress to the North Umpqua Highway from adjacent recreation and parking facilities,

- Provide temporary erosion control measures throughout the construction or reconstruction period for any facility development projects (including road construction). Effective permanent or temporary erosion control measures will be in place prior to the rainy season (November 1 through April 30) for these projects,
- New transportation facility improvements will not encroach upon the average annual high water line, except bridge structure work determined necessary through appropriate environmental review process.

Mining

- Under the Wild and Scenic Rivers Act, those rivers designated as Recreational are not withdrawn from mineral entry. Therefore, that portion of the North Umpqua River designated as Wild and Scenic is technically open under the mining laws. However, the North Umpqua Highway, from the Forest boundary to the east line of Section 23, Township 26 South, Range 2 E, Willamette Meridian has been withdrawn from mineral entry, (330 feet from each side of the centerline of the road) to protect the road-bed. This withdrawal covers the majority of the riverbed except for those portions of the River in excess of 330 feet from the centerline of the North Umpqua Highway.
- Portions of the Wild and Scenic River Corridor were given power site classification (No. 162) on March 3, 1879, (and since amended), by the Secretary of the Interior. Subsequently, Public Law 359, dated August 11, 1955 (69 Stat. 681), was enacted to permit the mining, development, and utilization of the mineral resources of all public lands withdrawn or reserved for power, development and for other purposes, subject to Section 24 of Federal Powers Act of 1920.
- Placer mining is prohibited within a State Scenic Waterway.
- While mining is allowed within those portions of the river open to mineral entry, any mining will require NEPA documentation, approval of a Plan of Operation conformance to State Scenic Waterway regulations, and Section 24 of the Federal Powers Act.

Land Exchange and Acquisition

- **Land Acquisition.** There are some highly visible private lands located within the North Umpqua Wild and Scenic River Corridor. Future timber harvest or other construction activities on these lands, although legal, have the potential to degrade the visual quality of the Corridor. If there were willing sellers for any of these tracts and if funding were available, it would be desirable to acquire some or all of these tracts. There are 558 acres of privately owned land located within the Wild and Scenic River corridor. Acquisition could be accomplished in one of three ways: land exchange, outright purchase, or donation

There is an opportunity to acquire a tract of land presently owned by the Weyerhaeuser Company in Section 8, T26S., R2W., WM. A portion of the Weyerhaeuser ownership in this section (approximately 20 acres) is highly visible both from the highway and the river. This land was harvested in the past decade and is now coming back as a young new stand. To eliminate the possibility of this highly visible stand from being harvested again, it would be desirable to acquire this tract. The Weyerhaeuser Company has expressed interest in pursuing a land exchange with the Bureau of Land Management which would involve not only this tract of land, but additional holdings along the North Umpqua River drainage. See Appendix B for a complete description of those BLM and Weyerhaeuser lands which have been identified as candidate tracts for this exchange proposal. This proposed exchange is in the best interest of the North Umpqua Wild and Scenic River, and the recommendation is therefore made to pursue this proposal.

- Identify the need for private land road and trail easements.
- Where opportunity exists, acquire scenic easements, rights of way, or land in fee title from willing sellers where needed to protect the scenic quality.

Navigability

State ownership to the beds of navigable waterbodies was granted to Oregon in 1859 as an incidence of statehood and is an inherent attribute of state sovereignty protected by the U.S. Constitution. The beds of non-navigable waterbodies remained in the ownership of the United States or its grantees. The navigability of the North Umpqua River from Rock Creek (Rivermile 35.6) to Soda Springs (Rivermile 69.30) has not been established. Currently, both the state and federal government (and in some instances private property owners), claim ownership of the river's bed and bank. This river plan does not propose to address the issue of navigability. Rather, this river plan is intended to provide a management philosophy for the above segment of the river.

Under state law, the Division of State Lands (DSL) is responsible for the management of the beds and banks of navigable waterbodies (ORS 274.005-274.590). DSL is the administrative arm of the State Land Board (the Board), composed of the Governor, Secretary of State, and State Treasurer. Under constitutional and statutory guidelines, the Board is responsible for managing the assets of the Common School Fund. These assets include the beds and banks of Oregon's navigable waterways and are to be managed for the greatest benefit of the people of this state, consistent with the conservation of this resource under sound techniques of land management. Protection of public trust values of navigation, fisheries, and public recreation are of paramount importance, too.

The original federal test for determining navigability was established in *The Daniel Ball* case over 100 years ago. This U.S. Supreme Court admiralty case clarified that rivers 'are navigable in fact when they are used, or susceptible of being used, in their ordinary condition, as highways of commerce . . .' Interpreting this requirement, subsequent court decisions have adopted this test for title purposes

and have ruled that a waterbody is navigable if it was capable of use, at the time of statehood, as a public highway for transporting goods or for travel in the customary modes of trade and travel on water.

DSL has determined that there is sufficient evidence to support a claim of navigability and state ownership for the beds and banks of the North Umpqua River at least from Rock Creek (RM 33.5) to Soda Springs (RM 69.30). The position of the Forest Service is that the navigability of the river has not been established.

For purposes of managing the above portion of this river (where navigability has not been established), any non-federal activities or land uses such as new utility or transportation corridors and boat ramps or similar facilities that impose into or cross a waterway below ordinary high water will require an easement from the State Land Board. Existing non-federal facilities will require an easement at such time as they undergo major structural alteration, replacement, or relocation. In addition, removal of sand and gravel requires a royalty lease and any non-federal use that occupies any area of submerged or submersible land requires a waterway lease.

Further, the DSL also administers the State's Removal-Fill Law which protects Oregon's waterways from uncontrolled alteration. The law requires a permit for fill or removal of more than 50 cubic yards of material within the State's waterways. The permit-review process involves coordination with the natural resource and land use agencies from the local through the federal levels. Within Oregon Scenic Waterways, special authorization is needed from the Board and DSL for "any alteration of the beds and banks' of the North Umpqua River within the plan area. (ORS 390.835.)

Nothing set forth herein shall limit the ability of the Forest Service or BLM to administer this segment of river.

As with any jointly managed resource, jurisdiction is not as important as care for the resource. The DSL, Forest Service, and BLM will continue to work together to assure that the public trust interest and the purpose of the Wild and Scenic Rivers Act are met.

Boundary Delineation Process

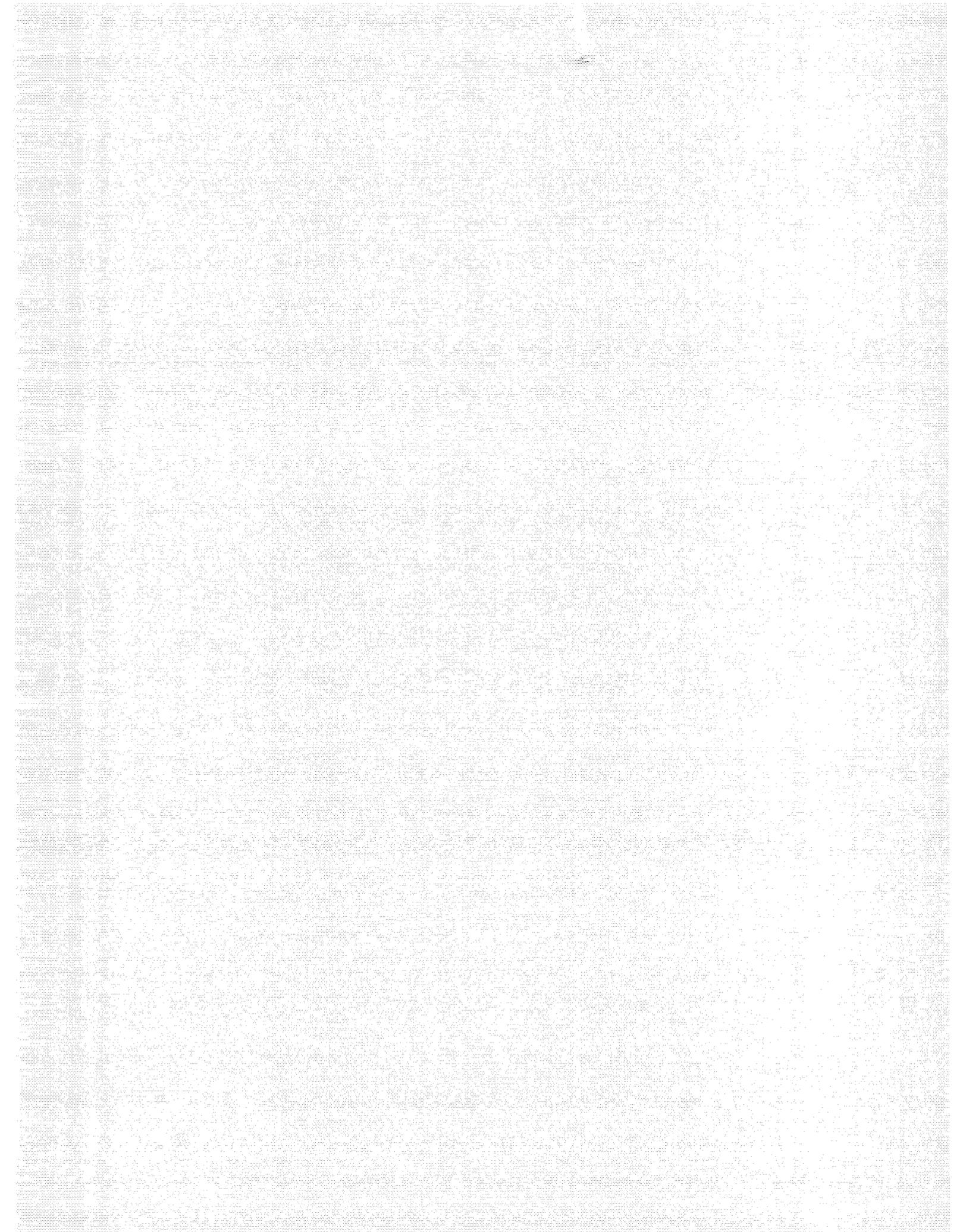
One of the objectives of this plan was to delineate a Wild and Scenic River boundary. The first step in the boundary process was to obtain complete photo coverage of the Wild and Scenic River Corridor. The river was flown and photographed in 1939. Next, with the aid of agency specialists an attempt was made to identify all significant resource values in the Corridor which might be appropriate for inclusion within the boundary. Lastly, an intensive survey of the Corridor was done to identify the viewshed both from the river and from State Highway 138. Photographs were taken from key view points along the highway and the river in the summer of 1990. Each time a photo was taken notes were made by the observer of what could be seen when looking off in the direction of the photograph, and a compass bearing was taken which was later transferred to a resource area map. From this information it was possible to develop a very

detailed viewshed map of what could and could not be seen from both the highway and the river. This information along with the earlier information gathered to identify other significant resource sites then became the basis for delineating a Wild and Scenic River boundary which attempted to maximize inclusion of the outstandingly remarkable values within that boundary. A constraint that guided this process was the legislative mandate which required that the boundary not encompass on average more than 320 acres per river mile.

See Map 1 for the Wild and Scenic River Boundary. Through ground verification of the River boundary, the actual boundary location may vary slightly from the boundary shown on Map 1.

CHAPTER III

Monitoring Program



CHAPTER III **Monitoring Program**

The monitoring program is the management control system governing implementation of the River Plan. The specific objectives of the Monitoring and Evaluation Program are to determine whether:

- Planned Goals and Objectives are achieved;
- Management Standards and Guidelines are being followed;
- Management Standards and Guidelines are effective;
- Research, beyond that identified, is needed;
- Intensity of monitoring is commensurate with the risks, costs, and values involved in meeting plan objectives.

The following Monitoring Plan (Table III-I) presents the elements that will be monitored. Each element is broken into a number of different components:

Activity	- A specific statement of what will be examined,
Objective of Monitoring	- The purpose of monitoring the action or effect.
Unit of Measure	- A description of the unit of measurement used to measure whether or not the threshold of variability has been reached.
Data Source	- A description of the sources of information,
Report Frequency	- The times of year that the information gathered will be collected.
Data Storage	- A description of where the collected information will be stored.
Position Responsible	- The person or persons responsible for evaluating or coordinating the monitoring activity.
Annual Cost	- The average cost per year to do the monitoring.
Threshold of Variability	- That point (plus or minus) which would initiate further evaluation.

Implementation of the following monitoring elements will be based on the availability of funding. Monitoring elements have been grouped by category and given high, medium or low priorities within each category. If adequate funding is not available for all the monitoring identified, limited monitoring dollars will be allocated based on these priorities. Federal agencies involved will make every effort to identify opportunities for partnerships that would reduce the actual cost to the government. Monitoring plans and results will be reviewed once each fall by representatives of the Forest Service, BLM, and interested citizens.

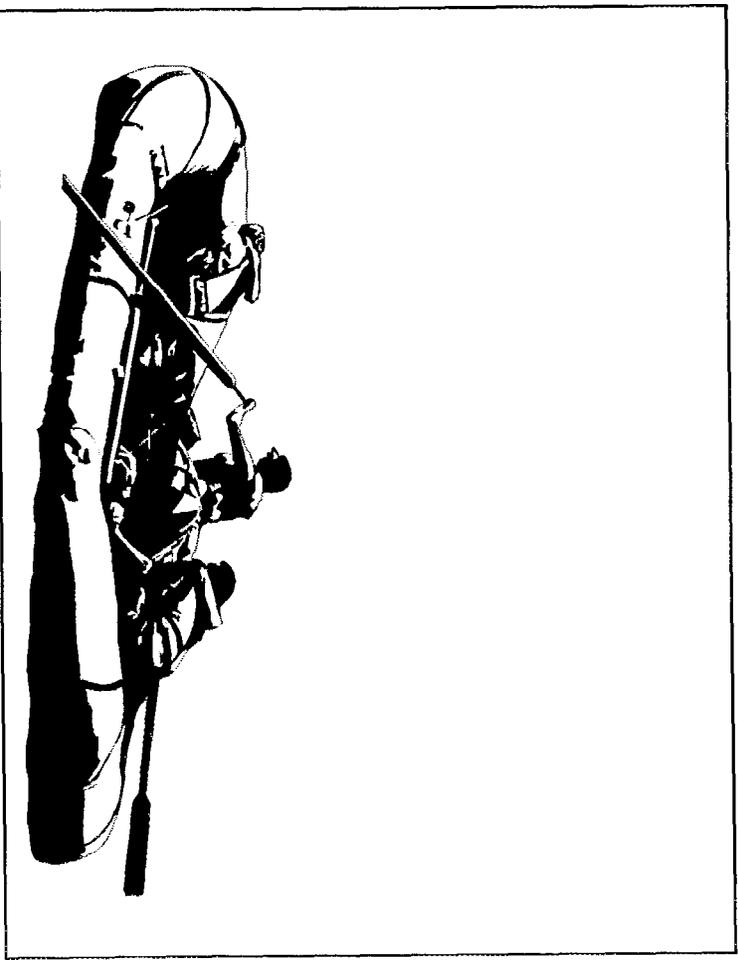


Table III-1

North Umpqua River Monitoring Plan

Fisheries Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Creel Census of W&S River Corridor	Determine angler use, catch rates, hatchery/wild ratios.	WFUD's, CPUE, Hatchery/wild	Survey	Bi- or tri-annually	Paper Files	ODFW, District Ranger, Area Manager	\$8-1 0,000	High/ High	10% reduction in use; any reduction in CPUE, and variance from ODFW objectives.	H
Spring Chinook Redd Counts	Determine spawning use by SCH in N. Umpqua River and major tributaries.	# Redds, # Adults, # Carcasses	survey	Annually	Paper Files	ODFW, District Ranger, Area Manager	\$2,500	High/ Moderate	Any reduction in spawning use relative to Winchester counts.	M
Sediment Deposition Evaluation	Determine if increased amounts of fine sediment is depositing on spring chinook spawning bars.	Volume or weight of fine sediment	Collection	Post-storm event	Paper Files	District Ranger, Area Manager	\$5,000	Moderate/ Moderate	Any increase in deposited fine sediment relative to control.	M
Operation of Winchester Dam Counting Station	Determine numbers, timing, and composition of adult fish migration.	# Fish	ODFW	Bi-weekly	Paper Files	ODFW	\$10,000	High/ High	Any counts below established ODFW objectives, by species.	H
Macroinvertebrate Indices	Determine if management activities are affecting aquatic habitat in selected streams.	Species and Community Composition	Project plans; survey	Annually	2500 File, Annual Monitoring Report	Forest and ELM District Fish Biologists and Hydrologists	\$8,000	Moderate/ Moderate	Any change of aquatic indices showing decreases in aquatic habitat quality on North Umpqua River above Copeland, below Steamboat and above Rock Creek; and Susan, Steamboat, Canton, Boulder, Copeland, Calf, and Panther Creeks.	H

Fisheries Monitoring, Continued

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Channel Cumulative Effects and Maintenance of Fish Habitat	Establish baseline information to avoid cumulative effects of management activities on beneficial uses of water (validate S & G's).	Class II Stream Channel Habitat Quality	Survey	5 Years	TRI (2)	District Rangers, WS Staff, Wildlife Staff, Fish Biologists, Hydrologists	\$17,000	High/ Moderate	Any decrease on a sub-basin scale in habitat quality.	M
Smolt Production	1) Validate smolt output estimates; 2) determine if changes in habitat quality and fish populations are occurring.	# of Smolts	Survey	Annually 20% of Class I streams	2630 File	District Ranger, Area Manager	\$22,500	Moderate/ High	Any decrease in smolt numbers compared to stream specific baseline information in excess of 10% of Forest-wide mean for each year.	M
Pool Quality	Determine if management activities are reducing pool quality in selected stream reaches.	# of Pools with changed rating	Survey	Yearly, on index streams	TRI	District Ranger, Area Manager	\$5,000	Moderate/ High	Detectable reduction in pool volume, in total base on established baselines.	L
Woody Material	Determine if management activities are decreasing the amount of large woody material in selected stream reaches.	# of pieces of wood that meet minimum standard	Survey	Annually on index streams	TRI	District Ranger, Area Manager	\$5,000	High/ High	Any decrease in amount of large wood material.	L

Water Quality Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(\$)	Precision/Reliability	Threshold of Variability	Priority
Stream Temperature	Validate that stream shade requirements meet water quality standards for temperature.	°F	Douglas County Water Re-source Survey and North Umpqua RD and RA	Annually	2500 File, Annual Monitoring Report	District Ranger, Area Manager	\$18,790	High/ Moderate	Measurable increase in water temperature on any of the following streams: North Umpqua River below Steamboat and above Rock Creek and Steamboat, Canton, Boulder, Copeland, Calif, and Panther Creeks.	H
Stream Sediment, Turbidity, and Streamflow	Validate that Best Management Practices meet water quality standards for turbidity.	mg/l, NTU, cu.ft./sec.	Douglas County Water Re-source Survey, Umpqua NF, Roseburg BLM	Annually	2500 File, Annual Monitoring Report	Forest Hydrologist, BLM District Hydrologist	\$18,900	High/ Moderate	Increase in turbidity/flow relation on North Umpqua above Steamboat; North Umpqua above Rock Creek; and Steamboat, Canton, and Boulder Creeks.	H
									Increase turbidity/flow relation on N. Umpqua above Copeland Cr.	M
Soil and Water Rest Management Practices	Compliance with soil and water S&G's and BMP's.	# of BMP's	EA's	Annually	2500 File, Annual Monitoring Report	District Ranger, Area Manager	\$12,000	High/ High	1) Fewer than 99% of BMP's in EA's; 2) fewer than 99% of BMP's implemented; 3) where BMP's fail, fewer than 99% mitigated.	H
Public Water Supplies	To assure planned activities meet BMP's near public water supplies.	# of public water supplies	EA's	Annually	2500 File, Annual Monitoring Report	District Ranger, Area Manager	\$1,500	High/ High	Public water supplies identified as a beneficial use in fewer than 99% of activities which affect them.	L

Water Quality Monitoring (Continued)

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Riparian Area Vegetation	Maintain effective shade on North Umpqua River and tributaries in the W&S corridor.	% of effective shade	Project report on each activity	Annually	2500 File, Annual Monitoring Report	District Ranger, Area Manager	\$12,500	High/ Moderate	-10% of existing effective shade before operations.	L
Storm Watch, Best Management Practices during Rainstorms	Verify BMP effectiveness during rainstorms	# of BMP's, visible turbidity	Umpqua NF and Roseburg BLM	Annually	2500 File, Annual Monitoring Report	District Ranger and Area Manager	\$2,500	Moderate/ Moderate	Contract violations and visible turbidity observed during 3 to 5 storms per winter, summarize at Fall monitoring meeting with interested publics.	H

Recreation Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Conflict between Recreation User Types	Resolve rafting, fishing, camping, and trail user problems.	# of Complaints	Recreation Users	Annually	Computer Storage with Annual Report	District Ranger, Area Manager	\$1,500	Moderate	Excessive number of reported conflicts/ complaints.	H
Perceptions of Wild and Scenic Corridor Crowding	Recreational User - Quality of experience.	User Perception	Recreation Users	Every 5 Years	Social Carrying Capacity Survey	District Ranger, Area Manager	\$10,000/ Year	Moderate	>25% of time.	M
River Corridor Recreation Use Counts	Monitor numbers of trail users, anglers, campers	User Day5	Survey	Annually	Computer	District Ranger, Area Manager	\$7,500	High	Excessive increase in use.	H

Recreation Monitoring (Continued)

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Congestion or Crowding at Rafting Sites/ Facility Capacity	Resolve overcrowding conflicts.	Site	Interview rafters	Daily, weekends, holidays, peak use days	Facility Carrying Capacity Survey	District Ranger, Area Manager	\$2,500	High	Having to wait an unacceptable length of time to launch or retrieve a craft at major launch sites.	H
Rural development on private lands	Track development	Occurrence	Survey	Annually	County Planning Dept., state Parks	State Parks	\$500	Moderate	None	H
Parking Capacity	Monitor number of days parking lot capacity is exceeded	Sites	Survey	Annually	Facility Carrying Capacity Survey	District Ranger, Area Manager	\$2,500	High	Number of times capacity exceeds 100%/season	M
Total Boating Use/Season	Assess total use trends	User Days	Survey	Annually	Computer	District Ranger, Area Manager	\$7,500	High	Evaluation triggers: 5750 noncommercial, 2300 commercial	H
Campground Use	Provide a quality camping experience	Site Capacity	Exit Survey	Annually	Computer	District Ranger, Area Manager	\$3,500	High	Number of days that campground demand exceeds capacity.	M

Wildlife Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Osprey Sites	Population and reproduction counts	Nest sites occupied; # of young	Survey	Annually	Paper files	District Ranger, Area Manager	\$1,000	High	Any decrease in number of sites or population	L
Inventory appropriate nesting habitat for bald eagles*	Locate existing nest sites and/or potential nest groves	# of nests. Identification of likely sites to manage as potential nesting groves	Survey	Annually	Paper files	District Biologist	\$700	Moderate	Actual discovery of nest site. Display of courtship behavior. Orientation to specific stands/acres.	M
Monitor eagle use patterns and human activities	Determine how human use affects eagle use patterns and potential of nesting	Number of conflicts. Changes in eagle use patterns or behavior	Survey	Annually	Paper files	District Biologist	\$800	Moderate	Exceeding established standards	H
Monitor peregrine falcon nesting productivity	Nesting success in river corridor	Nest sites, # of young	Survey	Annually	Paper files	District Biologist	\$500	High	Any decrease in population or sites	H
Inventory the winter population of bald eagles on N. Umpqua River.	Pinpoint feeding areas, roost, and appropriate habitats	Roost sites' critical feeding sites	Survey	Annually	Paper Files	District Ranger, Area Manager	\$900	Moderate/High	Any effect to utilization of winter roosts and feeding sites	H

*Consult with the bald eagle working team if a site is found, or potential sites are to be prioritized.

