

Transportation Management Plan

Volume 1

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

Prepared by:

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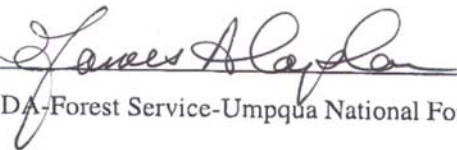
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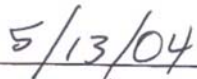
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Roseburg District

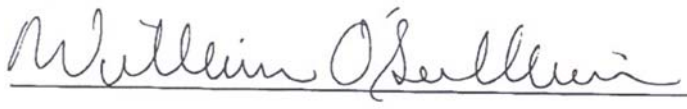
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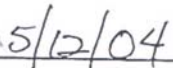
Transportation Management Plan (Plan)

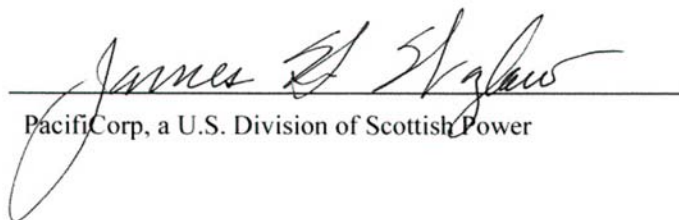
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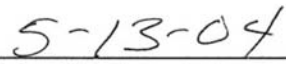

USDA-Forest Service-Umpqua National Forest


Date


USDI Bureau of Land Management, Roseburg District


Date


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 the Interior, Bureau of Land Management (USDI-BLM), USDI Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries), Oregon Department of Environmental Quality (ODEQ), Oregon Department of Fish and Wildlife (ODFW), and Oregon Water Resources Department (OWRD), a new FERC license will be issued for a term of 35 years. This new FERC license order was issued in 2003 to PacifiCorp. All parties recognize shared responsibilities for the management of roads and bridges serving the Project.

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

PacifiCorp and the USDA-FS and USDI-BLM will use this Plan to manage transportation facilities associated with the Project over the new license term. The Plan cites goals for managing transportation facilities, identifies actions, and describes implementation activities. More specifically, the Plan is intended to monitor, fund, operate, and maintain the existing and future transportation facilities necessary to properly operate the Project.

The implementation Plan includes eight activities contained in Volume 1:

- Road maintenance and reconstruction (capital improvement);
- Bridges and major culverts;
- Road decommissioning;
- Culvert upgrades;
- Periodic monitoring and inspections;
- New road construction (capital improvement);
- Traffic management; and
- Reporting.

Volume 1 of this Plan contains details of these eight different activities, with additional supporting details in Exhibits A through U. In addition, there is a supporting map set, Volume 2 – TMP Map Set, that identifies the road maintenance responsibilities and key features such as culverts and the Project boundary.

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**VOLUME 2 OF THE PLAN –
TRANSPORTATION MANAGEMENT PLAN MAP SET**

(Under Separate Cover)

ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
Agencies	USDA-FS and USDI-BLM (agency approval signatories to the Plan)
AMP	Aesthetics Management Plan
BMPs	Best Management Practices
CFR	Code of Federal Regulations
ECP	Erosion Control Plan
EIS	Environmental Impact Statement
EM	Emergency Management
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FERM	Flood Emergency Road Maintenance Plan
FHSA	Federal Highway Safety Act
FHWA	Federal Highway Administration
FLRMP	Forest Land and Resource Management Plan, USDA-FS Umpqua National Forest
FPMP	Fire Prevention Management Plan
FSH	Forest Service Handbook
FSM	Forest Service Manual
GIS	geographic information system
GVW	Gross Vehicle Weight
HMP	Hazardous Management Plan
HPMP	Historic Properties Management Plan
ISO	International Organization for Standardization
JATL	Joint Access Transmission Line Roads
JMH	Jointly Maintained Hydro Roads
LUA	Land Use Authorization
mph	miles per hour
MOU	Memorandum of Understanding
MUTCD	Manual of Uniform Traffic Control Devices
NBIS	National Bridge Inspection Specifications
NEPA	National Environmental Policy Act
NFS	National Forest System
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries)
O&M	operations and maintenance
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife (focused consultation on requirements included in Vol. 3 of the Plan)
ODSL	Oregon Division of State Lands
OSHA	Occupational Safety and Health Administration

ACRONYMS AND ABBREVIATIONS (continued)

OWRD	Oregon Water Resources Department
PacifiCorp	A U.S. Division of Scottish Power, Licensee
Parties	PacifiCorp, USDA-FS and USDI-BLM (signatories to the Plan); plus ODFW (focusing on culvert enhancements defined in Vol. 3 of the Plan)
Plan	Transportation Management Plan
PM&E	Protection, mitigation, and enhancement
PMR	PacifiCorp-Maintained Recreation Roads
PMH	PacifiCorp-Maintained Hydro Roads
PMT	PacifiCorp-Maintained Transmission Line Roads
Project	North Umpqua Hydroelectric Project, FERC No. 1927
PWP	Project Work Plan
RCC	Resource Coordination Committee
RCP	Resource Coordination Plan
RMP	Resource Management Plan, USDI-BLM Roseburg District
ROW	right-of-way
RRMP	Recreation Resource Management Plan
SA	Settlement Agreement
SI&A	Structure Inventory and Appraisal
T-Line	Transmission Line
TMP	Transportation Management Plan
UNF	Umpqua National Forest
USC	Unites States Code
USDA-FS	U.S. Department of Agriculture, Forest Service
USDI-BLM	U.S. Department of Interior, Bureau of Land Management
VMP	Vegetation Management Plan
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 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), June 13, 2001, between PacifiCorp and the U.S. Department of Agriculture, Forest Service (USDA-FS), U.S. Department of the Interior, Bureau of Land Management (USDI-BLM), USDI Fish and Wildlife Service, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries), Oregon Department of Environmental Quality (ODEQ), Oregon Department of Fish and Wildlife (ODFW), and Oregon Water Resources Department (OWRD), a new FERC license will be issued for a term of 35 years. This new FERC license order was issued in 2003 to PacifiCorp.

