

Aesthetics Management Plan

**North Umpqua Hydroelectric Project
FERC Project No. 1927**

Prepared by:

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In Consultation With:

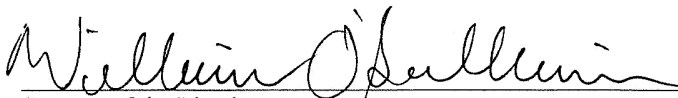
USDA Forest Service
Pacific Northwest Region
Umpqua National Forest
and
USDI Bureau of Land Management
Roseburg District

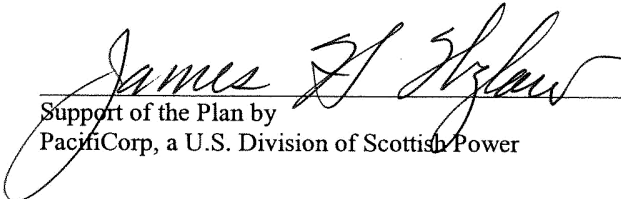
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Aesthetics Management Plan (Plan)

Support by:


Support of the Plan by _____ 4/19/04
USDA Forest Service, Umpqua National Forest Date


Support of the Plan by _____ 4/28/04
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Support of the Plan by _____ 5/10/04
PacifiCorp, a U.S. Division of Scottish Power Date

EXECUTIVE SUMMARY

PacifiCorp, a U.S. Division of Scottish Power (PacifiCorp), is the operator of the North Umpqua Hydroelectric Project Federal Energy Regulatory Commission (FERC) No. 1927 (Project) licensed by the FERC in 1947. Under the terms of the North Umpqua Hydroelectric Project Settlement Agreement (SA), dated June 13, 2001, between PacifiCorp and the U.S. Department of Agriculture, Forest Service (USDA-FS), U.S. Department of Interior, Bureau of Land Management (USDI-BLM), and other agencies, a new FERC license will be issued for a period of 35 years. This new FERC license order was issued in 2003 to PacifiCorp. All parties recognize a shared responsibility in the management of aesthetics/visual resources in the Project area.

PacifiCorp, in consultation with the USDA-FS and USDI-BLM, has prepared this Aesthetics Management Plan (Plan) in accordance with the SA that calls for completion of the Plan in 2002, which has been extended to 2004 by the Executive Policy Group of the Resource Coordinating Committee (RCC) and by the FERC.

PacifiCorp, USDA-FS, and USDI-BLM will use this Plan to manage aesthetics/visual resources in and around Project-related facilities and sensitive viewpoints. The Plan cites goals for managing aesthetics/visual resources, identifies actions, and describes activities designed for implementation. The activities identified in the Plan will be utilized throughout the term of the new license (35 years).

This Plan includes seven program activities:

- Aesthetics Management Guidelines
- Photo-Simulation/Painting
- Landscaping Buffers
- Transmission Line Visibility
- In-stream Flows
- Reservoir Pool Levels
- Reporting

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EXHIBITS

Exhibit A	Appendix A of the SA—Implementation Schedule
Exhibit B	Settlement Agreement (Section 16: Aesthetics)
Exhibit C	Rolling 5-Year Aesthetics Action Plan Framework
Exhibit D	Aesthetic Guidelines by Aesthetics Management Zone
Exhibit E	Aesthetics Management Zones
Exhibit F	Transmission Line Screening Study
Exhibit G	The Built Environment Image Guide for National Forests and Grasslands - FS-710 (excerpt of North Pacific Province only)

ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities, as amended
ADR	Alternative Dispute Resolution
AMP	Aesthetics Management Plan (or Plan)
BEIG	The Built Environment Image Guide for the National Forests and Grasslands
BMPs	Best Management Practices
CUA	Concentrated Use Area
ECP	Erosion Control Plan
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FLRMP	Umpqua National Forest Land and Resource Management Plan, USDA-FS, as amended
FPMP	Fire Protection and Management Plan
GDP-IPD	Gross Domestic Product-Implicit Price Deflator
GIS	Geographic Information System
GPS	global positioning system
HPMP	Historic Properties Management Plan
KOP	Key Observation Point
LLMP	Lemolo Lake Management Plan
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NFS	National Forest System
NURMP	North Umpqua River Management Plan
O&M	Operations and Maintenance
ODEQ	Department of Environmental Quality, State of Oregon
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OPRD	Oregon Parks and Recreation Department
PacifiCorp	PacifiCorp, a U.S. Division of Scottish Power
PM&E	protection, mitigation, and enhancement (measures)
Project	North Umpqua Hydroelectric Project, FERC Project No. 1927
Project boundary	FERC Project boundary
RCC	Resource Coordination Committee
RCP	Resource Coordination Plan
RMP	Roseburg District Resource Management Plan
ROW	right-of-way
RRMP	Recreation Resource Management Plan
SA	Settlement Agreement
SIO	Scenic Integrity Objective
SMS	Scenery Management System

ACRONYMS AND ABBREVIATIONS (continued)

SR	State Route
TMP	Transportation Management Plan
UNF	Umpqua National Forest
USDA-FS	U.S. Department of Agriculture, Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USDI-BLM	U.S. Department of Interior, Bureau of Land Management
VMP	Vegetation Management Plan
VMS	Visual Management System
VQO	Visual Quality Objective
VRM	Visual Resource Management
VRMP	Visual Resources Management Plan (former name of the AMP)
W&SR	Wild and Scenic River

1.0 INTRODUCTION

PacifiCorp, a U.S. Division of Scottish Power (PacifiCorp), is the operator of the North Umpqua Hydroelectric Project Federal Regulatory Commission (FERC) No. 1927 (Project) licensed by the FERC in 1947. The Project will be operated under the terms of the North Umpqua Hydroelectric Project Settlement Agreement (SA) (dated June 13, 2001) between PacifiCorp and the U.S. Department of Agriculture, Forest Service (USDA-FS), Roseburg District of the U.S. Department of Interior, Bureau of Land Management (USDI-BLM), and other agencies. The new FERC license will cover a period of 35 years. This new FERC license order was issued in 2003 to PacifiCorp.

The Project, including Project transmission lines and related rights-of-way (ROW), is located on federal lands managed by the USDA-FS and USDI-BLM (agencies). PacifiCorp recognizes a shared responsibility in the future management of aesthetics/visual resources in the Project area. To manage these resources, PacifiCorp has prepared this Aesthetics Management Plan (Plan) as directed in the SA between the parties.

The format of this Plan includes five sections:

- Section 1.0 presents an introduction of the Plan, including its purpose and intent, goals, summary of Plan implementation activities, and an explanation of terms and definitions;
- Section 2.0 describes the roles and responsibilities of the agencies and PacifiCorp, development of annual and long-term action plans, annual reviews of actions, and environmental compliance;
- Section 3.0 identifies actions in the SA such as painting penstocks and surge tanks, installing landscape buffers, and maintaining reservoir pool levels;
- Section 4.0 discusses procedures of how the Plan may be updated and revised over time; and
- Section 5.0 lists references cited in the Plan.

These sections are followed by a series of Exhibits that are referenced in the Plan.

1.1 USER'S GUIDE

This section is a user's guide to help clarify potential conflicts or ambiguity in implementing the Plan during the term of the new license. If the authority or action is unclear or contradictory, the following prioritized list of plans will guide decision-makers. The priority plan hierarchy is as follows (first to last):

- FERC license;
- SA (June 13, 2001) – main text Sections 1 through 24, excluding Appendices and Schedules;
- Management Plans, including this Plan and associated main text sections and exhibits;
- Management Plans, including this Plan and associated broader goals and vision statements; and
- SA (June 13, 2001) – Appendices and Schedule, that were superseded with exhibits in this Plan.

Potential conflicts or ambiguity in implementing this Plan may be discussed and addressed during annual aesthetics/visual resource coordination meetings and during Plan review and potential revisions.

Consistency with policies in the Umpqua National Forest Land and Resource Management Plan (USDA-FS 1990) will be determined through periodic review by the USDA Forest Service over the terms of the new license.

1.2 PURPOSE AND INTENT

The purpose of the Plan is to implement several actions and procedures from the SA to manage existing and future aesthetic/visual resources associated with the Project. This Plan establishes goals for managing aesthetic/visual resources in the Project vicinity, identifies implementation activities for managing aesthetics/visual resources, and describes actions designed to protect and enhance aesthetic/visual resources per the SA. More specifically, the Plan is an implementation plan to be followed by PacifiCorp during the term of the new license (35 years). Based on relicensing study results (PacifiCorp 1995), agency consultation and settlement talks, and preparation of the Plan, the parties have agreed to a number of aesthetic/visual resource actions (see Exhibits A and B) associated with the Project.

This Plan is a culmination of the aesthetic/visual resource studies conducted during the early 1990's for Project relicensing by EDAW, Inc. for PacifiCorp (PacifiCorp 1995). These initial relicensing studies included: (1) an assessment of water flow and fluctuations in Project-related rivers, creeks, and waterfalls, (2) an assessment of pool level fluctuations in Project water bodies (reservoirs and forebays), (3) a consistency analysis of adopted agency plans and policies related to aesthetic/visual resources, (4) an assessment of the visibility of Project facilities (transmission lines and ROWs, dams, water bodies, powerhouses, penstocks, surge tanks, canals, maintenance and administrative facilities, etc.) from significant public viewing locations such as State Route (SR) 138, the Wild and Scenic River, residential areas, and public recreation facilities, and (5) the development of proposed protection, mitigation, and enhancement (PM&E) measures for aesthetic/visual resources. Based on these initial studies, several proposed PM&Es were included in the License Application by PacifiCorp in 1995.

Following the SA in 2001, the parties agreed to include and further refine several of the original proposed PM&Es and include them in this Plan, plus the addition of a few additional measures. As a result, this Plan documents how PacifiCorp will address the terms of the SA and the associated management of aesthetic/visual resources in the Project vicinity over the term of the new license.

1.3 GOALS

PacifiCorp's management of aesthetic/visual resources in the Project area is defined in the SA and further focuses on these goals:

Goal 1: Compliance with Federal Aesthetic Management Objectives at Project Facilities.

From a broader planning perspective over the term of the new license, PacifiCorp will utilize aesthetic management guidelines to incrementally enhance the overall aesthetic/visual quality of the Project area over time when designing new Project facilities, constructing or renovating Project facilities, and maintaining existing and future facilities where practical and consistent with the SA Section 16.1.

Goal 2: Minimize Existing Adverse Project Effects on Aesthetic Resources. Minimize Project-related adverse effects on aesthetic/visual resources near sensitive viewpoints in areas where identified Project penstocks, surge tanks, switching station, and maintenance yard exist, consistent with actions identified in the SA Sections 16.2 and 16.3.

Goal 3: Protect and Enhance Scenic Corridors. Protect and enhance, if possible, the views at selected sensitive viewpoints located along the North Umpqua Wild and Scenic River (USDA-FS et al. 1992 as amended) and the Rogue-Umpqua Scenic Byway (USDA-FS 2002) where Project transmission lines, towers, and ROWs are visible from these scattered viewpoints, consistent with actions identified in the SA Section 16.4.

Goal 4: Protect Aesthetic Water Flows and Pool Levels. Aesthetic resource management values are to be protected by maintaining flow conditions that preserve or enhance the aesthetic quality of selected Project water features, such as waterfalls, Lemolo Lake, and downstream river flows, consistent with the actions identified in the SA 16.1 through reference to the incorporation of "Visual Enhancement Measures" contained in Table 7.3-1, Exhibit E, of the January 1995 License Application (PacifiCorp 1995).

Goal 5: Utilize Aesthetic Management Guidelines for Project Facility Design, Construction, and Maintenance. Utilize aesthetic management guidelines to incrementally enhance the overall aesthetic/visual quality of the Project area over time when designing new Project facilities, constructing or renovating Project facilities, and maintaining existing and future facilities.

1.4 PLAN IMPLEMENTATION ACTIVITIES SUMMARY

This Plan addresses resource needs and related implementation actions for the Project. Overall coordination of this and other plans is contained in the umbrella Resource Coordination Plan (RCP).

As documented in the License Application (PacifiCorp 1995) and the SA (PacifiCorp et al. 2001), the primary issues related to aesthetic/visual resources that are addressed in the Plan include the following:

- Appearance of existing Project facilities in proximity to sensitive viewpoints such as the Rogue-Umpqua Scenic Byway and the North Umpqua Wild and Scenic River reach consistent with the SA;
- Adequacy of in-stream flows at waterfalls and below Soda Springs powerhouse in maintaining scenic quality consistent with the SA;
- Fluctuations in the surface elevation of Lemolo Lake consistent with the SA; and
- Appearance of existing Project facilities and proposed modifications and renovations of these facilities from selected sensitive viewpoints based on aesthetic management guidelines for the design, maintenance, and construction of such facilities consistent with the SA.

To address these primary aesthetic/visual resource issues, as well as implement the aesthetic actions of the SA, implementation components of this Plan include seven actions:

- **Aesthetics Management Guidelines (Section 3.1)** - Identifies guidelines that address the design, maintenance, and construction of Project facilities to preserve or enhance the aesthetic/visual resources of the Project area. (SA Section 16.1)
- **Photo-simulation/Painting (Section 3.2)** - Addresses future painting of the Lemolo No. 2 penstock and surge tank, Clearwater No. 2 penstock, and the Toketee penstock and surge tank. (SA Section 16.3)
- **Landscaping Buffers (Section 3.3)** – Addresses the visual buffering of the Clearwater switching station and the Clearwater Village Project maintenance yard through the use of landscape buffers. (SA Section 16.2)
- **Transmission Line Visibility (Section 3.4)** - Addresses conductor replacement to a non-specular type when replacement is necessary, and ROW visibility buffering at 11 locations on the Project transmission line ROW visible from SR

138 (transmission line numbers 39, 42, 46, 51, 53, 55, and 57) per the SA Section 16.4 (11 is the correct number of locations, not 13).

- **In-stream Flows (Section 3.5)** - Maintains aesthetic/visual resource management objectives at Project waterfalls (Lemolo, Toketee and Whitehorse Falls), as well as the Wild and Scenic Reach of the North Umpqua River below Soda Springs powerhouse per the SA Section 16.1 that references the incorporation of “Visual Enhancement Measures” contained in Table 7.3-1, Exhibit E, of the License Application (PacifiCorp 1995).
- **Reservoir Pool Levels (Section 3.6)** – Maintains the reservoir pool level at Lemolo Lake at or as near as possible to full pool during the recreation season per the SA Section 16.1 that references the incorporation of “Visual Enhancement Measures” contained in Table 7.3-1, Exhibit E, of the License Application (PacifiCorp 1995).
- **Reporting (Section 3.7)** – Provides for periodic planning and reporting of aesthetic management activities and progress.

1.5 EXPLANATION OF TERMS AND DEFINITIONS

Terms and concepts used throughout this Plan and relevant to aesthetic/visual resource planning for the Project are defined below.

Approval - Confirmation of concurrence with plans, designs, projects, and schedules prior to implementation by the party or parties assigned the responsibility in the SA.

Authority - The legal right to approve or modify an action or proposed action; this is based on statute, regulations, or legal agreements.

Buffer, Buffering - To screen with vegetation or visual barriers or otherwise reduce the visibility of man-made objects as viewed from a specific viewpoint; to treat objects with color or texture to blend with the natural environment so that they do not attract attention.

Capital Improvement - The construction, installation, or assembly of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset, to accommodate a change of purpose.

Construction - The erection, construction, installation, or assembly of a new fixed asset.

Consultation – Formal or informal discussions for the purposes of developing and/or reviewing proposed projects and implementation plans. Consultation involves providing another party an opportunity for review and input regarding a proposed plan or project. The objective of consultation is to obtain input and reach a joint understanding of requirements for the project or plans. The results of consultation are generally documented in reports, letters, or plans. Informal consultation generally pertains to the

results of meetings, exchange of e-mail, or other informal communication between parties. Formal consultation involves procedures that are covered by agency regulation, such as consultation with the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA), and tribal consultation.

FERC Project Boundary or FERC Boundary - The boundary of the Project as approved by the FERC under the new license.

Funding – Money that is available and has been committed by an organization to accomplish an activity, project, or program. Funding represents monies currently available for expenditure for the designated work, compared to a budget which may only represent a plan or projection for use of future anticipated funding. A commitment of money may take several forms, including a contract, approved collection agreement, payment of a bill for collection, appropriation of funds by Congress and allocated by higher levels of an agency, or a formal grant agreement.

Guideline - A statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if professional judgment or scientific/engineering study indicates the deviation to be appropriate and adequately documents the justification for deviation.

Implementation – Accomplishment of on-the-ground or on-site construction, restoration, reconstruction, maintenance, or operational activities. Implementation may involve actual ground or habitat disturbance. Implementation normally will not take place until the appropriate agencies or officials approve required permits, National Environmental Policy Act (NEPA) decisions, designs and/or implementation plans.

Jurisdiction – The legal right to control and regulate the use of a facility or area.

License - The new license issued by the FERC to operate and maintain the North Umpqua Hydroelectric Project, FERC Project No. 1927.

Maintenance - The act of keeping fixed assets in acceptable condition. It includes preventive maintenance, normal repairs, replacement of parts and structural components, and other activities needed to preserve a fixed asset so that it continues to provide acceptable service and achieves its expected life. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, those originally intended.

Maintenance includes work needed to adhere to laws, regulations, codes, and other legal direction as long as the original intent or purpose of the fixed asset is not changed.

May - This word is not normally synonymous with “should,” and does not normally express certainty as “will” or “shall” does. It is used to indicate a certain measure of likelihood or possibility, and is used to express a desire, contingency, purpose, or result, to be allowed or permitted to do something.

Must - This word, like the word “shall,” is of mandatory effect.

Parties - Parties to the Plan, including PacifiCorp, the USDA-FS, and the USDI-BLM.

Project - The North Umpqua Hydroelectric Project FERC No. 1927 (Project), including all lands associated therewith as described in the new FERC license.

Project Vicinity - The area of potential effect of the Project, principally located within the FERC Project boundary upstream of the Soda Springs powerhouse to Lemolo Lake, and concentrated within the Lemolo Lake and Toketee Lake recreation areas and at Project facilities including Project dams, powerhouses, transmission line (T-line) corridors, and water bodies.

Project Water Bodies - The bodies of water that have been created by the Project, including reservoirs and forebays.

Reconstruction (Rehabilitation) - Replacement of an existing facility involving the reconstruction, reinstallation, or reassembly of a fixed asset.

Resource Coordination Committee (RCC) - The RCC is created by Section 21 of the North Umpqua Hydroelectric Project, FERC No. 1927-008 SA, from which it derives authority. The RCC makes collective decisions while implementing the SA. The structure and process of the RCC is intended to be value-added to its member organizations by providing a forum to address time sensitive matters, early warning of problems, and coordination of member organization actions, schedules, and decisions to save time and expense. The RCC shall not infringe on the authority of the agencies.