Cultural Resource Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Inventory archaeological sites	Locate archaeological sites	Site	Survey	Annually	Computer, paper files	BLM, forest Archaeologists	\$5,000	High/ Moderate	Discovery of a site, evaluation of site by National Register Criteria.	M
Monitor archaeological sites	Evaluation stabilization	Site	Survey	Annually	Computer and paper files	BLM, Forest Archaeologists	\$2,000	High	Loss of data from a site.	H

Botanical Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Monitor <i>Cypripedium fasciculatum</i> sites	Stabilize plant populations	Number of stems in sites	Survey	Annually	Paper files	District iBiologist	\$500	h	No decrease in plant population	H

Visual Monitoring

Activity	Objective of Monitoring	Unit of Measure	Data Source	Report Frequency	Data Storage	Position Responsible	Annual Cost(s)	Precision/Reliability	Threshold of Variability	Priority
Visual Condition	Insure maintenance of visual condition	Visual condition	Resource Inventory Survey	3 years	GIS, Map, Files	District Ranger, Area Manager	\$1,000	Moderate	Scenic quality below prescribed visual condition	M

Proposed Water Quality Monitoring Sites

Stream/Location & ID Number	Parameters Measured Main Stem River	Annual Cost (* = first year cost)
North Umpqua above Copeland Cr. 14316500	Flow, Turb, Minv	\$ 7,300 10,300*
North Umpqua above Steamboat 15100001	Turb	1,000
North Umpqua below Steamboat 14316600	Flow, Temp, Minv	500
North Umpqua BLM above Rock Creek 14317500 (New)	Flow, Temp, Turb, Minv	10,000 17,000*
Boulder Creek 14316495 (15160003)	Flow, Temp, Turb, Minv	6,300
Copeland Creek 15100004	Temp, Minv	1,300
Calf Creek 15100008	Temp, Minv	1,300
Steamboat Creek 14316700 (15170003)	Flow, Temp, Turb, Minv	8,300
Canton Creek 14317530 (15180002)	Flow, Temp, Turb, Minv	6,300
Panther Creek (New)	Temp (New), Minv	1,300
Totals		\$43,300 53,300*

Flow = Streamgauge continuous discharge measurements all year (\$2000/yr except Steamboat USGS Station \$4000/yr).

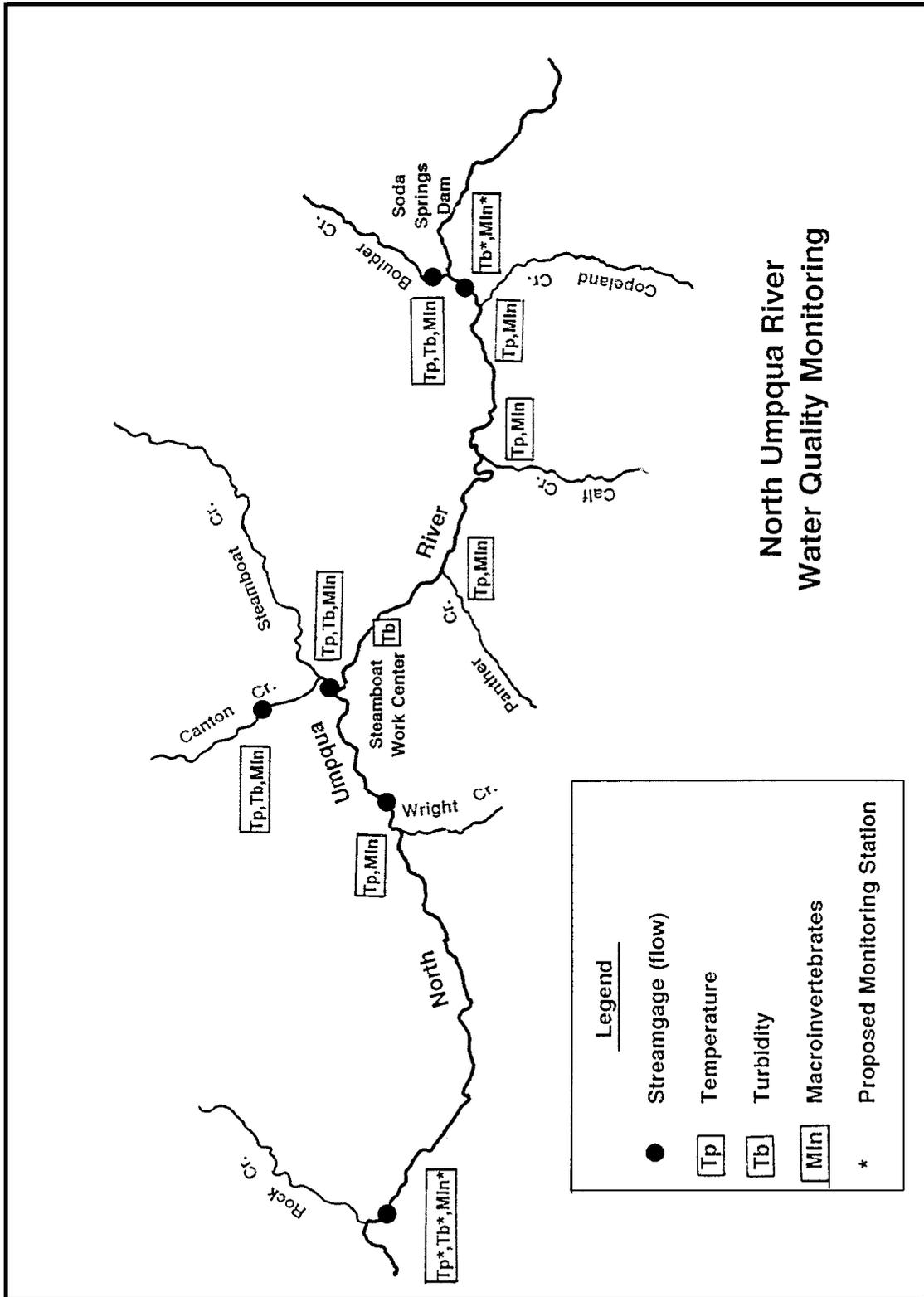
Turb = Turbidity measurements daily or more frequent Nov-Mar (\$3000/yr except North Umpqua above Rock Creek where pumping costs are higher).

Temp = Continuous temperature measurements June 15-Sept. 15 (\$1000/yr).

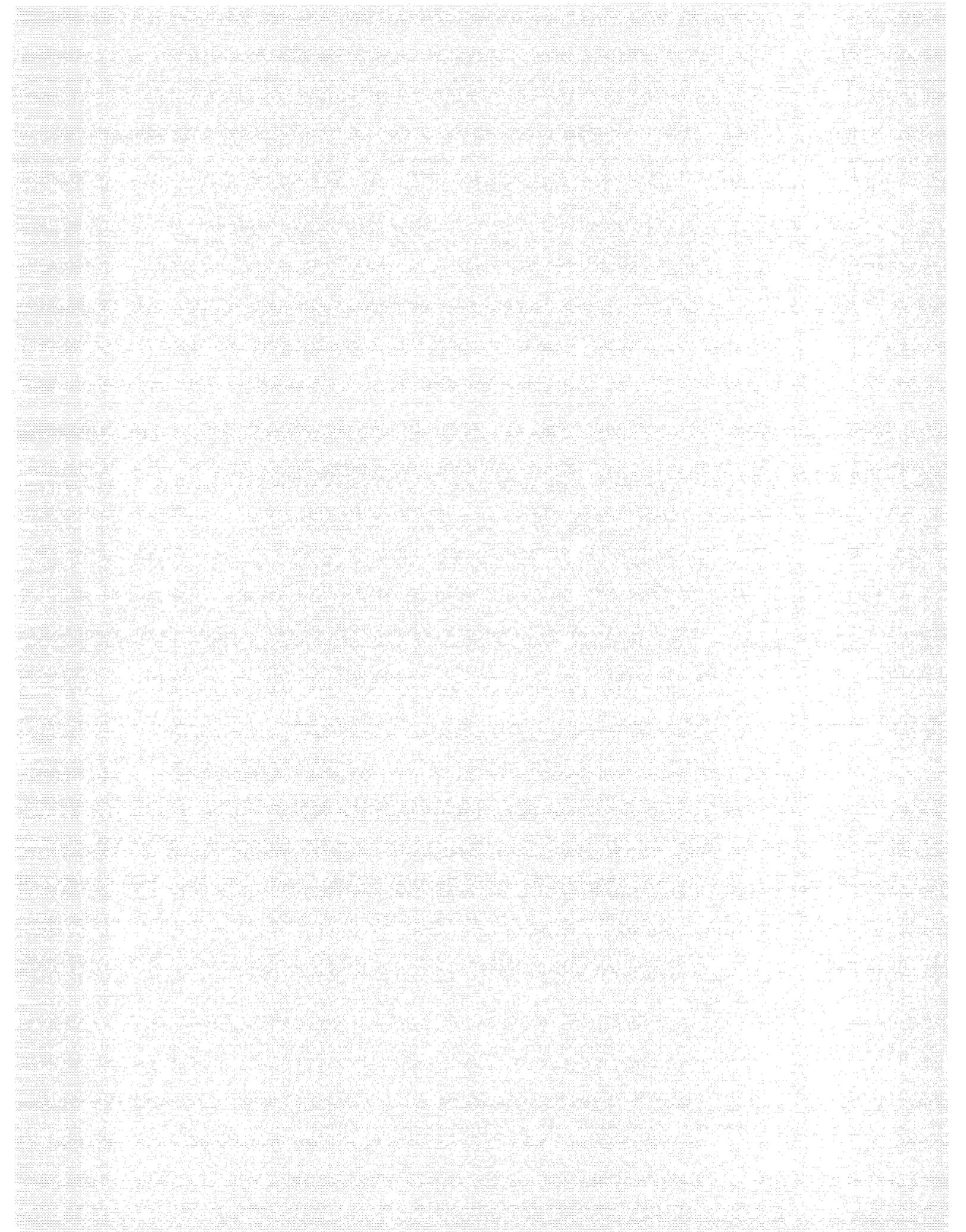
Minv = Macroinvertebrate (aquatic insect) sampling (\$300/yr).

* = first year cost if different from annual operating cost (first year cost includes start-up and operating cost).

Note: Site ID numbers beginning with 14 are U.S. Geological Survey streamgauge identifiers, and numbers beginning with 15 are U.S. Environmental Protection Agency STORET water quality station numbers.



CHAPTER IV
County Comprehensive Planning



CHAPTER IV County Comprehensive Planning

The Douglas County Comprehensive Plan and Land Use Development ordinance presently acknowledges the need to protect scenic qualities of the North Umpqua River. The current county plan recognizes the fact that the North Umpqua was identified by the Federal Government as having potential for Federal Wild and Scenic status. However, the comprehensive plan does not indicate that the river has since been given State Scenic Waterway, or Federal Wild and Scenic status for protection. Reasons for this omission involve the time in which the river was designated for protection and the time in which the county reviewed and amended their comprehensive plan for state periodic review. The designation of the North Umpqua River as a scenic waterway through the passage of Ballot Measure 7 did not take effect until December 8, 1988. The Omnibus Oregon Wild and Scenic Rivers Act of 1988 took effect when the President signed the bill into law on October 28, 1988. Douglas County has not yet adjusted their plan to reflect the new state and federal legislative status for the protection of the river,

To have the plan reflect the changes in State and Federal Laws for the protection of the North Umpqua River Corridor, county planning staff and officials are currently revising the comprehensive plan findings and policies through the plan update process. These plan revisions will: (1) acknowledge the present federal and state legislative status of the river, (2) provide for appropriate land uses and development standards on lands adjacent to the river, and (3) provide for a coordination process with the State Parks Department for review of local development proposals.

Direction for implementation of the plan is provided by the County Land Use and Development Ordinance. This ordinance specifies appropriate uses for public and private lands throughout the county, including the subject River Corridor area. Four zone districts and three special zone overlay districts affect the use and development of lands in the River Corridor area. The four base zone districts allow for forest, commercial, residential, and agricultural uses. A base zone allows for use of the land that is most appropriate for a given area. An overlay zone is applied "over" or in addition to the base zone applied to a given land area,

The majority of the private lands in the River Corridor are zoned Timberland Resource, a designation which emphasizes the protection of lands for the continued production of forest products and related uses. About ten percent of the private lands is zoned as "Tourist Commercial" which is intended to accommodate commercial land uses for tourists and the recreating public. Approximately six percent of private lands in the Corridor is zoned "Rural Residential-5" which is intended to allow for the development of homesites at a low-density (1 dwelling per 5 acres).

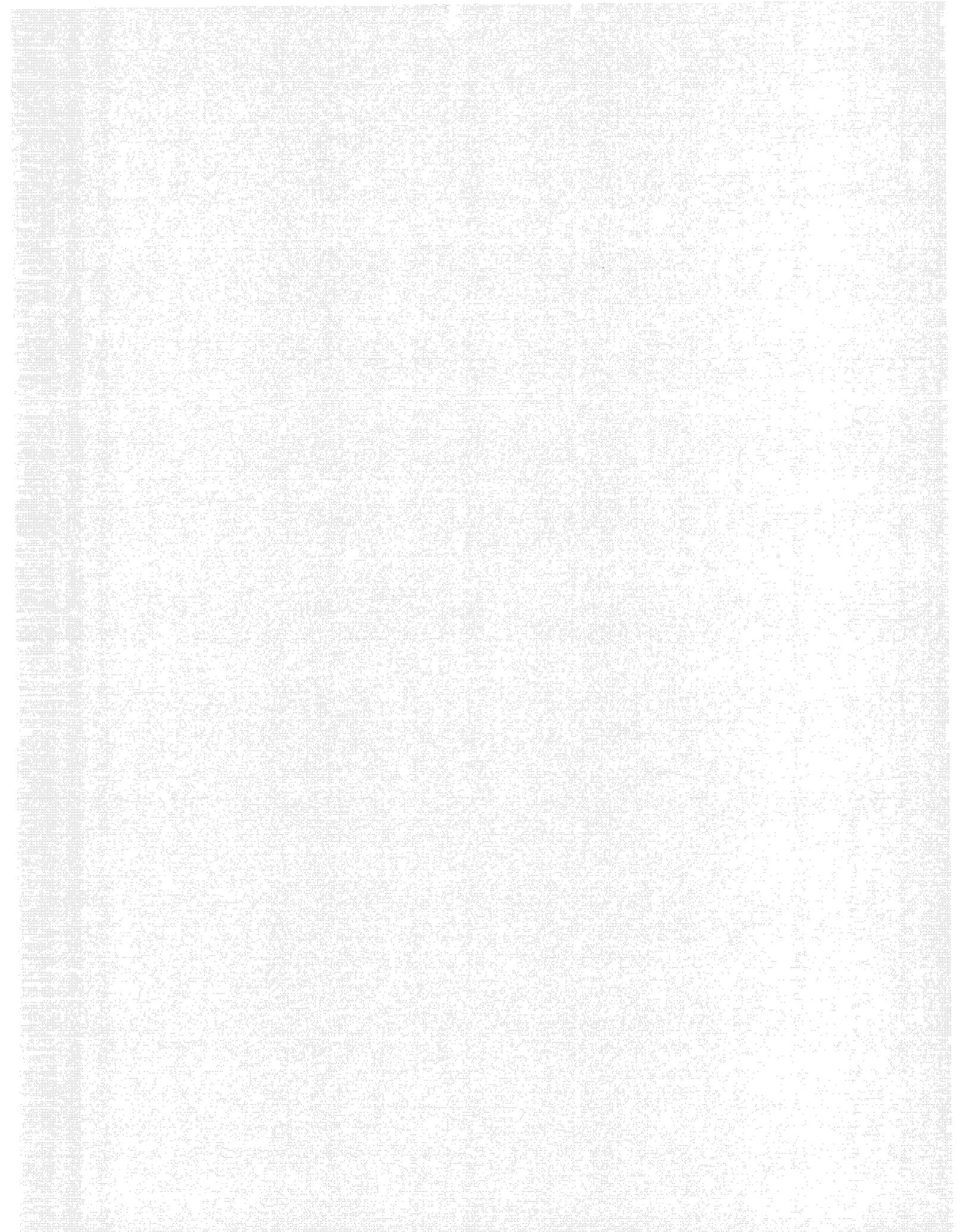
The three overlay zones that affect how lands can be developed in the river Corridor are the North Umpqua Park or Public Recreation Area overlay, the Architecturally Controlled District, and the Riparian Vegetation Corridor Overlay. The North Umpqua

Park or Public Recreation Area Overlay district will be applied to all lands within the Wild and Scenic River corridor. This district is intended to protect and conserve areas identified as containing public value for park or recreational use, aesthetic or visual value, camping, picnicking, and passive outdoor games and activities. In addition to the development standards of the base zone, this overlay zone requires that development proposals be subject to notice requirements of the Oregon Scenic Waterways Program. This overlay zone also requires that non-resource associated development be subject to architectural control standards located in another part of the ordinance identified as the 'Architecturally Controlled Districts.'. Architecturally Controlled Districts, the second overlay zone, applies to lands in the subject corridor that is zoned for rural residential and commercial use. This overlay zone addresses site design standards such as landscaping, yard dimensions, and methods of ingress and egress to temper visual and other impacts generated by intensive development.

Setbacks are one of the most important design standards used as a tool to mitigate environmental and visual impacts of possible rural residential or commercial development adjacent to rivers. The Douglas County Riparian Vegetation Corridor Overlay applies to all properties and land use designations located within 50 feet of the bank-line of all perennial and intermittent water courses. All uses allowed in the base zone may be permitted or conditionally permitted on lands affected by this overlay zone. Most importantly, a building setback of fifty (50) feet measured horizontally from the bank of a watercourse is required.

This setback distance can be reduced at the request of the developer if the Planning Director finds that fifty feet is unnecessary as a mitigation measure for the protection of wildlife and construction and the reduced distance cannot jeopardize streambank stability or water quality. This determination is made by the Planning Director only after consultation with Oregon Department of Fish and Wildlife. If agreement between the Planning Director, the developer, and OCFW cannot be reached regarding an appropriate setback distance, a variance procedure is required. If the developer can prove that a variance from the 50 foot setback distance is justified, a reduction will be allowed.

CHAPTER V
Oregon State Waterway
Classification and Rules



CHAPTER V Oregon Scenic Waterways Classification and Rules

Background

The Oregon Scenic Waterway Act was established by a ballot initiative in 1970. The original Oregon Scenic Waterways system created by the Act included 496 free-flowing miles of six rivers.

Rivers can be added to the system through designation by the Governor or the legislature. Such actions have added significant mileage of five rivers, as well as Waldo Lake, to the Scenic Waterways system since passage of the original Act,

Rivers can also be added to the system by the citizens of Oregon. In 1988, Oregon voters passed the Oregon Rivers Initiative (Ballot Measure 7), which added 573 river miles to the system. There are now one lake and segments of 19 rivers (1,148 miles) in the State Scenic Waterways system.