The Project, including transmission lines, is located on federally managed lands administered by the USDA-FS and USDI-BLM (agencies). PacifiCorp recognizes its responsibility with the agencies in the management of the transportation system serving the Project, its transmission lines, and the surrounding vicinity. Therefore, PacifiCorp, the USDA-FS, and the USDI-BLM will coordinate and share in the cost of developing, operating, and maintaining roads, bridges, and culverts and other transportation facilities serving the Project where applicable. No cost sharing will occur between PacifiCorp and the USDI-BLM; cost sharing only occurs between PacifiCorp and the USDA-FS.

To facilitate coordination among PacifiCorp, the USDA-FS, and USDI-BLM, PacifiCorp, in consultation with the agencies, has prepared this Plan as directed in the SA. The purpose of this Plan is to adequately manage the transportation system serving the Project within the jurisdiction of the two federal agencies. The Plan does not apply to privately owned land, but does include federally held easements across private lands.

The Plan includes two Volumes. Volume 1 of the Plan herein includes five sections:

- Section 1.0 presents an introduction to the Plan and a user's guide, the Plan's purpose and intent, goals of the Plan, an implementation activities summary, and defined terms and definitions.
- Section 2.0 addresses various Plan coordination and planning activities, including defining agency and PacifiCorp roles and responsibilities; development of a rolling 5-year transportation action plan; holding annual meetings and periodic Plan reviews; performing environmental compliance consistent with the Resource Coordination Plan (RCP); identifying required agreements, permits, and grants of right-of-way (ROW); and coordination with other Project and non-Project plans.
- Section 3.0 identifies activities related to the maintenance and reconstruction (capital improvement), decommissioning, upgrading, inspecting, inventorying, and monitoring of Project-related roads, bridges, and major and minor culverts; as well as travel management and reporting requirements.

- Section 4.0 discusses the procedures for how the Plan may be updated and revised over the term of the new license.
- Section 5.0 lists references cited in the Plan.

Volume 2 of the Plan (Transportation Management Plan Map Set) is under separate cover and includes a series of maps depicting the various classifications of roads and bridges within the Project area. These maps were developed in a geographic information system (GIS) and will be updated periodically by PacifiCorp as needed.

Some road culverts on Project-related roads require modifications to allow for adequate fish passage (SA 15.6), to pass a 100-year flood, and provide for aquatic connectivity (SA 10.7). This activity defines the responsibilities and schedule for culvert upgrades. PacifiCorp is also required to inventory and upgrade culverts per SA 15.6. PacifiCorp inventoried ditch relief and stream crossing culverts in 2002-2003 with assistance from the USDA-FS. The USDA-FS, under contract by PacifiCorp, then analyzed the culverts to determine their ability to meet a 100-year flow capacity as well as their overall stability. The culvert locations are shown on the TMP Map Set, Volume 2. A Culvert Assessment Report presenting the findings of the culvert inventory data assessment will be completed in 2004, which will identify a priority listing for culvert replacement. This report will be reviewed and approved by the USDA-FS and ODFW prior to submittal to FERC. PacifiCorp is also required to identify and upgrade culverts to an ODFW fish passage standard. The USDA-FS conducted a fish passage culvert survey in 2000. Based on this survey, it was determined that there were seven culverts on streams known to be fish-bearing. These seven fish-bearing culverts are located on Jointly Maintained Hydro Roads and are shown in the TMP Map Set, Volume 2. Therefore, the responsibility for upgrading these culverts to appropriate ODFW standards will be the joint financial responsibility of both PacifiCorp and the USDA-FS. PacifiCorp has reimbursed the USDA-FS for their initial inventory of these culverts as part of the culvert inventory during 2002-2003. PacifiCorp, USDA-FS, and ODFW will cooperate to develop construction requirements and a schedule for culvert replacement. As the USDA-FS 2000 inventory did not address all culverts within the Project area, there are several culverts that are currently being monitored for fish presence. The monitoring results will be displayed in the Culvert Assessment Report.

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 objectives; and
- SA (June 13, 2001) Appendices and Schedules that were superseded with exhibits in this Plan.

Potential conflicts or ambiguity in implementing this Plan may be discussed and addressed during annual transportation meetings and during Plan review and potential revisions.

1.2 PURPOSE AND INTENT

The Plan is intended to cover all Project transportation-related activities on federal lands regardless of their location within or outside the FERC Project boundary and identifies ongoing cooperative procedures. The purpose and intent of the Plan is to:

- Identify a process to annually coordinate all transportation-related activities required for the continued operation of the Project and its transmission lines that occur on federal lands managed by USDI-BLM and USDA-FS;
- Identify roads and bridges outside the FERC Project boundary and management steps necessary to ensure the protection of resources to provide for authorization of the use of such roads through a USDA-FS Land Use Authorization (LUA) (see Exhibit T) and a USDI-BLM Grant of ROW (see Exhibit E);
- Identify procedures for equitable cost sharing of Project and Project-related road and bridge development, and operations and maintenance (O&M) costs incurred by the USDA-FS and PacifiCorp (the USDI-BLM is not involved in cost sharing);
- Identify all roads and bridges necessary for continued efficient operation of the Project through the term of the new FERC license (35 years);
- Provide for a uniform federal response to Project and non-Project transportation-related actions within federally managed lands through the consistent application of roadway policies, requirements, and maintenance specifications;
- Provide for the continuing protection of road and adjacent off-road resources;
- Bring all Project-required roads and bridges up to identified operational standards over a phased period of up to 15 years; and
- Comply with policies and prescriptions identified in the USDA-FS Umpqua National Forest Land and Resource Management Plan (FLRMP), as amended (USDA-FS 1990), and the USDI-BLM Roseburg District Resource Management Plan (RMP), as amended (USDI-BLM 1990).

This Plan is a culmination of a process that began with an inventory of all roads and bridges within the Project vicinity, a review of their condition, an assignment of party use and needs related to the Project, and a classification of road levels (1-5). These tasks were performed by the parties in the early- to mid-1990s. Roads, bridges, major culverts (i.e., culverts with an opening 35 square feet or larger), and barriers were mapped and summarized by PacifiCorp using GIS-based technology. This information was summarized in a License Application (PacifiCorp 1995a). Following the filing of the 1995 License Application, a Draft Transportation Management Plan (TMP) was also prepared by PacifiCorp and EDAW, Inc. in consultation with the USDA-FS. This Draft TMP was subsequently filed with the FERC (PacifiCorp 1995b).