Rolling 5-Year Aesthetics Action Plan - An annually updated aesthetics management and coordination plan that is jointly prepared by the parties. The plan framework is defined as a 5-year rolling plan based on a calendar year and is presented in Exhibit C. The plan includes the current year, looks out three years for planning purposes, and looks back one year for accounting purposes, for a total of 5 years.

Shall - As used in the SA and in this Plan, this word is imperative and mandatory. “Shall” is a word of command, and one which has always or which must be given a compulsory meaning, as denoting obligation. It has a peremptory meaning, and it is generally imperative or mandatory. It has the invariable significance of excluding the idea of discretion, and has the significance of operating to impose a duty which may be enforced, particularly if public policy is in favor of this meaning, or when addressed to public officials, or where a public interest is involved, or where the public or persons have rights which ought to be exercised or enforced, unless a contrary intent appears.

Should - The past tense of shall, ordinarily implying duty or obligation, although usually no more than an obligation of propriety or expediency, or a moral obligation, thereby distinguishing it from “ought.” It is not normally synonymous with “may,” and although

often interchangeable with the word “would,” it does not ordinarily express certainty as “will” and “shall” do.

Standard - A statement of required, mandatory, or specifically prohibitive practice regarding land management, safety, or other procedures.

Watershed Analysis - Watershed analysis is a process used to characterize the human, biological, and physical conditions, processes, and interactions within a watershed. It is an intermediate analysis between land management planning and project planning. The analysis focuses on specific issues, values and uses identified within the landscape that are essential for making sound management decisions.

Will - This word expresses certainty and is used in a mandatory sense, unlike “should” or “may” that expresses a degree of permission, but not certainty. This word is used most often in the Plan, as compared to shall, should, must, and may.

2.0 PLANNING AND COORDINATION

This section discusses longer term coordination of aesthetic/visual resource-related activities between the PacifiCorp and the USDA-FS and USDI-BLM. Overall coordination procedures related to the operation and maintenance (O&M) of the Project are addressed in the RCP.

2.1 AGENCY AND PACIFICORP ROLES AND RESPONSIBILITY

The USDA-FS and USDI-BLM are responsible for the management of aesthetic/visual resources throughout the Project vicinity. Management objectives for these resources are contained in the Umpqua National Forest Land and Resource Management Plan (FLRMP), as amended (USDA-FS 1993), the Roseburg District Resource Management Plan (RMP), as amended (USDI-BLM 1992), and the North Umpqua River Management Plan (NURMP), as amended (USDA-FS et al. 1992).

Per the SA Section 16.1, “Development and implementation of the Visual Resource Management Plan (VRMP) (renamed AMP) guidelines will incorporate the most current visual resource standards applicable to the USDA-FS or BLM as appropriate.” Actions to bring the Project into compliance with these standards are identified in the SA and this Plan. The aesthetic/visual resource roles and responsibilities of the parties and the RCC are summarized below.

PacifiCorp. PacifiCorp’s roles and responsibilities are identified by FERC in future license Terms and Conditions, and are currently identified in the SA, Section 16: Aesthetics (see Exhibits A and B). These include the following:

- Responsibility for implementation of the seven actions identified in this Plan as a party to the SA. These actions address specific issues including:
 - Aesthetics Management Guidelines
 - Photo-simulation/Painting
 - Landscaping Buffers
 - Transmission Line Visibility
 - In-stream Flows
 - Reservoir Pool Levels
 - Reporting
- Participates as a member of the RCC;
- Coordinates and prepares annual aesthetic/visual resource plans as part of the Rolling 5-Year Aesthetics Action Plan (see Exhibit C) and annual reporting to the RCC;
- Responsibility for coordination with other associated plans that address issues through the RCP, including the Vegetation Management Plan (VMP), Transportation Management Plan (TMP), Erosion Control Plan (ECP), and Recreation Resource Management Plan (RRMP);

- Responsible for reporting to the FERC;
- Responsible for periodic updates of the Plan and tracking changes; and
- Responsible for funding and/or conducting environmental compliance and documentation as required (refer to the RCP for details).

Umpqua National Forest (USDA-FS). Within the National Forest System (NFS) lands, the USDA-FS has the following roles and responsibilities:

- A party to the SA;
- Lead agency for overall environmental compliance and permitting on USDA-FS-managed lands involving Project-related construction projects, including Umpqua National Forest FLRMP (as amended) consistency, ESA compliance, U.S. Army Corps of Engineers administered Clean Water Act (CWA) – Section 404 wetland permitting, and others (SA 21.7);
- Participates in the application of regulations per NEPA, consistent with guidance in the RCP;
- Participates in the application of regulations per the National Historic Preservation Act (NHPA) Section 106 regarding cultural resources, consistent with guidance in the Historic Properties Management Plan (HPMP);
- Participates as a major member of the RCC (SA 21.1);
- Responsible for implementing Forest Plan compliance activity, including specific actions related to recreation and other resources, utilizing funding from PacifiCorp (SA 17.11);
- Responsible for land management per the FLRMP and Lemolo Lake Recreation Composite Plan and Toketee Lake Recreation Composite Plan, as amended; and
- Provide quarterly spending reports to PacifiCorp by Project Work Plan (PWP).

Roseburg District of the USDI-BLM. Within the Roseburg District of the USDI-BLM, the USDI-BLM has the following roles and responsibilities:

- A party to the SA;
- Lead agency for overall environmental compliance and permitting on lands managed by the USDI-BLM, principally involving transportation-related maintenance and construction projects, including compliance with U.S. Army Corps of Engineers wetland permitting, and others;
- Participates as a member of the RCC;
- Responsible for land management per the Roseburg District RMP, as amended;
- Participates in the application of regulations per NEPA, consistent with guidance in the RCP;
- Participates in the application of regulations per NHPA Section 106 regarding cultural resources, consistent with guidance in the HPMP; and
- Reviews the preparation of annual aesthetics/visual resource plans as part of the Rolling 5-Year Aesthetics Action Plan (Exhibit C).

RCC Roles - the RCC has a role and responsibility related to the AMP as defined in the SA including:

- Prioritize early implementation projects (SA 19.5.1);
- Facilitate coordination of the implementation of the RCP, including ongoing O&M (SA 21.1). As the RCP will not be finalized until 2005, this role may not take place until future years;
- Coordinate and monitor implementation of PM&E measures (SA 21.1), and coordinate ongoing monitoring requirements by PacifiCorp (SA 21.1);
- Coordinate responses and evaluations specifically assigned to the RCC in the SA (SA 8.2.2, 8.3.3, 12.2, 14.3.3, 14.5, 17.8, 19.2.2, 22.5.2);
- Facilitate coordination and consultation on plans developed by PacifiCorp (SA 21.1);
- Review and comment on the draft annual report of RCC activities and implementation of PM&E Measures (SA 21.4.2); and
- Serve as a common point of contact for public information regarding SA implementation (SA 19.5.3).

SA actions specifically excluded from RCC responsibility include, but are not limited to:

- Administration of Tributary Enhancement Program through an Oregon Department of Fish and Wildlife (ODFW) Memorandum of Understanding (MOU) (SA 21.1);
- Administration of Mitigation Fund through the USDA-FS (SA 21.1); and
- Approval of plans and actions regarding specific PM&E measures specifically assigned to individual organizations for resource protection in the SA (SA 21.2).

2.2 ROLLING 5-YEAR AESTHETICS ACTION PLAN

Prior to each Annual Resource Coordination Meeting, PacifiCorp, the USDA-FS, and the USDI-BLM will meet at least two months ahead of time and plan for the next year's aesthetic activities. These activities will be documented in a Rolling 5-Year Aesthetics Action Plan. A framework for this plan is presented in Exhibit C of this Plan. This framework plan will be tested in the initial years of implementation and will be modified as necessary. PacifiCorp, the USDA-FS, and the USDI-BLM will each designate a contact person who will coordinate Plan-related activities. PacifiCorp, the USDA-FS, and the USDI-BLM will seek agreement on the next year's activities and will account for the previous year's activities. Projections for the next 4 years will also be developed. Each year, the parties will develop and approve a Rolling 5-Year Aesthetics Action Plan when agreement is reached. If no agreement is reached prior to the RCC meeting, any disagreements will go to the RCC for facilitation (SA 21.1). If resolution is not reached with coordination with the RCC, the parties may petition FERC for relief or initiate Alternative Dispute Resolution (ADR) process, as provided by SA 22.7.

Each year's update will be in current dollars and will escalate per SA 22.4 using the Gross Domestic Product-Implicit Price Deflator (GDP-IPD). The plans and costs will be detailed for the following:

- Aesthetics Management Guidelines
- Photo-simulation/Painting
- Landscaping Buffers
- Transmission Line Visibility
- In-stream Flows
- Reservoir Pool Levels
- Reporting

2.3 ANNUAL AESTHETICS/VISUAL RESOURCE MEETING

To facilitate efficient coordination and action between the parties, an annual aesthetics/visual resource meeting will be held prior to March 1, and when possible, prior to the end of November. This meeting will likely be held in conjunction with other annual meetings, such as the annual recreation meeting. The purpose of this annual aesthetics meeting includes:

- Rolling 5-Year Aesthetics Action Plan Update - Coordinate and prepare for approval anticipated activities in the next three calendar years per the Rolling 5-Year Aesthetics Action Plan (see Exhibit C). Account for projects that were delayed or continued, and new projects requiring action. Complete an approved Rolling 5-Year Aesthetics Action Plan for distribution by April 1 of each year.
- Address Potential Disputes - If disputes occur, direct these issues through the appropriate channels per the SA, Section 22.3.

2.4 ANNUAL RESOURCE COORDINATION COMMITTEE (RCC) REVIEW

Once the Rolling 5-Year Aesthetics Action Plan (see Exhibit C) is completed for the upcoming year (to the extent possible), PacifiCorp will present a summary of the annual plan to the RCC. PacifiCorp will provide the RCC with the status of implementation of the Plan as required in SA 21.4.2.

2.5 ENVIRONMENTAL COMPLIANCE, APPROVALS, AND PERMITTING

PacifiCorp will be responsible for funding and/or conducting environmental analysis, compliance, and permitting for aesthetic/visual resource management activities, as necessary, subject to the requirements contained in the SA, and laws, regulations, and policies in force at the time individual actions are undertaken.

Section 21.7 of the SA requires that PacifiCorp conduct or fund an environmental analysis of any ground- or habitat-disturbing actions associated with the SA measures on the Umpqua National Forest (UNF). Such environmental analyses must comply with

criteria set forth in USDA-FS NEPA regulations and policies in existence at the time the particular measure is initiated by PacifiCorp. Consequently, as applicable USDA-FS NEPA implementation regulations and policies change concerning the application of NEPA to SA actions, so may PacifiCorp's obligations to undertake or fund appropriate NEPA analyses.

PacifiCorp will refer or rely upon applicable previous NEPA compliance documentation prepared by FERC, USDA-FS, USDI-BLM, or other parties to the maximum extent possible to avoid any unnecessary costs, duplication, and delay. Nothing in the Plan expands or alters PacifiCorp's obligations to conduct environmental analyses pursuant to the SA.

Section 21.1 of the SA requires that PacifiCorp prepare an RCP (PacifiCorp 2005) that unifies the processes for implementation of the new license conditions and ongoing O&M activities, consistent with the terms of the SA. The RCP is to be finalized within one year after the new license becomes final or 2005. One aspect of the RCP will be to provide more detail concerning required environmental analyses, compliance, and permitting activities that may be needed for implementation of projects.

During the annual Plan meeting, PacifiCorp, USDA-FS, and USDI-BLM will consider environmental analyses, compliance, and permitting for all upcoming aesthetic/visual resource management projects. Because of the lead-time needed for some compliance activities (such as public input, cultural resource inventories, or ESA Section 7 consultation), advance scheduling is essential for timely implementation of aesthetic/visual resource management projects. Such activities should be scheduled two years in advance, to the extent possible. These activities will be identified in the Rolling 5-Year Aesthetics Action Plan (see Exhibit C). To the extent possible, planned aesthetics/visual resource enhancement projects will be grouped together to minimize environmental analyses and permitting needs.

If a planned aesthetic/visual resource enhancement project is found to have impacts that cannot be adequately mitigated or avoided, alternative projects may be considered to satisfy the intended need of the original project. The RCC will be informed about such actions as appropriate.

Planned activities will be reviewed for policy consistency with 1) Project-related plans, such as the ECP (PacifiCorp 2004b), and 2) non-Project-related plans, such as resource management plans, other guidance, or watershed analyses as listed below.

Other Project-related Plans prepared by PacifiCorp (PacifiCorp 2004a-e, 2005) include:

- RRMP
- ECP
- HPMP

- VMP
- TMP
- RCP

Non-Project-related plans and documents include:

- FLRMP, as amended (USDA-FS 1990);
- FSM 2700 – Special Uses Management, Chapter 2770 – Federal Power Act Projects, Amendment 2700-2003-2, as amended (USDA-FS 2003);
- Roseburg District RMP, as amended (USDI-BLM 1990);
- Middle North Umpqua Watershed Analysis (USDA-FS 2001);
- Diamond Lake and Lemolo Lake Areas Watershed Analysis (USDA-FS 1998);
- Fish Creek Watershed Analysis (USDA-FS 1999);
- Calf-Copeland Watershed Analysis (USDA-FS 2001);
- Rogue-Umpqua Scenic Byway Plan (USDA-FS, USDI-BLM, and Oregon Department of Transportation [ODOT]); and
- NURMP (USDA-FS, USDI-BLM, and Oregon Parks and Recreation Department [OPRD]).

2.6 COORDINATION WITH OTHER PLANS

This Plan is one of several management plans that provide direction and guidance for the Project. Reference will be made to these plans for specific management direction as indicated in Table 1. The primary plan is the principal source of specific implementation direction for the activity listed. Where conflict in directions between two or more plans exists, the plan listed as “primary” will take precedence. For example, the VMP for the Project will address the use of native plants at buffer and landscape locations identified in this Plan.

Table 1. Plan Coordination and Funding Guidance for Typical Aesthetic/Visual Resource Enhancement Activities.

Plan Aesthetic-related Activity	Primary Plan	Funding Plan Responsibility	Other Plan or Authority References
Landscape plantings and screening – Scenic Byway and Wild and Scenic River (W&SR) Reach.	AMP	AMP	VMP
Landscape plantings and screening – Admin. Sites.	AMP	AMP	HPMP, VMP
Recreation site vegetation maintenance and management.	RRMP	RRMP	VMP, AMP
Forest Plan compliance for aesthetics/visual resources.	RRMP	RRMP	VMP, ECP, AMP
Concentrated Use Area (CUA) maintenance.	RRMP	RRMP	VMP, AMP
Cultural clearance for aesthetics.	HPMP	--	VMP, AMP
Vegetation management adjacent to recreation sites (hazard trees, fuel reduction, aesthetics, and views).	FLRMP	--	VMP, Fire Protection and Management Plan (FPMP), RRMP, AMP
Project facility design, construction and maintenance.	AMP (Sec. 3.1)	--	VMP, HPMP, RRMP, TMP
Management of Lemolo Lake levels.	LLMP ¹	LLMP ¹	RRMP, AMP
Aesthetic water flows and ramping rates.	SA (Sec. 5 and 6)	--	--
Recreation capital improvement themes, color, and design.	AMP	RRMP	FLRMP, Built Environment Image Guide (BEIG), Lemolo and Toketee Lake Composite Plans
Recreation facility O&M.	RRMP	RRMP	Meaningful Measures, AMP
Campground road maintenance and improvements.	TMP	TMP	RRMP, AMP

¹ Lemolo Lake Management Plan (LLMP) being developed by USDA-FS, ODFW, and PacifiCorp.

3.0 IMPLEMENTATION

The AMP includes seven activities that are outlined below in the following sections:

- Section 3.1 - Aesthetics Management Guidelines
- Section 3.2 - Photo-simulation/Painting
- Section 3.3 - Landscaping Buffers
- Section 3.4 - Transmission Line Visibility
- Section 3.5 – In-stream Flows
- Section 3.6 - Reservoir Pool Levels
- Section 3.7 - Reporting

3.1 AESTHETIC MANAGEMENT GUIDELINES

In accordance with the SA, this Plan shall include guidelines that address the design, maintenance, and construction of Project facilities in order to preserve or enhance the visual resources in the Project area (Exhibit D). Management guidelines will incorporate the most current visual resource standards applicable to the USDA-FS and USDI-BLM, as appropriate (see SA Section 16.1).

PacifiCorp will seek to avoid, reduce, or mitigate potential adverse effects to aesthetic/visual resources from proposed Project modifications over the term of the new license. This protection and/or enhancement will reduce the overall visibility and visual contrast of locating and operating the Project facilities on federal lands, which will help meet applicable federal land management objectives. Compliance with federal aesthetic management objectives is defined in the SA and is based on existing federal land management plans, as amended. Aesthetic management objectives for USDA-FS-managed lands are defined in the FLRMP and its related Visual Quality Objectives (VQOs) (USDA-FS 1993). These VQOs are based on the USDA-FS Visual Management System (VMS). VMS is gradually being updated by the USDA-FS to the Scenery Management System (SMS) that will incorporate Scenic Integrity Objectives (SIOs). This methodology change will occur when the FLRMP is updated in the near future. For USDI-BLM-managed lands, aesthetic management objectives are defined in the USDI-BLM's Roseburg District RMP and its Visual Resource Management (VRM) Objectives (USDI-BLM 1992). For architectural guidance, *The Built Environment Image Guide For The National Forests and Grasslands* (FS 710) dated December 2001, will be used (see Exhibit G).

3.1.1 Guidelines and Zones

Aesthetic management guidelines (Exhibit D) incorporate current guidance and standards applicable to USDA-FS lands and lands managed by USDI-BLM in the Project area, as appropriate. PacifiCorp will utilize these aesthetic management guidelines where practicable and consistent with the SA. Consideration of these guidelines will occur when PacifiCorp is planning for and/or constructing new facilities, modifying existing

facilities, and conducting routine maintenance, such as painting, roofing, or siding buildings.

These guidelines vary by aesthetic management zones established for the Project area. These zones are depicted in Exhibit E in a set of geographic information system (GIS) figures. The four zones include:

- Public Zone – Public use areas and recreation facilities;
- Administrative Zone – Administrative facilities and residential areas;
- Operations Zone – Hydroelectric operations and industrial facilities and areas; and
- Linear Zone – Linear Project facilities such as transmission lines, water conveyance systems, and associated roads.

In addition to these four aesthetic management zones, there are two overlays depicted in Exhibit E that are associated with scenic corridors in the Project vicinity. These two scenic corridors include the North Umpqua Wild and Scenic River Management Area and the Rogue-Umpqua Scenic Byway corridor.