Program Goals

The scenic waterway program promotes cooperative protection and wise use of rivers in the system by all agencies {Federal, State, and local), individual property owners, and recreation users. Program goals are:

- To protect the free-flowing character of designated rivers for fish, wildlife, and recreation. No dams, reservoirs, impoundments, or placer mining activities are allowed on scenic waterways.
- To protect and enhance scenic, aesthetic, natural, recreation, scientific, and fish and wildlife values along scenic waterways. New development or changes of existing uses proposed within a scenic waterway are reviewed before they may take place.
- To protect private property rights. The Act discourages unsightly structures or inappropriate development that could be a nuisance to neighboring landowners or even depreciate property values. It prohibits pollution and the disturbance of adjacent surface lands by placer mining. It also prohibits public use of private property without explicit consent of the landowner.
- To promote expansion of the scenic waterway system. The Act sets up a process for adding new rivers to the system and establishes criteria for candidate rivers.
- To encourage other local, State, and Federal agencies to act consistently with the goals of the program. Oregon State Parks reviews plans and decisions made by other agencies to ensure consistency with the scenic waterways program.

Scenic Waterway Classifications

Under Oregon law (ORS 390.845 - Functions of the department: use of adjacent lands), the scenic waterway program is administered by the State Parks and Recreation Commission and staffed by the Oregon State Parks and Recreation Department. The Parks Department is required to protect the aesthetic, scenic, fish and wildlife, scientific and recreation features based on special attributes of each river area. The Parks Department strives to protect special attributes of the river while recognizing existing land uses and management practices on adjacent lands.

In order to define and achieve management goals, the river is classified into one or more of six possible classifications, according to the present level of land development or landscape alterations. Once the classifications are set, appropriate guidelines for new development or landscape alterations are established as rules. The aim of the program is to maintain the existing scenic condition of the river.

The following are existing land use and land alteration conditions usually associated with each of the six river classifications and how each kind of classification should be administered (managed) in scenic waterways:

1. Natural River Areas are generally inaccessible except by trail or river, with primitive or minimally developed shorelands. Preservation and enhancement of the primitive character of these areas is the goal of this and the next two classifications.
2. Accessible Natural River Areas are relatively primitive, undeveloped areas with access by railroad or lightly traveled road.
3. Natural Scenic View Areas are designated where one riverbank is inaccessible, undeveloped or primitive in character while the opposite bank is accessible and developed.
4. Scenic River Areas may be accessible by roads, but are largely undeveloped and primitive except for agriculture and grazing. River segments considered "scenic" are managed to maintain or enhance their high scenic quality, recreation values, fishery and wildlife habitat. The intent is to preserve their largely undeveloped character while allowing continuing agricultural uses.
5. Recreational River Areas are readily accessible by road or railroad, with some agricultural, commercial, and/or residential development along the banks; the river may have undergone some impoundment or diversion in the past. River segments considered "recreational" are managed to allow continuance of compatible river-oriented public outdoor recreation opportunities, to the extent that these do not substantially impair the natural beauty of the scenic waterway or diminish its aesthetic, fish and wildlife, scientific, and recreational values.

6. River Community Areas are river segments where the density (residential tract or platted subdivision) of existing structures or other developments precludes application of a more restrictive classification. River segments considered "community areas" are managed to allow development that is compatible with county zoning and blends into the natural character of the surrounding landscape. This also means protecting riparian vegetation and encouraging activities that enhance the landscape.

The rules established for each river classification generally allow some new construction and continued use of existing structures and improvements. Though some improvements require notification, review and approval, many others do not. For example, notification and approval are not generally needed for construction of new fences; maintenance of farm buildings, fences, or outbuildings; laying of irrigation lines; crop rotation; removal of danger trees; construction of grain storage facilities under certain conditions; maintenance of existing residences and outbuildings; minor residential remodeling; construction of garages adjacent to existing homes; certain changes in homesite landscaping; maintenance of roads and bridges; and firewood cutting for personal use.

Mining, road building, construction of most new structures, placement of mobile homes, land clearing, and timber harvest are examples of activities requiring approval. River classifications and the associated rules or guidelines determine how the natural and scenic beauty of the river will be maintained,

Classifications

Each riverbank is classified separately with a classification that best describes its level of development. Lands adjacent to the river on both its north and south banks between Soda Springs Power House and Marsters Bridge are classified as a "Recreation River Area". Lands adjacent to the river between Marsters Bridge and the confluence of Rock Creek with the river be given a dual classification. Except for the existing river communities specifically located below, the north side of this segment of the river is classified as "Recreation River Area" and the south side of the river be classified "Scenic River Area".

The following segment of the North Umpqua Waterway will be classified a Recreation River Area:

The shoreline and related adjacent land on both banks of the North Umpqua River from its intersection with a line forming the East half of the East half of Section eighteen (18), Township twenty-six (26) South, Range three (3) East, Willamette Meridian, Douglas County (a line forming E $\frac{1}{2}$, E $\frac{1}{2}$, Section 18, T26S, R3E, W.M., Douglas County; approximately just below the Soda Springs Powerhouse) downstream to the North Umpqua River Highway (13) bridge in Section twenty-two, (22), Township twenty-six (26) South, Range two (2) East, Willamette Meridian (Section 22, T26S, R2E, W.M., Douglas County),

The "Recreation River Area" classification for this segment of the river recognizes the presence of the existing state highway, a campground site, and facilities associated with the generation and transmission of electrical power.

The following segment of the North Umpqua Scenic Waterway be given a dual classification with the shoreline and adjacent lands south of this segment's channel classified as "Scenic River Area"; and the shoreline and adjacent lands north of these segment's channel classified as "Recreation River Area":

From the North Umpqua River Highway 138 bridge (Marsters Bridge) located in section 22, township 26, range 2 E W.M., and the point at which Rock Creek converges with the North Umpqua River excluding any area classified River Community Area'.

The dual classification for this river segment recognizes the presence of the existing State Highway; dispersed, multi-purpose, recreation sites; and developed public campgrounds on the north side of the river: while acknowledging the need for protection of the minimally disturbed forest environment along the south side of the river.

The developed areas on the north side of the river at Rock Creek, Frontier Village Susan Creek Village, Steamboat, and Dry Creek, more specifically described below be classified "River Community Area":

Rock Creek: All the shoreline and related land east of Rock Creek along the right bank (as seen when facing downstream) within the SW¼ of Section 1, T26 S, R3 W, W.M., which includes tax lots 600, 700, 800, and 900.

Frontier Village: The North Umpqua Village Subdivision (Vol. 7, page 60, approved in March 1948); the plat of North Umpqua Village first addition as recorded in volume 10, page 52; tract 37 of section 16, Township 26 S, Range 2W, W.M., Douglas County, Oregon, as filed June 25, 1954. In addition to these plats tax lots 300 and 400 of the SW¼ of T26, R2W, Sec. 16 (Sec 16C); tax lots 500, 600, 700, 701, and 800, in SE¼ of T26 S, R2 W, Section 17.

Susan Creek Village: The shoreline and related adjacent lands lying along the right bank of the North Umpqua River (as seen facing downstream) and described as follows: The northwest one-quarter of Section twenty-three, Township twenty-six South, Range two West, Willamette Meridian, Douglas County (NW¼, Section 23, T26S, R2W, W.M.).

Steamboat: All shoreline and related adjacent lands lying within the west half of Section thirty-two (32), Township twenty-five and one-half (25½) South, Range one (1) East, Willamette Meridian (W½, Section 32, T25½S, R1E, W.M.); the northwest one-quarter of the northwest one-quarter of Section five (5), Township twenty-six (26) South, Range one (1) E Willamette Meridian (NW¼ NW¼ Section 4, T26S R1E, W.M.); the East half of Section thirty-one (31), Township twenty-five and one-half (25½), Range one (1) East, Willamette Meridian (E½, Section 31,

T25½S, R1E, W.M.); and the north half of the northeast one-quarter of Section six (6), Township twenty-six (26) South, Range one (1) East, Willamette Meridian (N½ NE¼), Section 6, T26S, R1E, W.M.) Douglas County.

Dry Creek: All shoreline and related adjacent lands lying along the right bank (as seen when facing downstream) within the east half of the northwest quarter and the west half of the northeast quarter of Section twenty (2), Township twenty-six (26) South, Range one (1) East, Willamette Meridian (E½ NW¼, and W½ NE¼, Section 20, T26S, R1E, W.M.), Douglas County.

The “River Community Area” Classification recognizes the presence in the areas described above of intensive development and/or commitment for intensive development that includes single family dwellings, small resorts, motels, stores, auto service stations, and private recreational vehicle parks.

Land Management Rules

For that segment of the scenic waterway extending from Soda Springs Powerhouse downstream to the North Umpqua River Highway 138 bridge (Marsters Bridge) classified ‘Recreation River Area’;

The following rule applies:

This “Recreation River Area” will be administered consistent with standards set by OAR 736-40-035 and the Douglas County Land Use and Development ordinance. In addition to the above standards, landscape alterations shall be permitted only when substantially screened from view from the river by topography or native vegetation. If inadequate topographic or vegetative screening exists on a site, activities mentioned above may be permitted if vegetation is established which will provide substantial screening of the affected area. The condition of “Substantial vegetative screening* shall consist of an ample density and mixture of native evergreen and deciduous vegetation to totally obscure, or allow only a highly filtered view of the landscape affected by the improvement.

New structures and improvements shall be permitted when partially screened from view from the river by topography or vegetation. If inadequate topographic or vegetative screening exists on a site, the structure or improvement may be permitted if vegetation is established to provide partial screening of the proposed structure or improvement within a reasonable period of time (for example, 4-5 years). The condition of “partial vegetative screening* shall consist of an ample density and mixture of native evergreen and deciduous vegetation to partially obscure (at least one-half) the viewed improvement or structure, or allow a moderately filtered view (at least 50% filtering) of the proposed structure or improvement.

Improvements needed for public recreation use or resource protection may be visible from the river, but must be designed to blend with the natural character of the landscape.

For that segment of the North Umpqua Scenic Waterway classified "Recreation River Area" including lands on the north side of the river channel between the Highway 138 bridge (Marsters Bridge) and Rock Creek:

The following rule applies:

This "Recreation River Area" will be administered consistent with standards set by OAR 736-30-035 and the Douglas County Land Use and Development Ordinance. In addition to the above standards, landscape alterations shall be permitted only when substantially screened from view from the river by topography or native vegetation.

If inadequate topographic or vegetative screening exists on a site, activities mentioned above may be permitted if vegetation is established which will provide substantial screening of the affected area. The condition of "substantial vegetative screening" shall consist of an ample density and mixture of native evergreen and deciduous vegetation to totally obscure, or allow only a highly filtered view of, the landscape affected by the improvement.

New structures and improvements shall be permitted when partially screened from view from the river by topography or vegetation. If inadequate topographic or vegetative screening exists on a site, the structure or improvement may be permitted if vegetation is established to provide partial screening of the proposed structure or improvement within a reasonable period of time (for example 4-5 years). The condition of "partial vegetative screening" shall consist of an ample density and mixture of native evergreen and deciduous vegetation to partially obscure (at least one-half) the viewed improvement or structure, or allow a moderately filtered view (at least 50% filtering) of the proposed structure or improvement.

Improvements needed for public recreation use or resource protection may be visible from the river, but must be designed to blend with the natural character of the landscape.

Wherever the standards of OAR 736-40-035 and the above rule are more restrictive than the Douglas County Land Use and Development ordinance, the above Oregon Administrative Rules shall apply.

For that segment of the North Umpqua Scenic Waterway classified "Scenic River Area" including lands on the south side of the river channel between the Highway 138 bridge (Marsters Bridge) and Rock Creek:

The following rule applies:

This "Scenic River Area" will be administered consistent with standards set by OAR 736-40-035 and the Douglas County Land Use and Development Ordinance. In addition to the above standards, landscape alterations shall be permitted only when substantially screened from view from the river by topography or

vegetation. If inadequate topographic or native vegetative screening exists on or near the site, activities mentioned above may be permitted if vegetation is established which will provide substantial screening of the affected area within a reasonable period of time (for example 4-5 years). The condition of “substantial vegetative screening” shall consist of an ample density and mixture of native evergreen and deciduous vegetation to totally obscure, or allow only a highly filtered view of the improvement.

New structures and improvements shall be permitted when substantially screened from view from the river by topography or vegetation. If inadequate topographic or vegetative screening exists on a site, the structure or improvement may be permitted if vegetation is established to provide substantial screening of the affected area in a reasonable time (for example 4-5 years). The condition of “substantial vegetative screening* shall consist of an ample density and mixture of native evergreen and deciduous vegetation to totally obscure, or allow only a highly filtered view of the proposed structure or improvement.

Improvements needed for public recreation use or resource protection may be visible from the river, but must be designed to blend with the natural character of the landscape.

Wherever the standards of OAR 736-40-035 and the above rule are more restrictive than the Douglas County Land Use and Development Ordinance, the above Oregon Administrative Rules shall apply.

For all river segments, State and County agencies shall be notified of project level planning activities on National Forest and Bureau of Land Management lands within the Corridor to assure coordination of management actions with State Scenic Waterway requirements.

For those river segments classified “River Community Area”; the following rule applies:

New commercial facilities such as resorts, motels, and private recreational vehicle parks shall not be permitted unless their plans are consistent with requirements of the Douglas County Land Use and Development Ordinance; and they are not visible from any vantage point on the banks of, or from within, the river. Any other land uses that may be permitted in the river community areas by the county, such as single family dwellings, will be allowed if their plans are consistent with Douglas County Land Use and Development Ordinance requirements and Scenic Waterway Rules of Land Management, OAR 736-40-035.

Wherever the standards of OAR 736-40-035 and the above rule are more restrictive than the Douglas County Land Use and Development Ordinance, the above Oregon Administrative Rules shall apply.

Chapter V

APPENDIX A
Site Specific Project
Recommendations

APPENDIX A Site Specific Project Recommendations

The following is a list of proposed River Corridor projects, The projects shown are planned for completion within the next 10 years, under the Forest Service's Capital Investment Plan (CIP), or the Bureau of Land Management's Program Year Budget (PYB). When possible, priority will be given to implementing projects that accomplish the objectives of achieving the desired future condition and enhancing the ORV's. These proposals attempt to identify major projects that could resolve current and projected needs. As public expectations and needs change, other projects that have not been identified here, may be implemented using the Desired Future Condition vision statement in Chapter 11 as a guide.

The specific project implementation and development would be based on the availability of funding. Federal agencies involved will make every effort to identify opportunities for partnerships that would reduce the actual cost to the government, Table 11-1 contains a list of proposed projects and rationale that will be recommended with this Management Plan. Projects listed below have been put into two categories, Those shown as A are existing facilities scheduled to be upgraded, those with a B are new proposed developments, Implementation of these site specific projects will require NEPA analysis.

Recreation Projects

- B** Soda Springs - Rafting Facility: Developing this area as a whitewater boating put in would reduce some of the overuse and help decrease conflicts in Boulder Flat Campground, This potential site is currently used as a Pacific Power and Light (PP&L) day use picnic area and trailhead. It could serve as an interpretative facility through a partnership with PP&L, as well as a raft launch. Construct a launch access area, accessible toilet and a parking area.
- A1** Boulder Flat - Rafting and Picnic Facilities: Recommend converting east portion of this campground (sites 1 - 4) to day use only area, combined with a raft launching site and picnic area. Construct a paved 15 car parking lot and river access launch area, an accessible double toilet, changing room, and 2 picnic tables, Reconstruct the interpretative river information display. and protect information from weather damage. Consider one additional campsite to bring campground total to 8 sites on west side. Construct another handicapped accessible double toilet inside the campground to replace the existing structures.
- A2** Umpqua Rocks Geologic - Interpretative Area: Currently a roadside pull off and photo viewpoint area. This area has been identified for its interpretive potential due to the unique volcanic formations, Eagle Rock, Old Man-Woman Rock. This area can provide the west-bound traveler the first interpretive look at opportunities within the Wild & Scenic North Umpqua corridor.

- A3 **Eagle Rock Campground** - Toilet Facilities: Replacement of deteriorating and non-accessible toilet facilities with two accessible double seat vault toilets. Create accessible campsites and tent pads.
- B2 **Marsters Bridge Trailhead** - Parking and Toilet: Pave access road, renovate, pave, and define parking area. Provide North Umpqua Trail users a single vault handicapped toilet on site. Consider a trailhead map and display showing the entire length (79 miles) of the North Umpqua trail with Jessie Wright and Marsters segments highlighted and enlarged.
- B3 **Dry Creek Wayside and Toilet Facility:** This project includes a double vault handicapped toilet and picnic tables. This facility will be complementary to a privately owned log cabin store and trailer park across the highway. An interpretive display would provide an overview of the recreational opportunities within and outside the Wild & Scenic River corridor. Oregon Department of Transportation (ODOT) will provide paved parking and pull through area.

Horseshoe Bend Area

- B4 *Old Growth Grove - Spur Trail:* Develop a spur trail to the 60 acre old growth grove adjacent to the campground. This grove can be accessed via the North Umpqua Trail (Marsters Segment) 1 mile east of Calf Creek Road. Construct the loop spur trail for approximately 1/4 mile to incorporate an old growth flat featuring several large diameter Douglas-fir.
- B4 *Calf Creek Trailhead - Parking and Toilets:* Design a small parking area and renovate an existing dispersed campsite to accommodate overnight users of North Umpqua Trail and to provide an accessible single vault toilet.
- B4 Eliminate overnight use at the Calf Creek confluence with the North Umpqua. Past overnight use of the area has created health hazards. Recommend renovation of parking to accommodate one vehicle for day use only.
- B4 *Horseshoe Bend Day Use - Rafting Picnic Sites and Toilets:* Objectives for this project are to develop rafter facilities outside of the improved campground that exists .7 mile downstream. Due to the heavy use in the campground by rafters, the proposed facilities will potentially reduce rafter/camper conflicts. This site would provide a double toilet (vented with photocell) handicapped accessible unit, several day use sites with tables/fire rings, and parking area. These facilities will compliment the existing launch/takeout with low impact trails. An additional day use rafting site could be located across the river from Horseshoe Bend Campsite 26. This site would provide additional day use facilities that are much needed for rafting group lunch stops. Improvements would include a group picnic and a small restroom facility. Construct spur trail from the Calf Creek site of the North Umpqua Trail to the Flats.

Horseshoe Bend Campground

- A4 *Beaver Flat Loop - Access, Trail, Platform* This project will pave an existing access trail to the river. A fishing/viewing platform will be constructed overlooking the river at the end of the trail. A portion of the pavement around the Beaver Flat comfort station will be replaced to correct an excessive side slope problem. Additional work will be done to the interior of Beaver Flat comfort station to make it accessible to the disabled. Additional handicapped tables and grills will be placed in Beaver Flat to increase availability of sites for disabled people.
- A4 *Deer Flat Reservation Area - Accessibility:* An existing comfort station would be modified to accommodate physically challenged individuals. To improve accessibility within the reservation loop, access to the comfort station will be paved. Nine campsites will have accessible tables, grills, and pathways leading to the site from the spur. The pavilion will have handicap tables and unrestricted access.
- B4 *Deer Flat Reservation Area Pavilion:* A 20' x 30' pavilion featuring a native stone fireplace, electrical outlets, and night lights will meet growing demands for this type of facility. The pavilion will be designed free of barriers for handicap access,
- A4 *Water System Improvements:* This proposal will provide the campground with well water and abandon the old surface water source from the river. A submersible pump will be installed in an existing well and will be tied into the current treatment system. Approximately 2,000 feet of water distribution line will be replaced along with 17 hydrants. All new hydrants will be handicapped accessible. These water system improvements are necessary to reduce operating expenses under Department of Environmental Quality (DEQ) legal requirements,
- A4 *Electrical System Upgrade:* Approximately 750 feet of substandard powerline will be replaced by underground cable which will meet State electrical codes. This will eliminate lines which hang in and rub on trees. Electrical service will be added to 13 campsites in the Beaver Flat Loop. The new service will include 750 feet of underground line and 30 amp service Recreational Vehicle disconnects.
- B5 *Apple Creek Area - Interpretative Sign, Trail:* Consider an interpretative sign in an area that is best suited for public education of the effects of the Apple Wildfire area along Highway 138. Several turnouts between Apple Creek Campground and Horseshoe Bend ridge would be well suited for this sign. Construct a trail opposite Apple Creek Campground north to the existing old North Umpqua Highway. From there, reconstruct and construct a 1.25 mile trail using the existing old highway location as much as possible, ending at Jack Creek falls (an 80-foot falls).

- A5 *Apple Creek Campground - Paving and Toilets:* Pave existing campground road, spurs and parking area. Install one handicapped accessible double vault toilet in Apple Creek Campground. This will replace three deteriorated substandard single vault toilets built in the 1950's.
- B5 *Panther Trailhead - Toilet:* Recommend a single vault toilet at Panther trailhead to serve the users of the North Umpqua Trail. Consider an interpretative trailhead map and display showing the entire length (79 miles) of the North Umpqua Trail with Panther segment and Calf segments highlighted and enlarged.