Following the SA in 2001, the parties agreed to update and finalize the original 1995 Draft TMP by further refining the components of the Plan that is now called Volume 1 of the Plan. The GIS map set was updated and is now included as the TMP Map Set, Volume 2. All signatory parties were involved in the update of the Plan in 2002-2004, including the USDI-BLM and USDA-FS. In addition, ODFW was provided drafts of the Plan for review and comment during this period.

As a result, this Plan documents how PacifiCorp will address the terms of the SA and the associated shared management of the transportation system in the Project area and vicinity over the term of the new license.

1.3 GOALS

To meet the purpose and intent of the Plan, goals and objectives were developed to guide transportation capital improvements, operations, and maintenance of roads, bridges, and major and minor culverts required for the operation of the Project and its transmission lines located on federally managed lands. These goals and their respective objectives (SA sections noted where applicable) include:

Goal 1: Provide for the long-term transportation-related needs of the Project and public through the term of the new license. (SA 15.1, 15.5)

Objective 1a: The USDI-BLM and USDA-FS will allow continued access by PacifiCorp on all jointly maintained and PacifiCorp-Maintained Roads required by the Project through the term of the new license.

Objective 1b: Identify a process for maintaining existing roads and bridges associated with the Project, as well as a process for developing new roads and bridges, if ever needed, for the operation of the Project and the protection of associated resources.

Goal 2: Provide information for the issuance of an LUA (USDA-FS) or Grant of ROW (USDI-BLM) for roads located outside the Project boundary. (USDA-FS Terms & Conditions) (see Exhibits D and E, respectively)

Objective 2a: Provide mapping and an inventory of roads and bridges located outside the Project boundary under the authority of an LUA and/or Grant of ROW.

Objective 2b: Provide resource protection through requirements contained in the LUA or Grant of ROW.

Goal 3: Provide a process for sharing annual costs and capital improvements between PacifiCorp and the USDA-FS (excludes the USDI-BLM). (SA 15.2, 15.3, 15.5)

Objective 3a: Annual maintenance costs will be shared and maintenance obligations will be satisfied based on coordination between PacifiCorp and the USDA-FS.

Objective 3b: Provide flexible process for PacifiCorp and the USDA-FS to satisfy their financial obligations under the SA.

Goal 4: Provide for annual coordination of transportation-related activities between PacifiCorp and the USDA-FS and USDI-BLM. (SA 15.1)

Objective 4a: Develop a “Rolling 5-Year Transportation Action Plan” prepared as described in Section 2.0 Planning and Coordination.

Goal 5: Maintain transportation-related facilities to agreed-upon standards and avoid or mitigate impacts to off-road resources. (SA 15.2, 15.3, 15.5)

Objective 5a: Establish a process for bringing roads and bridges up to the agreed-upon standards.

Goal 6: Provide for safe public road access. (SA 15.1, 15.2)

Objective 6a: Identify roads that will not safely accommodate public use.

Objective 6b: Mitigate, correct hazards, or close unsafe roads to public use as appropriate.

Goal 7: Provide resource protection and mitigation related to the transportation system to comply with the FLRMP, as amended. (SA 15.4, 15.6, 10.7)

Objective 7a: Upgrade culverts to provide fish passage and aquatic site reconnections, as appropriate.

Objective 7b: Decommission some roads to reduce impacts on the watershed.

1.4 PLAN IMPLEMENTATION ACTIVITIES SUMMARY

This Plan addresses resource management needs and related transportation system actions for the Project. Other management plans that discuss related resources include:

- Aesthetics Management Plan (AMP) (PacifiCorp 2004a)
- Erosion Control Plan (ECP) (PacifiCorp 2004b)
- Recreation Resource Management Plan (RRMP) (PacifiCorp 2004c)
- Vegetation Management Plan (VMP) (PacifiCorp 2004d)
- Historic Properties Management Plan (HPMP) (PacifiCorp 2004e)

Overall coordination of these and other plans will occur through implementation of the umbrella RCP (PacifiCorp 2005 [to be developed]).

This Plan is neither a fiscal nor a funds obligation document and does not provide such authority. Such endeavors are outlined in the separate Cooperative Road Agreement (see Exhibit F) between PacifiCorp and the USDA-FS.

To implement the transportation component of the SA, the Plan includes a number of specific activities:

- **Road Maintenance and Reconstruction (Capital Improvement) (Section 3.1):** defines the road maintenance responsibilities of PacifiCorp and the USDA-FS and discusses road maintenance levels (1-5), road maintenance standards, scheduling, and coordination. (SA 15.2, 15.3)
- **Bridges and Major Culverts (Section 3.2):** defines bridge and major culvert maintenance responsibilities, inventory and inspections, and scheduling. After bridges have been inspected and upgraded, ownership of some bridges will be transferred to the USDA-FS. (SA 15.5)
- **Road Decommissioning (Section 3.3):** defines roads to be decommissioned by PacifiCorp and scheduling and decommissioning standards. (SA 15.4)
- **Culvert Upgrades (Section 3.4):** defines minor culverts to be replaced or upgraded by PacifiCorp and scheduling and decommissioning standards for culverts. (SA 15.6, 15.7)
- **Periodic Monitoring and Inspections (Section 3.5):** addresses monitoring and inspection of roads, bridges, and major culverts. (SA 15.1, 15.5)
- **New Road Construction (Capital Improvement) (Section 3.6):** defines a process for potential new or temporary road development for Project purposes, such as potential access to the Lemolo No. 1 Forebay or the Stink Hole wetlands complex. (SA 15.3, 11.5)

- **Traffic Management (Section 3.7):** addresses the need for public access, traffic studies, road signs, work area signing, and hazard analysis (see Exhibit R). (SA 15.1)
- **Reporting (Section 3.8):** defines requirements for a “Rolling 5-Year Transportation Action Plan,” annual notification to the Resource Coordination Committee (RCC), periodic reporting to the FERC, and annual reporting of area of manipulation on National Forest System (NFS) lands by the USDA-FS.

1.5 EXPLANATION OF TERMS AND DEFINITIONS

Terms and concepts used in this Plan and are relevant to Project-related transportation system facilities, operations, and maintenance are defined below.

Approval - Confirmation or concurrence with plans, design, projects, and schedules prior to implementation by the party or parties assigned 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.

Bridge Ownership - The owner of any bridge covered by the Plan is the party (USDA-FS or PacifiCorp) that made the initial investment in the bridge (i.e., constructed the bridge), unless there has been a transfer of the bridge to another party. The owner is solely responsible for correcting deferred maintenance existing at the time of the SA, until the bridge is brought up to standard (see Section 3.2.3 and Exhibit Q).