3.1.2 Responsibilities

When considering actions that may potentially affect aesthetic/visual resources in the Project vicinity, PacifiCorp will consult the appropriate guidelines (Exhibit D) to be considered for the zone or zones (Exhibit E) where the proposed action is planned. During this process, PacifiCorp will:

- Identify the zones where the proposed project is located using the set of GIS map figures in Exhibit E;
- Refer to the set of aesthetic management guidelines for that zone in Exhibit D. These guidelines specify a series of design, construction, and maintenance considerations. References are noted for other plans to refer to, where applicable, such as The Built Environment Image Guide (USDA-FS 2001) (see Exhibit G). PacifiCorp will adhere to these guidelines where practicable and consistent with the SA; and
- PacifiCorp will document all actions and decisions related to aesthetic/visual resources in the Project vicinity in the Rolling 5-Year Aesthetics Action Plan (see Exhibit C).

PacifiCorp will consult with the USDA-FS and/or USDI-BLM regarding aesthetic-related decisions and conclusions drawn from the use of these guidelines and zones when designing, constructing, or maintaining Project facilities. PacifiCorp will demonstrate how its actions comply with these guidelines. If full compliance is not possible, this conclusion will be reviewed with the USDA-FS. Use of the guidelines will not supersede the SA actions. However, it is the intent of the AMP to avoid, reduce, or mitigate

potential adverse effects to aesthetic/visual resources from proposed Project modifications over the term of the new license. This protection and/or enhancement will reduce the overall visibility and visual contrast of locating and operating the Project facilities on federal lands, which will help meet applicable federal land management objectives.

3.1.3 Schedule

PacifiCorp will utilize the aesthetic management guidelines at any time during the term of the new license. Consultation between PacifiCorp and the USDA-FS or USDI-BLM may also occur at any time as necessary to implement the project or action. At a minimum, consultation will occur prior to the Annual Resource Coordination Meeting.

3.2 PHOTO-SIMULATION/PAINTING

Based on analysis of the appearance of existing facilities in the License Application (PacifiCorp 1995), certain Project facilities are incompatible with the surrounding landscape and inconsistent with established USDA-FS VQOs (USDA-FS 1993). PacifiCorp will minimize the adverse effect on aesthetic/visual resources associated with Project facilities by painting them to help them blend in with the surrounding natural landscape. Colors will be approved by the USDA-FS prior to application (see Section 16.3 of the SA [Exhibit B]).

3.2.1 Responsibilities

PacifiCorp will conduct a photo-simulation of potential color schemes, in consultation with the USDA-FS. The USDA-FS will make the final color selection before PacifiCorp repaints these facilities. Specific Project facilities to be simulated for appropriate color selection include:

- Lemolo No. 2 penstock and surge tank;
- Clearwater No. 2 penstock; and
- Toketee penstock and surge tank.

Other existing Project facilities are deemed acceptable in the SA and will not be studied. PacifiCorp will document all actions and decisions related to aesthetic/visual resources in the Project vicinity in the Rolling 5-Year Aesthetics Action Plan (see Exhibit C).

3.2.2 Schedule

The photo-simulation of the listed facilities will occur on the following schedule (see Exhibit B):

- Photo-simulations will be completed by the first anniversary of the new license or 2005, whichever is earlier; and

- Repainting of facilities:
 - At the next painting interval for that facility, as determined by PacifiCorp. (Current status: At the time of the printing of this Plan, none of these facilities are identified for repainting in PacifiCorp's 10-Year O&M Plan. The schedule for repainting is based on a determination that deterioration of the outside coating has occurred to an extent that it might begin to compromise the integrity of the underlying metal.); and
 - PacifiCorp shall, in consultation with USDA-FS, evaluate the status of the existing paint on such facilities no later than the 25th year of the new license.

3.3 LANDSCAPING BUFFERS

Based on the analysis of the appearance of existing Project facilities in the License Application (PacifiCorp 1995), certain Project facilities are incompatible with the surrounding landscape and inconsistent with established USDA-FS VQOs (USDA-FS 1993). PacifiCorp will minimize the adverse effect on aesthetic/visual resources associated with these Project facilities by developing and implementing landscape buffer plantings at specific locations.

3.3.1 Responsibilities

PacifiCorp will develop and implement landscape plans that incorporate the use of native vegetation (including shrubs and small trees) to buffer and reduce the visual contrast of selected Project facilities. Project facilities where improved landscaping can improve existing adverse visual contrast include the Clearwater Switching Station and the Clearwater Maintenance Yard. Other existing Project facilities are deemed acceptable in the SA (see Exhibits A and B). Landscape plans will be submitted to the USDA-FS for concurrence and approval. Plant selection will be coordinated with the guidelines in the VMP for use of native species.

PacifiCorp will document all actions and decisions related to aesthetic/visual resources in the Project vicinity in the Rolling 5-Year Aesthetics Action Plan (see Exhibit C).

3.3.2 Schedule

PacifiCorp will develop landscape buffer planting plans and implement them by the second anniversary of the new license or 2006, whichever is earlier (see Exhibit B).

3.4 TRANSMISSION LINE VISIBILITY

Project transmission lines are visible from SR 138 at approximately 40 locations along the 53-mile highway stretch between the Toketee Lake area and the Dixonville substation. When an aesthetics survey was conducted as part of relicensing in the early 1990's (PacifiCorp 1995), 11 locations along the highway had visibility of the Project transmission line due to the cleared Project transmission line ROWs. Where visible, the Project transmission lines and the cleared transmission line ROW detract from the natural-appearing landscape character, especially within the highly scenic corridor along the Wild and Scenic River reach of the North Umpqua River (USDA-FS et al. 1992). The Project transmission lines and associated ROWs exhibit a degree of visual contrast that is generally inconsistent with the USDA-FS Retention VQO applicable to the area (USDA-FS 1993).

Given that 10 years have transpired since the original study was conducted, an initial step in implementing this measure is to complete a study to identify the most cost-effective methods, if any, to reduce the visibility and visual contrast of the Project transmission lines and cleared ROW at these selected 11 points. Following this study, appropriate actions will be identified and implemented.

(It should be noted that the 1995 License Application, Table 7.3-1, Exhibit E (PacifiCorp 1995) referenced 13 locations and the SA Section 16.4 references 11 locations that need to be studied. Upon review of the two map Figure 7.3-1 Sheets 1 and 2, in the 1995 License Application, Volume 6, Exhibit E, it was discovered that 11 sites are shown on the maps but, because of overlap between the two map sheets, two sites are shown both on sheet one and sheet two. These duplicated sites were double counted and that error was carried through on the technical report and License Application. The SA agreement correctly identified the 11 sites shown on the original figures.)

3.4.1 Responsibilities

PacifiCorp will conduct an evaluation of the 11 locations along the Project transmission line ROW where the ROW and/or the transmission lines are visible from SR 138. Exhibit E identifies these locations on a map; however, additional field verification is required to locate these points in the field since conditions have changed over the last 10 years and these positions were not electronically noted by global positioning system (GPS) technology.

The buffering of a proposed sediment pile near Toketee Lake in the License Application (PacifiCorp 1995) is no longer applicable, since this location will not be used. In addition, when PacifiCorp replaces Project transmission line conductors during normal maintenance or repairs, non-specular-type material will be used to help reduce visual contrast at these 11 locations.

This field evaluation will examine existing plant species, mix, age, and size along the Project transmission line ROW. Based on this analysis, the effectiveness of various

potential actions to help minimize visual contrast and impacts at these locations will be assessed. The steps that PacifiCorp will take to conduct this evaluation at the 11 locations and to prepare recommendations to help screen or buffer Project transmission lines and their line ROWs include:

- A technical working group will be formed for the study, with representation by the USDA-FS and USDI-BLM;
- Recognizing that the 11 locations along SR 138 are not points, but represent short lengths of roadway where the Project transmission line or ROW is visible, the coordinates of each start point and end point of each viewing location will be identified. These will be referred to as Key Observation Points (KOPs);
- Photos for use in the analysis will be taken from the KOPs;
- The extent of Project transmission line visibility from each KOP will be identified and located on study maps;
- Reference maps will be prepared for each of the 11 locations. These maps will show the following:
 - Extent of each of the 11 KOPs along SR 138;
 - Extent of visibility of Project transmission lines and ROWs from each KOP;
 - Standard project base map information including roads, transmission lines, etc.;
 - Ortho-photo imagery;
 - Topographic contours from U.S. Geological Survey (USGS) quadrangle maps (or other more accurate topographic source if available);
 - Property ownership information and ROW boundaries for the Project transmission lines and ROWs and SR 138;
 - Required clear zones around the Project transmission lines;
 - Wild and Scenic River boundary along the North Umpqua River; and
 - Vegetation cover type mapping from the relicensing studies (PacifiCorp 1995).
- A review of ODOT's SR 138 ROW clearing practices at the 11 sites will be conducted. Information from this review will be taken into account when recommendations for screening are prepared. ODOT staff will be interviewed to identify any actions like highway ROW clearing or hazard tree removal that may open up views at the 11 locations in the future;
- In areas where the Project transmission line ROW is visible at the 11 viewing locations, existing plant species, mix, age, and size will be identified, mapped, and evaluated;

- Potential mitigation actions within the Project transmission line ROWs will be identified and discussed with the study's technical working group. Potential Project transmission line mitigation actions may include plantings within the Project transmission line ROW if sufficient distance is available to allow conformance with Project transmission line clearing requirements. Another option might be retention of existing trees or shrubs within the Project transmission line ROW so they can be allowed to grow and screen the transmission line or reduce the visibility of the cleared ROW, as long as they do not interfere with Project transmission line clearing requirements. Other methods will be discussed and recommended as appropriate. Any landscape buffer planting plans developed during this study will be coordinated with the VMP prior to finalization;
- At some locations, it may be appropriate to use GIS-based terrain modeling or photo-simulation to locate the most effective areas to screen the Project transmission lines and ROWs from a KOP, or to simulate the effect of a change in vegetation on the visibility of the Project transmission lines or ROWs; and
- Prepare a schedule for planned Project transmission line and ROW screening activities. PacifiCorp will document all actions and decisions related to aesthetic/visual resources in the Project vicinity in the Rolling 5-Year Aesthetics Action Plan (see Exhibit C).

When completed, a Transmission Line Screening Study will be attached to this Plan as Exhibit F and referenced in the VMP. Implementation of any vegetation modification or changes in practices will be implemented through the VMP.

3.4.2 Schedule

By the first anniversary of the new license or 2005, whichever is earlier, PacifiCorp will conduct an evaluation of the 11 locations along SR 138 where the Project transmission lines and ROWs are visible to the public (see Exhibit B). PacifiCorp will prepare a schedule for implementation of resulting actions.

All negotiated mitigation actions (at up to 11 locations) for reducing effects on visual quality will be implemented by the 10th anniversary of the new License.

Potential PacifiCorp replacement or upgrades of Project transmission line conductors will occur during normal maintenance or repair events.

3.5 IN-STREAM FLOWS

As recognized in the License Application (PacifiCorp 1995), water flow is as an important visual characteristic with respect to scenic quality. Because operation of the Project results in decreased water flows within affected reaches upstream of Soda Springs

powerhouse, and because the sensitive Wild and Scenic River reach of the North Umpqua River lies immediately downstream of Soda Springs powerhouse, the relationship between in-stream flow and scenic quality is a resource management issue.

3.5.1 Responsibilities

Per SA Section 16.1, PacifiCorp shall incorporate visual enhancement measures from Table 7.3-1, Exhibit E, of the January 1995 License Application (PacifiCorp 1995). These measures provide minimum flows and maximum ramping rates that protect aesthetic values and are consistent with issue-specific requirements. In-stream flows required in SA Section 5 (In-stream Flows for Fish and Other Aquatic Species) exceed the minimum flows listed in Exhibit E noted above, and so no additional action is required by this Plan to satisfy in-stream flows. Ramping rates defined in SA Section 6 are generally more stringent than those listed in Exhibit E of the License Application (PacifiCorp 1995), and supersede ramp rate proposals contained in Exhibit E. As a result, no actions are required by this Plan to satisfy aesthetic ramping requirements.

3.5.2 Schedule

No action is required.

3.6 RESERVOIR POOL LEVELS

Exposed mudflats and evident high water marks as a result of varying the surface elevation of Project water bodies during typical Project operations could adversely affect aesthetic/visual resources in the vicinity. Variation in pool level elevations of Lemolo Lake, Toketee Lake, Soda Springs Reservoir, and the various forebays will occur under the new license terms and conditions. Of these Project water bodies, only Lemolo Lake will have its pool level kept high per the SA (see Exhibit B and Section 9.3 of the SA).

3.6.1 Responsibilities

PacifiCorp will maintain Lemolo Lake at or as near as possible to full pool elevation (4,148.5 feet) throughout the peak recreation season. Pool level management will be addressed in the Lemolo Lake Management Plan (LLMP).

3.6.2 Schedule

Lemolo Lake will be maintained at this high pool level from Memorial Day through Labor Day (peak recreation season) each year except for identified exceptions documented in Section 9.3 of the SA and the LLMP.

3.7 REPORTING

This Plan includes three reporting requirements:

- Rolling 5-Year Aesthetics Action Plan (see Exhibit C);
- Annual Notification to the RCC; and
- Periodic Reporting to the FERC.

3.7.1 Rolling 5-Year Aesthetics Action Plan Reporting

As discussed in Section 2.2 above, prior to each Annual Resource Coordination Meeting, PacifiCorp, the USDA-FS, and the USDI-BLM will meet ahead of time and plan for the next year's aesthetics-related activities. These activities will be documented in the Rolling 5-Year Aesthetics Action Plan (see Exhibit C). PacifiCorp, the USDA-FS, and the USDI-BLM will seek agreement on the next year's aesthetics-related actions (if any) and document any completed or uncompleted actions. The parties will complete and sign the Rolling 5-Year Aesthetics Action Plan if agreement is reached. If no agreement is reached prior to the Annual Resource Coordination Meeting, any disagreements will go to the RCC for facilitation (SA 21.2). If resolution is not reached after coordination with the RCC, the USDA-FS, USDI-BLM, and PacifiCorp may petition the FERC for relief or initiate the ADR process as provided in SA 22.7.

The Rolling 5-Year Aesthetics Action Plan will document the prior year, the current year, and the projections for the next three years' planned activities. The Rolling 5-Year Aesthetics Action Plan will include details of the following:

- Aesthetics Management Guidelines;
- Photo-simulation/Painting;
- Landscaping Buffers;
- Transmission Line Visibility;
- In-stream Flows;
- Reservoir Pool Levels; and
- Reporting Requirements.

3.7.2 Annual Notification to the RCC

Once the Rolling 5-Year Aesthetics Action Plan has been completed for the upcoming three years, PacifiCorp will present a summary of the Action Plan to the RCC. PacifiCorp will provide the RCC with the status of implementation of the Plan as required in SA 21.4.2.

3.7.3 Periodic Reporting to the FERC

Every 10 years, PacifiCorp will prepare a Monitoring Report and submit it to the FERC. The USDA-FS and USDI-BLM may review and comment on a draft of the Monitoring

Report prior to its filing with the FERC. The 10-year Monitoring Report will utilize the Rolling 5-Year Aesthetics Action Plans and minutes of the Annual Resource Coordination Meetings as a basis for this reporting. Progress toward completion of specific actions in the AMP and SA (see Exhibits A and B) will be tracked and summarized by PacifiCorp.

4.0 REVISIONS AND UPDATES

This Plan was prepared in 2004 by PacifiCorp and EDAW, Inc. in consultation with and support from the USDA-FS and USDI-BLM. Implementation of the aesthetics/visual resource actions is expected to occur as detailed in the Plan through the term of the new license (35 years).

This Plan and its exhibits may be updated and/or revised if unforeseen needs arise over the course of the new 35-year license term. Any revisions to the Plan would require mutual approval from PacifiCorp, the USDA-FS, and the USDI-BLM, with written changes documented in the revised AMP.

An annual review process involving the preparation of a Rolling 5-Year Aesthetics Action Plan (see Exhibit C) may adjust some specific activities or schedules to address concerns as needed. PacifiCorp, USDA-FS, and USDI-BLM will jointly agree on any scheduled changes of specific actions during annual meetings prior to the Annual Resource Coordination Meeting.

The Plan will be reviewed and updated by PacifiCorp, USDA-FS, and USDI-BLM as agreed upon by the parties approximately every 10 years. This review will occur in conjunction with the annual meetings. Recommendations for changes to the Plan may be submitted by any party and discussed. Agreed-upon changes to the Plan will be incorporated into a revised Plan by PacifiCorp.

The revised Plan will be reviewed and approved by PacifiCorp and the USDA-FS and USDI-BLM and will then be submitted to the FERC for final review and approval. Any disagreements on revisions to the Plan will be submitted to the RCC and/or FERC for resolution. Revisions to the Plan will not contradict overall decisions made and agreed upon in the SA.

Factors that may trigger a review and possible revision of the Plan include:

- Revisions and updates to the Umpqua National Forest FLRMP (2008 is likely the next planned update by the USDA-FS, then approximately every 15 years thereafter). This may include changes to VMS- and SMS-based applications on the UNF;
- Revisions and updates to the Roseburg District RMP by the USDI-BLM; and
- Catastrophic natural events, such as major forest fires, windstorms, or other natural disasters.

The overall cost to PacifiCorp that is identified in the SA will not be increased as a result of any changes to the Plan, unless agreed upon by all parties.

5.0 REFERENCES

- PacifiCorp. 1995. License Application for the North Umpqua Hydroelectric Project FERC No. 1927. Portland, OR.
- PacifiCorp, USDA-FS, and USDI-BLM et al. 2001. Settlement Agreement (SA) for the North Umpqua Hydroelectric Project, FERC No. 1927. June 13, 2001.
- PacifiCorp. 2004a. Recreation Resource Management Plan (RRMP). Prepared by PacifiCorp and EDAW, Inc. Portland, OR.
- PacifiCorp. 2004b. Erosion Control Plan (ECP). Prepared by PacifiCorp and EDAW, Inc. Portland, OR.
- PacifiCorp. 2004c. Historic Properties Management Plan (HPMP). Prepared by PacifiCorp and EDAW, Inc. Portland, OR.
- PacifiCorp. 2004d. Vegetation Management Plan (VMP). Prepared by PacifiCorp and EDAW, Inc. Portland, OR.
- PacifiCorp. 2004e. Transportation Management Plan (TMP). Prepared by PacifiCorp and EDAW, Inc. Portland, OR.
- PacifiCorp. 2005. Resource Coordination Plan (RCP) (to be developed and updated in 2005). Portland, OR.
- USDA-FS (U.S. Department of Agriculture, Forest Service). 1990, as amended. Umpqua National Forest, Forest Land and Resource Management Plan (FLRMP). Roseburg, OR.
- USDA-FS. 1995. Landscape Aesthetics: A Handbook for Scenery Management. Agriculture Handbook No. 701. December 1995.
- USDA-FS. 2001. The Built Environment Image Guide for the National Forests and Grasslands. FS-710. September 2001.
- USDA-FS. 2002. The 2002 Guide to the Rogue-Umpqua Scenic Byway, Nominated as an All-American Road. January 15, 2002.
- USDA-FS and USDI-BLM (U.S. Department of Interior, Bureau of Land Management). 1994, as amended. Record of Decision for amendments to USDA-FS and Bureau of Land Management planning documents within the range of the northern spotted owl, standards and guidelines for management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl. April 13, 1994.