Steamboat Recreation Area

- A6 *Island Campground - Accessibility Improvements:* Recommend developing a well for a hand pump water system. Startup a fee system to help manage use, Consider combining sites and developing group camping facilities and develop a vegetation management plan for campsite screening and river bank stabilization. Create handicapped accessible campsites and pave access to accessible toilets,
- A6 *Gravel Bin Rafting Facility - Parking, Toilets:* In a challenge cost share project with the Oregon State Highway Department (ODOT), the State will provide gravel parking for about 23 vehicles, signing, and a paved access ramp to the parking area. The Forest Service will provide an accessible toilet, weather proof interpretative information, landscaping, and planting. This heavily used raft facility serves as the main take out for the Soda Springs to Gravel Bin river segment. It is also a put-in for the Gravel Bin to Bogus Creek-Susan Creek segment.
- A6 *Mott Trailhead - Interpretive Display:* Currently, this area is used by fly fisherman trail users, and sightseers, Recommend creation of an interpretative display using an existing rustic 8-panel information booth.
- A6 *Steamboat Reservation Area - Well, Electricity:* Recommend additional development of reservation area to encourage outfitter guide use of this facility and to help alleviate overuse of local campgrounds. Construct spur trail to North Umpqua Trail (100 yards). Drill and develop well and install hand pump to provide users with on site water. Install electricity at pavilion.
- A6 *Riverview Trail - Improvements:* Encourage a variety of recreation opportunities on this historical 1920's highway. Portions of the Boundary Road (Old North Umpqua Highway) could be closed to vehicle traffic to promote mountain bicycle use. This trail, in association with the Mott segment would be a good mountain bicycle loop.

Few opportunities exist within the Wild & Scenic corridor for motorized trail use. This trail (road system) could be used for motorcycle and all terrain vehicle use. Feasibility should be determined for loop trails. Access to these

recreation opportunities would be from Williams Creek and Steamboat Inn and Bogus Creek Campground.

- A6 *Canton Creek Campground - Accessible Toilet:* Replace existing flush toilet facility when needed. Meet standards that accommodate the disabled. Create accessible campsites and paths. Consider a trail from Canton Creek to Riverview Trail to discourage walking on unsafe log truck travel route,
- A6 *Highway 138 and FS Road 38 - Rehabilitation:* Encourage ODOT to move gravel hopper, and restore visual quality to a hardened use area. Renovate this area after intersection reconstruction to blend the area from the Riverview Trail to the hopper site into the natural surroundings.

Wright Creek Area

- A7 *Bogus Creek Raft Launch Site - Toilet:* Replace existing flush toilet with an accessible toilet facility. Consider replacing the existing bulletin board with a weatherproof interpretative river information display, emphasizing river etiquette and use,
- A7 *Bogus Creek Campground - Accessibility, Improvements:* Replace the existing underground pressure tank and chlorine treatment system. Convert existing facilities to disabled accessible (toilets, campsites, etc.).
- B6 *Old Growth Grove/Trails -* Construct an old growth grove loop trail spur, off of the Mott Trail (Wright Creek Access) to serve mountain bicycle users, hikers, and campers. *Bogus Creek Trail -* Construct a trail from Bogus Creek campground to the Rivet-view Trail (old boundary road).
- A7 *Wright Creek Trailhead - Parking:* This trailhead is intended to serve as the western-most Forest Service access to a 79-mile trail that runs parallel to the Wild & Scenic North Umpqua River. It provides horse, hiker, and mountain bicycle access to 16 miles of trail to the west and 68 miles of trail to the east, 5.5 miles of which are National Recreation Trail (NRT).

Recommend development of an 8- to 10-car parking lot, traffic delineation, traffic barriers, trailhead signing, trail junction signing, a new accessible vault toilet. An interpretative display board could address horse, bicycle, fishermen, and hiker use as well as recreation opportunities in the Wild & Scenic River corridor. Trail map should show entire length of the North Umpqua Trail and highlight the Fox-Tioga and Mott segments.

Fall Creek Area

- A8 *Fall Creek Trailhead:* Pave the existing trailhead parking lot. Install parking bumpers.

- B7 Jobs Garden Extension:** This trail is intended to serve hikers using the Fall Creek National Recreation Trail. The project will provide additional opportunity for hikers by adding a loop that will allow for interpretation of a unique geologic area. Construct a 1-mile loop trail terminating at the Fall Creek Trailhead.

North Umpqua Trail

- B8 Eagle Creek Bridge:** Construct a 36-foot bridge over Eagle Creek on the Jessie Wright Segment.
- A9 Mott and Fox Segments - Bridges:** Construction and reconstruction of five bridges on the Mott and Fox sections. The Mott is a National Recreation Trail (NRT) 5.5 miles in length and is accessible by hikers, mountain bicycle, and horseback throughout the entire year. The Fox segment is 5 miles in length and connects the BLM Tioga section (11 miles) from the Forest boundary to the Mott (NRT). The Fox segment needs three bridges, two are under 20 feet in length. The third is 36 feet glue laminated of standard design. The Mott section needs one new bridge (20 foot) over Fisher Creek and a replacement stringer over John Creek.
- AI 0 Susan Creek Falls Trail:** Reconstruct Susan Creek Falls Trail to barrier-free standards to provide access to all.
- AI 1 Susan Creek Campground Expansion:** It is proposed that an additional 5 - 8 walk-in campsites be developed at the west end of Susan Creek campground. It is recommended this be done in lieu of new campground development in the corridor.
- A12 Susan Creek Campground Infrastructure and New Restroom Facility:** The existing infrastructure for the Susan Creek restroom is old and falling apart. Maintenance costs are extremely high, The existing restroom is old and does not meet the needs of today's campers. The proposal is to replace the old infrastructure and septic field and to construct a new restroom facility at the same site, which will not only be larger, but will also have hot and cold running water and showers.
- AI 3 Group Campsite at the Susan Creek White water Staging Area:** There is a growing demand for group reservation camping sites for groups that have come to float the river. The proposal is to rock the existing access into the site, provide one water hook-up, construct a small parking area to accommodate up to six cars, put in some fire rings and picnic tables, and install barricades along the road and parking area so that vehicles are confined to the rockered road surface.
- B9 Suspension Footbridge to Cross River at Susan Creek:** The Tioga section of the North Umpqua Trail is approximately 15 miles long. Because of the length, very few people actually hike the entire trail, preferring to hike out and back from either one end or the other. If a hiking bridge were constructed

at Susan Creek, a point about midpoint between the two trailheads, it would accomplish three purposes: (1) it would allow more people to hike point to point on this section of trail, (2) it would also allow people using the Susan Creek Campground and Picnic Area to cross the river and hike the North Umpqua Trail as a part of their Susan Creek recreation experience, and 3) it would provide fishing access for the south side of the river.

- B10 Primitive Campsite along the North Umpqua Trail:** A primitive campsite should be developed along the North Umpqua Trail on the south side of the river across from the Susan Creek recreation site. This site would be developed for users of the North Umpqua Trail as well as for rafting groups. Development of this site would be minimal and would involve installation of a backcountry toilet and a cleared area for fires,
- B11 North Umpqua Spur Trails to Scenic Vistas and Points of Interest:** Short spur trails off of the North Umpqua Trail which would access points of interest would enhance the quality of the visitor experience on this trail system. A case in point is the Deadline Falls fish viewing trail which was constructed in 1992.

Swiftwater/Rock Creek

- A14 Swiftwater Day Use Area (North Bank Kiosk Site):** The recommendation is to grade and surface the existing parking area on the north bank of the river at Swiftwater Bridge. The area would be landscaped, a few picnic tables would be put in, and the feasibility of constructing a fishing/viewing ramp for the physically challenged would be explored.
- B12 Waste Water Dump Station:** Currently, the only public waste water dump stations are at Diamond Lake and Roseburg. With the heavy RV camping pressure in the corridor there is a need to develop an additional site somewhere midway between these two points which would serve users of both the Forest Service and BLM public lands. There is adequate room at Susan Creek for such a station. Further investigation of this site and perhaps others on or off Forest Set-vice land need to be done so that one waste dump site could be placed in the river corridor.
- B13 Baker Park:** Currently a County operated day use area. Of all the day use areas in the River Corridor, this one is best suited for conversion to an overnight facility. If camping demand increases in the Corridor beyond the current campground capacities, conversion of Baker Park to a camping facility would be preferable to developing any new campgrounds in the Corridor.
- A15 Scenic Quality: Rehabilitation inventory:** Inventory all areas needing rehabilitation, screening and landscape restoration, Prioritize scenic enhancement projects, including right-of-way and riparian management for scenic vistas.

Appendix A

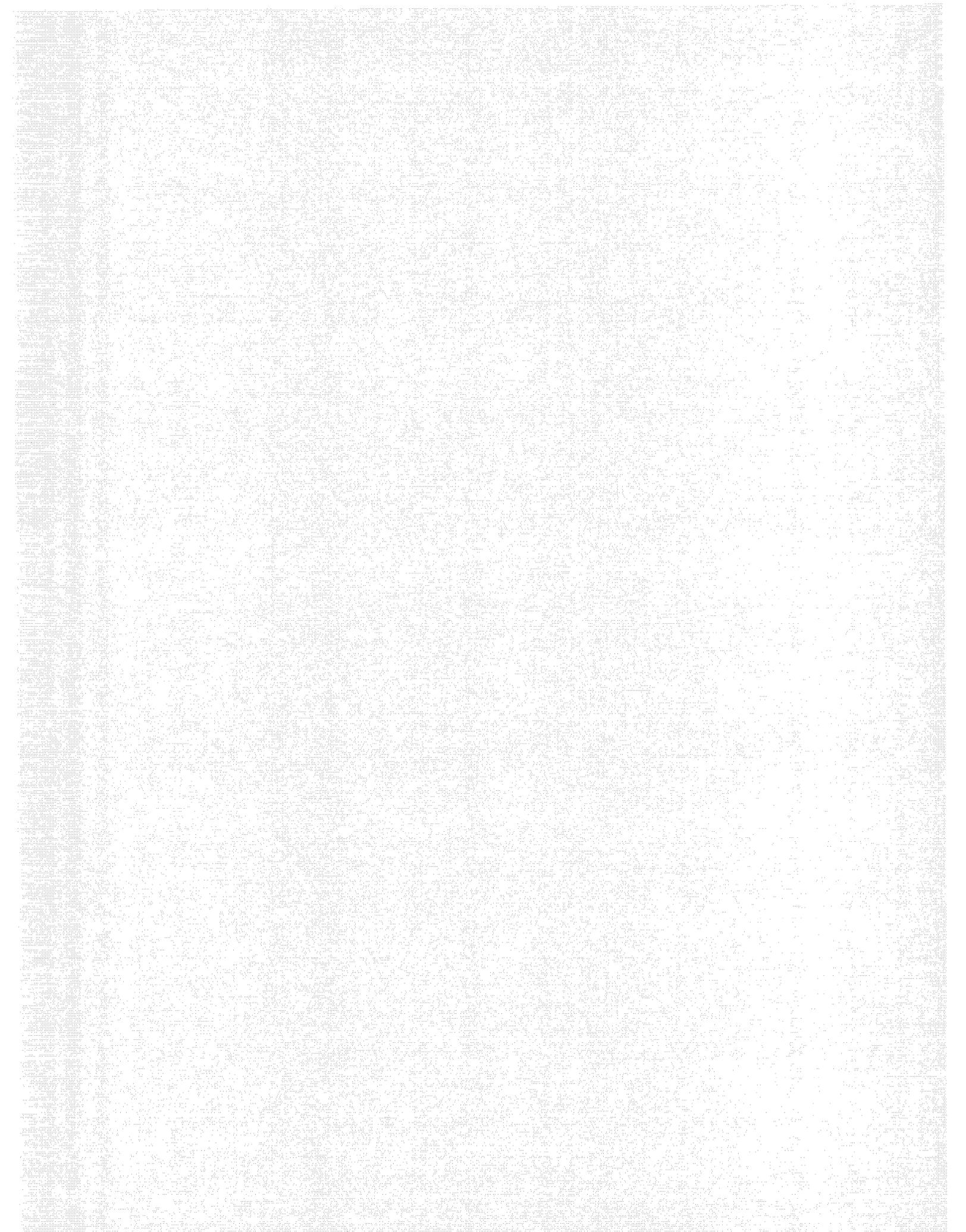
APPENDIX B
Potential Land Exchange
Candidate Tracts

APPENDIX B Potential Land Exchange Candidate Tracts

To Weyerhaeuser			From Weyerhaeuser		
T, R, S	Subdivision	Acres	T, R, S	Subdivision	Acres
23-2-33	SE ¼, NW ¼, SW ¼	200	24-1-8	E½ NE¼, SW¼NE¼, NE¼NW¼	160
24-2-1	All	640	25-2-2	S½	320
24-2-3	All	640	25-2-4	S½	320
24-2-11	All	640	25-2-6	S¼, W¼SE¼, SE¼SE¼	280
24-2-33	All	640	25-2-8	SE¼, S½SW¼	240
24-3-5	W½, W¼NE¼	400	25-2-10	S½	320
24-3-9	W¼W½	160	25-2-12	S½	320
24-3-15	E½E½, W¼SE¼, SE¼SE¼	200	25-2-14	All	640
24-3-17	E½NE¼, W¼SE¼	160	25-2-18	S½, W¼NW¼, NE¼NW¼, SE¼NE¼	480
24-3-19	W½	320	25-2-20	S½, NW¼, SE¼NE¼	520
24-3-21	NW¼SW¼	40	25-2-22	S½	323
24-3-22	SW¼NE¼, NW¼NW¼	80	25-2-24	S½SE¼, E½SW¼, NW¼SW¼, SE¼NW¼, SW¼NE¼, NW¼SE¼	320
24-3-23	NW¼NW¼	40	25-2-28	S½	320
24-4-35	W¼NE¼, E½W¼, N¼SW¼, SW¼NW¼	260	25-2-30	N¼SE¼, SE¼SE¼	120
25-4-3	NE¼NW¼, NW¼SE¼	80	25-2-32	N¼S½, SE¼SW¼, SW¼SE¼	240
			25-233	Haitus	60
			25-2-36	All	640
			25-3-24	All	640
			25-3-26	All	640
			25-3-34	S½, NE¼, N¼NE¼, SW¼NE¼	600
			25-3-36	All	640
			26-2-6	All	640
			26-2-8	S½NE¼, NW¼SE¼, E½W½, NW¼NW¼	340
			26-2-18	All	640
			26-3-2	N¼N¼, SE¼NW¼	200
			26-3-12	SW¼	160
			26-3-14	All	640
			26-3-24	NE¼, N¼NW¼	240
Total Acres		4,520	Total Acres		11,640

APPENDIX C

Intepretive Opportunities



APPENDIX C Interpretive Opportunities

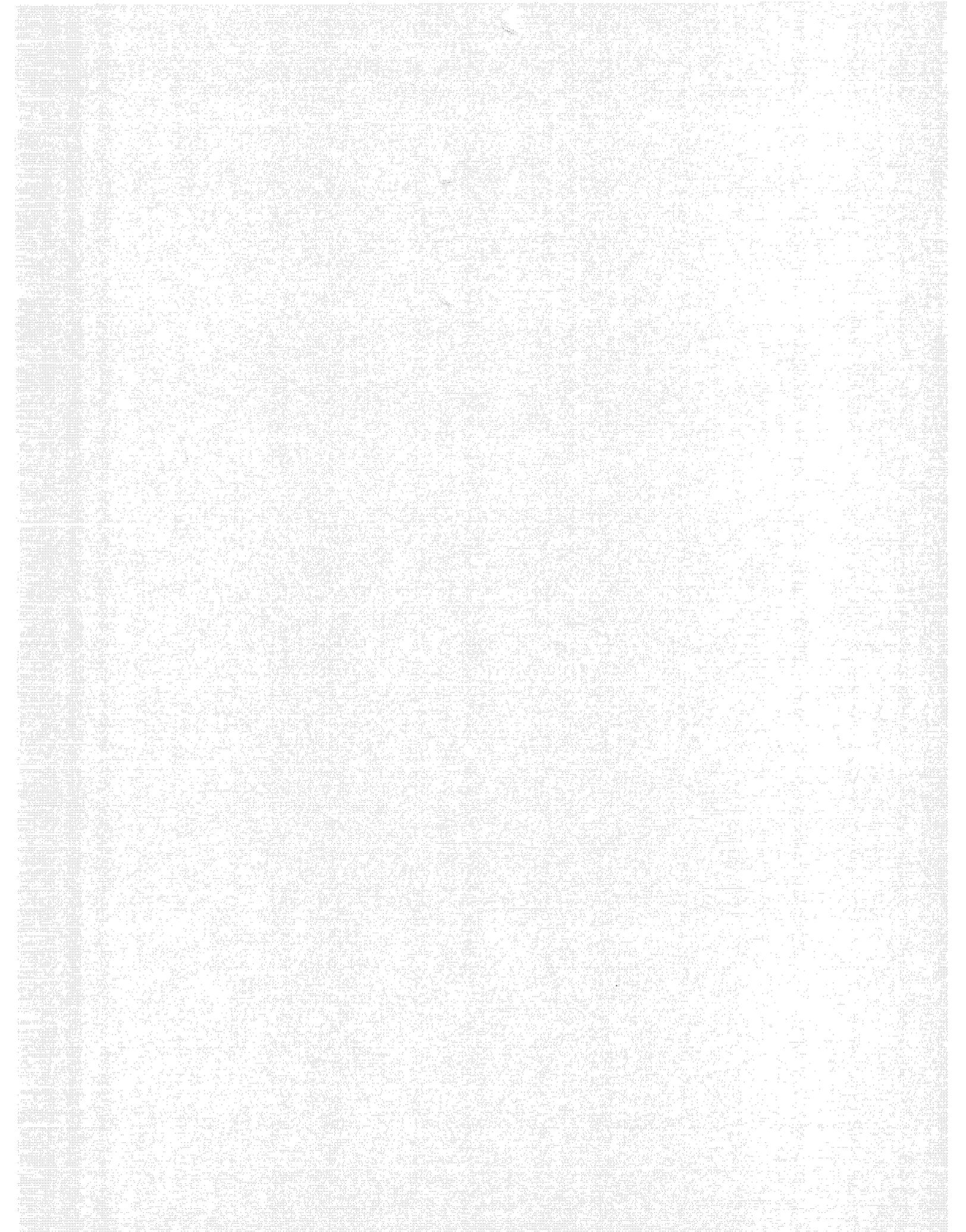
The following is a list of potential interpretive opportunities in the North Umpqua River Corridor. It is not all-encompassing and as new ideas occur, additional interpretive opportunities may be identified and implemented. The Forest Service and Bureau of Land Management have contracted jointly with Interpretive Exhibits Inc. (Dave Bucy, Lead Planner), to develop an interpretive plan for the Rogue-Umpqua Scenic Byway. This plan will include recommendations for the North Umpqua Wild and Scenic River corridor, and is incorporated in the list below. This will serve as the basis for interpretation along the highway in the corridor.

Swiftwater	Major orientation sign Interpretive panels Major trailhead sign
Fall Creek	Standard minor orientation sign Site brochure Loop trail with cultural interpretation on Fall Creek Trail
Wright Creek	Standard major trailhead sign
Bogus Creek Campground	Standard minor orientation sign
Steamboat inn	Table "teasers" (informative placemats)
Steamboat Area	Major orientation sign
Mott Bridge	Standard major trailhead sign Interpretive panels -CCC on North Umpqua -Steelhead -Fishing for Steelhead -Managing the river for fish
Gravel Bin	Standard boat launch sign
Island Campground	Minor orientation sign
Apple Creek Campground	Minor orientation sign
Panther Creek Trailhead	Standard minor trailhead sign
Apple Creek Fire Viewpoint	Viewpoint with interpretive panels
Horseshoe Bend	Minor orientation sign Standard boat launch sign
Calf Creek Trailhead	Standard major trailhead sign

Appendix C

Dry Creek	Major orientation sign
Marsters Bridge	Minor trailhead sign
Eagle Rock Campground	Standard minor orientation sign Umpqua Rocks interpretive panels and maybe major orientation
Boulder Flat Campground	Standard boat launch sign Minor orientation sign
Interpretive nature trails	Susan Creek Swiftwater
Interpretive cultural displays	Susan Creek Campground (excavation with display panels) Swiftwater (interpretive information explaining fishing past and present as described in the Bucy report)
Launch sites and campgrounds,	information board which explains boating and fishing etiquette
Swiftwater kiosk, east end	Permit information Fishing regulations Key points for low impact use of the Corridor
Soda Springs	Partnership with PP&L and ODFW to do interpretive displays dealing with geology of river, power generating, wilderness area, and salmon spawning area at Soda Springs, Interpretive fish life cycle displays, hydrologic displays.
Major natural disaster events	Fires in Apple Creek and Horseshoe Band Floods Windstorm/blowdown; Columbus Day storm
T&E interpretive display at Kiosk or visitor center.	
Interpretive self-guided map and/or brochure of the corridor.	
Scheduled fireside education talks at campgrounds.	

APPENDIX D
List of Preparers



APPENDIX D List of Preparers

Interdisciplinary Team Members

MARY BRENNAN, Visual Information Assistant
Education: American River College, Sacramento, CA, 1967-i 969; San Francisco Art Institute, San Francisco, CA, 1970; Humboldt State College, Arcata, CA, 197-i.

Experience: 4 years various positions in recreation, Deschutes National Forest; 5 years as Visual information Assistant, Umpqua National Forest.

JEFF DOSE, Fisheries **Biologist**

Education: BS (Fisheries Science), Oregon State University, Corvallis, 1972; MS (Fisheries Science), Oregon State University, Corvallis, 1978.

Experience: Biological technician for the Oregon Department of Fish and Wildlife, Fisheries research Division, 1977 to 1979; fisheries biologist for the Bureau of Land Management, Lewistown District, Phillips Resource Area, Malta, MT, 1979 to 1980; fisheries biologist, Bureau of Land Management, Medford District, Glendale Resource Area, Medford, from 1980 through 1988; joined the Umpqua National Forest as the Forest fisheries biologist in 1988 to present.