PacifiCorp does not have the authority to restrict traffic on PacifiCorp-owned bridges that are located on NFS lands. PacifiCorp, on joint use roads, has the option to transfer ownership of bridges to the USDA-FS once required deferred maintenance work has been completed to the satisfaction of the USDA-FS.

Annual maintenance and bridge inspections will be cost shared on the same percentage basis as the road on which the bridge is located (USDA-FS and PacifiCorp only).

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.

Casual Use or Insignificant Use – The occasional commercial use by pickups and line and bucket service vehicles on an intermittent basis that does not generate a significant maintenance requirement. Also, non-commercial activities that are not prohibited by closure of lands to such activities, and involve practices that do not ordinarily cause any appreciable disturbance or damage to the public lands, resources, or improvements thereon, and, therefore, do not require a written authorization (i.e., ingress and egress on existing roads and trails where no commercial activity is being conducted such as hauling logs, ore, or use of heavy equipment). The determination of whether the use is casual or insignificant will rest with the USDA-FS and/or the USDI-BLM, depending on the

jurisdictional location. If a need to control the use through stipulations exists, then the use would be formally authorized using the appropriate agreement.

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 proposed project or plans. The results of consultation are generally documented in reports or letters. 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 regulations, such as consultation with the USFWS under the Endangered Species Act, and tribal consultation.

Decommissioning - Activities that result in the stabilization and restoration of unneeded roads to a more natural state (36 Code of Federal Regulations [CFR 212.1]). Existing roads that are no longer needed for access to and management of NFS lands are candidates for decommissioning. The objectives for decommissioning of a road are to reestablish vegetation and, as necessary, to restore ecological processes interrupted or adversely impacted by the road and its operation. Decommissioning includes various levels of treatments to stabilize and rehabilitate the road. Treatments may include one or more of the following activities:

- Blocking the entrance to the road;
- Removing culverts and re-establishing former drainage patterns;
- Installing water-bars on the road surface;
- Pulling back road shoulders and removing unstable road fills;
- Ripping of the roadbed to promote water infiltration;
- Stabilizing slopes;
- Scattering slash over the roadbed;
- Restoring vegetation in the road prism; and
- Other methods designed to meet specific conditions associated with the road.

In some instances, road decommissioning may involve complete elimination of the roadbed by restoring natural contours and slopes.

The specific treatments for an individual road are best identified by an interdisciplinary team of resource specialists based on the site-specific conditions along that road.

Emergency Access - Access required because of a Project facility failure, such as a transmission line, canal, or penstock, or because of a disruption of service where power cannot be rerouted on the grid system. Such access is allowed, though immediate agency notification is required and possible mitigation may follow.

Engineering Judgment - The evaluation of available pertinent information, and the application of appropriate principles, standards, guidelines, and practices as contained in agency manuals and other sources, for the purpose of deciding upon the applicability, design, operation, or maintenance of roads or facilities. Engineering judgment will be exercised by an engineer, or by an individual working under the supervision of an engineer, through the application of procedures and criteria established by the engineer. Documentation of engineering judgment is not required.

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

Flood Emergency Road Maintenance Plan (FERM) - Flooding conditions are common to the Umpqua National Forest (UNF). The resultant damage varies with the intensity of the runoff and local conditions. It is important to recognize the potential for flooding damage and take positive action to minimize it through preventative measures and aggressive action prior to and during high runoff periods.

The FERM is designed to align the Umpqua National Forest with Forest Service Manual (FSM) 7734 (Repairs Performed with Emergency Relief-Federally Owned Funds) and also to provide an outline to follow in the event of a storm with enough magnitude to cause damage to forest roads and resources.

Emergency actions begin when damaging conditions are imminent and continue until the need for immediate action diminishes.

The Forest Supervisor will declare a flood emergency when it can be determined that the storm will cause damage severe enough to warrant such action.

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 that 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.

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, NEPA decisions per the RCP, designs, and/or implementation plans.

Joint Access Transmission Line (JATL) Road – These roads, located primarily in the western portion of the Project vicinity, are used by the USDI-BLM, USDA-FS, PacifiCorp, commercial users, and the public. PacifiCorp use of joint access transmission line roads is minimal (e.g., 1 or 2 times per year). The cost of maintaining these roads is the responsibility of the landowner or land management agency where the road is located, or the party that requires immediate access.

Joint Use Road – These roads are jointly used by PacifiCorp and the USDA-FS and /or USDI-BLM.

Jointly Maintained Hydro (JMH) Road - These roads are jointly maintained by PacifiCorp and the USDA-FS, and are used by the public. These roads are located in the Umpqua National Forest and are used by PacifiCorp to operate and maintain its Project hydroelectric facilities and nearby transmission lines.

Jurisdiction – The legal right to control and regulate the use and traffic on a transportation facility. Roads on USDA-FS-managed lands are under the control of the USDA-FS, except for private roads, roads for which the USDA-FS has granted ROW to private landowners or public road agencies.

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

Maintenance - The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective. 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.

Four types of maintenance are identified in the Plan including annual (recurrent), deferred, critical deferred, and emergency.

- Annual Maintenance - Maintenance that is recurrent. Such road maintenance is performed to comply with standards and policies and does not arise out of an emergency condition, and is not reconstructive in nature. This includes both traffic-generated and non-traffic-generated road maintenance. Recurrent maintenance is conducted as a matter of course on a periodic basis.
- Deferred Maintenance - Deferred maintenance is maintenance that was not performed when it normally would have been or when it was scheduled; and therefore, was put off or delayed for a future period of one or more years until it

can be economically or efficiently performed. When allowed to accumulate without limits or consideration of useful life, deferred maintenance typically leads to deterioration of performance, increased costs to repair, and decrease in asset value. Deferred maintenance needs may be categorized as critical or non-critical at any point in time. Continued deferral of non-critical maintenance will normally result in an increase in critical deferred maintenance.

Code compliance (e.g., life safety, Americans with Disabilities Act [ADA], Occupational Safety and Health Administration [OSHA], environmental, etc.), Forest Plan Direction, Best Management Practices (BMPs), Biological Evaluations, other regulatory or Executive Order compliance requirements, or applicable standards not met on schedule are considered deferred maintenance.