USDA-FS, USDI-BLM, and Oregon State Parks and Recreation Department (OPRD).
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USDI-BLM. 1980. Visual Resource Management (VRM) Program. Division of
Recreation and Cultural Resources. Washington, DC.

USDI-BLM. 1992, as amended. Roseburg District Resource Management Plan (RMP).
Roseburg, OR.

Exhibit A Appendix A of the SA – Implementation Schedule

Appendix A
To the Settlement Agreement Effective June 13, 2001

Implementation Schedule

Section SA	Measure ¹	Start Date ²	End Date ²	Date Certain	License Dependent ³	Comments
4 Fish Passage						
	4.1.1.a Design plans for Soda fish ladder		L3, 2007	X		Including O&M plans (4.1.1.c)
	4.1.1.b Fish counting equipment installed at Soda		L5		X	Coincide with completion of ladder construction
	4.1.1.e Construct Soda fish ladder		L5		X	Including post-construction evaluation plan (4.1.1.d)
	4.1.1.f Construct Soda Tailrace Barrier		L1		X	
	4.1.1.f Construct Slide Tailrace Barrier		L5		X	
	4.1.2.a Design plans for Soda screens		L3, 2007	X		Including O&M and post-construction evaluation plans (4.1.2.b)
	4.1.2.b Implement Soda screen post-construction evaluation program		L5		X	
	4.1.2.d Construct Soda screens		L5		X	
	4.1.2.e Evaluate screen at Soda	L5	L7		X	
	4.1.2.f Design plans for Soda spillway modification		L5, 2009	X		
	4.1.2.f Construct spillway modification		L7		X	
	4.3.1.a Design plans for LM2 Fishway		L0, 2004	X		
	4.3.1.a Construct LM2 Fishway		L2		X	Including post-construction evaluation plan (4.3.1.e)
	4.3.1.e Develop post-construction evaluation plan	L0, 2004		X		
	4.3.2.a Design plans for Fish Creek screen	L0, 2004	L1, 2005	X		Including O&M plans and post-construction evaluation plan (4.3.2.b)
	4.3.2.a Construct Fish Creek screen		L2		X	
	4.3.3 Toketee intake modifications		L5		X	

14 Erosion Control						
	14.1 Finalize ECP		2001	X		
	14.2 Site plans for shutoff and drainage systems	SA, 2001		X		Including O&M plans
	14.2 Construct system for Fish Creek		L1		X	
	14.2 Construct system for LM2, CW2		L3		X	
	14.3.3 Emergency response measures for waterway failure	SA, 2001		X		
	14.4.1 Site plans for erosion sites	SA, 2001		X		
	14.4.2 High priority sites at Fish Creek		L2, 2006	X		RCC funding
	14.4.2 High priority sites at LM2, CW2	L2, 2006	L6, 2010	X		RCC funding
	Medium (9 actions)	L2, 2006	L6, 2010	X		RCC funding
	Medium (18 actions)	L7	L11		X	May be partially addressed earlier with RCC funding
	14.5 Implement monitoring program	SA, 2001		X		
15 Transportation						
	15.1 Finalize TMP	SA, 2001	2002	X		Including Traffic Management Plan and Road Monitoring Plan
	15.2 100% maintenance of project roads	SA, 2001		X		
	15.3 Cost-share roads	L1, 2005		X		Some roads may be addressed earlier as agreed by parties
	15.4 Road decommissioning	L4			X	May be partially addressed earlier with RCC funding
	15.5 100% maintenance of project bridges	SA, 2001		X		
	15.5.1 Cost-share bridges	L1, 2005	L10		X	Critical maintenance Date Certain in 2005; other maintenance License Dependent in Year 10
	15.6 Upgrading culverts					May be partially addressed earlier with RCC funding
	Fish barriers	L0	L5		X	Average 20%/yr
	100-yr flood	L0	L11		X	Average 7.5%/yr
16 Aesthetics						
	16.1 Finalize VRMP	SA, 2001	2002	X		
	16.2 CW switch station and maintenance area		L2, 2006	X		
	16.3 Pen/Surge Tank Plan		L1, 2005	X		25-year consistency check for painting
	16.4 Transmission line plan for 13 sites		L1, 2005	X		
	16.4 Full implementation VRMP	L0	L10		X	

Exhibit B Settlement Agreement (Section 16: Aesthetics)

North Umpqua Settlement Agreement

SECTION 16. AESTHETICS

16.1 Visual Resource Management Plan. PacifiCorp shall prepare a Visual Resource Management Plan (“VRMP”) by 2002. The VRMP shall incorporate the proposed Visual Enhancement measures contained in the Table 7.3.1, Exhibit E, of the January 1995 License Application (PacifiCorp, 1995), as well as measures described below. The VRMP shall provide guidelines that address the design, maintenance, and construction of project facilities in order to preserve or enhance the visual resources of the project area. Development and implementation of the VRMP guidelines will incorporate the most current visual resource standards applicable to the USDA-FS or BLM as appropriate. Implementation of the VRMP shall commence upon the New License becoming final. PacifiCorp shall conform its actions on the Project to the VRMP during the term of the New License. Development and implementation of the VRMP guidelines will incorporate the most current visual resource standards applicable to the USDA-FS or BLM as appropriate.

16.2 Landscaping. PacifiCorp shall develop and implement a landscape plan for the Clearwater switching station and the Clearwater Maintenance Area, as described in PacifiCorp’s 1995 License Application, consistent with the VRMP. PacifiCorp shall submit such plans to the USDA-FS for concurrence. Development of such plans and implementation will occur by the second anniversary of the New License or 2006, whichever is earlier.

16.3 Penstock and Surge Tank Painting. By the first anniversary of the New License or 2005, whichever is earlier, PacifiCorp shall conduct photograph simulations of the Lemolo 2 penstock and surge tank, Toketee penstock and surge tank, and Clearwater 2 penstock, showing alternative color treatments. The USDA-FS will make the final color selection before PacifiCorp paints the Lemolo 2 penstock and surge tank, Toketee penstock and surge tank, and Clearwater 2 penstock at the next painting interval for that facility, as determined by PacifiCorp. PacifiCorp shall, in consultation with USDA-FS, evaluate the status of the existing paint on such facilities not later than the twenty-fifth year of the New License.

16.4 Transmission Line System. By the first anniversary of the New License or 2005, whichever is earlier, PacifiCorp shall conduct an evaluation of the 11 locations on the transmission line right-of-way described in PacifiCorp’s 1995 License Application, Vol. 6, Exhibit E. Sec.7, Fig. 7.3-1, and 7-34 to 7-35.. This evaluation will examine existing plant species, mix, age, and size along the right-of-way and its effectiveness for mitigating the visual impact of the transmission lines. PacifiCorp shall consider modifications to such vegetation or other methods, including replacement of conductors with nonreflective material, at such time as the conductors would otherwise be replaced that might reduce visual impacts, taking into consideration site conditions and ongoing operation and maintenance. These measures will be presented in the VRMP. PacifiCorp will develop an implementation schedule for completing any such visual improvements as part of the VRMP. All proposed improvements will be implemented by the tenth anniversary of the New License and will be coordinated with the VMP described in Section 12.1 above.

North Umpqua Hydroelectric Project
FERC Project No. 1927
Douglas County, Oregon

APPLICATION FOR NEW LICENSE FOR
MAJOR MODIFIED PROJECT

VOLUME 6

Exhibit E, Section 6 - Recreation Resources
Exhibit E, Section 7 - Aesthetic/Visual Resources

PacifiCorp
Portland, Oregon
January 1995

Table 7.3-1. Summary of aesthetic/visual resources issues, potential effects, and proposed measures for the existing project and proposed new facilities.

Issue	Project Site/Location	Potential Effects	Proposed Measures
Appearance of Project Facilities	Lemolo Lake Area - Lemolo dam, intake, and waterway	<ul style="list-style-type: none"> Visual incompatibility with surrounding landscape character Inconsistency with Retention VQO 	<ul style="list-style-type: none"> No feasible measures available due to size and location of facilities relative to Forest Road 2610. *
	Toketee Lake Area - <ul style="list-style-type: none"> Lemolo No. 2 penstock and surge tank Clearwater No. 2 penstock and powerhouse Toketee dam, intake, and waterway Transmission lines 53, 55, and 57 Clearwater switching station Clearwater Village project maintenance yard 	<ul style="list-style-type: none"> Visual incompatibility with surrounding landscape character Inconsistency with Retention VQO 	<ul style="list-style-type: none"> Conduct photosimulation and paint penstocks and surge tanks with appropriate colors in conjunction with required maintenance. Conduct an evaluation of Clearwater switching station. Based on results, develop and implement landscaping plan for the switching station. Develop and implement a landscape plan for the maintenance yard. When replacing conductors during normal maintenance or repairs, use non-specular conductor.

Table 7.3-1. Summary of aesthetic/visual resources issues, potential effects, and proposed measures for the existing project and proposed new facilities (continued).

Issue	Project Site/Location	Potential Effects	Proposed Measures
Appearance of Project Facilities (continued)	State Route 138 - <ul style="list-style-type: none"> • Toketee penstock and surge tank • Soda Springs sediment placement site • Transmission lines 39, 42, 46, and 51 	<ul style="list-style-type: none"> • Visual incompatibility with surrounding landscape character • Inconsistency with Retention VQO 	<ul style="list-style-type: none"> • Conduct photosimulation and paint penstock and surge tank with appropriate colors in conjunction with required maintenance. • Develop and implement landscape plan for the Soda Springs sediment placement site, including tree planting along SR 138 in 1995. * • Conduct evaluation of ¹¹13 locations where the ROW is visible from SR 138. Based on results, develop and implement vegetation management plan to allow native vegetation, including shrubs and small trees, to reduce visual contrast of the ROW. • When replacing conductors during normal maintenance or repairs, use non-specular conductor.
	North Umpqua River and Trail - <ul style="list-style-type: none"> • Lemolo No. 1 powerhouse and penstock • Soda Springs dam and intake • Soda Springs penstock, surge tank, and powerhouse 	<ul style="list-style-type: none"> • Visual incompatibility with surrounding landscape character • Inconsistency with Partial Retention and Retention VQOs 	<ul style="list-style-type: none"> • No feasible measures available because of lack of space to screen views between project facilities and viewpoints from which they are seen. *
	Lemolo No. 1 Forebay Expansion	<ul style="list-style-type: none"> • Not visible from sensitive viewpoints 	<ul style="list-style-type: none"> • None proposed.

Table 7.3-1. Summary of aesthetic/visual resources issues, potential effects, and proposed measures for the existing project and proposed new facilities (continued).

Issue	Project Site/Location	Potential Effects	Proposed Measures
Adequacy of Instream Flow in Maintaining Scenic Quality	<ul style="list-style-type: none"> Lemolo Falls Toketee Falls Whitehorse Falls Wild and Scenic Reach of the North Umpqua River 	<ul style="list-style-type: none"> Scenic quality is maintained or enhanced 	<ul style="list-style-type: none"> Maintain instream flows at or above the minimum flows studied for waterfalls. * No fluctuation of flow due to power operations below natural flows of 1,200 cfs. * Limit ramp rates to 1 inch (2.5 cm) per hour and 6 inches (15.2 cm) per day when flows at Copeland are between 1,200 and 1,700 cfs. *
Fluctuations in Surface Elevation of Water Bodies	<ul style="list-style-type: none"> Lemolo Lake Toketee Lake Soda Springs reservoir 	<ul style="list-style-type: none"> Exposed lake bottom or high water marks from surface fluctuations 	<ul style="list-style-type: none"> Maintain Lemolo Lake at or as near as possible to full pool during recreation season. (SEE LLMP) No feasible measures available at Soda Springs reservoir because of magnitude of proposed fluctuations (Note: if fish passage is introduced at Soda Springs, reservoir fluctuations will remain comparable to current operation levels). *

* NOT APPLICABLE, EXCLUDED FROM THE SA/AMP.

Exhibit C Rolling 5-Year Aesthetics Action Plan Framework

ROLLING 5-YEAR AESTHETICS ACTION PLAN

CALENDAR YEAR _____

**North Umpqua Hydroelectric Project
FERC Project No. 1927**

AUTHORIZATIONS

Final
Approved: PacifiCorp _____ (date) _____ (signature)
USDA – FS _____ (date) _____ (signature)
USDI – BLM _____ (date) _____ (signature)

SUMMARY OF PLANNED AMP PROGRAM ACTIVITIES FOR CALENDAR YEAR (____)

3.1 Aesthetics Management Guidelines

-

3.2 Photo-simulation/Painting

-

3.3 Landscaping Buffers

-

3.4 Transmission Line Visibility

-

3.5 Instream Flows

-

3.6 Reservoir Pool Levels

-

3.7 Reporting

-

AMP PROGRAM ACTIVITIES SUMMARY BY CALENDAR YEAR

Program/Activities	PRIOR YEAR CY _____		CURRENT YEAR CY _____		OUT YEAR #1 CY _____		OUT YEARS #2-3 CY _____	
	Dates	\$	Dates	\$	Dates	\$	Dates	\$
3.1 AESTHETICS MANAGEMENT GUIDELINES								
• Work description								
3.2 PHOTO-SIMULATION/ PAINTING								
• Work description								
3.3 LANDSCAPE BUFFERING								
• Work description								
3.4 TRANSMISSION LINE VISIBILITY								
• Work description								
3.5 INSTREAM FLOWS								
• Work description								
3.6 RESERVOIR POOL LEVELS								
• Work description								
3.7 REPORTING								
• Rolling 5-Year Aesthetics Action Plan Update								
• Annual Notice to the RCC								
• Periodic Reporting to the FERC								

SUMMARY OF RESULTS FROM THE PREVIOUS CALENDAR YEAR ACTION PLAN

(Insert bullet summaries below)

Projects Completed Last Year

-

Projects Not Completed and Carried forward to the Current Year

-

Unanticipated Events Summary

-

SUMMARY OF PLANNED ACTIVITIES FOR THE UPCOMING YEAR AND THE FOLLOWING 3 CALENDAR YEARS

(Insert bullet summaries below)

3.1 Aesthetics Management Guidelines

-

3.2 Photo-simulation/Painting

-

3.3 Landscaping Buffers

-

3.4 Transmission Line Visibility

-

3.5 Instream Flows

-

3.6 Reservoir Pool Levels

-

3.7 Reporting

-

Exhibit D Aesthetic Guidelines by Aesthetics Management Zone

Exhibit D. Aesthetic Guidelines by Aesthetics Management Zone.

Features/ Guideline Variables	Public Zone Public Use Areas/ Recreation Facilities	Admin. Zone Administrative Facilities/ Residential Areas	Operations Zone Hydro Operations/ Industrial Facilities	Linear Zone Linear Project Facilities	Overlays Wild & Scenic River/ Rogue- Umpqua Scenic Byway
Zone Definitions and Overall Management Direction					
Zone Feature Definitions	Project recreation facilities and use areas; Lemolo, Toketee, Soda Springs, sites at forebays and recreation/public use shorelines within the FERC boundary on federal land.	Project residential villages, non-recreation public facilities, offices, and maintenance or storage yards within the FERC boundary on federal land.	Project hydro operations facilities; dams, fish passage facil., spillways, powerhouses, switching yards, forebays, and sediment disposal areas within the FERC boundary on federal land.	Project linear features including canals, penstocks, tunnels, flumes, pipelines, access roads, and transmission lines within the FERC boundary on federal land.	Intersection of Project features with (1) North Umpqua Wild & Scenic River (W&SR) Corridor, and (2) Rogue - Umpqua Scenic Byway (SR 138).
Management Direction, Objectives and References	Settlement Agreement (SA); Recreation Resource Management Plan (RRMP); Built Environment Image Guide (BEIG) (as amended); and Visual Management System (VMS) for Visual Quality Objectives (VQOs), as amended by the Scenery Management System (SMS) in the North Umpqua Forest Plan (as amended).	Settlement Agreement (SA); Historic Properties Management Plan (HPMP) and its Historic Buildings Plan; Built Environment Image Guide (BEIG) (as amended) if new construction.	Settlement Agreement (SA).	Settlement Agreement (SA); TMP – roads and bridges/major culverts.	Settlement Agreement (SA) regarding 11 buffer sites along SR 138; North Umpqua River Mgmt. Plan (July 1992); Rogue-Umpqua Scenic Byway Corridor Mgmt. Plan (January 2002).
Facility Design Aesthetic Guidelines					
Materials	Refer to BEIG for suggested materials list. Adapt as appropriate to local conditions.	Materials to be consistent with the HPMP. If not a historic building, materials to be consistent with existing surrounding USFS facilities of	Not limited.	Not limited.	Materials will be as required by the Project per the SA; Materials will minimize potential adverse effects on the W&SR and the Scenic Byway as appropriate if visible from sensitive

Exhibit D. Aesthetic Guidelines by Aesthetics Management Zone.

Features/ Guideline Variables	<u>Public Zone</u> Public Use Areas/ Recreation Facilities	<u>Admin. Zone</u> Administrative Facilities/ Residential Areas	<u>Operations Zone</u> Hydro Operations/ Industrial Facilities	<u>Linear Zone</u> Linear Project Facilities	<u>Overlays</u> Wild & Scenic River/ Rogue- Umpqua Scenic Byway
		similar use, or BEIG (if new construction). Adapt as appropriate to local conditions.			viewpoints.
Color	Use natural earth or forest tones; Colors to be consistent with HPMP or existing surrounding USFS facilities of similar type; or BEIG. Consult with the USDA- FS.	Use natural earth or forest tones; Colors to be consistent with HPMP or existing surrounding USFS facilities of similar type; or BEIG. Consult with the USDA- FS.	Where the public comes into contact with Project facilities use natural earth or forest tones when possible. Consult with the USDA-FS.	Where the public comes into contact with Project facilities use natural earth or forest tones when possible. Consult with the USDA-FS.	Minimize adverse effects to the W&SR and Scenic Byway, as appropriate, if visible to sensitive viewpoints. Use natural earth or forest tones when possible. Consult with the USDA-FS or BLM as appropriate.
Design Details	Refer to BEIG for design details.	Consistent with HPMP or existing surrounding USFS facilities of similar type; or BEIG (if new construction).	Consider design details that help the feature or structure blend into the natural surrounding environment.	Consider design details that help the feature or structure blend into the natural surrounding environment.	Consider design details that help the feature or structure blend into the surrounding natural environment. Minimizing potential adverse effects to the W&SR and Scenic Byway.
Reflection	Low reflection.	Low reflection; Consistent with HPMP or existing surrounding USFS facilities of similar type.	Low reflection.	Low reflection. See the SA for conductor replacement to non-specular material.	Low reflection.
Massing, Scale, Height, Form and Line	Refer to the BEIG for building massing guidelines.	Consistent with HPMP or existing surrounding USFS facilities of similar use; or BEIG (if new construction).	Consider minimizing massing, scale and height to be consistent with the surrounding natural environment to the extent possible.	Consider minimizing massing, scale and height to be consistent with the surrounding natural environment to the extent possible.	Consider minimizing massing, scale and height to be consistent with the surrounding natural environment to the extent possible. Minimize impacts to the W&SR and Scenic Byway.
Americans with Disabilities Act (ADA)	ADAAG or similar accessibility regulations. See	ADAAG or similar accessibility regulations.	None.	None.	None.