DAVE ERICKSON, Recreation Planner

Education: B.S. Albion College, 1966, M.S. (Radiation Biology) University of Pittsburg, 1967, MS. in Forestry, Colorado State University, 1972.

Experience: Worked for the Bureau of Land Management for 19 years in Colorado and Oregon; all aspects of forest management for 18 years, Outdoor Recreational Planner, one year.

SANDRA **FORNEY**, Team Leader, Spring 1989 - Spring 1991

Education: BA and MA in Anthropology/Archaeology.

Experience: Archaeologist with National Park Service, Forest Archaeologist, Interpretive Specialist, Assistant Recreation Staff Officer, Regional Archaeologist.

MIKEAL JONES, Hydrologist

Education: BS (Forestry), University of Arizona, Tucson, 1969; MS (Hydrology), University of Arizona, Tucson, 1974.

Experience: Hydrologist for 3 years in Santiago, Chile; hydrologist for the Shawnee National Forest from 1974 to 1979; joined the Umpqua National Forest in the fall of 1979 as the Forest hydrologist.

GARY MINISZEWSKI, State Scenic Waterway **Planner**

Education: BA, Geography; MS work at Portland State University.

Experience: Seventeen years experience in land use planning, both urban and natural resource planning. Served as the Oregon State Parks and Recreation consultant to the team,

RONALD J. MURPHY, Recreation/River Planner

Education: BS, Integrated Resource Management, University of Wisconsin. Stevens Point, 1972; MS work (Environmental Interpretation), University of Wisconsin, Stevens Point.

Experience: Worked for city, county, and state parks for 10 years in Wisconsin. Started with the Forest Service in 1975 on the Winema National Forest. Joined the Umpqua National Forest in the spring of 1980 as Recreation Technician, Currently manages the recreation facilities on the North Umpqua River.

JAMES M. STONE, Team Leader, Spring 1991 - Present

Education: BS (Resource Planning), Humboldt State University, Arcata, CA, 1976.

Experience: Sixteen years with the Forest Service. Various jobs have included recreation management/interpretation, Job Corps Counselor, Forest Planning Data Base Manager, Forest Planning ID Team Leader, and Assistant Recreation Staff Officer.

CHUCK TELFORD, Landscape Architect

Education: B.A., Landscape Architecture, University of California, Berkeley.

Experience: Has 23 years experience in outdoor recreation planning, management, and recreation facility design. He served on the Plumas National Forest in California for 11 years and has been involved in recreation planning and visual resource management on the Roseburg District of the Bureau of Land Management for the past 12 years. Currently works as Landscape Architect for the Oregon and Washington offices of the BLM. Member of ID Team from spring 1989 to spring 1991.

Consultation/ Assistance from Others

The river planning team consulted and/or received assistance from a number of individuals. The team also received considerable input and assistance from other agencies, groups, and numerous individuals. The following agencies, groups, and individuals provided valuable input and assistance to the development of the Environmental Assessment and the River Management Plan for the North Umpqua River,

Other Forest Service Personnel

Regional Office (RO)

Jackie Deidrich, Wild and Scenic River Program Manager

Dave Heller, Fisheries Biologist

Jim Hulbert, Wild and Scenic Rivers Team Leader, CRGNSA

Richard Reeves, Planning Process Manager

Supervisor's Office (SO), Roseburg, OR

Dick Arney, Lands, Recreation/Watershed Staff

Debra Barner, Archaeologist

Jim Baichtal, Resource Geologist

Rhonda Buxton, information Assistant

Vance Carlson, Archaeologist

Bob Deane, Assistant Forest Engineer

Jim DeLapp, Soil Scientist

Jill Edmondson, Computer Specialist

Patty Goforth, Computer Assistant

Ed Hall, GIS Specialist

Larry Hassett, Computer Specialist

Leonard Herzstein, Surveyor

Karen Hughes, Public Affairs Officer

Glenn Johnson, GIS Coordinator

Jim Leoni, Environmental Coordinator

Rick Nelson, Forest Road Management Engineer

Jake O'Dowd, Assistant Lands Staff

Bev Reed, Editor

John Sloan, Forest Engineer

Olof Swanson, Landscape Architect

Doyle Ward, Planning Staff

Alma Waters, Computer Assistant

North Umpqua Ranger District

Wayne Brady, Resource Technician

Ned Davis, District Ranger

Barb Fontaine, Resource Planning Assistant

Ray Godfrey, Botanist

Jerry Harryman, Resource Assistant

Appendix D

Bonnie Howell, District GIS Coordinator
Margo Iverson, Office Services Supervisor
Dave Keeler, Forest Technician
Harry Potter, Older American
Barb Smith, Computer Assistant
Cassie Strader, Computer Assistant

State of Oregon
Bill Fuji, Recreation Coordinator, Water Resource Department
John Lilly, Waterway Planner, Division of State Lands
Ray Miller, Forester, Department of Forestry
Wayne Shuyler, Waterway Planner, State Marine Board

Douglas County
Keith Cubic, Planning Director
Frank Nielsen, Planner
Bob Williamson, Planner

Bureau of Land Management
Dave Baker, Area Manager
Isaac Barner, Archaeologist
Mark Buckbee, Recreation Operations
Tim Bozarth, Hydrologist
Russell Holmes, Botanist

List of Those Who Provided Input

This section is a list of names of agencies, organizations, and individuals who provided input to the North Umpqua River Management Plan.

Douglas County
Douglas County Planning Department
Douglas County Parks
Board of County Commissioners of Douglas County
North Umpqua Planning Advisory Commission

State of Oregon
Department of Transportation
Parks and Recreation Department
Department of Fish and Wildlife
Marine Board
Division of State Lands
Division of Forestry
Department of Water Resources

Organizations
Association of O&C Counties

Association of Guides and Packers
Douglas Timber Operators
Friends of the Umpqua
Good Sam Club
Northwest Rafters Association
Oregon Trout
Oregon Rivers Council
Roseburg Rotary Club
Steamboaters
Umpqua Fishermen

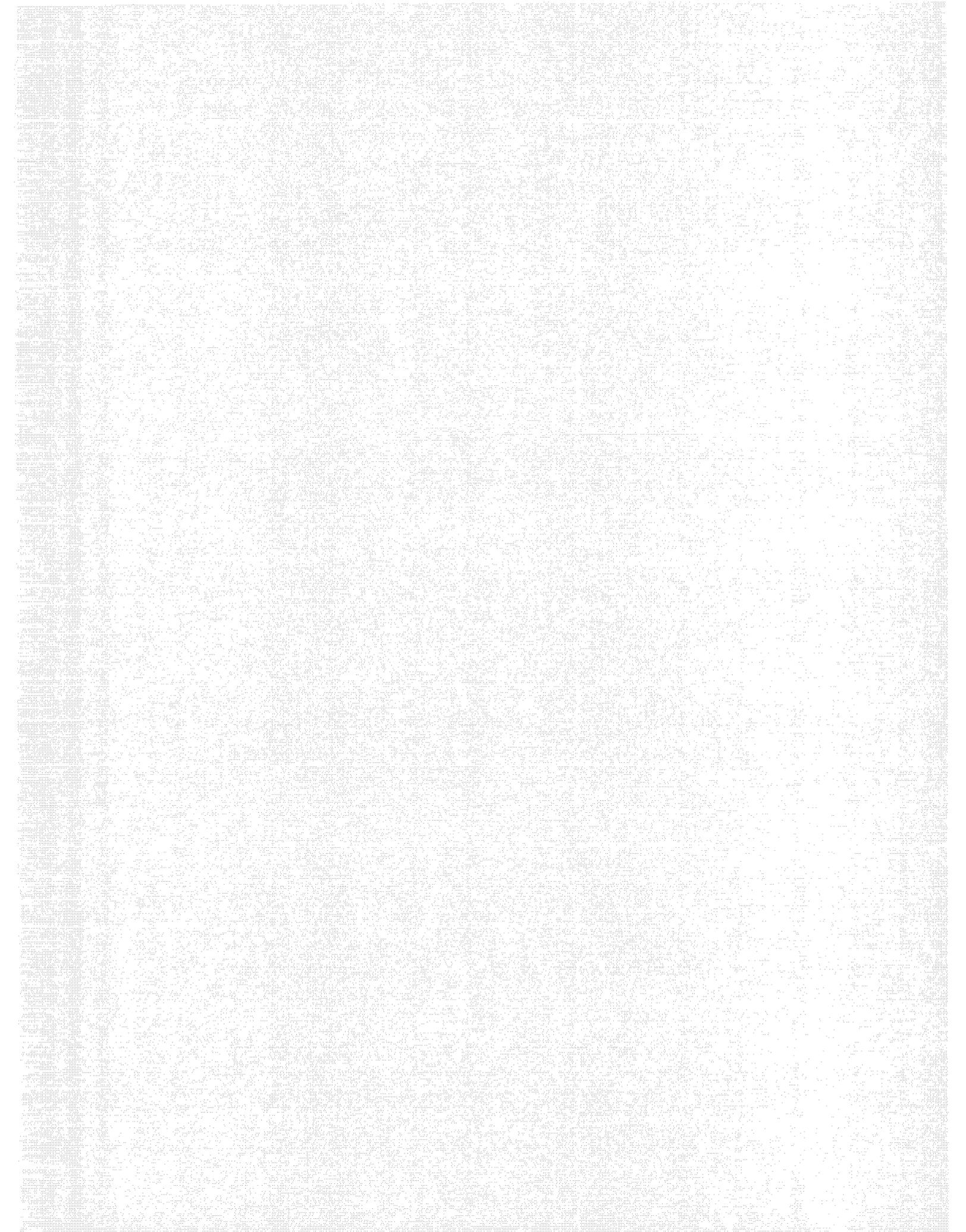
Universities
University of Oregon

Individuals

Melinda Allen
Peter Anderson
David Bayles
Jim Berl
Ron Bilt
Jeff Birkinshaw
Sue Bowers
Rob Bowler
Phil Bradshear
Daniel Buckley
Richard Chase
Ralph Corliss
Joe Ferguson
Gordon Ferlitsch
Norman Gould
John Hane
Anne Hirsch
George Hutchinson
Al James
Jean Jennings
John Langdon
Judith Linsey
David Loos
Bruce Mason
Coreen McTaggart
Mac Mills
Dale Moore

Jeanne Moore
Martha Moran
Richard Nawa
Dot-thy Nelson
Karen Perkins
Janette Phelan
Floyd Prozanski
Cindin Riddle
Randy Riddle
Jas Reed
Troy Reinhart
Jane Ritter
John Rivard
David Simmone
Jonathan Slemmer
Gordon Smith
Don Stevens
Dorothy Terry
Jim Thurber
JG Thurmond
Jim Van Loan
Steven Welch
Kent Wickham
Fred Worsley
Ron Yockim

APPENDIX E
Historical Water Monitoring
for the North Umpqua Wild
and Scenic River



APPENDIX E Historical Water Monitoring for the North Umpqua Wild and Scenic River

Historically water monitoring has been done on the North Umpqua River and three major tributaries (Steamboat Creek, Canton Creek and Rock Creek). There are water monitoring records that date as far back as the 1920's. However, most of the record keeping began after 1950. There are many different sampling locations some of which are still being used, and others where sampling has been discontinued. Water monitoring can involve observation and measurement of several different factors. Physical factors such as temperature, turbidity and flow all help to define water quality. Biological factors such as presence and/or abundance of macroinvertebrate populations, and fish counts also can be useful for assessing the quality of the aquatic ecosystem. The existing monitoring sites do not all measure the same factors. For instance, at the monitoring station on BLM land on lower Canton Creek, discharge (streamflow) and temperature have been measured since 1980, while at the Steamboat Creek above Canton Creek station on USFS land, temperature and turbidity have been measured since 1969. For a listing of all the monitoring that has been done to date refer to the following table.

Historical Monitoring

Site	Dates of Operation	Flow	Temp	Turb	Macro Invert	Fish Surveys	Suspended Sediment
Rock Cr. (26-3-1)	1980-Present	X	X				
Rock Cr. near Glide	1957-1973	X					
Canton Cr. (25-1-24)	1980-Present	X	X				
Canton Creek	1969-1971		X				
Canton Cr. (Mouth)	1980-Present	X					
Canton Cr. (Mouth)	1969-Present		X	X			
Canton Cr. (Mouth)	1988-Present				X		
Britt Cr. Timber Sale	1989-Present	X		X			X
Broken Bench T.S.	1986-1990	X		X			X
Winchester Dam	1967-1969	X					
Winchester Dam	1971-Present	X	X				
Little River near Peel	1954-1989	X	X				
North Umpqua River at Tocketee Falls	1925-1943	X					
North Umpqua River below Steamboat Cr.	1970-Present	X					

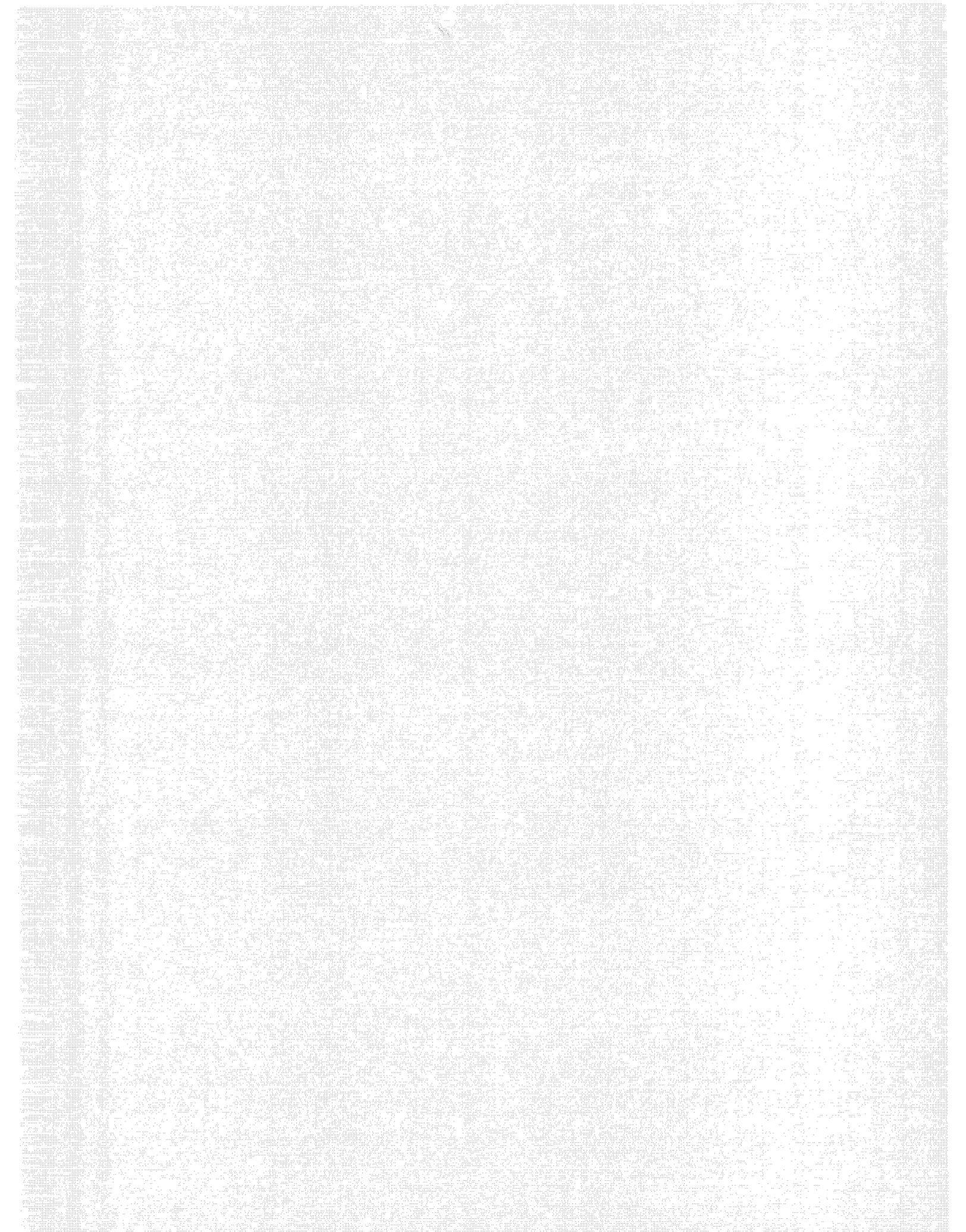
Appendix E

Site	Dates of Operation	Flow	Temp	Turb	Macro Invert	Fish Surveys	Suspended Sediment
North Umpqua River below Steamboat Cr.	1982-Present		X				
North Umpqua River above Steamboat Water Plant	1976-Present			X			
North Umpqua River above Steamboat Water Plant	1980-Present		(X)				
North Umpqua River above Copeland Crock	1949-Present	X					
North Umpqua River below Steamboat at Sewage Treatment Plant	1975-i 962			X			
North Umpqua River above Rock Creek	1924-I 945	X					
North Umpqua River at: Wright Creek	1990-Present				X		
Boulder Creek Mouth	1986-Present	X					
Boulder Creek Mouth	1969-Present		X	(X)			
Boulder Creek Mouth	1987-Present				X		
Boulder Creek	1989					X	
Steamboat Creek Trib.	1956-Present	X					
Steamboat Creek above Canton Creek	1988-Present				X		
Steamboat Creek above Canton Creek	1969-Present		X	X			
Steamboat Cr. and Trib.	1987, 1988					X	
Steamboat Creek above Steelhead Creek	1969-Present		X				
Steamboat Creek above Singe Creek	1969, 1990		X				
Steamboat Creek above Bend Creek	1969, 1990		X				
Steamboat Creek above Bend Creek	1989, 1990				X		
Steamboat Creek above Cedar Creek	1969, 1990		X				
Steamboat Creek above Horseheaven	1969, 1990		X				
Upper Steamboat	1969-Present		X				
Upper Steamboat	1989, 1990				X		
Steelhead Creek	1969-Present		X				
Steelhead Creek	1989, 1990				X		
Singe Creek	1969, 1990		X				

Site	Dates of Operation	Flow	Temp	Turb	Macro Invert	Fish Surveys	Suspended Sediment
Singe Creek	1990				X		
Reynolds Creek	1969, 1990		X				
Reynolds Creek	1990				X		
Bend Creek	1969-Present		X				
Bend Creek	1989				X		
Cedar Creek	1969-Present		X				
Cedar Creek	1989-1990				X		
Little Rock Creek	1969, 1990		X				
Little Rock Creek	1989, 1990				X		
City Creek	1969, 1990		X				
City Creek	1989				X		
Horseheaven Creek	1969, 1990		X				
Copeland Cr. Mouth	1980-Present		X	(X)			
Copeland Cr. Mouth	1987-Present				X		
Copeland Cr. and Tribs.	1989					X	
Calf Cr. at Mouth	1980-Present		X	(X)			
Calf Cr. at Mouth	1987-Present				X		
Calf Cr. and Tribs.	1989, 1990					X	
Panther Cr. at Mouth	1989-Present				X		
Panther Cr. and Tribs.	1990					X	

(X) = Incomplete Data

APPENDIX F
Memorandum of Understanding
for River Management



APPENDIX F Memorandum of Understanding for River Management

MEMORANDUM OF UNDERSTANDING

FOR RIVER MANAGEMENT

BETWEEN

BUREAU OF LAND MANAGEMENT (OREGON STATE OFFICE)

PARKS AND RECREATION DEPARTMENT (OREGON STATE OFFICE)

AND

USDA FOREST SERVICE

PACIFIC NORTHWEST REGION

This agreement is between the United States, Bureau of Land Management (BLM) acting by and through the Oregon State Director; the USDA Forest Service (FS), acting by and through the Regional Forester, Region 6; and the State of Oregon, by and through the Parks and Recreation Department (Parks).

WITNESSETH:

WHEREAS, on various rivers throughout Oregon, the State of Oregon, the BLM and the FS administer, manage or regulate the use of lands within certain river corridors and have various programs and responsibilities in regard to these programs and lands under their respective jurisdiction; and

WHEREAS, the State of Oregon, under the state Scenic Waterways Act and the BLM and FS under the federal Wild and Scenic Rivers Act are charged with parallel duties of identification, planning, and administration of rivers with special qualities as set out in those acts; and

WHEREAS, the State of Oregon, BLM, and FS have differing authorities, jurisdictions, and administrative capabilities as to the lands and waters within the river corridors; and

WHEREAS, the State of Oregon and the United States have common objectives as to the planning and management of these lands and water resources making it desirable for the State of Oregon and the United States to cooperate in the planning and management of these resources; and

WHEREAS, the Regional Forester, FS, has the authority to enter into this agreement by virtue of the authority granted to the Secretary of Agriculture by Sec. 11, P.L. 90-542 as amended thereto; and

WHEREAS, the State Director, BLM has the authority to enter into this agreement by virtue of the authority granted to the Secretary of the Interior by the Federal Land Policy and Management Act (42 U.S.C. 1737) and for components of the **National** Wild and Scenic Rivers System by virtue of P.L. 90-542 as amended; and

WHEREAS, the State of Oregon, by and through Parks enters into this agreement by virtue of the authority granted by ORS 390.140(2)(b) and

ORS 390.895.