- Critical Deferred Maintenance - Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period; and is to the point that its is a serious threat to public health or safety, a natural resource, or the ability to carry out the mission of the organization.
- Emergency Maintenance - An urgent maintenance need that may result in injury, illness, or loss of life, natural resource, or property, and must be satisfied immediately. Emergency needs generally require a declaration of emergency or disaster, or a finding by a USDA-FS or USDI-BLM line officer that an emergency exists.

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.

New Construction - Activity that results in the addition of forest classified or temporary road miles (36 CFR 212.1).

PacifiCorp-Maintained Transmission Line (T-Line) (PMT) Road - These roads, located primarily in the western portion of the Project, that are used by the USDI-BLM, USDA-FS, PacifiCorp, and the public. PacifiCorp’s use of these transmission line roads is minimal (e.g., 1 or 2 times per year). The cost of maintaining and closing these roads will be borne by the first party that needs to access these roads.

PacifiCorp-Maintained Hydro (PMH) Road - Those hydro-related roads that are maintained and used by PacifiCorp for the operation and maintenance of the Project’s hydroelectric generation facilities.

PacifiCorp-Maintained Recreation (PMR) Road - Those roads associated with selected USDA-FS managed campgrounds and day use areas located within the FERC Project

boundary including the following recreation sites (refer to the RRMP): Toketee, Toketee Falls, Lemolo No. 2 Forebay, Poole Creek, Bunker Hill, Inlet, East Lemolo, and a future campground facility at Lemolo or Toketee Lakes.

Parties - Parties to the Plan, including PacifiCorp, USDI-BLM, and USDA-FS, related to implementation of the entire Plan; plus ODFW focusing on implementation of culvert improvements.

Prime Maintainer - The party that performs on-the-ground and ongoing maintenance of a road, particular segment of road, or structure such as a culvert, sign, or bridge.

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

Project-Induced Traffic - Traffic occurring on a road or bridge that is a direct result of the existence or continued operation of the Project and would not otherwise occur without the Project.

Reconstruction (Rehabilitation) - Replacement of an existing facility involving the reconstruction, reinstallation, or reassembly of a fixed asset. Activity that results in improvement or realignment of an existing road, including: (1) road improvement - where an activity results in an increase in an existing road's traffic service level, an expansion of its capacity, or a change in its original design function; and (2) road realignment - where an activity results in a new location of an existing road or portions of an existing road and treatment of the old roadway (36 CFR 212.1).

Resource Coordination Committee (RCC) - The RCC is created by Section 21 of the North Umpqua Hydroelectric Project, FERC No. 1927-008 Settlement Agreement (SA), and derives authority from the SA. 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.

Restoration - Work necessary, as a result of major damage, to restore a road, bridge, or other transportation facility to the designated standard and serviceability.

Road and Bridge Operations - The management and control of traffic, road use, and inspection and evaluation of the condition and safety of roads and bridges.

Road Maintenance Levels (USDA-FS) - The USDA-FS levels of service provided by, and maintenance required for, a road consistent with road management objectives and maintenance criteria. The USDA-FS has defined five road maintenance levels listed below (see Exhibit N).

- USDA-FS Level 1 - Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period must exceed 1 year. Basic custodial maintenance is performed to keep damage to adjacent resources to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level. Appropriate traffic management strategies are “prohibit” and “eliminate.”

Roads receiving Level 1 maintenance may be of any type, class, or construction standard, and may be managed at any other maintenance level during the time they are open for traffic. However, while being maintained at Level 1, they are closed to vehicular traffic, but may be open and suitable to non-motorized uses.

- USDA-FS Level 2 - Assigned to roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log hauling may occur at this level. Appropriate traffic management strategies are either to: (1) discourage or prohibit passenger cars, or (2) accept or discourage high clearance vehicles.
- USDA-FS Level 3 - Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.

Roads in this maintenance level are typically low speed (nominally 15-25 mph), single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either “encourage” or “accept.” “Discourage” or “prohibit” strategies may be employed for certain classes of vehicles or users.

- USDA-FS Level 4 - Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double-lane and aggregate surfaced. However, some roads may be single-lane. Some roads may be paved and/or dust-abated. The most appropriate traffic management strategy is “encourage.” However, a “prohibit” strategy may apply to specific classes of vehicles or users at certain times.
- USDA-FS Level 5 - Assigned to roads that provide a high degree of user comfort and convenience. These roads are normally double-lane, paved facilities. Some may be aggregate surfaced and dust-abated. The appropriate traffic management strategy is “encourage.”

Road Maintenance Levels (USDI-BLM) - The USDI-BLM levels of service provided by, and maintenance required for, a road consistent with road management objectives and maintenance criteria. Like the USDA-FS, the USDI-BLM also has defined five maintenance levels. All of the USDI-BLM road maintenance levels, including Western

Oregon guidance, are listed in Exhibit S. However, under the USDI-BLM road maintenance definitions, Level 2 roads are defined differently compared to the USDA-FS system. In addition, one special road/trail requirement exists in the Susan Creek area. For transmission line access roads on USDI-BLM-managed land, Level 1 and 2 roads are defined as the following plus special considerations for the Susan Creek Trail:

- USDI-BLM Level 1 - This level is assigned to roads where minimum maintenance is required to protect adjacent lands and resource values. These roads are no longer needed and are closed to traffic. The objective is to remove these roads from the transportation system. In Western Oregon, the objective of this maintenance level should also include road segments which are closed to vehicles on a long-term basis, but that may be used again in the future. This will facilitate assigning decommissioned roads at this level.
- USDI-BLM Level 2 - This level is assigned to roads where management objectives require the road to be opened for limited administrative traffic. Typically, these roads are passable by high clearance vehicles. In Western Oregon, traffic is generally administrative with some minor specialized use, or moderate seasonal use. These roads are typically low standard, low volume single-lane roads, natural and aggregate surfaced, and are functionally classified as a resource road.
- Special Road/Trail Consideration - Special requirements exist for the road alignment that is also used as the Susan Creek Trail (road to access TL39_04/23) (see the TMP Map Set, Volume 2). This road alignment is shared for both purposes for approximately 500 feet. The accessible hiking trail was constructed to ADA guidelines to a width of 3.5 feet using compacted crushed rock. To protect both the investment in the trail and the public recreation opportunity, a special standard applies to this segment when transmission line maintenance activities may damage the trail.