Exhibit D. Aesthetic Guidelines by Aesthetics Management Zone.

Features/ Guideline Variables	<u>Public Zone</u> Public Use Areas/ Recreation Facilities	<u>Admin. Zone</u> Administrative Facilities/ Residential Areas	<u>Operations Zone</u> Hydro Operations/ Industrial Facilities	<u>Linear Zone</u> Linear Project Facilities	<u>Overlays</u> Wild & Scenic River/ Rogue- Umpqua Scenic Byway
Barrier Free Accessibility and related laws	RRMP for recreation facilities.				
Plant Materials and Vegetation Management, Screening and Buffering	Refer to the BEIG for plant materials and vegetation; priority given to xeric and local native plants. See Vegetation Management Plan (VMP).	Priority given to xeric and local native plants. See Vegetation Management Plan (VMP).	Priority given to xeric and local native plants. See Vegetation Management Plan (VMP).	Native plants for new plantings; see Vegetation Management Plan (VMP) for T-line corridors; see Transportation Management Plan (TMP) for roadways. See SA for 11 vegetative buffer evaluation sites. See Exhibit C of this Plan. See Vegetation Management Plan (VMP).	Native plants if appropriate. Buffer the T-line corridor from SR 138 viewers per the SA. See SA and Exhibit C of this Plan for 11 vegetative buffer evaluation sites. See Vegetation Management Plan (VMP).
Security and Safety	Refer to the RRMP. FERC mandated security guidelines (as amended). Consult with the USFS regarding appropriate fencing and other barriers for security and safety.	FERC mandated security guidelines (as amended). Consult with the USFS regarding appropriate fencing and other barriers for security and safety.	FERC mandated security guidelines (as amended). Consult with the USFS regarding appropriate fencing and other barriers for security and safety.	FERC mandated security guidelines (as amended). Consult with the USFS regarding appropriate fencing and other barriers for security and safety.	FERC mandated security guidelines (as amended), minimizing potential adverse effects to the W&SR and Scenic Byway.
Lighting	Use down-lighting and shielded lighting where appropriate.	Use down-lighting and shielded lighting where appropriate.	Use down-lighting and shielded lighting where appropriate.	Use down-lighting and shielded lighting where appropriate.	Minimize lighting and lighting intensity to minimize potential adverse effects to the W&SR and Scenic Byway.
Visual Quality Levels and Objectives	Be consistent with the VQOs of the area per VMS/SMS (as amended).	Be consistent with the VQOs of the area per VMS/SMS (as amended).	Be consistent with the VQOs of the area per VMS/SMS (as amended).	Be consistent with the VQOs of the area per VMS/SMS (as amended).	Be consistent with the VQOs of the area per VMS/SMS (as amended).

Exhibit D. Aesthetic Guidelines by Aesthetics Management Zone.

Features/ Guideline Variables	Public Zone Public Use Areas/ Recreation Facilities	Admin. Zone Administrative Facilities/ Residential Areas	Operations Zone Hydro Operations/ Industrial Facilities	Linear Zone Linear Project Facilities	Overlays Wild & Scenic River/ Rogue- Umpqua Scenic Byway
Facility Construction Aesthetic Guidelines					
Best Manage- ment Practices (BMPs) for Stockpiling Materials, Staging Areas, Spoils Areas, Borrow Areas, and Construction Timing	Utilize BMPs for construction to minimize potential adverse effects to aesthetics; Minimize adverse effects to aesthetics near the recreating public; Stockpile and staging areas to be pre-approved and temporary; Minimize construction timing effects on recreation resources.	Utilize BMPs for construction to minimize potential adverse effects to aesthetics; Minimize adverse effects to aesthetics near the public and residents; Stockpiling and staging areas to be pre-approved and temporary; Remove all residual construction materials when done; regrade to natural slopes when completed.	Utilize BMPs for construction to minimize potential adverse effects to aesthetics; As required by the Project per SA or for operations; Stockpiling and staging areas to be pre-approved and temporary; Remove all residual construction materials when done; regrade to natural slopes when completed.	Utilize BMPs for construction to minimize potential adverse effects to aesthetics; As required by the Project per SA or for operations; Stockpiling and staging areas to be pre-approved and temporary; Remove all residual construction materials when done; regrade to natural slopes when completed.	Utilize BMPs for construction to minimize potential adverse effects to aesthetics; As required by the Project per SA or for operations, minimizing adverse effects to the W&SR and Scenic Byway; Stockpiling and staging areas to be pre-approved and temporary; Remove all residual construction materials when done; regrade to natural slopes and revegetate when completed.
Smell, Fumes and Hazardous Spills	Meet State of Oregon DEQ standards (as amended).	Meet State of Oregon DEQ standards (as amended).	Meet State of Oregon DEQ standards (as amended).	Meet State of Oregon DEQ odor standards (as amended).	Meet State of Oregon DEQ standards (as amended).
Noise	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).
Heavy Equipment Use	As a BMP, minimize use of heavy equipment during the peak recreation season (Memorial Day to Labor Day).	As a BMP, minimize use of heavy equipment during residential quiet hours (6 P.M. to 7 A.M. and on weekends).	As required by Project operations.	As required by Project operations.	As required by Project operations, minimizing potential adverse effects on the W&SR and Scenic Byway.
Facility Maintenance Aesthetic Guidelines					
Painting of Penstocks and Surge Tanks	Not Applicable.	Not Applicable.	Per the SA, paint selected surge tanks based on photo-simulation analysis when normal maintenance is required.	Per the SA paint selected penstocks based on photo-simulation analysis when normal maintenance is required.	Not Applicable.

Exhibit D. Aesthetic Guidelines by Aesthetics Management Zone.

Features/ Guideline Variables	<u>Public Zone</u> Public Use Areas/ Recreation Facilities	<u>Admin. Zone</u> Administrative Facilities/ Residential Areas	<u>Operations Zone</u> Hydro Operations/ Industrial Facilities	<u>Linear Zone</u> Linear Project Facilities	<u>Overlays</u> Wild & Scenic River/ Rogue- Umpqua Scenic Byway
Painting of Other Project Facilities	Use natural earth or forest tones; Colors to be consistent with HPMP or existing surrounding USFS facilities of similar type; or BEIG. Consult with the USDA-FS.	Use natural earth or forest tones; Colors to be consistent with HPMP or existing surrounding USFS facilities of similar type; or BEIG. Consult with the USDA-FS.	Where the public comes into contact with Project facilities use natural earth or forest tones when possible. Consult with the USDA-FS.	Where the public comes into contact with Project facilities use natural earth or forest tones when possible. Consult with the USDA-FS.	Minimize adverse effects to the W&SR and Scenic Byway, as appropriate, if visible to sensitive viewpoints. Use natural earth or forest tones when possible. Consult with the USDA-FS or BLM as appropriate.
Facility Maintenance Practices and Damage Repair	Perform maintenance of facilities consistent with RRMP requirements and Meaningful Measures (as amended).	Perform adequate and timely maintenance of facilities; Maintenance to be consistent with HPMP requirements, as appropriate.	Perform adequate and timely maintenance of facilities.	Perform adequate and timely maintenance of facilities. For Roads/bridges, refer to the TMP. For the transmission line ROW, refer to the VMP.	Perform adequate and timely maintenance of facilities.
“Bone Yard” Maintenance	Adequately maintain storage areas to minimize potential adverse effects to aesthetics at sensitive viewpoints; screen views as needed.	Adequately maintain storage areas to minimize potential adverse effects on aesthetics near sensitive viewpoints; screen views as needed. Provide fencing/ other barriers where practicable that provides adequate screening while blending in with the environment.	Adequately maintain storage areas to minimize potential adverse effects to aesthetics near sensitive viewpoints; screen views as needed.	Not Applicable.	Not Applicable.
Smell, Fumes and Hazardous Spills	Meet State of Oregon DEQ standards (as amended).	Meet State of Oregon DEQ standards (as amended).	Meet State of Oregon DEQ standards (as amended).	Meet State of Oregon DEQ odor standards (as amended).	Meet State of Oregon DEQ standards (as amended).
Noise	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).	Meet State of Oregon DEQ noise guidelines (as amended).

Exhibit D. Aesthetic Guidelines by Aesthetics Management Zone.

Features/ Guideline Variables	<u>Public Zone</u> Public Use Areas/ Recreation Facilities	<u>Admin. Zone</u> Administrative Facilities/ Residential Areas	<u>Operations Zone</u> Hydro Operations/ Industrial Facilities	<u>Linear Zone</u> Linear Project Facilities	<u>Overlays</u> Wild & Scenic River/ Rogue- Umpqua Scenic Byway
Heavy Equipment Use	As a BMP, minimize use of heavy equipment during the peak recreation season (From Memorial Day to Labor Day).	As a BMP, minimize use of heavy equipment during residential quiet hours (6 P.M. to 7 A.M. and on weekends).	As required by Project operations.	As required by Project operations.	As required by Project operations, minimizing potential adverse effects on the W&SR and Scenic Byway.

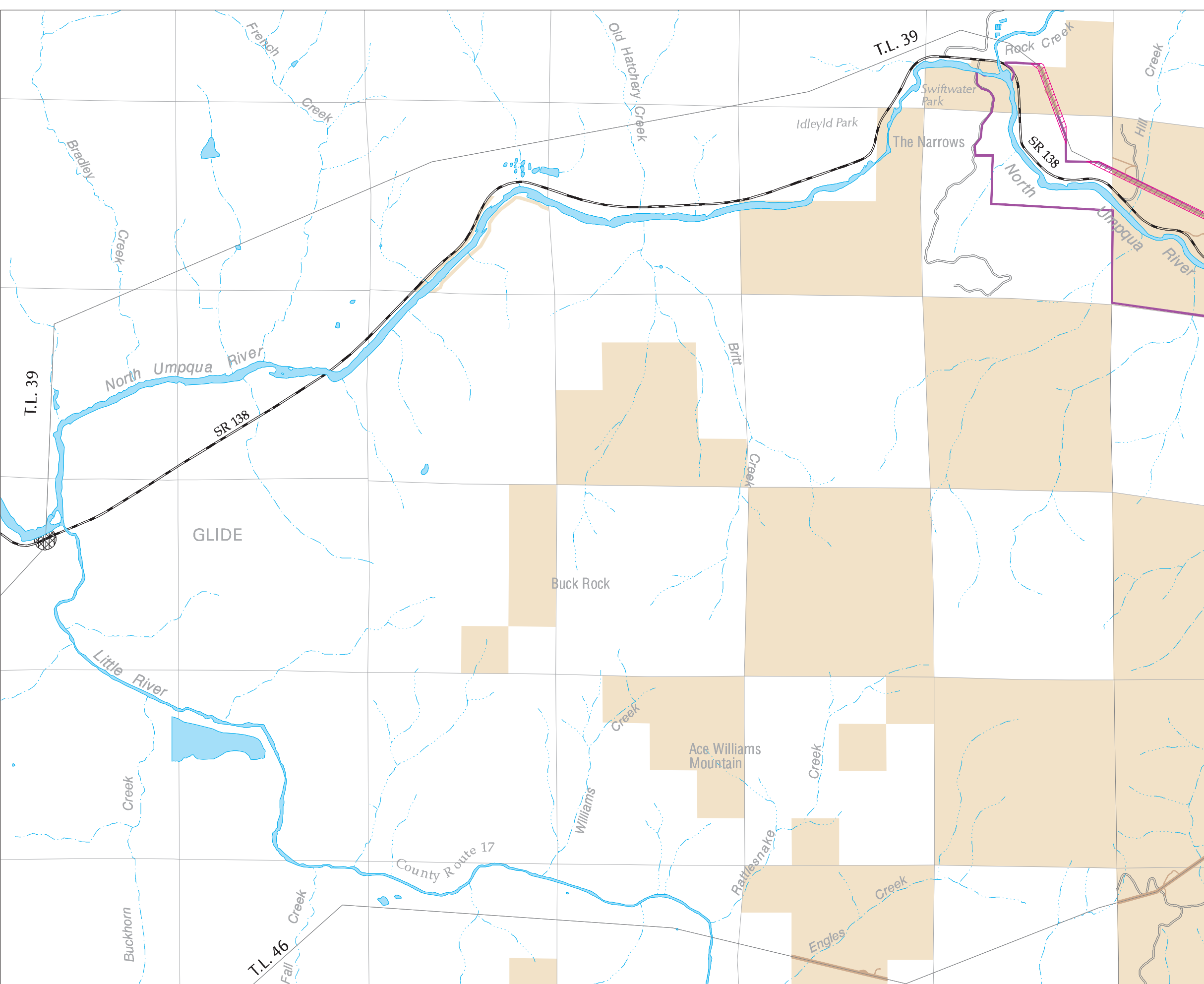
Exhibit E Aesthetics Management Zones

North Umpqua Hydroelectric Project



Aesthetics Management Plan

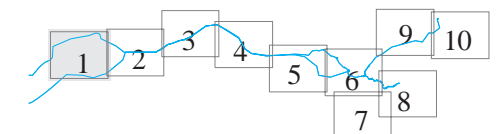
Aesthetics Management Zones



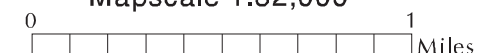
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- ◆ Dispersed Recreation Sites
- Public Use Areas / Recreation Facilities
- Administrative Facilities / Residential Areas
- Hydro Operations / Industrial Facilities
- Linear Project Facilities
- ▨ Wild and Scenic River Overlay
- ▩ Rogue-Umpqua Scenic Byway Overlay
- ▭ Wild and Scenic River
- USDA-FS Managed Lands
- USDI-BLM Managed Lands
- Lakes, Reservoirs
- State Route 138
- Other Roads

April 23, 2004

Mapsheet 1



Mapscale 1:32,000



North Umpqua
Hydroelectric Project



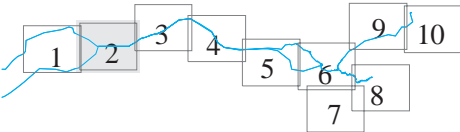
Aesthetics Management Plan

Aesthetics Management Zones

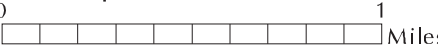
- Transmission Line Visual Buffer Sites
- Dispersed Recreation Sites
- Public Use Areas / Recreation Facilities
- Administrative Facilities / Residential Areas
- Hydro Operations / Industrial Facilities
- Linear Project Facilities
- Wild and Scenic River Overlay
- Rogue-Umpqua Scenic Byway Overlay
- Wild and Scenic River
- USDA-FS Managed Lands
- USDI-BLM Managed Lands
- Lakes, Reservoirs
- State Route 138
- Other Roads

April 23, 2004

Mapsheet 2



Mapscale 1:32,000



**North Umpqua
Hydroelectric Project**



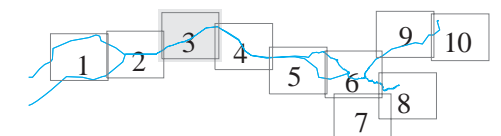
Aesthetics Management Plan

Aesthetics Management Zones

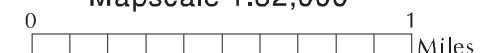
- Transmission Line Visual Buffer Sites
- ◆ Dispersed Recreation Sites
- Public Use Areas / Recreation Facilities
- Administrative Facilities / Residential Areas
- Hydro Operations / Industrial Facilities
- Linear Project Facilities
- ▨ Wild and Scenic River Overlay
- ▩ Rogue-Umpqua Scenic Byway Overlay
- ▭ Wild and Scenic River
- USDA-FS Managed Lands
- USDI-BLM Managed Lands
- Lakes, Reservoirs
- State Route 138
- Other Roads

April 23, 2004

Mapsheet 3



Mapscale 1:32,000



**North Umpqua
Hydroelectric Project**

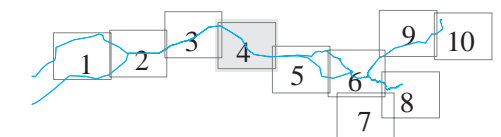


Aesthetics Management Plan

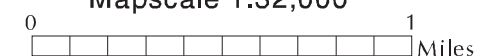
Aesthetics Management Zones

- Transmission Line Visual Buffer Sites
- ◆ Dispersed Recreation Sites
- Public Use Areas / Recreation Facilities
- Administrative Facilities / Residential Areas
- Hydro Operations / Industrial Facilities
- Linear Project Facilities
- ▨ Wild and Scenic River Overlay
- ▩ Rogue-Umpqua Scenic Byway Overlay
- ▭ Wild and Scenic River
- USDA-FS Managed Lands
- USDI-BLM Managed Lands
- Lakes, Reservoirs
- State Route 138
- Other Roads

April 23, 2004
Mapsheet 4



Mapscale 1:32,000



**North Umpqua
Hydroelectric Project**



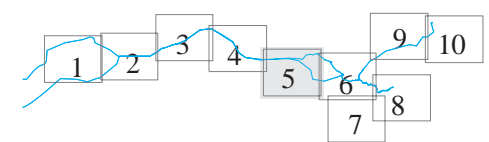
Aesthetics Management Plan

Aesthetics Management Zones

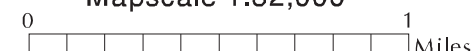
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- ◆ Dispersed Recreation Sites
- Public Use Areas / Recreation Facilities
- Administrative Facilities / Residential Areas
- Hydro Operations / Industrial Facilities
- Linear Project Facilities
- ▨ Wild and Scenic River Overlay
- ▩ Rogue-Umpqua Scenic Byway Overlay
- ▭ Wild and Scenic River
- USDA-FS Managed Lands
- USDI-BLM Managed Lands
- Lakes, Reservoirs
- State Route 138
- Other Roads

April 23, 2004

Mapsheet 5



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North Umpqua
Hydroelectric Project