NOW THEREFORE, it is agreed between the parties as follows:

- A. When the State of Oregon, the BLM, or the FS determine that a river corridor is under formal consideration for designation under either the state or federal rivers programs, they will notify the other parties and afford them an appropriate opportunity for participation in consideration of the river corridor for designation.
- B. The FS and the BLM agree to consult and cooperate with Parks when conducting resource management planning within designated wild and scenic river corridors, designated state scenic waterways, rivers considered candidates for state or federal designation or other rivers mutually agreed upon and identified.
- C. When a river which is designated by the State of Oregon as a scenic waterway includes federal lands within its boundaries, Parks will consult and cooperate with the BLM and/or FS as appropriate during the establishment of management guidelines and administrative rules.
- D. Work projects or activities which involve transfer of money, services or property will require execution of a separate agreement. Alternative agreements include Challenge Cost-Share Agreements, Participating Agreements, Procurement Contracts and local Memorandum of Understanding. Each project will be signed and documented by the responsible organizational line officer using the appropriate agreement. These agreements will address such matters as planning for recreational developments, acceptable types and levels of use, resource management program constraints and guidelines, and administrative arrangements including the transfer of funds and the sharing of personnel to effectively plan for and manage river corridors. If either federal agency does not manage lands in a particular river corridor, that agency need not be a party to the supplemental agreement for the river.
- E. It is recognized that it is in the best interest of the state and federal agencies to avoid duplicative planning processes on designated rivers. Therefore, to the greatest extent possible, management planning on designated rivers shall be consolidated into one process - state and federal - that satisfies the needs of both entities.

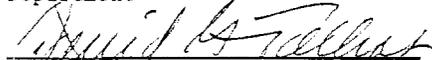
In some cases, it may be necessary to determine a lead or coordinating agency to facilitate the process. The responsibilities of the various involved parties shall be enumerated in a memorandum of understanding as described in (D) above.

- F. Parks will, to the extent possible, communicate with affected state agencies regarding FS or BLM river corridor planning and management activities subject to this agreement.

- G. BLM and FS fully recognize the need to notify and consult with Parks at the earliest possible opportunity regarding land use activities on federal lands that may impact the natural resource values of the rivers shown in Attachment A of this agreement. Upon specific request by FS or BLM, Parks agrees to expeditiously review FS and BLM land use activities on federal lands for any rivers listed in Attachment A. Parks review shall be to determine an activity or project's compatibility with the maintenance of the river's natural beauty according to the standards in the scenic waterway management rules (OAR Chapter 736 Division 40).
- H. It is recognized that the parties to this Agreement and their agencies and representatives have responsibilities under statute or otherwise which cannot be waived or abrogated. This agreement does not affect such non-discretionary mandates.
- I. Nothing in this Agreement shall commit the parties or their agencies or representatives to the expenditure of funds not authorized by law.
- J. Any party may withdraw from this Agreement upon written notice to the other parties. The withdrawal of one or more parties shall not affect the validity of this Agreement as to the remaining parties.
- K. Amendments to this Agreement may be proposed by any party and shall become effective on approval by all parties.
- L. No member or delegate to Congress or resident Commissioner shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made **with a corporation** for its general benefit.
- M. Attachment A is a list of existing state scenic waterways.
- N. Attachment B is a list of existing Federally-designated rivers.

The Parks and Recreation Commission, by a duly-adopted delegation order number 1, authorized the State Parks Director to execute this agreement on behalf of the Commission. Approval for this delegation order was given at its January 26, 1990, meeting.

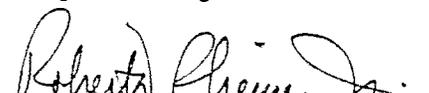
State of Oregon, by and through
its State Parks and Recreation
Department


Director

United States of America, by and
through its USDA Forest Service,
Region 6


JOHN F. BUTRUILLE
Regional Forester

United States of America, by and
through its USDI Bureau of Land
Management, Oregon State Office


State Director

Appendix F

APPENDIX G
State Scenic Waterway
General Administrative Rules

APPENDIX G State Scenic Waterway General Administrative Rules

OREGON ADMINISTRATIVE RULES CHAPTER 736, DIVISION 40 — STATE PARKS AND RECREATION DIVISION

DIVISION 40

OREGON SCENIC WATERWAYS

Rules for Conducting Hearings on Scenic Waterways Regulations

736-40-005 The Commission hereby adopts and promulgates rules and procedures governing hearings on regulations for the management of related adjacent land within scenic waterways as provided in ORS 390.845(2):

(1) The Transportation Commission hereby delegates to the State Parks and Recreation Administrator, or his designated representative, the duty of arranging and conducting auditive public hearings, if such is requested, under the provisions of ORS 390.845(2).

(2) Any public hearing held pursuant to ORS 183.330 shall be fully recorded and transcribed by the Secretary of the Commission, and the Secretary will receive and properly mark all exhibits, documents or other statements introduced or received by the hearing officer at the hearing. Exhibits, documents or other statements received by the Commission within 10 days after any hearing will be made part of the record of the hearing.

(3) Following the transcribing of the hearing, the Commission's Secretary shall file in the Commission's records a full copy of the transcript of the hearing as well as a copy of all exhibits, documents or other statements received at the hearing. The transcript, including exhibits, documents or other statements, will be considered in preparing Scenic Waterways rules and regulations by the Commission.

(4) The procedure under which any hearing will be conducted is as follows:

(a) The comments and exhibits to be received at this hearing will be limited to whether the rules and regulations proposed by the State Parks and Recreation Division are reasonable;

(b) The limits and intent of the proposed rules and regulations will be explained by representatives of the State Parks and Recreation Division;

(c) Except for questions that may be asked by the hearing officer there will be no direct questions to or cross-examination of any individual who is making a statement or introducing exhibits;

(d) Following the opening statements by the representatives of the State Parks and Recreation Division the hearing will be open to anyone in attendance who wishes to make a statement or introduce exhibits, either for or against the proposed rules and regulations. The hearing officer will recognize anyone in attendance for this purpose;

(e) The hearing will be continued with such recesses as are necessary, as determined by the hearing officer, until all persons wishing to make a statement or introduce exhibits have had an opportunity to do so.

Stat. Auth.:
Hist.: HC 1252, f. 5-13-71, ef. 5-12-71

Designated Scenic Waterways

736-40-010 The following rivers or segments of rivers are designated as Scenic Waterways:

(1) The segment of the Rogue River extending from the confluence with the Apple gate River downstream a distance of approximately 88 miles to Lobster Creek Bridge.

(2) The segment of the Illinois River from the confluence with Deer Creek downstream a distance of approximately 46 miles to its confluence with the Rogue River.

(3) The segment of the Deschutes River from immediately below the existing Pelton Regulating Dam downstream approximately 100 miles to its confluence with the Columbia River, excluding the City of Maupin.

(4) The entire Minam River from Minam Lake downstream a distance of approximately 45 miles to its confluence with the Willowa River.

(5) The segment of the South Fork Owyhee River in Malheur County from the Oregon-Idaho border downstream approximately 25 miles to Three Forks where the main stem of the Owyhee River is formed, and the segment of the main stem Owyhee River from Crooked Creek (6 miles below Rome) downstream a distance of approximately 45 miles to the mouth of Birch Creek.

(6) The segment of the main stem of the John Day River from Service Creek Bridge (at river mile 157) downstream 147 miles to Tumwater Falls (at river mile 10).

(7) The segment of the Sandy River from the east boundary line of Section 25 and Section 36, Township 1 South, Range 4 East, of the Willamette Meridian, in Clackamas County at Dodge Park, downstream approximately 12.5 miles to the west line of the East Half of the Northeast Quarter of Section 6, Township 1 South, Range 4 East, of the Willamette Meridian, in Multnomah County at Dabney State Park.

(8) The confluence of the Rogue and Applegate Rivers is defined as the West boundary line of the East 1/2 of the East 1/2 of Section 19, Township 36 South, Range 6 West, of the Willamette Meridian, in Josephine County.

(9) The segment of the Clackamas River from River Mill Dam to Baker Bridge at Carver.

(10) Opal Lake in Marion County and the main stream of Opal Creek from Opal Lake to its confluence with Battle Ax Creek.

(11) Waldo Lake in Lane County and the segment of the North Fork of the Middle Fork of the Willamette River from Waldo Lake to a point one mile upstream from the railroad bridge that is near the town of Westfir.

(12) The following segments of the Upper Deschutes River in Jefferson and Deschutes Counties are classified as a state scenic waterway. Those segments are: The gauging station (approximately river mile 226.4) immediately below Wickiup Dam downstream approximately 28 miles to the General Patch Bridge at river mile 199; that segment beginning at Harper Bridge at river mile 192 downstream approximately 20 miles to river mile 172 above Bend, Oregon; and the segment beginning at Twin Bridges at river mile 154.5 downstream approximately 34.5 miles to Lake Billy Chinook approximately river mile 120 excluding the Cline Falls Dam and powerhouse between river miles 145 and 144.

Stat. Auth.: ORS Ch. 184 & 390
Hist.: HC 1256, f. 6-30-71; HC 1255, f. 6-27-72; 10TC 6, f. 11-1-73; 10TC 14, f. 12-5-73; PR 7-19-83, f. & ef. 10-24-83.

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PR 6-1986, f. & ef. 5-28-86; PR 7-1986, f. & ef. 5-28-86; PR 2-1988, f. & cert. ef. 3-25-88

Definition of Terms

736-40-015 As used in these rules and regulations, unless the context requires otherwise:

(1) "The Act" means the Scenic Waterways Act (ORS 390.805 to 390.925).

(2) "Commission" means the Oregon Transportation Commission.

(3) "Existing Use" means the use to which related adjacent land was being put on December 3, 1970, or any subsequent change in use authorized under the Act or these rules.

(4) "Improvement" means the placing on related adjacent land of any building or structure or modification of existing buildings or structures or the clearing, leveling, filling or excavating of related adjacent land.

(5) "Related Adjacent Land" means all land within one-fourth of one mile (measured horizontally or level, as in usual surveying practice) of the bank on each side of a river within a scenic waterway, except land that, in the Commission's judgment, does not affect the view from the waters within a scenic waterway.

(6) "River Bank" The banks of a river are the boundaries which confine the water to its channel throughout its entire width when the stream is carrying high water at the elevation to which it ordinarily rises annually in season. Generally this will be the line at which the land becomes dominantly influenced by the river and takes on the characteristics of a riverbed and is thereby set apart from the uplands. An evulsion or sudden channel change will not change the boundaries of related adjacent lands.

(7) "Road" means all roads, public and private.

(8) "Scenic Easement" means the acquired right to control the use of related adjacent land, including airspace above such land, for the purpose of protecting the scenic view from waters within a scenic waterway.

(9) "Scenic Waterway" means a river or segment of a river, including related adjacent land and the airspace above, that has been so designated by or in accordance with the Act.

(10) "Seen from the waters" and "visible from the river" mean not entirely concealed from view from the river within a scenic waterway by topography. Land beyond the boundaries of "related adjacent land", whether or not visible from the river, is not within the jurisdiction of this Act.

Stat. Auth.:
Hist.: HC 1258, f. 6-30-71; HC 1285, f. 6-27-72

Responsibility and Authority of the Oregon Transportation Commission

736-40-020 (1) The Act shall be administered by the Commission in such a manner as to protect and enhance the values which caused a scenic waterway to be included in the system. Primary emphasis shall be given to protecting the scenic beauty, fish and wildlife, scientific and recreation features, based on the special attributes of each area.

(2) The Commission has adopted these regulations governing the management of related adjacent lands, including state highway construc-

tion, after due consideration of the responsibilities outlined above and consultation with the Oregon State Department of Forestry, the Department of Agriculture, and other such federal, state, and local agencies as may be involved; and with the concurrence of the State Water Resources Board.

(3) Agreements entered into and approvals given by the Commission in no way relieve persons or entities affected thereby of requirements established by other governmental agencies, local, state or federal.

Stat. Auth.:
Hist.: HC 1258, f. 6-30-71; HC 1285, f. 6-27-72

Public Use of Scenic Waterways

736-40-025 (1) These rules apply to all scenic waterways unless more specific rules have been adopted for a particular scenic waterway. All persons using scenic waterways for recreation shall comply with the provisions of the Act and with the rules and regulations adopted by the Commission under the Act:

(a) Private Property: Nothing in the Act or in these rules and regulations affords to any person any right to trespass upon the property of another or in any way alters the rights of private landholders in regard to trespass. The Commission admonishes all persons to respect the rights and sensibilities of those who make their homes and livelihoods within the scenic waterways;

(b) Litter and Pollution: Refuse, scrap, trash and garbage which is not placed in receptacles provided for that purpose at maintained recreation sites shall not be buried or abandoned, but shall be taken out of the scenic waterways for proper disposal. All persons shall avoid pollution of the waters, lands and air within scenic waterways in any manner whatsoever;

(c) Fires: Fires shall be made only in compliance with state law and only when and where there is no possibility of their causing damage. Conditions of wind and weather, proximity of vegetation or flammable materials and other factors as prudence dictates shall be most carefully considered. No open fire shall be made unless a shovel, axe and bucket of water are nearby. No open fire shall be left unattended and all fires shall be completely extinguished with water after use. Permissible fires shall be of the smallest practicable size;

(d) Tree Cutting: Living or standing trees or plants shall not be cut for burning or for any other purpose by persons using the scenic waterways for recreation;

(e) Collecting Souvenirs and Relics: Except as provided by law, antiquities, relics, artifacts, fossils and souvenirs shall not be removed from the site of their discovery or otherwise harmed. Archeological sites and fossil beds shall not be disturbed without proper authority under law;

(f) Livestock: Persons using the scenic waterways for recreation shall not harass or in any way interfere with livestock or domestic animals, whether on private or public land, or damage fences lawfully placed on such lands for their management.

(2) Natural springs shall not be damaged or in any way rendered unusable by persons or animals.

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(3) The Commission asks all persons to leave in passing no mark upon the land that might diminish its value to another, for the unspoiled beauty of these waterways, of value to the human spirit, is the common heritage of all.

Stat. Auth.: ORS Ch. 330
 Hist.: HC 1255, f. 6-27-72; PR 3-1982, f. & ef. 3-26-82

Land Management

Improvements and Changes in Use of Related Adjacent Lands

736-40-030 (1) Except as provided in section (5) of this rule, OAR 736-40-035 and 736-40-045 through 736-40-075, no person shall make any improvement or change in the existing use of related adjacent land without first giving written notification to the Commission of the intent to make an improvement or change in land use. The proposed improvement or change in land use shall not be made or work started sooner than one year after such notice unless the Commission has given its written approval of the proposal. (See notification procedures in OAR 736-40-080.)

(2) Upon receipt of such notice, the Commission shall determine if the proposal would impair the natural beauty of the scenic waterway substantially.

(3) If the proposed improvement or change of land use would not impair the natural beauty substantially, the Commission shall give written notice to the owner of the related adjacent land that he may proceed immediately with the proposal as described in his notification to the Commission.

(4) Should the Commission determine that the proposal, if carried out, would impair the natural beauty of the scenic waterway substantially, or otherwise violate the provisions of the Act or these rules and regulations, it will so notify the owner of the related adjacent land in writing. No steps shall be taken by the applicant to carry out such proposal until at least one year after the original notice to the Commission unless agreement with the Commission is sooner reached. (See OAR 736-40-080.)

(5) In connection with existing use of related adjacent land, farmers, ranchers and residents may modify existing structures or construct or place such subsidiary and lesser structures adjacent thereto, except residences or guest houses, as are usual and necessary to their existing use without prior notice to the Commission, provided that such modification or construction will not violate subsections (7)(a) and (b) of this rule OAR 736-40-035 and will be in harmony with the natural beauty of the scenic waterway.

(6) Repair and maintenance of existing facilities and structures in a manner compatible with these rules and regulations do not require notification to the Commission.

Stat. Auth.:
 Hist.: KC 1255, f. 6-27-72; IOTC 6, f. 11-1-73

Rules of Land Management

736-40-035 These rules and regulations governing the use of related adjacent lands and improvements made on or to these lands apply to all designated scenic waterways. Land

management on scenic waterways includes, but is not limited to, the following examples:

(1) **Timber Harvest:** The forest cover on related adjacent land is a part of the scenic beauty of the scenic waterway and notification of planned timber harvest operations must be given to the Commission one year prior to commencement. The notification must include a plan specifying timber to be cut, road locations, logging methods, slash cleanup, soil stabilization, revegetation measures and any other details as the Commission may require.

(2) **Tree Cutting:** No person shall cut any living tree within a scenic waterway without prior written notice except as provided in these rules.

(3) **Grazing and Farming:** Existing use in the form of grazing or farming of the related adjacent land is a part of the scenic beauty of the waterway. Notification is not required for:

(a) Construction of fences;
 (b) Maintenance of farm buildings, fences or appurtenances necessary to existing use;
 (c) Laying of irrigation lines;
 (d) Pumphouse construction, if not in violation of OAR 736-40-030(5);
 (e) Additions to farm buildings, if not in violation of OAR 736-40-030(5);
 (f) Crop rotation;

(g) Variations in grazingland management;
 (h) Placing of grazing land under cultivation, except within classified natural river areas named in OAR 736-40-045 through 736-40-075;

(i) Construction of silos and grain storage facilities, and other structures or buildings as are needed in connection with the existing use of the related adjacent land, if not in violation of OAR 736-40-030(5), except within classified natural river areas named in OAR 736-40-045 through 736-40-075;

(j) Cutting of danger trees. Notification is required for construction of new roads or improvement of existing roads.

(4) **Suburban Housing:** Notification is not required for:

(a) Maintenance of existing homes in a manner compatible with these rules and regulations;
 (b) Modifications to existing single family dwellings, if not in violation of OAR 736-40-030(5);

(c) Construction of garages necessary to the use of existing homes, if not in violation of OAR 736-40-030(5);

(d) Changes in or additions to homesite landscaping which do not impair vegetation screening structures from view from the river;

(e) Construction of protective fences necessary to use of the home;

(f) Cutting of firewood for occupant's dwelling;

(g) Cutting of danger trees. Notification is required for construction of new roads or improvement of existing roads.

(5) **Prospecting, Mining, Dredging, and Quarrying:**

(a) All prospecting, mining, dredging, and quarrying operations, including removal or movement of gravel, rocks and sand within related adjacent lands, require notification to the Commission as prescribed herein;

(b) Such notification shall include plans to insure that debris, silt, chemicals or other materials, shall not be discharged into or allowed to

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reach the waters within a scenic waterway and that the natural beauty of the scenic waterway shall not be impaired substantially.

(6) Transportation Facilities and Utilities:

(a) No roads, railroads or other facilities for transportation or utilities shall be constructed or improved within a scenic waterway without notification to the Commission as prescribed by the Act and herein;

(b) The Commission, whenever practicable, will require the sharing of land and airspace by such facilities and utilities. All permissible transportation facilities and utilities shall be so located as to minimize impairment of the natural beauty of the scenic waterway. For example, it will be desirable to place electrical and telephone lines underground wherever reasonably practicable.

(7) Structures, Buildings, and Other Improvements: Except as provided in OAR 736-40-030(5), sections (3) and (4) of this rule and OAR 736-40-045 through 736-40-075, no structures, buildings, or other improvements shall be made, erected or placed on related adjacent lands without notification to the Commission as prescribed by the Act and herein. Permitted new structures, buildings, or other improvements on related adjacent lands which can be seen from the waters within a scenic waterway shall:

(a) Be of such design and be constructed of such materials as to be unobtrusive and compatible with the scenic qualities of the area. For example, the following shall apply:

IX. All structures shall be finished in muted tones appropriate to their natural surroundings;

(B) No large areas, including roofs, shall be finished with white or bright colors or reflective materials;

(C) Except for large farm buildings such as barns, metal siding or roofing shall not be used;

(D) No structures shall exceed 30 feet in height from natural grade on a side facing the river;

(E) All structures shall be so designed and constructed that little or no soil is left exposed when construction is completed.

(b) Be located in such a way that topography and natural vegetation make them as inconspicuous as reasonably practicable, and in no case obtruding on the view from the river. The Commission may require that additional vegetative screening be established and maintained. In such event, it shall be evergreen, wherever practicable, and compatible with natural growth in the area.

(8) Mobile homes, modular residential structures, house trailers, campers and similar structures and vehicles. Mobile homes, modular residential structures, house trailers, campers, motor homes and the like shall not be established as dwellings, either permanent, (or) seasonal or temporary, within related adjacent lands unless they are entirely concealed from view from the waters within a scenic waterway by topography, except, that those mobile homes, modular residential structures and house trailers that are at least 20 feet wide, with exterior dimensions, less hitch, of 800 square feet, may be permitted under these rules subject to the same requirements and standards set forth in the previous section relating to criteria for review for structures and improvements that are visible from the waters within a scenic waterway. Additionally, except

when a mobile home, modular residential structure, house trailer or the like is not set on a ground-level foundation, full skirting shall be installed which in design, color and texture appears to be an integral part of the exterior of the structure.

(a) For purposes of these rules, a structure is a mobile modular residential structure, house trailer, camper or motor home if it is used, designed or intended to house persons, and is transported to the site in a state of substantial prefabrication. Once a structure fulfills this test, it shall remain subject to the rule regardless of whether the wheels or other temporary assembly have been removed or detached, and regardless of whether the structure is subsequently relocated;

(b) Within public recreation sites and transient public trailer parks where travel trailers, campers, motor homes and similar vehicles are permitted by the public agency, firm or individual maintaining the facility, their transient, short-term use by travelers is allowed, but they shall not be left on the site during their user's absence of more than three (3) day's duration.

(9) Maintenance of Structures and Improvements: Owners and users of existing structures and other improvements shall maintain them and their surroundings in a manner and condition in harmony with the environment, compatible with the objectives set forth in these rules and regulations for the classified river area in which they lie, and without impairing substantially the natural beauty of the scenic waterway. The existing color of such structures may be maintained.