Road Maintenance Specifications - The guidelines for the maintenance of roads as identified in the Plan are defined in Exhibit N (USDA-FS) and Exhibit O (USDI-BLM).

Rolling 5-Year Transportation Action Plan - An annually updated transportation 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 addresses annual road and bridge cost sharing (between the USDA-FS and PacifiCorp only), capital improvement, and operation; bridge transfers; traffic management; and road, bridge, major culvert, and minor culvert maintenance, to be coordinated by the parties. The plan includes the current year, looks out 3 years for planning purposes, and looks back 1 year for accounting purposes, for a total of 5 years.

Shall - As used in the SA and the 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.

Temporary Roads - Roads authorized by contract, permit, lease, other written authorization, or emergency operation not intended to be a part of the Forest transportation system and not necessary for long-term resource management (36 CFR 212.1).

Transportation Management Plan (TMP) (Plan) - The transportation planning and policy document that describes implementation activities and policies related to the coordination of all transportation-related needs of PacifiCorp and the agencies for roads and bridges necessary for Project operations in the Project vicinity for the term of the new license. Cost sharing between PacifiCorp and the USDA-FS is also addressed.

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 of the Plan discusses annual and longer term coordination of transportation-related activities among PacifiCorp, USDA-FS, USDI-BLM, and ODFW. It also describes a basis for annual road and bridge maintenance cost sharing (excludes the USDI-BLM) and identifies options for satisfying cost obligations between PacifiCorp and the USDA-FS. Overall coordination procedures related to the operation and maintenance of the Project are addressed in the RCP (PacifiCorp 2005).

Any federal law, regulation, policy, or direction revised or updated shall supersede any pertinent part of this Plan.

2.1 AGENCY AND PACIFICORP ROLES AND RESPONSIBILITIES

The roles and responsibilities of PacifiCorp, USDA-FS, USDI-BLM, and ODFW and RCC are listed below.

PacifiCorp Roles - PacifiCorp roles and responsibilities are identified in the FERC License Terms and Conditions (not included herein) and in the SA, Section 15 (see Exhibit B). These include the following:

- Responsibility for implementation of eight activities identified in the Plan as a party to the SA. These activities address specific transportation-related actions that are considered Project-related including:
 - Road maintenance
 - Bridge and major culvert maintenance
 - Road decommissioning
 - Culvert upgrades
 - Monitoring and inspection of transportation facilities
 - Road capital improvements (new or temporary)
 - Traffic control and travel management
 - Reporting
- Participates as a member of the RCC;
- Participates in cost sharing with the USDA-FS (but not the USDI-BLM);
- Coordinates and prepares annual transportation plans as part of the Rolling 5-Year Transportation Action Plan (see Exhibit C) and annual notification to the RCC;
- Responsibility for coordination with actions identified in other associated plans that address transportation issues through the RCP, including the VMP, AMP, ECP, HPMP, and RRMP;
- Responsible for periodic reporting to the FERC;
- Responsible for updates of the Plan and tracking changes;
- Responsible for PacifiCorp-controlled road operations and maintenance;
- Responsible for traffic control and travel management on PacifiCorp-controlled roads;

- Responsible for road closures and public access on PacifiCorp-controlled roads;
- Responsible for funding, conducting environmental compliance and documentation, and acquiring necessary federal permits including (depending on the project): National Environmental Policy Act (NEPA) compliance consistent with and as defined in the RCP, U.S. Army Corps of Engineers Section 404 Wetland Permitting, National Historic Preservation Act (NHPA) Section 106 compliance for cultural resources consistent with and as defined in the HPMP, Endangered Species Act (ESA) compliance and consultation, and other federal requirements as needed; and
- Responsible for funding, conducting environmental compliance and documentation, and acquiring necessary State of Oregon permits including (depending on the project) Oregon Division of State Lands (ODSL) General Authorization, Removal-Fill Permits, and others as required (Oregon Plan for Salmon and Watersheds and Oregon Watershed Enhancement Board 1999) (as amended).

Umpqua National Forest (USDA-FS) Roles - Within 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 transportation-related maintenance and capital improvement projects, including compliance with the FLRMP (as amended), ESA, U.S. Army Corps of Engineers wetland permitting, and others;
- Participates as a member of the RCC;
- Responsible for land management per the FLRMP, as amended;
- Responsible for annual reporting of area of manipulation on NFS lands;
- Responsible for NFS road operations and maintenance;
- Responsible for traffic control and travel management on NFS roads;
- Responsible for road closures and public access on NFS roads;
- Follow NEPA compliance guidance as defined in the RCP;
- Follow NHPA Section 106 compliance guidance for cultural resources as defined in the HPMP for potential recreation maintenance and capital improvement actions affecting cultural resources; and
- Participates in the preparation of annual transportation plans as part of the Rolling 5-Year Transportation Action Plan (see Exhibit C).

Roseburg District, USDI-BLM Roles - Within USDI-BLM-managed lands, the USDI-BLM has the following roles and responsibilities:

- A party to the SA;
- Lead agency for overall environmental compliance and permitting on USDI-BLM-managed lands involving transportation-related maintenance and construction projects, including compliance with ESA, U.S. Army Corps of Engineers wetland permitting, and others;

- Follow NEPA compliance guidance as defined in the RCP;
- Follow NHPA Section 106 compliance guidance for cultural resources as defined in the HPMP for potential recreation maintenance and capital improvement actions affecting cultural resources;
- Participates as a member of the RCC;
- Responsible for land management per the Roseburg District RMP, as amended;
- Responsible for USDI-BLM-managed road operations and maintenance;
- Responsible for traffic control and travel management on USDI-BLM-managed roads;
- Responsible for road closures and public access on USDI-BLM-managed roads; and
- Participates in the preparation of annual transportation plans as part of the Rolling 5-Year Transportation Action Plan (see Exhibit C).

ODFW Roles - ODFW has the following roles and responsibilities related to the Plan, including:

- A party to the SA;
- A party to consultation to complete an inventory of culverts on Project lands; and
- Participates as a member of the RCC.

RCC Roles - the RCC has roles and responsibilities related to the Plan as defined in the SA, including:

- Prioritize early implementation projects (SA 19.5.1);
- Facilitate coordination of the implementation of the RCP, including ongoing operations and maintenance (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 protection, mitigation, and enhancement (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 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 TRANSPORTATION ACTION PLAN

To facilitate long-term coordination among parties, each calendar year the parties will prepare a 5-year rolling projection of anticipated activities for normal or recurrent general maintenance and major maintenance. An allowance will be made for unanticipated major and emergency maintenance that may become necessary during the calendar year and was not previously scheduled.