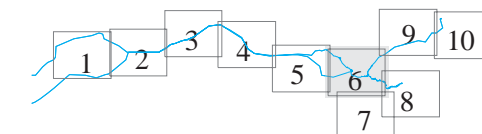


Aesthetics Management Plan

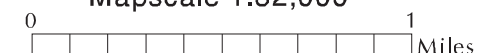
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April 23, 2004
Mapsheet 6



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North Umpqua
Hydroelectric Project

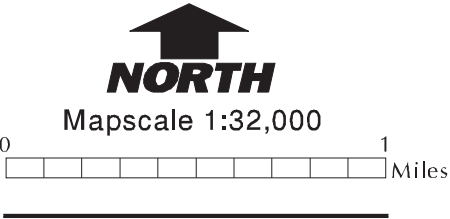
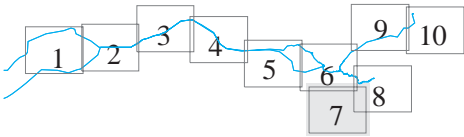


Aesthetics Management Plan

Aesthetics Management Zones

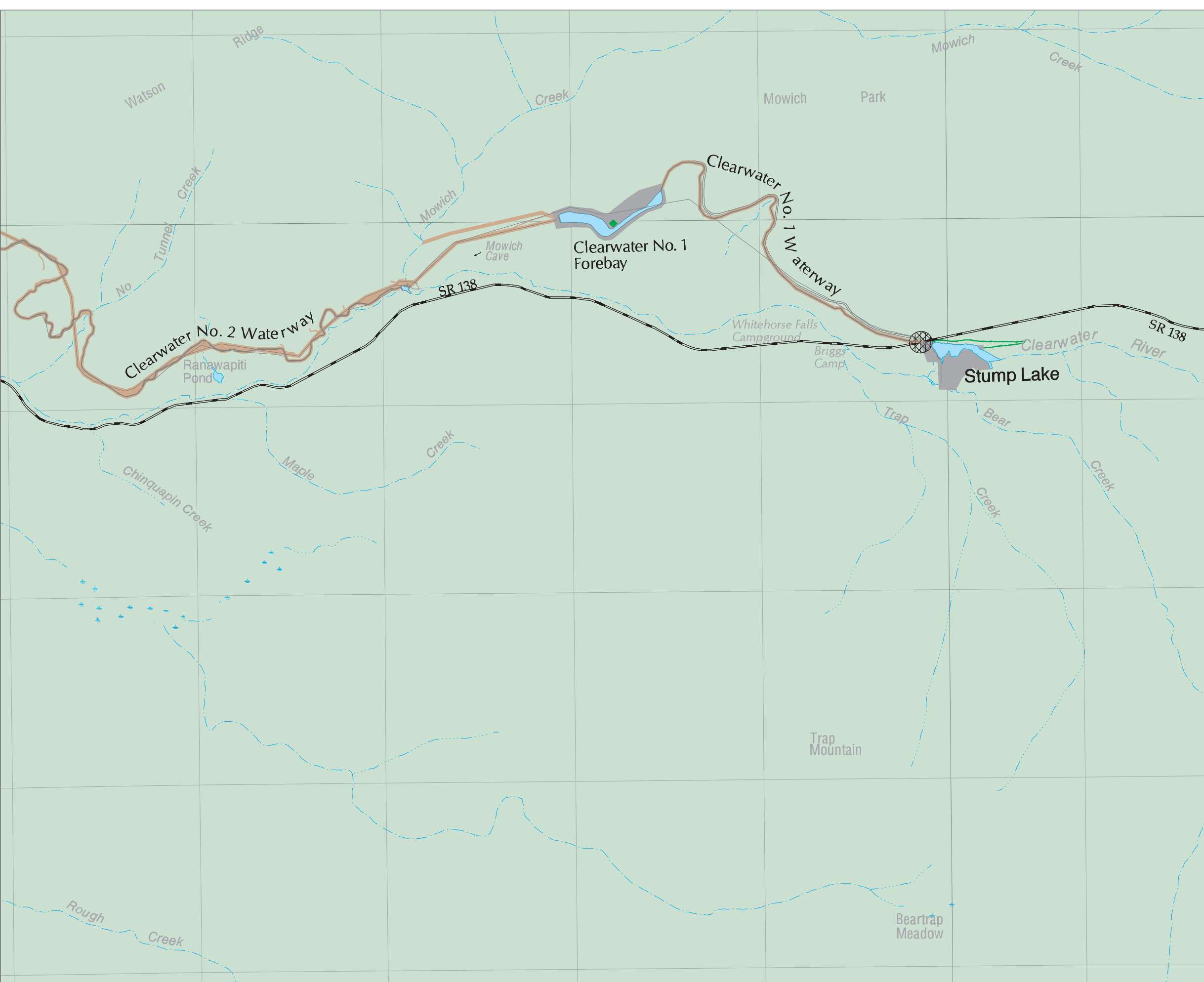
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April 23, 2004
Mapsheet 7



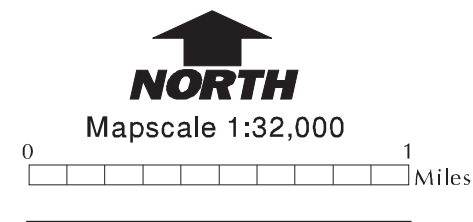
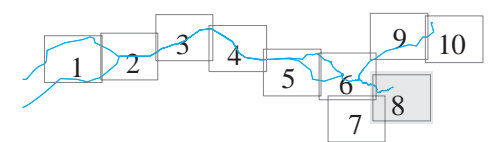
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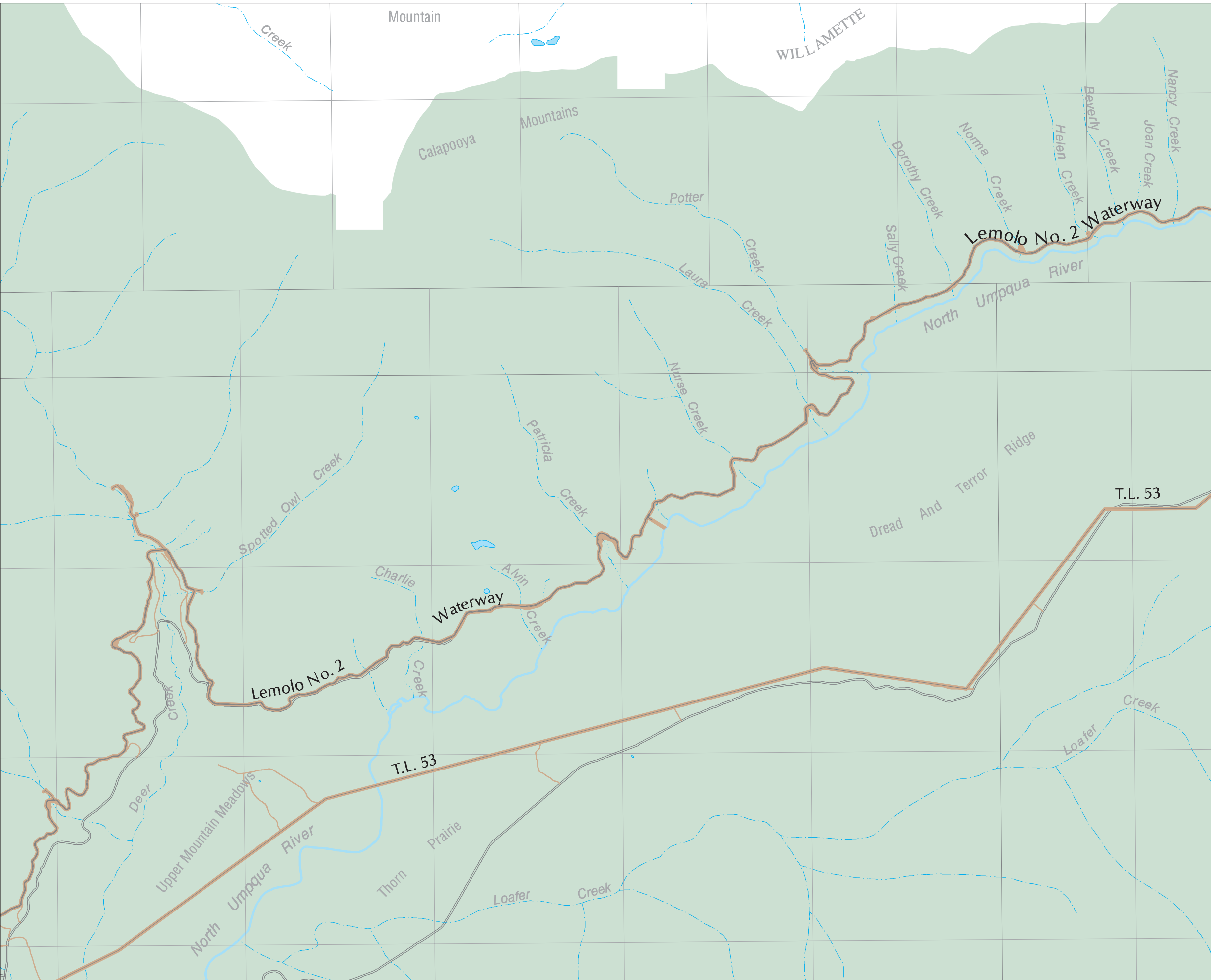
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April 23, 2004
Mapsheet 8





**North Umpqua
Hydroelectric Project**

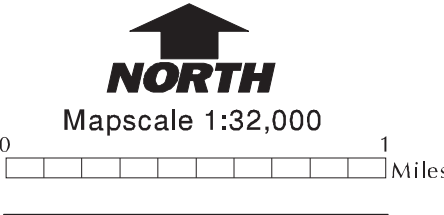
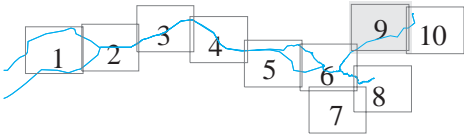


Aesthetics Management Plan

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April 23, 2004
Mapsheet 9

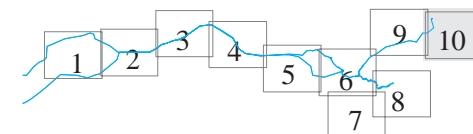


Aesthetics Management Plan

Aesthetics Management Zones

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April 23, 2004
Mapsheet 10



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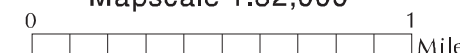


Exhibit F Transmission Line Screening Study

*(To be attached upon completion of study. See Section 3.4 for study methods, and
schedule)*

**Exhibit G The Built Environment Image Guide for National Forests and
Grasslands – FS-710**

(Excerpt of North Pacific Province only)



United States
Department of
Agriculture

Forest Service

FS-710
September 2001



The Built Environment Image Guide

FOR THE NATIONAL FORESTS AND GRASSLANDS



Reader's Guide

The *Built Environment Image Guide* can be read in different ways, depending on how, and by whom it will be applied. The following will aid the reader in selecting the sections most applicable to their needs.

Section	Page	Content	Purpose	Primary Audiences
Chapter 1 Image and the Built Environment	1	Establishes the Intent of the guide, why it is needed, and describes common applications . Outlines major elements of a positive image	To motivate those involved in facility management to utilize the guide	Everyone involved in authorizing, planning, designing, operating, and maintaining facilities
Chapter 2 Origins of the National Forest Built Environment	9	An overview of influences on and traditions of Forest Service facility design from early park design through the CCC era to present-day environmental considerations	To enhance understanding of the origins of Forest Service design traditions and appreciation for contributions of design to agency image	Project sponsors (Forest Service line officers, permittees, and partners) and designers (engineers, landscape architects, and architects)
Chapter 3 The Sustainable Image: Responses to Context	19	Explanations of the primary components of context that drive design —ecological, cultural, and economic—and an overview of the design process	To ensure thorough consideration of the primary components in the site-specific design of facilities	Project designers , both internal and external
Chapter 4 Architectural Character Guidelines for the Nation and the Provinces	31	Regional Architectural Character Types that incorporate the components of context are illustrated for a range of facility types and settings	To provide graphic examples of the regional character types to be incorporated in all built environment designs	Everyone involved in authorizing, planning, designing, operating, and maintaining facilities
Chapter 5 Integrating Architectural Character With the Facility Management Process	231	The sequence of planning, design, operations, maintenance, and deconstruction of facilities , along with roles and responsibilities of everyone involved in developing and maintaining them	To enhance understanding of relationships and roles , along with appreciation for each participant's contributions to creating and maintaining an appropriate facility image	Everyone involved in authorizing, planning, designing, operating and maintaining facilities

<i>Section</i>	<i>Page</i>	<i>Content</i>	<i>Purpose</i>	<i>Primary Audiences</i>
Appendix A Built Environment Case Studies	239	Examples of administrative and recreation projects that incorporate character guidelines	To illustrate successful Forest Service projects for peers to see and discuss	Project sponsors, designers, operators, and maintenance personnel
Appendix B Forest Service Manual (FSM) and Handbook (FSH) Direction	249	Cites FSM 2330 and 7310 for recreation and administrative facilities	To reinforce USDA Forest Service policy for the built environment	Forest Service line and staff officers, designers
Appendix C Recreation Opportunity Spectrum (ROS)	253	Indicates appropriate site furnishings, construction materials, development scale, and density for the ROS classes	To integrate ROS considerations with architectural character to provide facilities and furnishings appropriate with the desired setting	Forest Service line and staff officers, designers, and maintenance personnel
Appendix D Glossary	263	Definition of terms used in the handbook	To clarify terminology for external cooperators and those not in design fields	All readers
Appendix E References	269	References for quotations used in the handbook	Provide sources for quotations	All readers
Appendix F Acknowledgments	271	Names of the individuals and teams who helped develop this guide	Acknowledgment	All readers

Chapter 4.7

The North Pacific Province

“A natural environment of this magnificence and grandeur has had a humbling impact on the region's architecture.... This is not the climate for loud and glamorous architecture.”

—Douglas Kelbaugh





OVERVIEW: CHARACTER OF THE NORTH PACIFIC PROVINCE BUILT AND NATURAL ENVIRONMENTS

The North Pacific Province includes the national forests and scenic areas in northern California, north-western Oregon and Washington, and the coastal region of Alaska. This is a land of dramatic landscapes and climate and diverse cultural influences. These elements are frequently celebrated through a regional architectural style called *Cascadian*.

The landscape has been altered but not nearly tamed by human settlement. It is still being shaped by volcanoes, glaciers, seismic movement, and tidal surges. Climate, maritime forces, and landscape are inseparable elements. Some areas receive more than 100 inches of rain annually; others up to 26 feet of snow. The intense precipitation fosters lush, dense plant life, including a rare temperate-zone rainforest and some of the world's largest trees. Vivid



contrasts are everywhere. The province's rainiest point in the Olympic Range (240 inches per year) is a day's hike from its driest coastal spot, Dungeness Spit (15 inches).

Forest Service design in the North Pacific includes a richness worthy of this landscape. The bridges, parkways, and buildings of the Columbia River

Gorge, the Timberline Lodge on Mt. Hood, and the Visitor Center at Mendenhall Glacier are only three examples of Forest Service structures that match the grandeur of their settings.

INFLUENCES ON ARCHITECTURAL CHARACTER

LANDSCAPE AND ECOLOGICAL

"The great trees are seldom crowded, and their columnar trunks may rise dozens of feet skyward before the first branches appear. ...The space beneath may be open enough that light filtered through the upper branches is diffused to create a softly luminous glow throughout. The effect is not one of gloom, but of solemnity."

—Stephen Whitney, *Western Forests*

Literature about the North Pacific consistently sounds such themes as reverence for nature and a strong desire to harmonize with the setting. Perhaps this is because the province possesses such a wild and grand scale. People have a front row seat on major ecological processes. Glaciers, rivers that change course, volcanoes, and earthquakes shape a young landscape that seems only recently emerged from the primeval era. West of the Cascades, the maritime climate creates moderate temperatures and high precipitation. This maritime influence sends storms from the west to the east.

In Alaska, the steep mountains of the Tongass National Forest collide with the ocean. Inland are glacially carved valleys, lakes, and waterfalls. The Coast Range meets a sea dotted with tidewater glaciers and islands. Farther north

and west in the Chugach National Forest, the land masses are constantly shifting in a landscape dominated by glaciers. Broad valleys contain filled-in fiords that have become marshlands bisected by glacially fed rivers. The archipelago of coastal islands is foggy, heavily forested, and separated by deep channels. Throughout Alaska, the landscape, sky, light, and water reflect the colors of glacial blue, of gray fog, and of white winter. For a brief burst in summer, wildflowers alter the landscape with an explosion of color.

The most visible geology results from angular forms of graywacke shale. Even at lower elevations, trees cover the landscape only in patches. The treeline can occur as low as 1,500 feet.

The Cascade and Klamath ranges of Washington, Oregon, and northern California are extremely rugged, with large mountains dominated by volcanic peaks and deep, heavy snows at higher elevations. Some of the world's largest and oldest trees live within this lush, cool coniferous forest: Douglas fir, Sitka spruce, western hemlock, and coast redwood



among them. The Cascades are a place with abundant rivers, streams, and waterfalls. The west side comes in many shades of green dictated by ferns, mosses, and big trees that stay green through the year. High rainfall intensifies colors in the landscape.

East of the Cascades is much drier with sparse vegetation. Rolling hills and high prairies are punctuated by volcanic cones. Space between trees seems open and expansive with long vistas. The landscape is generally rural rather than wilderness with irrigated fields, pasture, orchards, and rangeland. Colors are warm with pastel hues varied by the rock and soil visible through the vegetation. Shades of dark gray, dark brown, and

black are evident in rock formations of columnar basalt. Signature trees include ponderosa pine, lodgepole pine, and sugar pine.

North central California includes the Mediterranean subarea of this province embracing the northern Sierra Nevadas. Here coniferous forests, shaped by long summer droughts and mild wet winters, are extremely diverse. Species range from giant sequoia in the high mountains to California red fir to bristlecone pine.

CULTURAL

Native American Design: The original Native American inhabitants built to deal with precipitation. Along the Pacific coast, on the Columbia River plateau, and within the Great Basin, the inhabitants of each area made their own adaptations.

In the coastal zone, houses were made of planks from driftwood logs or sometimes split from the sides of living trees. The large communal dwelling might be a gable-roofed long house with vertical plank walls, as among the Quinault in Washington, or shed-roofed long houses, as among the Tillamook. In southern Oregon and northern California, the Umpqua, Chetco, Yurok, and Hoopa built related types of “hooped branch” houses.

European Settlers: The first European settlers built log structures, often using trees cleared for farming. They built farmhouses (Scandinavians, English, Germans), trading posts (French), and

forts (Russian). They typically used broad-hewn logs locked in dovetail joints. Onion-dome Russian churches endure along coastal Alaska.