(10) Replacement of Existing Structures and Improvements: Replacement of existing structures and improvements, including those lost by fire, flood or other casualty, will be permitted, provided the new structure or improvement is in compliance with provisions of the Act and these rules and regulations. Notification procedures set forth in OAR 736-40-040 and Commission approval are required.

(11) Advertising: No signs or other forms of outdoor advertising that are visible from waters within a scenic waterway shall be constructed or maintained. Property protection signs (No Hunting, No Trespassing, et cetera) are exempted.

(12) Erosion Protection: The Commission recognizes that erosion protection work and maintenance may be necessary on riverbanks and related adjacent lands along the scenic waterways. Notification, which shall include plans to protect the natural beauty of the scenic waterway, and Commission approval are required.

(13) Submerged and Submersible Lands:

(a) No dam or reservoir or other water impoundment facility shall be constructed or placer mining permitted on waters within scenic waterways. No water diversion facility shall be constructed or used except by right previously established or as permitted by the State Engineer;

(b) No bank protection works or dredging facility shall be constructed or used on such waters, except as permitted by the Director of the Division of State Lands and approved by the State Land Board.

(14) Emergencies:

(a) The owner or his authorized agent may act in emergencies without prior notice when necessary

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in the interest of public safety, or safety of his own property, except that notice of any action taken shall be filed with the Commission not later than seven days following the commencement of the emergency procedures;

(b) The owner or his authorized agent must show that the emergency situation required immediate action to prevent immediate danger or damage. Such emergency procedures shall not be extended beyond the minimum necessary to accomplish the needed protection safely and shall be conducted throughout in such manner as to minimize impairment of the natural beauty of the scenic waterway. For example, car bodies and similar scrap or trash shall not be used as riprap.

(15) Solid Waste, Pollution and Sanitation: Owners, occupants and users of related adjacent land shall comply with the rules and regulations of the Department of Environmental Quality relating to solid waste control, water, air and noise pollution control and sewage disposal.

Stat. Auth.:
Hist.: HC 1285, f. 6-27-72; IOTC 6, f. 11-1-73; IOTC 28, f. 6-15-74; PR 12-1981, f. & ef. 7-29-81

Classification of Scenic Waterways and Segments Thereof

736-40-040 (1) OAR 736-40-040 through 736-40-075 supplement, but in no way alter, other provisions of these rules and regulations. Notification procedures set forth in OAR 736-40-030, 736-40-035 and 736-40-080, relating to Land Management, are applicable to these rules. In order to establish varying intensities of protection or development based on special attributes of each area within the scenic waterways, the following classifications are established:

(a) Natural River Areas:

(A) Those designated scenic waterways or segments thereof that are generally inaccessible except by trail or the river, with related adjacent lands and shorelines essentially primitive. These represent vestiges of primitive America;

(B) Natural River Areas may include an occasional lightly traveled road, airstrip, habitation or other kind of improvement already established, provided the effects are limited to the immediate vicinity;

(C) Natural River Areas will be administered to preserve their natural, wild and primitive condition, essentially unaltered by the effects of man, while allowing compatible recreational uses, other compatible existing uses and protection of fish and wildlife habitat.

(b) Scenic River Areas:

(A) Those designated scenic waterways or segments thereof with related adjacent lands and shorelines still largely primitive and largely undeveloped, except for agriculture and grazing, but accessible in places by roads. Scenic River Areas may not include long stretches of conspicuous or well-traveled roads paralleling the river in close proximity, but may include extensive areas in agricultural use;

(B) Scenic Areas will be administered to maintain or enhance their high scenic quality, recreational value, fishery and wildlife habitat, while preserving their largely undeveloped character and allowing continuing agricultural

uses.

(c) Recreational River Areas:

(A) Those designated scenic waterways or segments thereof that are readily accessible by road or railroad, that may have some development along their shorelines and related adjacent lands, and that may have undergone some impoundment or diversion in the past;

(B) Recreational River Areas will be administered to allow continuance of compatible existing uses, while allowing a wide range of compatible river-oriented public outdoor recreation opportunities, to the extent that these do not impair substantially the natural beauty of the scenic waterway or diminish its esthetic, fish and wildlife, scientific and recreational values.

(d) Natural Scenic View Areas:

(A) Those designated shorelines and related adjacent lands, lying along only one bank of a river within a scenic waterway, which possess the qualities of a Natural or Scenic River Area except that the opposite shoreline and related adjacent land, by reason of accessibility, or development, qualifies only for a less restrictive classification;

(B) Natural Scenic View Areas will be administered to preserve or enhance their essentially primitive scenic character, while allowing compatible public outdoor recreational use.

(e) Accessible Natural River Areas:

(A) Those designated scenic waterways or segments thereof that are readily accessible by road or railroad but otherwise possess the qualities of a Natural or Scenic River Area;

(B) Accessible Natural River Areas will be administered to protect or enhance their essentially primitive scenic character, while allowing compatible public outdoor recreation use.

(f) River Community Areas — Those designated areas of a scenic waterway, perhaps on only one bank of the river, where density of structures or other developments, already existing or provided for precludes application of a more restrictive classification.

(2)(a) Within the general framework of these classifications, the Commission will further consider the nature and extent of existing land uses and developments, the scenic qualities and the esthetic, fish and wildlife, scientific and recreational values of each classified area within the scenic waterways in determining whether, in its judgment, proposals for changes of land use or improvements are compatible with the Act;

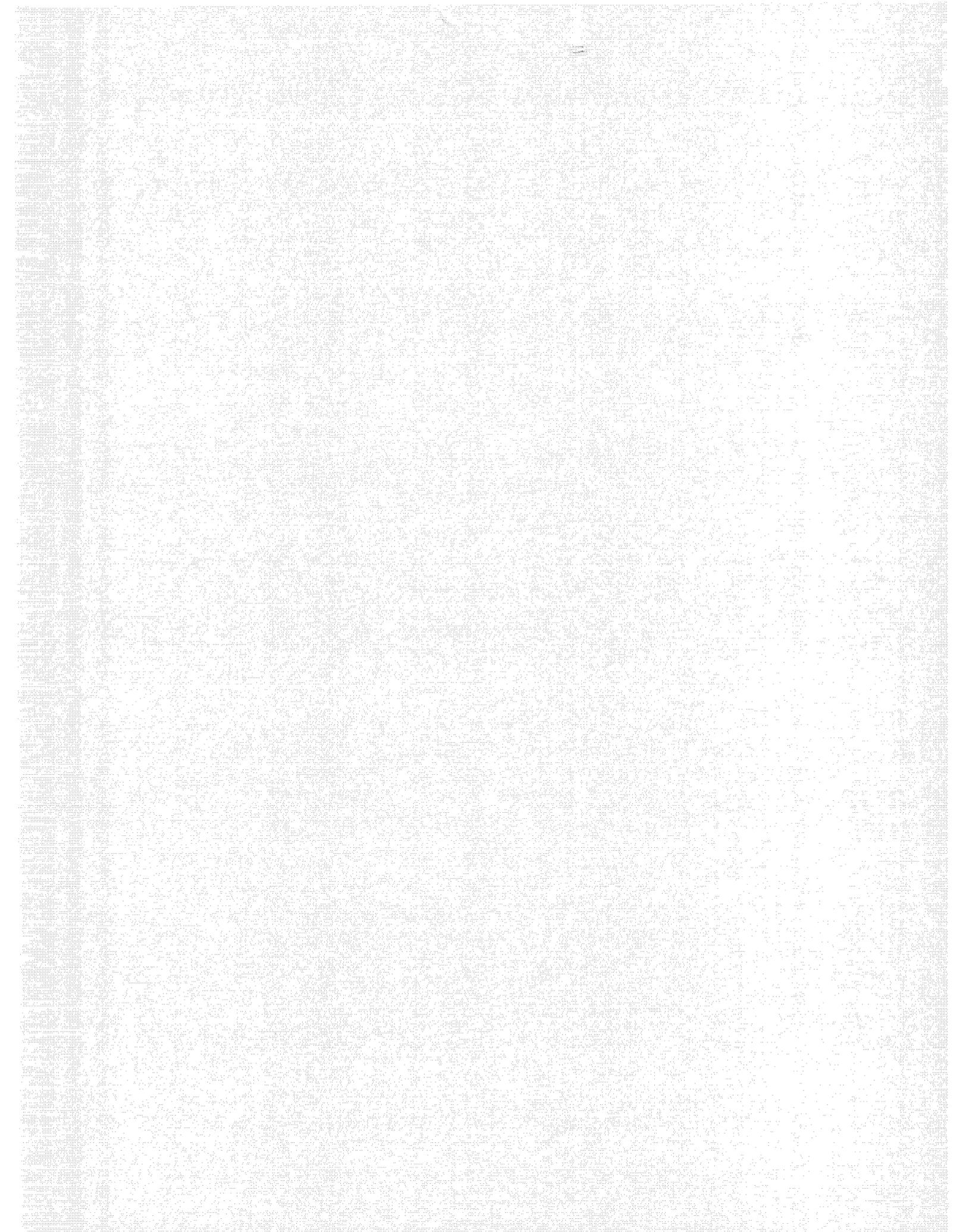
(b) Because of the individual character of each scenic waterway, administrative criteria within each of the six classifications may vary from one scenic waterway to another.

Stat. Auth.:
Hist.: HC 1285, f. 6-27-72

(March, 1991)

APPENDIX H

Glossary



APPENDIX H Glossary

Affected environment	The biological physical, and social environment that will or may be changed by proposed actions,
Allocation system	See <i>River use allocation system</i> .
Alternative	A comprehensive management strategy; when a federal agency is considering an action, NEPA requires the agency to develop and analyze a range of reasonable alternatives, including a "no action" or "no change" alternative. The alternatives must respond to the issues, and must show a reasonable range of actions
Anadromous fish	Those species of fish that mature in the ocean and migrate into freshwater rivers and streams to spawn; an example is salmon.
Background	In visual management terminology, refers to the visible terrain beyond the foreground and middleground where individual trees are not visible, but are blended into the total fabric of the stand. Also a portion of a view beyond 3 to 5 miles from the observer, and as far as the eye can detect objects.
Best Management Practices	A practice or combination of practices that is determined by a State (or designated area wide planning agency) after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective, practicable (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals (Federal Register, Volume 40, No. 230 dated 11/28/75).
Big game	Large mammals hunted for sport. On the National Forest these include animals such as deer, elk, antelope and bear.
Big game summer range	A range, usually at higher elevation, used by deer and elk during the summer. Summer ranges are usually much more extensive than winter ranges.
Big game winter range	A range, usually at lower elevation, used by migratory deer and elk during the winter months; usually more clearly defined and smaller than summer ranges.
Biological diversity	Terms used in the Plan to provide goals and direction for evaluating the significance of old growth stands, minimizing fragmentation of existing old growth forests, and maintaining many of the structural components of unmanaged stands in managed stands.
Biological evaluation	A specific process required as part of an environmental assessment that evaluates the potential effect of proposed project on Proposed, Endangered, Threatened, and Sensitive species and their habitats.

Appendix H

Board foot (BF)	The amount of wood equivalent to a piece of wood one foot by one foot by one inch thick,
Characteristic landscape	in reference to the USDA Forest Service visual management system: the overall impression created by a landscape's unique combination of visual features (land, vegetation, water, structures) as seen in terms of form, line, color, and texture; synonymous with "visual landscape character."
Clearcutting	The cutting method that describes the silviculture system in which the old crop is cleared over a considerable area at one time,
Climax	The culminating stage in plant succession for a given site where the vegetation has reached a highly stable condition.
Corridor	Land adjacent to the Wild and Scenic River, managed along with the river to maintain and/or enhance the ORVs of the river. Corridor boundaries are delineated by the geography and the ORVs encompassing not more than 320 acres per river mile.
Created opening	An opening in the forest created by the silvicultural practices of final removal harvest of shelter-wood, clearcutting, seed tree cutting, or group selection cutting.
Critical Habitat	That habitat which is essential to the conservation of a threatened or endangered species,
Critical Habitat Area	Any area recommended to be reserved for owl habitat as specified in Section 7 of the Endangered Species Act.
Cultural resource	The remains of sites, structures, or objects used by humans in the past—historic or prehistoric.
Cumulative effects or impacts	Cumulative effect or impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions, Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
Decision notice	The written record of the decision made after a federal agency completes an environmental assessment. The decision notice chooses one of the alternatives, or a blend of the alternatives, and may be appealed by the public. The Forest Service combines the decision notice with the FONSI (Finding of No Significant Impact) required by NEPA.
Density	The number of encounters that occur between river recreationists. A physical concept relating to the idea of the number of people per unit of space.

Designated corridor	Both the wild and scenic corridor and the scenic waterway, including all areas that are part of either designation.
Desired future condition	A vision of the desired future state of a specific area. Desired future condition gives managers goals for the area, but recognizes the dynamic state of the ecosystem, instead of listing future numerical outputs as goals.
Developed recreation	Recreation that requires facilities that, in turn, result in concentrated use of an area. An example of a developed recreation area is a campground facility that might include roads parking lots, picnic tables, toilets, drinking water, and buildings.
Dispersed recreation	A general term referring to recreation use outside developed recreation sites: this includes activities such as scenic driving, hiking, backpacking, hunting, fishing, snowmobiling, horseback riding, cross-country skiing, and recreation in primitive environments.
Diversity	The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.
Dominant	Trees with crowns extending above the general level of the crown cover and receiving full light from above and partly from the side; larger than the average trees in the stand, with crowns well developed but possibly somewhat crowded on the sides.
Ecosystem	A complete system of organisms considered together with their environment (for example; a marsh, a forest, or a lake).
Effects	Environmental changes resulting from a proposed action. Effects and impacts are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social, or healthy effects, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial.
Endangered species	Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.
Environmental Assessment	The concise public document required by the regulations for implementing the procedural requirements of the National Environmental Policy Act.
Equestrian	Pertaining to horsemen or representing a person on horseback.

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Fecal coliform	A bacteria found in the human colon; a fecal coliform count is used as an indicator of fecal contamination, if any, in water.
FERC	Federal Energy Regulatory Commission.
Fisheries habitats	Streams, lakes, and reservoirs that support fish populations.
Floodplain	The lowland and relatively flat area adjoining inland waters, including, at a minimum, that area subject to a 1% or greater chance of flooding in any given year.
Forage	All browse and nonwoody plants that are available to livestock or game animals and used for grazing or harvested for feeding.
Foreground	A term used in visual management to describe the portions of a view between the observer and up to 1/4 to 1/2 mile distant.
FONSI	Finding of No Significant Impact. Required by NEPA when a federal agency prepares an environmental assessment; documents the reasons why the impacts of the proposed action are not significant and, therefore, the agency is not preparing an environmental impact statement.
Forest Service Handbook (FSH)	For Forest Service use, directives that provide detailed instructions on how to proceed with a specialized phase of a program or activity.
Forest Service Manual (FSM)	A system of manuals which provides direction for Forest Service activities.
Free-Flowing	As applied to any river or section of a river, means existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the National Wild and Scenic Rivers System shall not automatically bar its consideration for such inclusion: Provided, that this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the National Wild and Scenic Rivers System.
Forest system roads	Roads that are part of the Forest development transportation system, which includes all existing and planned roads as well as other special and terminal facilities designated as Forest development transportation facilities.
Habitat	The area where a plant or animal lives and grows under natural conditions. Habitat consists of living and non-living attributes and provides all requirements for food and shelter.
Headwaters	The upper tributaries of a river.

Hiding cover	Vegetation that will hide 90% of an adult deer or elk from the view of a human at a distance of 200 feet or less. The distance at which the animal is essentially hidden is called a "sight distance."
Historic site	Site associated with the history, tradition, or cultural heritage of national, state, or local interest and of enough significance to merit preservation or restoration.
Hydrology	The scientific study of the properties distribution and effects of water in the atmosphere, on the earth's surface, and in soil and rocks.
Interdisciplinary Team (IDT)	A group of individuals with different professional resource backgrounds assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem,
Intermediate	Trees shorter than those in the dominant and codominant classes but have crowns extending into the crown cover formed by dominant and codominant trees; receiving a little direct sunlight from above but none from the sides; usually with small crowns considerably crowded on the sides.
Intermittent stream	A stream that runs water in most months, but does not run water during the dry season during most years.
Issue	A point, matter, or question of public discussion or interest to be addressed or decided through the planning process.
Landscape management	The art and science of planning and administering the use of Forest lands in such ways that the visual effects maintain or upgrade human psychological welfare. The planning and design of the visual aspects of multiple-use land management.
Large woody material	Material greater than 20 inches in diameter and 33 feet in length.
Limits of acceptable change	A concept for managing change in a natural area, based on the premise that ecological and social change will occur as a result of natural and human factors. With the LAC concept, management's goal is to keep the character and amount of change that results from human factors within acceptable levels that are consistent with objectives for the area.
LRMP	Land and Resource Management Plan - Umpqua National Forest, 1990.
Macroinvertebrate	Large aquatic insects generally water-borne.
Management area	An area with similar management objectives and a common management prescription.

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Management indicator species	A species selected because its welfare is presumed to be an indicator of the welfare of other species using the same habitat. A species whose condition can be used to assess the impacts of management actions on a particular area.
Management plan	A plan guiding overall management of an area administered by a federal or state agency; plan usually includes objectives, goals, standards and guidelines, management actions, and monitoring plans,
Mass movement	A general term for any of the variety of processes by which large masses of earth material are moved downslope by gravitational forces--either slowly or quickly.
Mature timber	Trees that have attained full development, particularly height, and are in full seed production.
Middleground	A term used in visual management to describe the portions of a view extending from the foreground zone out to 3 to 5 miles from the observer.
Mitigation	Mitigation includes: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impacts by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments
Monitoring and evaluation	The periodic evaluation of Plan management practices on a sample basis to determine how well objectives have been met.
Multiple use	The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people: making the most judicious use of the land for <i>some or all</i> of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land and with consideration being given to the relative values of the various resources; and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

National Environmental Policy Act	Commonly known as NEPA; became a law in 1969. NEPA is the basic national charter for protection of the environment. The Act requires all federal agencies to consider and analyze all significant environmental impacts of any action proposed by those agencies, to inform and involve the public in the agency's decision making process, and to consider the environmental impacts in the agency's decision making process,
National Scenic Byway	A showcase of outstanding National Forest scenic, recreational, historical, educational, scientific or cultural values which meet the growing demand of driving for pleasure as a significant recreation use.
ODFW	Oregon Department of Fish and Wildlife.
Old growth	Timber stands with the following characteristics: large mature and over-mature trees in the overstory, large standing dead trees (snags), dead and decaying logs on the ground, and a multi-layered canopy with trees of several age classes.
Optimal Cover	Habitat for deer and elk which has tree overstory and understory, shrub and herbaceous layers: the overstory canopy generally exceeding 70% crown closure and dominant trees generally exceed 21 inches d.b.h.; provides snow intercept, thermal cover, and forage.
ORV	<i>See Outstandingly remarkable values.</i>
Outstandingly Remarkable Values	Term used in the National Wild and Scenic Rivers Act of 1968; to qualify as outstandingly remarkable, a resource value must be a unique, rare, or exemplary feature that is significant at a regional or national level.
Overstory	That portion of the trees, in a forest or in a stand of more than one story, forming the upper or uppermost canopy; comprised mainly of dominant and codominant trees.
Partial cut	Covers a variety of silvicultural practices where a portion of the stand is removed and a portion is left.
Partial retention	<i>See Visual quality objective.</i>
Peak flow	The highest flow of water attained during a particular flood for a given stream or river.
Perennial stream	A stream that flows year round.
Placer mining	The extraction of valuable heavy minerals from a mass of sand, gravel, or other similar alluvial material by concentration in running water.
Prehistoric site	An area which contains important evidence and remains of the life and activities of early societies which did not record their history.

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Programmed timber harvest	Harvest of timber in LRMP management areas which has been scheduled to occur on a sustainable basis.
Public involvement	A Forest Service and BLM process designed to broaden the information base upon which agency decisions are made by informing the public about agency activities, plan, and decisions, and encouraging public understanding about and participation in the planning processes which lead to final decision making,
Recreation Opportunity Spectrum	<p>A framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings activities, and opportunities for obtaining experiences have been arranged along a continuum of spectrum divided into seven classes: Primitive, Semiprimitive Nonmotorized, Semiprimitive Motorized, Roaded Modified, Roaded Natural, Rural, and Urban.</p> <ol style="list-style-type: none">1. Primitive - Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.2. Semiprimitive Nonmotorized - Area is characterized by a predominately natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities3. Semiprimitive Motorized - Area is characterized by a predominately natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way with minimum on-site controls and restrictions. Use of local primitive or collector roads with predominately natural surfaces and trails suitable for motor bikes is permitted.4. Roaded Natural - Area is characterized by predominately natural-appearing environments with moderate evidence of the sights and sounds of human activity. Such evidence usually harmonizes with the natural environment, Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.

5. **Roaded Modified** - Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident. Substantially modified natural environment where roads, landings, slash, and debris may be strongly dominant from within, yet remain subordinate from distant sensitive roads and highways.