The plan will also provide a thorough accounting of all costs incurred during the previous calendar year by Project Work Plan (PWP) action directed by the USDA-FS and/or PacifiCorp. Variances will be applied or deducted from the upcoming work and associated costs to each of these parties in the next calendar year. The USDI-BLM does not participate in cost sharing.

To annually document agreed-upon transportation-related activities and associated costs, PacifiCorp and the USDA-FS will jointly prepare a Rolling 5-Year Transportation Action Plan (see Exhibit C) for approval by the Umpqua National Forest Supervisor and PacifiCorp's Representative. PacifiCorp activities to be performed on USDI-BLM-administered lands will also be documented; however, no cost sharing will occur under normal circumstances. This rolling action plan and each of the Plan activities are described below.

The plan will summarize all road, bridge, and major culvert maintenance or capital improvements performed during the previous past calendar year and will address work planned during both the current calendar year and the subsequent 3 years, for a total of 5 years.

The plan will reference and append a number of individual USDA-FS and PacifiCorp PWPs for each major project that requires funding, including maintenance and capital improvement. The USDA-FS and PacifiCorp PWPs will include various requirements, definitions, maintenance specifications, labor and material needs, equipment needs, and other information necessary to effectively maintain the road and bridge system.

The rolling action plan and its appended USDA-FS and PacifiCorp PWPs will include the following information to describe the anticipated work effort for the upcoming calendar year and the subsequent 3 calendar years including:

- Road, bridge, and major culvert number or name and road segment;
- Road length in miles;
- Planned inventory, maintenance, capital improvement, and inspection tasks;
- Estimated costs including personnel labor (hours and staffing categories), equipment, supplies, materials, and contracts;

- Percentage work attributable to each party;
- Planned bridge ownership transfers and inspections;
- Actions related to an LUA, Grant of ROW, Cooperative Road Agreement, or Road Use Permit;
- Planned road decommissioning;
- Planned Level 1 road barricading and mitigation;
- Planned road Level changes (up/down);
- Performance responsibility; and
- Anticipated work that is needed for roads, bridges, and major culverts during the current year and subsequent 3 years.

2.3 ANNUAL TRANSPORTATION MEETING

To facilitate efficient coordination and action among the parties, an annual transportation meeting will be held prior to March 1 or when feasible, prior to the end of November.

The purpose of this annual transportation meeting includes:

- Rolling 5-Year Transportation Action Plan Update - Coordinate and prepare for approval the anticipated activities in the current year and the next 3 calendar years per the Rolling 5-Year Transportation Action Plan (see Exhibit C). Account for projects that were delayed or continued, and new projects requiring action. Complete the approved Rolling 5-Year Transportation Action Plan for distribution by April 1 of each year.
- Calendar Year-End Accounting Between the USDA-FS and PacifiCorp – The USDA-FS will provide a quality accounting of all expenditures related to the Plan, including an annual summary based on the federal fiscal year. The annual USDA-FS accounting report will be provided by December 31 of each year. PacifiCorp will reconcile USDA-FS and PacifiCorp expenditures on a calendar year basis and provide a summary of reconciliation in the Rolling 5-Year Transportation Action Plan that is updated annually. Following review and discussion of the cost data by the parties, appropriate payments, or in lieu work, will be made or scheduled as needed. Funds may be rolled over from year to year, or the balance brought to zero, upon agreement by PacifiCorp and the USDA-FS. This accounting does not involve the USDI-BLM.
- Progress Accounting - Review, reconcile, and prepare for approval the previous fiscal year's accomplishments, accrued costs, and cost sharing accounting.
- Activity Coordination - Coordinate and prepare for approval activities and estimated costs by PWP to occur in the next calendar year period.
- Changes in Cost Share Percentage - If necessary, agree upon an adjusted cost share percentages of road maintenance if the percentage split changes from the percentage agreed upon in the SA (see Exhibit H). This may be due to significant

future timber hauls, changes in public use of roads, or other actions that may increase or decrease vehicular use of different road segments.

- Address Potential Disputes - If disputes occur, direct these issues through the appropriate channels per the SA, Section 22.3.
- Policy Changes - Review changes in laws, policies, manuals, and updates as necessary.

2.4 ANNUAL RESOURCE COORDINATION COMMITTEE REVIEW

Once the Rolling 5-Year Transportation Action Plan (see Exhibit C) is completed for the upcoming year (to the extent possible), PacifiCorp will provide 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.

2.5 ENVIRONMENTAL COMPLIANCE, APPROVALS, AND PERMITTING

PacifiCorp will be responsible for funding and/or conducting environmental analysis, compliance, and permitting for transportation-related capital improvement projects, as necessary, such as major bridge refurbishment subject to the requirements contained in the SA, and laws, regulations, and policies in force at the time each individual action will be 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 PM&E measures on NFS lands. Such environmental analyses must comply with criteria set forth in USDA-FS and USDI-BLM NEPA regulations and policies in existence at the time the particular PM&E measure is initiated by PacifiCorp. Consequently, as applicable USDA-FS and USDI-BLM 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, ongoing operations, and maintenance activities consistent with the terms of the SA. The RCP is to be finalized within 1 year after the new license becomes final or 2005. One aspect of the RCP will be to provide more detail concerning needed environmental analysis, compliance, and permitting activities needed for implementation projects.

During the annual transportation meeting, PacifiCorp, the USDA-FS, and USDI-BLM will consider upcoming environmental analyses, compliance, and permitting for all upcoming transportation 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 the transportation projects. Such activities should be scheduled 2 years in advance, to the extent possible. These activities will be identified in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

To the extent possible, planned transportation projects will be grouped together to minimize environmental analyses and permitting needs. Such groupings may be geographical (clusters of roads and/or bridges), temporal (2005 to 2010, 2010 to 2015, etc.), or topical (all bridges and major culverts, all Level 4-5 roads, all minor culverts, etc.).

If a planned transportation 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 the USDA-FS FLRMP, USDI-BLM RMP, or watershed analyses as listed below.