Agricultural Structures: The simple forms of traditional Willamette Valley barns have inspired many contemporary architects and artists. These picturesque barns employed building techniques in use since medieval times: heavily timbered frame construction held together by skillfully made mortice and tenon joints.

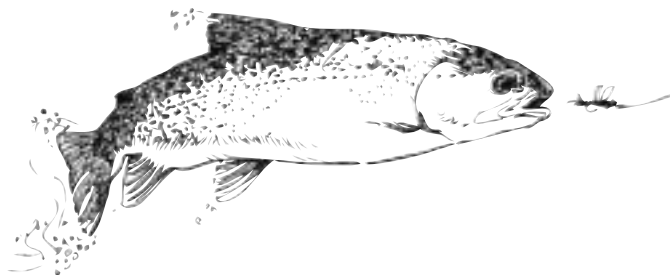
Rustic: From about 1890 to 1940, architects and designers created a Northwestern variation on the rustic design called Cascadian. An early example is the Cloud Cap Inn, a hikers’ lodge on Mt. Hood, perhaps inspired by rustic buildings then being constructed in the Adirondacks.

The CCC of the 1930’s incorporated rustic design and a high level of craft into public works. A notable example is the shelters, pavilions, way stations, and comfort facilities built along the Columbia Gorge Scenic Highway. In the late

1930’s, the WPA built Timberline Lodge, an Arts and Crafts extravaganza that employed scores of masons, carpenters, sculptors, and artisans.

Alaska: Many Alaskan buildings and sites were designed for access by boat or float plane. Alaskan design ranges from the Quonset huts of the Aleutian Islands, to the Russian churches of Sitka, to industrial oil terminals and canneries. Coastal fishing villages are a building type somewhat unique to Alaska. These villages typically feature brightly colored cottages rising on steep slopes straight up from the waterfront.

Northwest Modernism: The Modernist movement aimed to create a worldwide design—the so-called International style. The Northwest responded with variations. In the 1930’s and 1940’s, architects Pietro Belluschi and John Yeon designed modernist churches inspired by barns of Oregon’s Willamette Valley. They adapted their buildings to the Northwest by using wood as a structural material and by including broad roof overhangs to keep rain off windows. More recent architects skillfully meld natural and industrial materials suggesting that modern design can be contemporary in spirit, massive in scale for durability’s sake, and yet comforting to the human touch and scale.



SUMMARY OF INFLUENCES AND RESPONSES THAT SHAPE THE CHARACTER OF THE BUILT ENVIRONMENT

ECOLOGICAL INFLUENCES

- Moist, cool climate with lots of rain, fog, mist, and snow.
- Temperate maritime climate.
- In California, hot climate with Mediterranean influence and design responses similar to the Southwest Province.
- Rugged terrain with many rock outcrops and lava flows.
- Volcanoes, glaciers, and earthquakes that are still shaping a young landscape with sharp peaks and massive landforms.
- Prevailing winds from the west, with highs from the northwest and lows from the southwest.
- Lush, dense vegetation that is green year-round.
- Forests that are largely coniferous and contain the world's largest and oldest trees.
- Water elements, including lakes, rivers, fiords, and waterfalls, that are prevalent and of a large scale.
- Much landscape that occupies the edge between ocean and land—a magnet for diversity of people and wildlife.
- Declination of the sun that creates radical angles of light.
- Long vistas with snow-capped volcanic peaks.
- Sunlight that has become important, even revered, when it appears because of prevalent gray skies and short winter days.



CULTURAL INFLUENCES

- Russian influence is seen in remaining forts and onion-dome churches.
- Native influence is seen in such structures as the long house, with few windows and planked construction that sheds rain. Colors are red, aqua, and black.
- Culture of totemic art is incorporated into CCC-era buildings in Alaska.
- Asian influence is seen in low structures with expressed post-and-beam structure and large expanses of windows.
- Scandinavian influence is seen in log cabins and decorated frame houses with cutout details in shutters.
- Wood is lavishly used in buildings.
- Timber industry remains a powerful cultural force and shaper of the landscape.

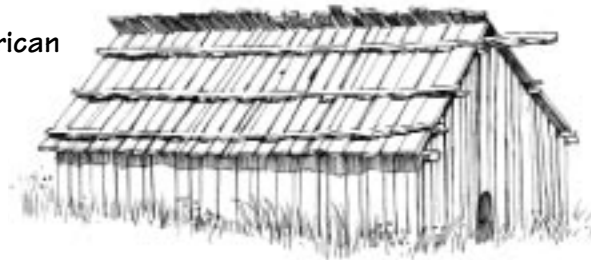


CCC-“Cascadian”



Alaskan
maritime

Native American
long house





Northwest
modernism



North Pacific

Scandinavian log



ARCHITECTURAL GUIDELINES FOR THE NORTH PACIFIC PROVINCE

“The public architecture of the forest can be of a scale appropriate to the powerful scale of the trees and the masses of the mountains, of a construction durable enough to survive years of intense use, and yet possessing a finish and subtlety of design that stimulate the human eye and imagination.”

—Leland M. Roth, architectural historian

SITING

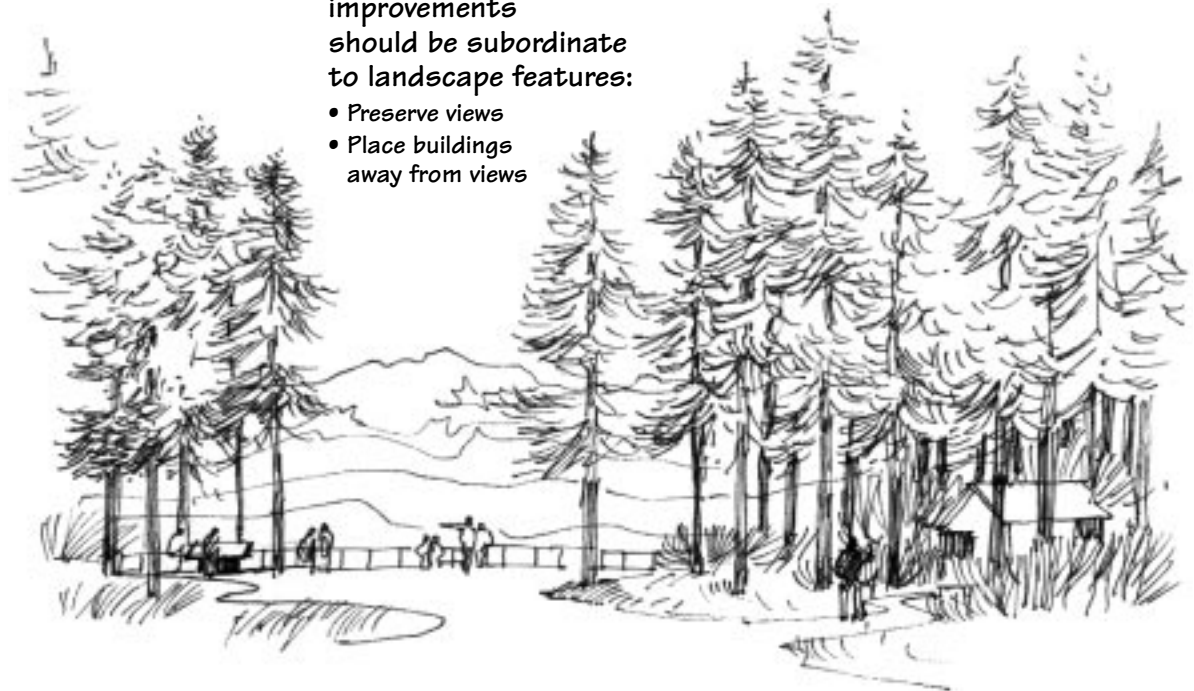
- Place structures at the edge of existing clearings. This preserves views and habitat, avoids the need to clear vegetation, and creates opportunities for sun and shade as needed seasonally.
- Make work complexes into building compounds connected by covered walkways.
- Site to catch the breezes necessary to mitigate the bug problem in Alaska.
- Shield structures with plantings on the north and west sides in areas with intense wind.
- Manage vegetation near structures; plantings can become overgrown and block views.

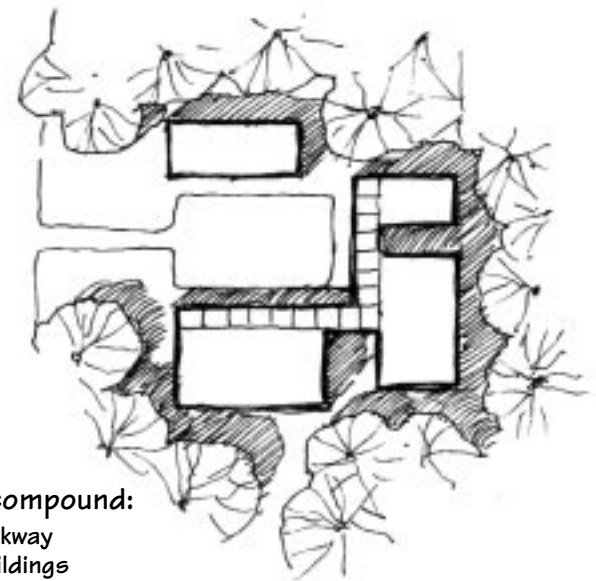
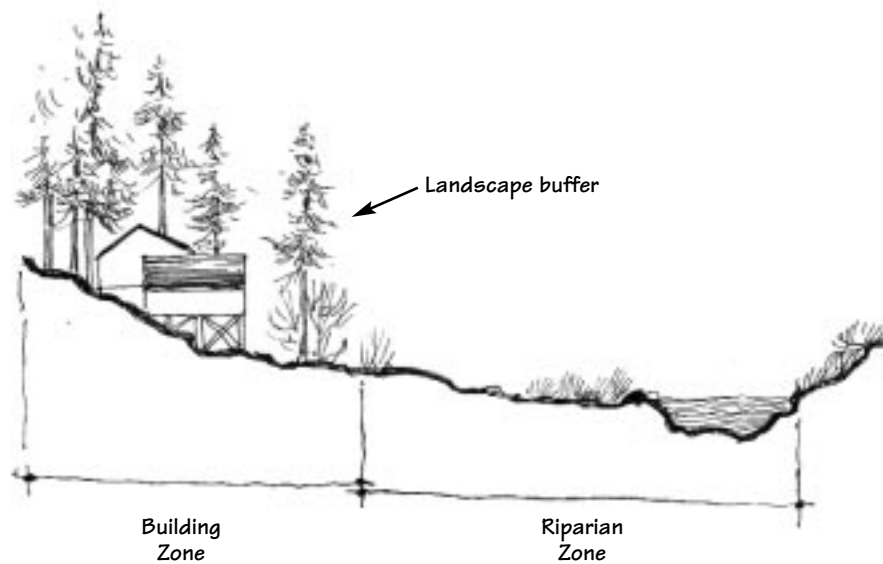
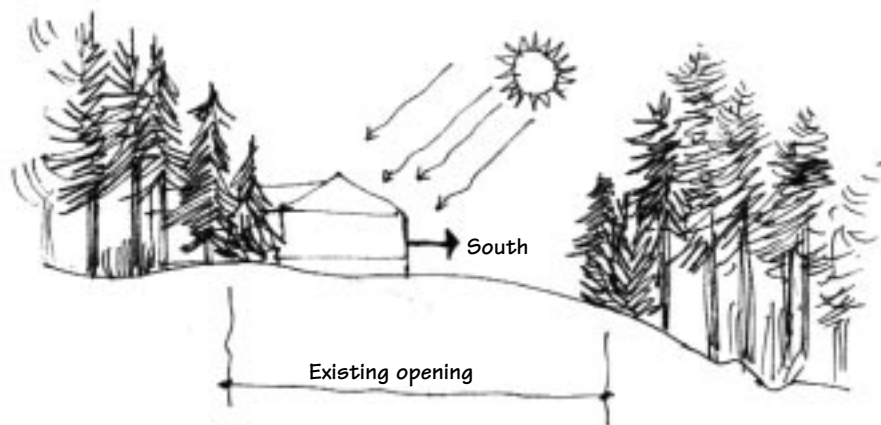


Buildings concentrated away from riparian and wildlife migration zones

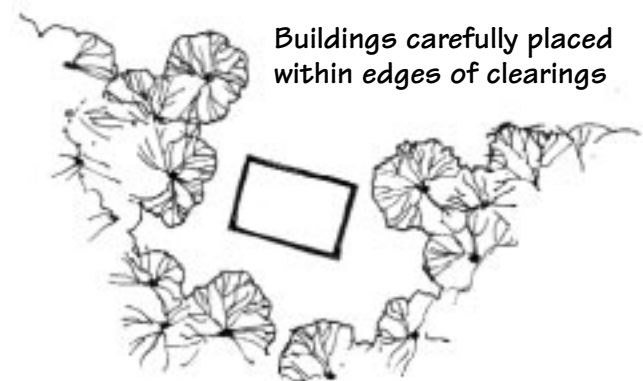
Facilities and improvements should be subordinate to landscape features:

- Preserve views
- Place buildings away from views





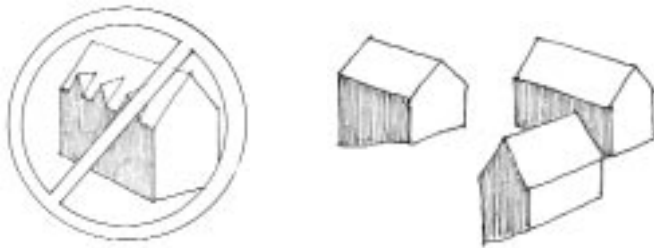
Building compound:
Covered walkway
between buildings



**Buildings carefully placed
within edges of clearings**

MASSING AND SCALE

- Diminish apparent mass of larger buildings by creating wings or compounds of connected structures.
- Use building materials in scale (for example, oversized stone and timbers) in massive forests.



Building's mass should be a collection of smaller elements



Appropriate mass of building elements in rugged terrain

Buildings should complement the scale of their surroundings:



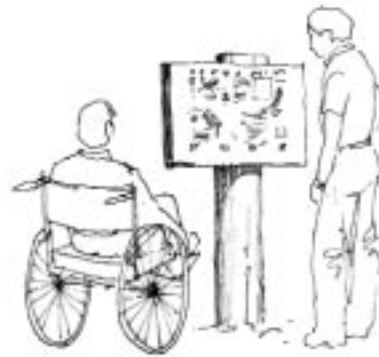
Massive scale landscape allows larger, more massive buildings



Lesser-scale landscape dictates smaller scale and massing

BASE

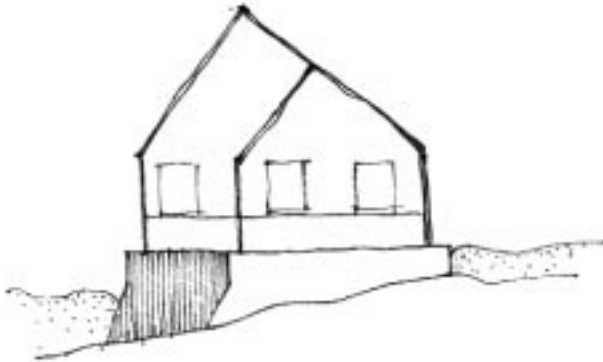
- Complement the province's dramatic landscape while reducing wear and tear on buildings by using a strong stone base. The base should appear anchored to the ground and comprise a major portion of the wall.
- Use battered stone rock when possible (although good-quality building stone may not be available in Alaska).
- "Float" buildings and pathways over landscape on pilings or piers in tidal zones and other wet areas.
- Use a concrete base if it is skillfully textured and colored.



Appropriate sign base



Inappropriate sign base



Base used to protect wall from snow



Strong, battered stone base

WALLS

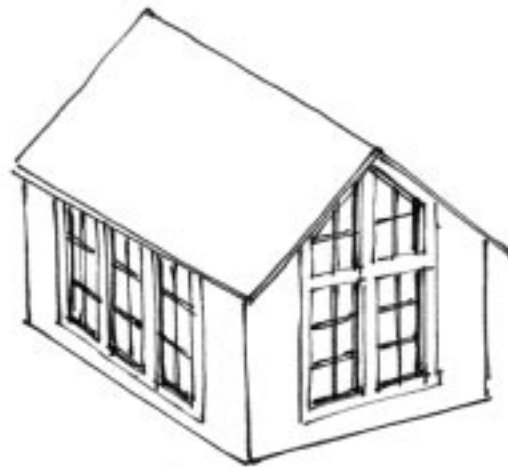
- Design walls that appear to be growing from the ground.
- Use both vertical and horizontal wall textures; however, do not mix within one wall.



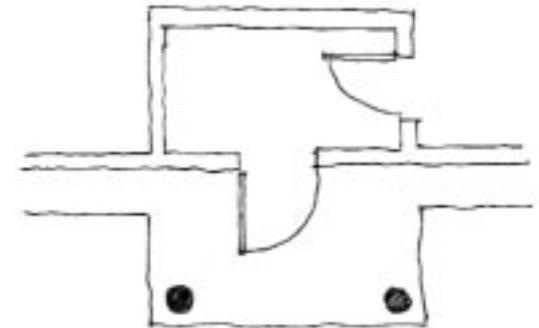
A building's wall should be smaller than its base and roof

WINDOWS AND OPENINGS

- Make windows large to take in views, warmth, and precious sunlight.
- Protect entrances from driving rain and snow by including porches and vestibules when possible. Particularly in Alaska, a vestibule provides a valuable airlock and a place to remove rain gear, to stack firewood, or to let dogs sleep. An arctic variation turns the entry 90 degrees from the building to keep the indoors warm and dry.
- Avoid extensive horizontal bands of windows.
- Follow historical precedent and scale by using divided-pane windows.
- Do not place windows in corners.
- Minimize northside entries and maximize southside entries.
- Keep overhangs shorter on south side of building to maximize daylighting.
- Use gable-end entries, but leave gables open to bring light into building.



- Windows should be maximized, especially south and southeast
- Windows to the north should be minimized



Airlock vestibule, especially appropriate in Alaska

Protected entries:



Extruded gable porch



Continuous eave porch



Added gable porch



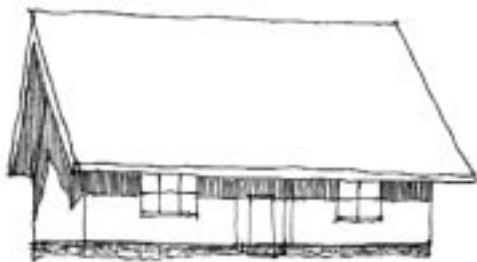
Covered entry porch

ROOFS

- Design the roof so that it dominates the architectural composition, except in warm California climates.
- Design roof pitch to range from 6:12 to 12:12; use lower pitches in warm California climates.
- Keep roof shapes simple. Complex shapes create “valleys” that trap snow, creating maintenance problems.
- Use gable and shed roof types if desired.
- Use hip roofs for coastal areas or as shelters.
- Avoid use of flat roofs and gambrel roofs.
- Use gutters in rainy maritime climate but not in heavy snow areas.
- Use a steeper pitch with shorter overhangs in areas with heavy snows.
- Avoid multiple roof forms that may shed snow onto other roofs.