Rehabilitation	Action taken to restore, protect, or enhance site productivity, water quality, or other resource values over a period of time.
Resident fish	Fish species that complete their entire life cycle in fresh water; non-anadromous fish: an example is brown trout.
Resource assessment	An evaluation of the resources and values associated with a wild and scenic river and the river corridor: the evaluation determines the level of significance of river-related values.
Resource values	A resource, natural or social, that is found in an area; resource values may have varying levels of significance. Examples of resource values are fish and recreation.
Retention	<i>See Visual quality objective.</i>
Riparian	Pertaining to areas of land directly influenced by water or influencing water. Riparian areas usually have visible vegetative or physical characteristics reflecting this water influence. Stream sides, lake borders, or marshes are typical riparian areas.
Riparian buffer	Riparian lands that are managed to protect the aquatic and riparian ecosystem; buffer protects water quality and temperature, habitat along the banks, upland habitat for aquatic and riparian species, and some or all of the floodplain.
Riparian management zone	Site-specific boundaries established by the Forest Service or BLM for management practices within riparian areas,
River use allocation system	A system for controlling boating use that limits the total number of boaters on the river, and rations use among boaters. (Boats include rafts, kayaks, and inflatables.)
River use regulation system	A system for controlling boating use that uses a variety of rules; the rules may or may not include limits on the total number of boaters.
Roaded natural	One category on the recreation opportunity spectrum (ROS). "Roaded natural" describes an environment where natural characteristics remain dominant, but there is moderate evidence of human development, and moderate amounts of contact with other people is expected during recreation,

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ROS	<i>See Recreation Opportunity Spectrum.</i>
Salvage cuttings	Intermediate cuttings made to remove trees that are dead or in imminent danger of being killed by injurious agents,
Scoping	A first step in the NEPA process and in the river planning process. Through scoping, issues, concerns, and their significance are identified and the range of alternatives developed. Scoping is done within the agency, with the public, and with other agencies.
Scheduled Timber Harvest	Any planned timber harvest which would contribute to the Forest or district cut commitment, and would be a part of the long term timber harvest planning base.
Second growth	Forest growth that has become established following some interference, such as cutting, serious fire, or insect attack, with the previous forest crop.
Sedimentation	A process where material carried in suspension by water flows into streams and rivers, increasing turbidity and eventually settling to the bottom.
Selection cutting	The annual or periodic removal of trees (particularly mature trees) individually or in small groups, from an uneven-aged forest.
Sensitive species	Plant or animal species which are susceptible or vulnerable to activity impacts or habitat alterations, Those species that have appeared in the Federal Register as proposed for classification or are under consideration for official listing as endangered or threatened species, that are on an official State list, or that are recognized by the Regional Forester as needing special management to prevent placement on Federal or State lists.
Snag	A standing dead tree.
Social carrying capacity	The level of use that exceeds acceptable levels by the norm of river recreationists. The level of use that impairs or alters human experience.
Socio-economic	Of, or relating to, social or economic factors, or a combination of both social and economic factors.
Spawning gravel	Sorted, clean gravel patches of a size appropriate for the needs of resident or anadromous fish.
Special attributes	Term used in planning for State Scenic Waterways; to qualify as a special attribute, a resource value must be a unique, rare, or exemplary feature that is significant at a regional or national level.
Special Interest Areas	Areas managed to make recreation opportunities available for the understanding of the earth and its geological, historical, archaeological, and botanical features.

Special Wildlife Habitat	A habitat which is unique and has a special function not provided by plant communities or successional stages; includes riparian zones, wetlands, cliffs talus, and meadows.
Standards and Guidelines	Principles specifying conditions or levels of environmental quality to be achieved,
State Scenic Waterway	Those rivers or sections of rivers designated as State Scenic Waterways by the State of Oregon, either under the voter initiative that established the program in 1970, or under subsequent ballot measures or legislative acts, Parts of the North Umpqua River were designated as a State Scenic Waterway in the Oregon Rivers Initiative, a statewide ballot measure passed in 1988.
Stream buffer	Vegetation left along a stream channel to protect the channel or water from the effects of logging, road building, or other management activity.
Stream class	<p>Classification of streams based on the present and foreseeable uses made of the water, and the potential effects of on-site changes on downstream uses, Four classes are defined:</p> <p>Class I - Perennial or intermittent streams that provide a source of water for domestic use; are used by large numbers of anadromous fish or significant sports fish for spawning, rearing or migration and/or are major tributaries to other Class 1 streams.</p> <p>Class II - Perennial or intermittent streams that are used by fish for spawning, rearing or migration and/or may be tributaries to Class I streams or other Class II streams.</p> <p>Class III - All other perennial streams not meeting higher class criteria.</p> <p>Class IV - All other intermittent streams not meeting higher class criteria,</p>
Stream structure	The arrangement of logs, boulders, and meanders which modify the flow of water, thereby causing the formation of pools and gravel bars in streams. Generally, there is a direct relationship between complexity of structure and fish habitat. Complex structure is also an indication of watershed stability.
Substrata	The material forming the underlying layer of streams, Substrates may be bedrock, gravel, boulders, sand, clay, etc.
Suppression	The process of extinguishing or confining fire.
Terminus	The beginning or ending point; in this case, the beginning or ending point of a legally designated corridor, such as the Wild and Scenic North Umpqua River.

Territory	The area which an animal defends, usually during breeding season, against intruders of its own species.
Thermal cover	Cover used by animals to ameliorate effects of weather.
Threatened and Endangered (T&E) Species	See <i>Threatened</i> species; see Endangered species.
Threatened species	Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future. (See also Endangered species.)
Travel corridor	A route followed by animals along a belt or band of suitable cover or habitat.
Turbidity	The degree of opaqueness, or cloudiness, produced in water by suspended particulate matter, either organic or inorganic. Measured by light filtration or transmission and expressed in Nephelometric Turbidity Units (NTU's).
Understory	The trees and other woody species growing under a more or less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth; comprised mainly of intermediate and suppressed trees,
Viewshed	Portion of the forest that is seen from a major travel route or high use location.
VQO	See <i>Visual Quality Objective</i> .
Visual Quality Objective	<p>Categories of acceptable landscape alteration measured in degrees of deviation from the natural-appearing landscape.</p> <p>Preservation (P) - Ecological changes only.</p> <p>Retention (R) = Management activities should not be evident to the casual Forest visitor.</p> <p>Partial Retention (PR) - Management activities remain visually subordinate to the characteristic landscape,</p> <p>Modification (M) = Management activities may dominate the characteristic landscape but must, at the same time, follow naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.</p> <p>Maximum Modification (MM) - Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.</p>

	<p>Enhancement - A short-term management alternative which is done with the express purpose of increasing positive visual variety where little variety now exists.</p>
Visual resource	<p>The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.</p>
Watershed	<p>The entire land area that contributes water to a drainage system or stream.</p>
Wetlands	<p>Areas that are inundated by surface or ground water often enough to support and usually do support, primarily plants and animals that require saturated or seasonally saturated soil conditions for growth and reproduction.</p>
White water rapids difficulty rating	<p>Class 1: Moving water with a few riffles and small waves. Few or no obstructions.</p> <p>Class 2: Easy rapids with waves up to 3 feet. Wide clear channels are obvious without scouting. Some maneuvering is required.</p> <p>Class 3: Rapids with high, irregular waves often capable of swamping an open canoe. Narrow passages may require complex maneuvering. <i>May need to scout from shore.</i></p> <p>Class 4: Long difficult rapids with constricted passages. Requires precise maneuvering in very turbulent waters. <i>Scouting from shore is often necessary.</i> Conditions make rescue difficult. Generally not possible for canoes. Boaters in covered canoes and kayaks should be able to Eskimo roll.</p> <p>Class 5: Extremely difficult, long, and very violent rapids with highly congested routes that should be scouted from shore. Rescue conditions are difficult. Life may be endangered in the event of a mishap. Ability to Eskimo roll is essential.</p> <p>Class 6: Difficulties of Class 5 carried to the extreme of navigability. Very dangerous. For experts only.</p>
Wild and Scenic River	<p>Those rivers or sections of rivers designated as such by Congressional action under the 1968 Wild and Scenic Rivers Act, as supplemented and amended, or those sections of rivers designated as wild, scenic, or recreational by an act of the legislature of the state or states through which they flow. Wild and scenic rivers may be classified and administered under one or more of the following categories:</p> <ol style="list-style-type: none"> 1. Wild River Areas - Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. 2. Scenic River Areas - Those rivers or sections of rivers that are free of impoundments, with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

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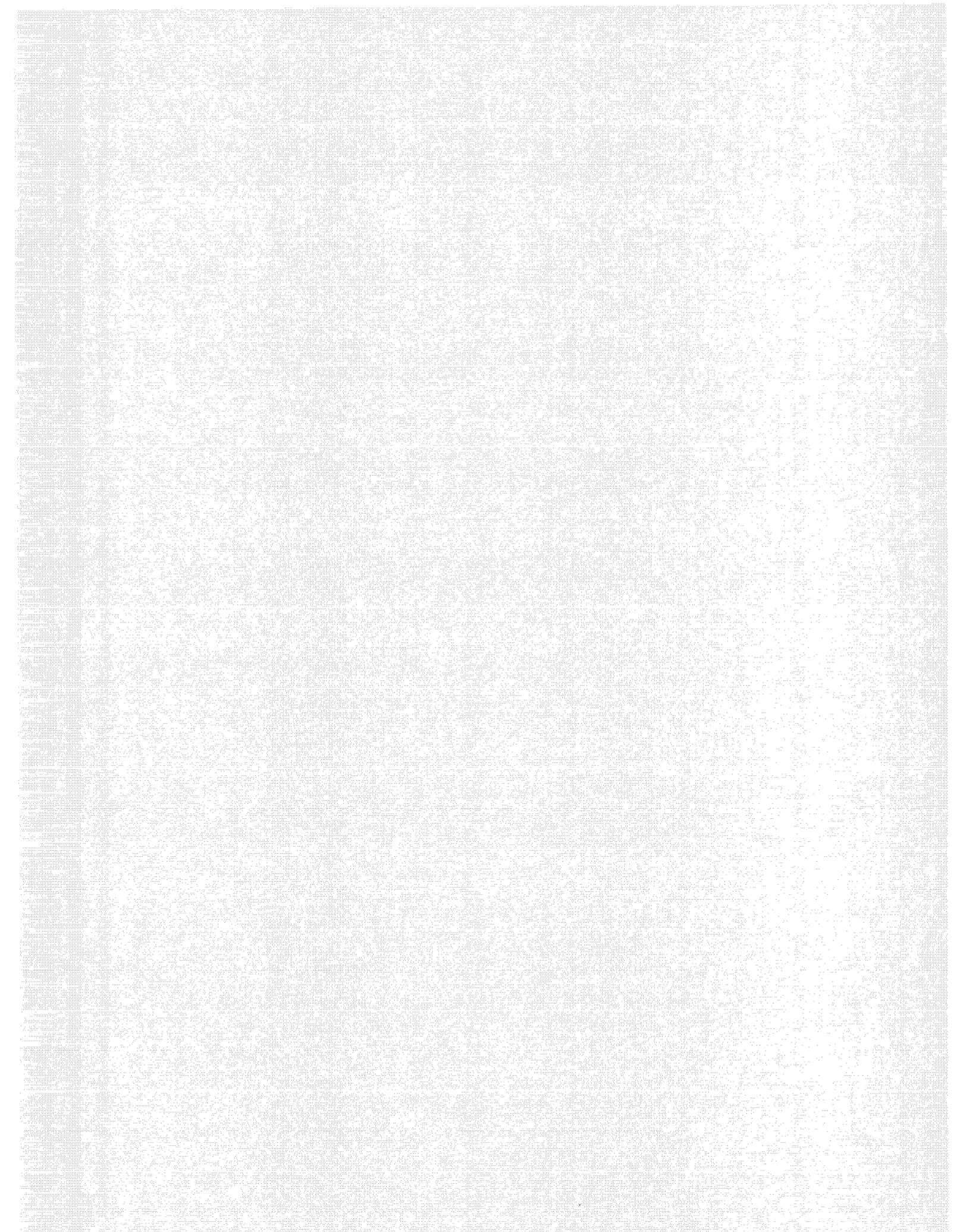
3. **Recreational River Areas** - Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Winter range An area used by deer and elk during the winter months: usually at lower elevation and/or on south and west exposures.

Woody material Organic materials necessary for stream channel stability and maintenance of watershed condition, It includes large logs and root wads.

APPENDIX I

References



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- Aikens, C. Melvin. 1984. *Archaeology of Oregon*. USDI, Bureau of Land Management, Oregon State Office, Portland.
- Anderson, N.H. 1989. Personal communication on potential habitats for T&E Caddisflies on the North Umpqua District.
- Arney, R.J. 1979. "Resolving User Conflicts between Fishermen and Commercial Whitewater Rafters on the North Umpqua River, Oregon"
- Bald Eagle Working Team. 1989. Working implementation plan for bald eagle recovery in Oregon and Washington.
- Brown, E. Reade (ed). 1985. *Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington (two volumes)*. USDA Forest Service, Pacific Northwest Region. Pub. No. R6-F&WL-192-1985. Pacific Northwest Region. 319 SW Pine, P.O. Box 3623, Portland, OR 97208.
- Collins, James. 1987. *Peregrine falcon habitat survey, Southwest Oregon*. Oregon Department of Fish and Wildlife, Roseburg, OR.
- Collins, James. 1989. *Peregrine falcon habitat survey for Douglas and Jackson Counties*, ODFW, Roseburg, OR.
- Cross, Stephen P. 1983. *Techniques for Locating Natural Roost Sites of Bats in the Forests of Southwestern Oregon*. Oregon Department of Fish and Wildlife Nongame Wildlife Program. Tech. Report No. 83-2-02A. Oregon Dept. of Fish and Wildlife, 506 Mill Street, P.O. Box 59, Portland, OR 97207.
- Gurrens, K. 1989. Personal communication on habitats and identification of red-band trout.
- Dambacher, J.M. 1971. *Distribution, abundance, and emigration of juvenile steelhead, and analysis of stream habitat in Steamboat Creek Basin, Oregon*. MS. Thesis. Oregon State University, Corvallis, OR. 129 pp.
- Fish Commission and Oregon State Game Commission. 1946. *Umpqua River Study, The; a joint report*. 106 pp.
- Fontaine, B.L. 1988. *An evaluation of the effectiveness of instream structures for steelhead trout rearing habitat in the Steamboat Creek Basin*. M.S. Thesis. Oregon State University, Corvallis, OR. 58 pp.
- Forsman, ED., E.C. Meslow, and H.M. Wight. 1984. *Distribution and biology of the spotted owl in Oregon*. *Wildlife Mono.* 87. 64 pp.
- Fosback, Joan. 1989. *A Simplified Guide to the Sensitive Plants of the Umpqua National Forest*. USDA Forest Service, Umpqua National Forest, P.O. Box 1008, Roseburg, OR 97470.

Holland, Dan C. 1989. *Synopsis of the Ecology of the Western Pond Turtle (Clemmys marmorata)*. Preliminary Draft. College of Sciences, Dept. of Biology, The University of Southern Louisiana, Lafayette, LO 70504-2451.

Interagency Scientific Committee. 1990. *Conservation strategy for the northern spotted owl. Report of the Interagency Scientific Committee to address the conservation of the northern spotted owl*. USDA Forest Service; USDI Fish and Wildlife Service, Bureau of Land Management; and National Park Service. Portland, OR.

Long, James J. and Carl E. Bond. 1983. *Distribution of Oregon Chub (Hybopsis crameri [Oregonichthys crameri])*. Department of Fisheries and Wildlife, College of Agricultural Sciences, Oregon State University, Corvallis, OR 97331-3803.

Maser, Chris, Bruce R. Mate, Jerry F. Franklin, and C.T. Dryness, 1981. *Natural History of Oregon Coast Mammals*. USDA For. Serv. Gen. Tech. Rep, PNW-133, 496 p. Pacific Northwest Region, Forest and Range Experiment Station, Portland, OR 97232.

Meehan, W.R., editor. 1991. *Influences of forest and range/and management on salmonid fishes and their habitats*. American Fisheries Society Special Publication 19. 751 pp.

Nussbaum, R., E. Brodie, and R. Storm. 1983. *Amphibians and Reptiles of the Pacific Northwest*. University of Idaho Press, Moscow, ID 83843.

O'Neill, Brian L. 1989. *A Cultural Chronology of the Umpqua Basin, Southwest Oregon*. Unpublished Ph.D. Dissertation of file with the Department of Anthropology, University of Oregon, Eugene.

Oregon Department of Fish and Wildlife. 1986. *North Umpqua River Fish Management Plan*. 56 pp.

Oregon Department of Fish and Wildlife. 1990. *North Umpqua River Fish Management Plan, Progress Report*. 27 pp.

Oregon Water Resources Department. 1990. *Oregon Water Rights System*. 34 pp.

Page, J.E. 1989. *Protocol for observing known and potential peregrine falcon eyries in Southwest Oregon, Region 5 and 6*. USFS, Klamath NF.

Pearsons, T. 1989, Personal communication on Oregon chub habitat requirements and potential for occurrence on the North Umpqua River District.

Perkins, J. Mark. 1987. *Distribution, Status, and Habitat Affinities of Townsend's Big-eared Bat (Plecotus townsendii) in Oregon*. Oregon Department of Fish and Wildlife Nongame Wildlife Program. Tech. Report No. 86-5-01. Oregon Dept. of Fish and Wildlife, 506 Mill Street, P.O. Box 59, Portland, OR 97207.

Shelby, Bo. "Allocation of Public Access Rights on Western Rivers," *Western Wildlands*, Volume 16, No. 4, Winter 1991, pp. 8-12.

Shelby, B., M. Dankey, K. Gibbs and M. Peterson. 1982. *Preferences of Backpackers and River Runners for Allocation Techniques*. *Journey of Forestry* 80(7):416-419.

Shelby, B., R.L. Johnson, **M. Branson**. "Comparative Analysis of Whitewater Boating Resources in Oregon: Toward a Regional Model of River Recreation" (Draft), Report No. G1609-07, Water Resources Institute, Oregon State University.

Stankey, G.H., D.N. Cole, R.G. Lucas, **M.E.** Peterson and S.S. Frissell. 1985. *The Limits of Acceptable Change Systems for Wilderness Planning*. General Technical Report INT-176. U.S. Forest Service, Intermountain Research Station, Ogden, UT.

St. John, Alan **D.** 1985, *The Herpetology of the Interior Umpqua River Drainage, Douglas County, Oregon*. Oregon Department of Fish and Wildlife Nongame Program. Tech. Report No. 85-2-02. Oregon Dept. of Fish and Wildlife, 506 SW Mill Street, P.O. Box 59, Portland, OR 97207.

USDA Forest Service. 1987. *Ecology and Management of the Spotted Owl in the Pacific Northwest*. Pacific Northwest Forest and Range Experiment Station, Portland, OR. Gen. Tech. Report PNW-185.

USDA Forest Service, 1988. *Final Supplement to the Environmental Impact Statement for an Amendment to the Pacific Northwest Regional Guide. Spotted Owl Guidelines (two volumes)*. Pacific Northwest Region Portland, OR.

USDA Forest Service. 1990b. *The fishery resources of the National Forests: Extent, uses, and economic benefits - 1988*. 177 pp.

USDA Forest Service. 1989. *The Flathead Wild and Scenic River Recreation Management Direction*. 131 pp.

USDA Forest Service. 1988. *Spotted Owl Inventory and Monitoring Handbook*. Pacific Northwest Region. Portland, OR.

USDA Forest Service. 1989. *Spotted Owl Habitat Management (WO-Memo:2670)*, May 16, 1989.

USDA Forest Service. May 15, 1989. Letter on inventories of proposed project areas - minimum standards.

USDA Forest Service, 1988. *Spotted Owl Inventory and Monitoring Handbook*. Pacific Northwest Region, Portland, OR.

USDA Forest Service. 1987. *Proposed Land and Resource Management Plan, Umpqua National Forest*. Pacific Northwest Region, Portland, OR.

USDA Forest Service, Umpqua National Forest. 1990a. *Land and Resource Management Plan and Final Environmental Impact Statement*.

USDA Forest Service. 1974. *National Forest Landscape Management, Volume 2*. Agriculture Handbook Number 462,

USDI Fish and Wildlife Service. 1982, *Pacific Coast Recovery Plan for the American Peregrine Falcon*. U.S. Department of Interior, Fish and Wildlife Service, Portland, OR,

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USDI Fish and Wildlife Service. 1986. *Recovery Plan for the Bald Eagle*. U.S. Department of Interior, Fish and Wildlife Service, Portland, OR.

USDI Fish and Wildlife Service. 1990. Formal Consultation of the U.S. Forest Service Section 318 Timber Sale Program. Letter of July 23, 1990.

USDI Fish and Wildlife Service. 1990. *1990 Status Review. Northern Spotted Owl*. Report to the U.S. Fish and Wildlife Service, Portland, OR.

U.S. Environmental Protection Agency. May 1991. *Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska*. 166 pp.

Wiseman, B. Comments on T&E Invertebrates (Trichoptera) in Oregon. Letter to U.S. Fish & Wildlife Service dated April 30, 1986.

Wiseman, Robert W. 1990. *Risk Assessment. The Impact of Fish Habitat Improvement Activities in 3rd and 5th Order Streams of the Alsea Ranger District, Siuslaw National Forest, Oregon, on the Sensitive Aquatic Invertebrate, Ochrotrichia alsea*. Unpublished.

Wiseman, Robert W. 1990. *Survey for Sensitive Aquatic Invertebrate Taxa in Headwater Tributaries of Squaw and Donegan Creeks, Tillier Ranger District, Umpqua National Forest*. Unpublished.

Wroble, J.J. 1990. *Seasonal movements and spawning of adult summer steelhead trout in the North Umpqua River and Steamboat Creek Basin*. Humboldt State University, Arcata, CA. 114 pp.



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