Simple hipped roof



Roofs should dominate the building



Unprotected
rafter tails



Eave soffits

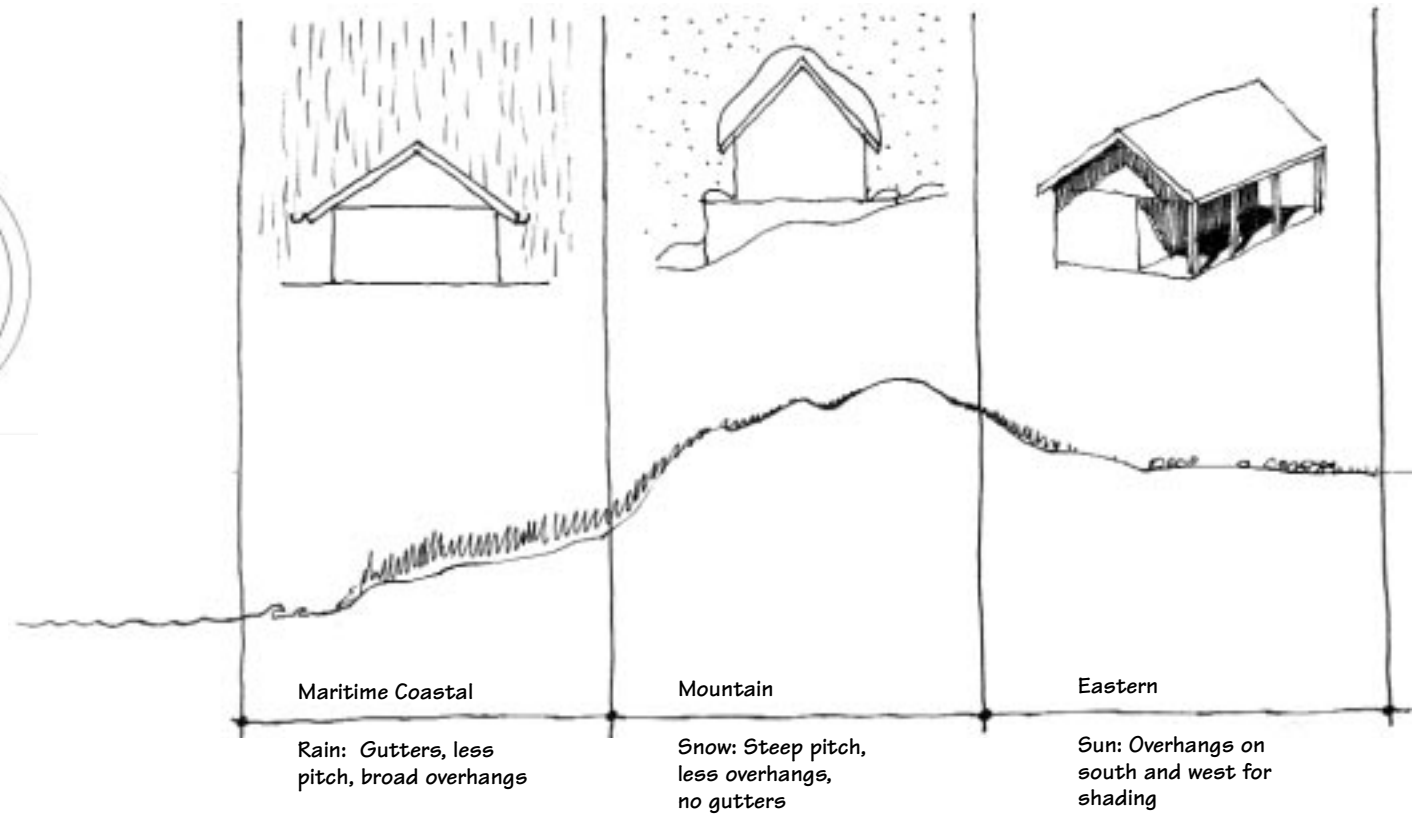


Cover rafter tails

- Keep gables open to bring in sunlight.
- Use shed or gable type dormers.
- Use eaves that have heavy bargeboards.
- Expose rafters, but protect rafter tails from the elements by not extending them beyond the roofing.
- Avoid skylights when possible, or place them near the ridgeline.



Multiple roofs



STRUCTURE

- Design structure to look solid and substantial.
- Use exposed structure, such as trusses and post-and-beam, for both interior and exterior.
- Avoid lightweight, flimsy tables and site furnishings.



Exposed substantial structure

MATERIALS

- Celebrate the use of wood as a symbol and the most significant resource of the province.
- Match the texture of materials to the scale of the setting. For example, in beachfront settings, use narrow siding to match the texture of grass and sand; do not use boulders or massive timbers.

Roof Materials:

- Use cedar shakes; however, they may be difficult to obtain and maintain.
- Use standing-seam metal and “oxidizing” steel roofs in dark tones.
- Use patterned asphalt shingles.
- Avoid intrinsically bright, shiny, light-colored roof material.
- Avoid slate or Spanish-tile roofs.



Steps and site wall

Assemble natural, not overly refined materials



Cluster members together to increase massive expression

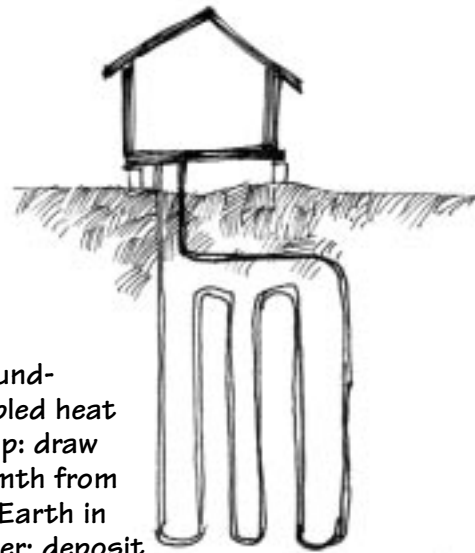


Feature existing natural materials

COLOR

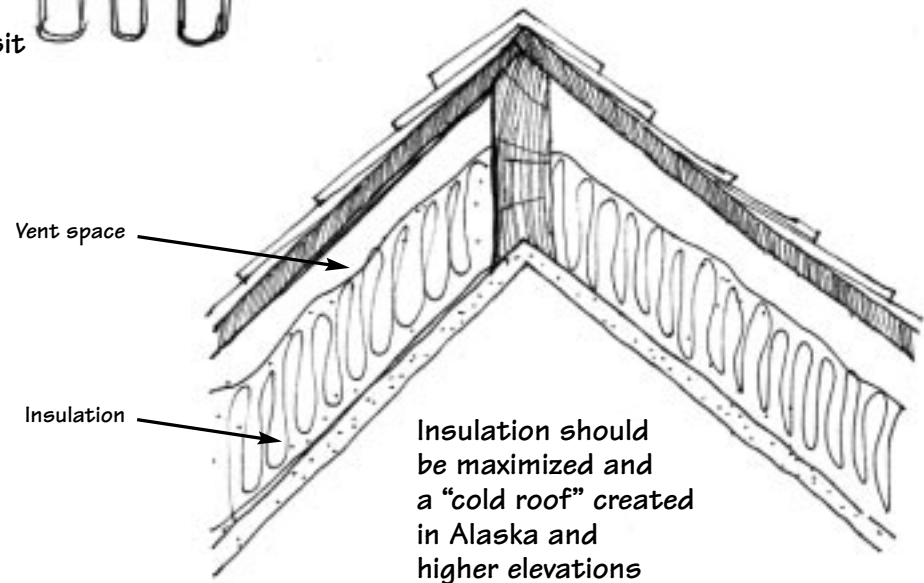
- Emphasize muted earth tones such as beige, brown, tan, and ochre.
- Keep values in the medium range in response to gray skies in northern areas.
- Use darker values in southern areas.
- Use turquoise in Alaska as it reflects the color of water, ice, and snow. Native American accent colors are aqua, red, and black.
- Use weathered blue and gray colors to match the fog and gray sky in seaside settings.
- Make urban structures more colorful with pastels and strong accent colors for trim.
- Avoid dark colors indoors. Make interiors light and reflective to create a light, airy environment.
- Use dark colors for metal roofs—green, black, or brown, or dark blue in maritime areas.

Ground-coupled heat pump: draw warmth from the Earth in winter; deposit warmth in summer



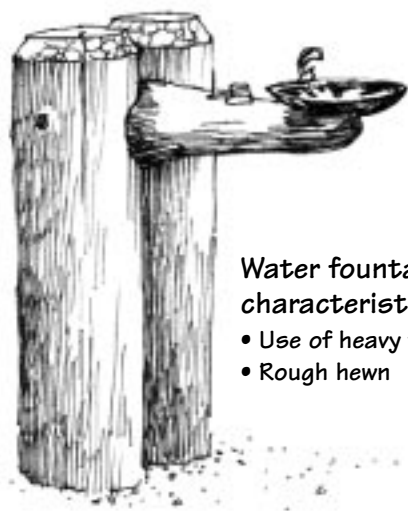
SUSTAINABILITY

- Celebrate, but do not overuse, wood; especially avoid scarce species or sizes.
- Employ daylighting to bring natural light into buildings.
- Use hyperinsulation in Alaska and other cold climes.
- See the “Common Principles” section in the introduction of this chapter for more recommendations on sustainability.



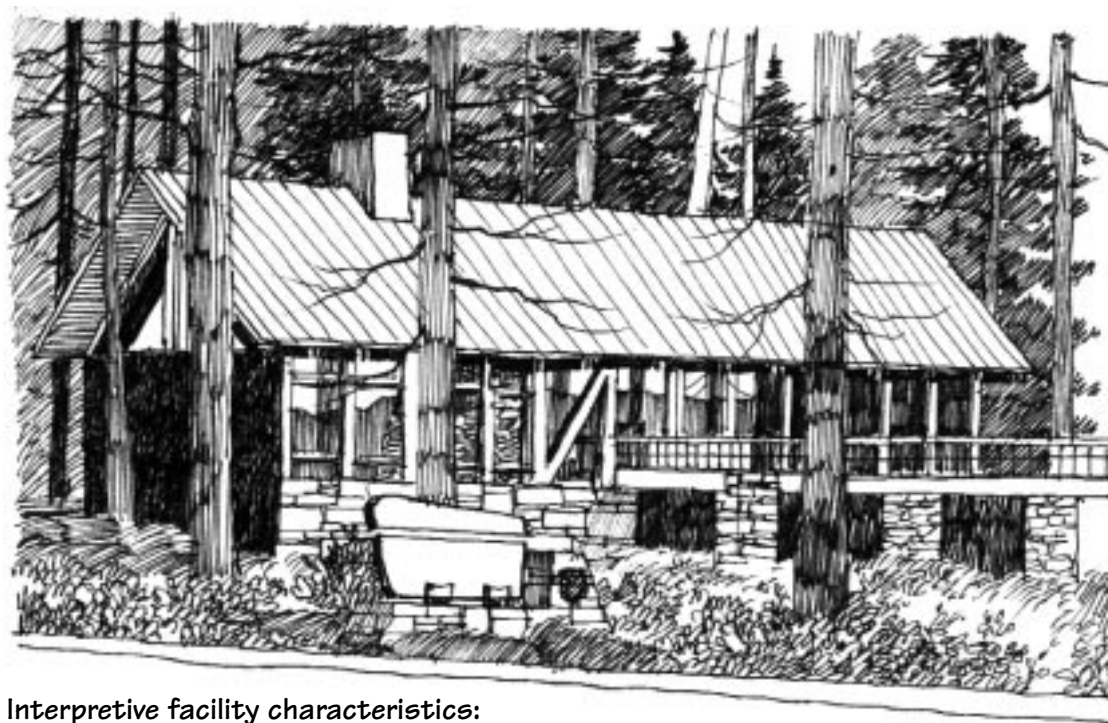
SYNTHESIS

The North Pacific Province draws upon the rich traditions of Cascadian, Native American, and ethnic designs, as well as the industrial designs of lumber mills, fish canneries, and working waterfronts. In this province, culture does not dominate nature. Successful design does not merely repeat historical precedent. It expresses respect for the place that honors local climate, topography, vegetation, and building practices.



Water fountain characteristics:

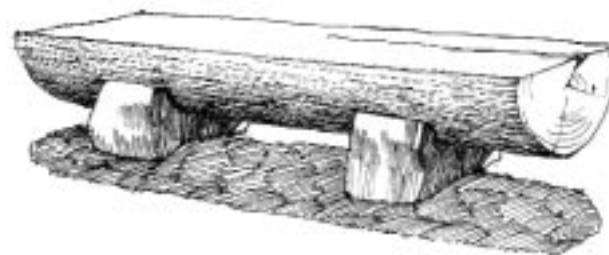
- Use of heavy timbers
- Rough hewn



Interpretive facility characteristics:

- Simple, dominant roof
- Strong base
- Windows maximized

Bench with a massive feel



Multifunctional building characteristics:

- Stone base
- Heavy, rough-hewn timbers



Restroom characteristics:

- Stone base on walls and columns
- Heavy timbers, clustered

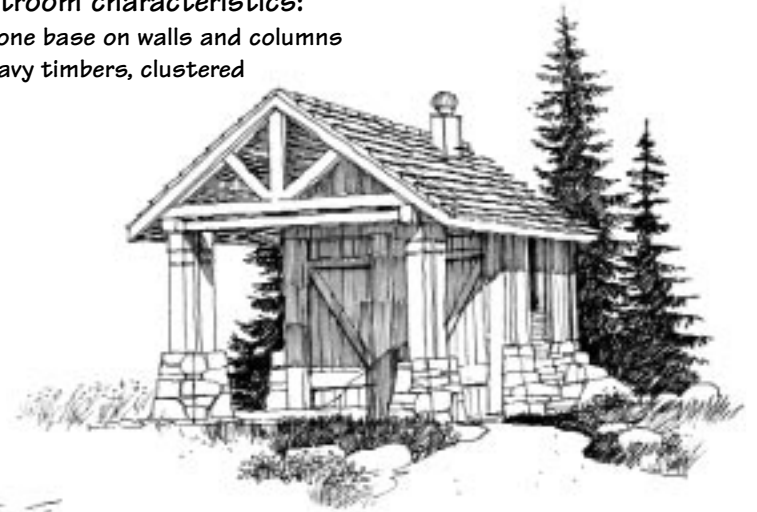




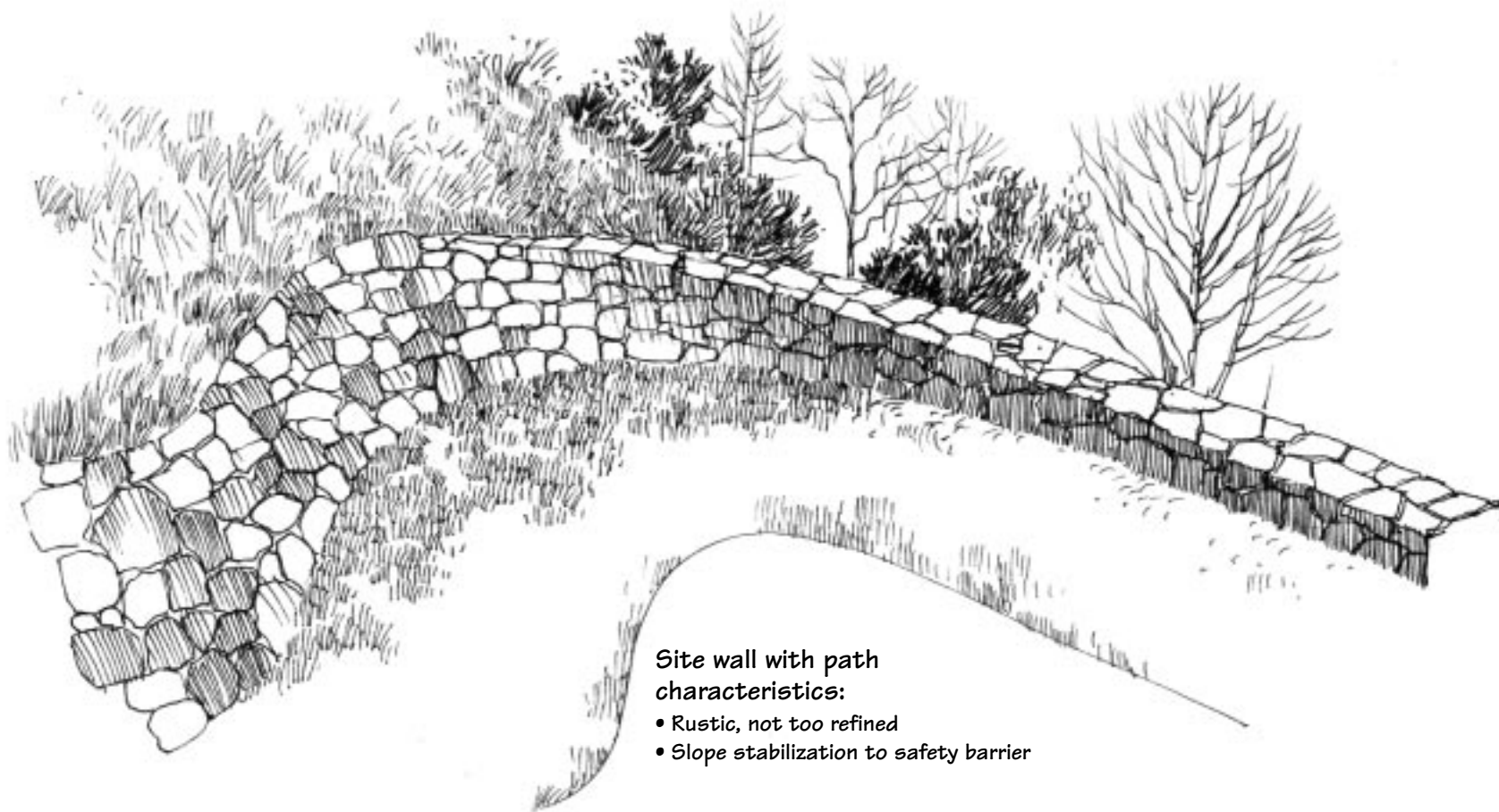
Table characteristics:

- Use of heavy planks 3–4" thick
- Accessible



Maintenance shop characteristics:

- Simple forms, dominant roof
- Dormer for daylighting
- Base is expressed



Site wall with path
characteristics:

- Rustic, not too refined
- Slope stabilization to safety barrier



Multiuse compound characteristics:

- *Dominant roof*
- *Stone base*
- *Paired, divided pane windows*