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

- AMP
- ECP
- RRMP
- VMP
- HPMP
- RCP

Non-Project-related plans include:

- Umpqua National Forest Land and Resource Management Plan, as amended (USDA-FS 1990)
- North Umpqua River Management Plan (USDA-FS et al. 1992)
- Diamond Lake and Lemolo Lake Areas Watershed Analysis (USDA-FS 1998a)
- Fish Creek Watershed Analysis (USDA-FS 1999)
- Calf-Copeland Watershed Analysis (USDA-FS 2001a)
- Middle North Umpqua Watershed Analysis (USDA-FS 2001b)
- Draft Environmental Assessment for Integrated Noxious Weed Management on the Umpqua National Forest (USDA-FS 2003a)
- Forest Service Manual 2700, Special Uses Management, Chapter 2770, Federal Power Act Projects, Amendment 2700-2003-2 (as amended) (USDA-FS 2003b)

- Draft USDA-FS Region 6 Environmental Impact Statement on Invasive Plants (USDA-FS [in prep])
- Final Environmental Impact Statement (EIS) for Northwest Area Noxious Weed Control Program, Final Supplemental EIS for Noxious Weeds, and Respective Records of Decision (USDI-BLM 1985 and 1987)
- Roseburg District Resource Management Plan (RMP) (as amended) (USDI-BLM 1990)

2.6 AGREEMENTS, PERMITS, AND GRANTS OF RIGHT-OF-WAY

Project roads within federally managed lands that are located either inside or outside of the FERC Project boundary are subject to federal regulation. As a result, the USDA-FS will require PacifiCorp to obtain an LUA (see Exhibit D) for roads located outside of the FERC Project boundary (see Exhibit D) used by PacifiCorp for commercial activities (approximately 55 miles of roads). LUAs that may be required by the USDA-FS for Project-related roads outside of the FERC boundary include Easements, Special Use Permits, and Road Use Permits. These different types depend upon the road use, duration, and location.

Insignificant use of Joint Access T-Line Roads will not be a part of the LUA. If maintenance or reconstruction needs to be performed on a Joint Access T-Line Road, the USDA-FS will issue a short-term Road Use Permit to PacifiCorp on a case-by-case basis (see Exhibit G).

- Easements: Granted to authorize long-term use of NFS land for Project-related roads outside the FERC boundary only. These roads may be on NFS lands or on a private access road.
- Special Use Permits: Issued to authorize construction of temporary Project-related roads needed to provide access for a specific Project activity. These roads are not needed as part of the NFS road system and usually have a term of only 1-2 years.
- Road Use Permits: Issued to authorize Project-related road uses that may be prohibited by an order on an existing Forest Service road, or to authorize commercial use of Forest Service roads and to document requirements for road improvement and/or road maintenance where the use is short-term (length of specific project activity) in nature, usually only 1-2 years.

PacifiCorp is required to enter into a Cooperative Road Agreement for the purposes of jointly maintaining roads and bridges, cost sharing, and fund transfers (see Exhibit F), by 2005.

The USDI-BLM will require that PacifiCorp enter into a Grant of ROW for the use of roads within USDI-BLM-managed land (see Exhibit E). The USDI-BLM intends to issue a long-term Grant of ROW only. The term for the Grant will equal the term of the

new license issued by the FERC. A Grant of ROW for a temporary road, and new construction where needed, may be amended to meet PacifiCorp's needs over time. A short-term Temporary Use Permit may be issued to meet temporary road access needs located outside the FERC boundary as needed on a case-by-case basis.

These USDA-FS- and USDI-BLM-required agreements and permits will be reviewed and updated as needed at the annual transportation meeting and defined in the Rolling 5-Year Transportation Action Plan (see Exhibit C). PacifiCorp will also request any new LUAs and Grants of ROW at the annual meetings.

2.7 COORDINATION WITH OTHER PLANS

The Plan is one of several management plans that provide implementation direction and guidance for the Project (see Table 1 below). Reference will be made to these plans for specific management direction, as indicated below. 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 document listed as "primary" will take precedence. For example, the Plan will address campground road maintenance and improvements at developed recreation sites as the "Primary and Secondary Plans"; however, the VMP is a document that is also referenced.

Table 1. Plan Coordination and Funding Guidance for Typical Transportation Activities.

Plan Transportation-related Activity	Primary Plan	Funding Plan Responsibility	Other Plan or Authority References
Road warnings and regulatory signs	TMP	TMP	Manual of Uniform Traffic Control Devices (MUTCD) (Federal Highway Administration [FHWA])
Roadside brushing	VMP	TMP	Forest Service Handbook (FSH), Road Maintenance Specifications
Revegetation of disturbed areas along roads – construction/maintenance	VMP	TMP	AMP
Hazard tree removal along roads	VMP	TMP	Regional Handbook, Programmatic Biological Opinion on Hazardous Tree Removal (USFWS)
Guide signs outside developed recreation sites	TMP	TMP	Engineering Management (EM) 7100-15 Sign and Poster Guidelines for the USDA-FS (USDA-FS 1998b)
Guide signs inside developed recreation sites	RRMP	RRMP	EM 7100-15 Sign and Poster Guidelines for the USDA-FS
Road failure due to natural or Project-related event	ECP	ECP	TMP
Bridge or major culvert failure due to emergency road maintenance and storm damage	TMP	TMP	ECP, FERM Plan
Storm patrols under FERM	TMP	TMP	FERM
Road construction or reconstruction	TMP	Situational	HPMP, AMP, VMP, FLRMP, RRMP
Annual and deferred road maintenance	TMP	TMP	VMP, ECP, FSH
Fire prevention related to road maintenance	UNF Fire Prevention	TMP	VMP

Table 1. Plan Coordination and Funding Guidance for Typical Transportation Activities.

Plan Transportation-related Activity	Primary Plan	Funding Plan Responsibility	Other Plan or Authority References
	Management Plan (FPMP)		
Hazardous waste and spill response	UNF Hazardous Management Plan (HMP)	HMP	PacifiCorp Environmental Management System/ISO 14001
Noxious weed control along USDA-FS and USDI-BLM roads	VMP	VMP/TMP	Best Management Practices
Campground road maintenance and improvements	TMP	TMP	RRMP, AMP
Landscape plantings and screening – Scenic Byway and Wild and Scenic River (W&SR) Reach	AMP	AMP	VMP
Project facility design, construction and maintenance	AMP (Exhibit F and Sec. 3.1)	--	VMP, HPMP, RRMP, TMP

3.0 IMPLEMENTATION

Implementation of this Plan is addressed in the following management activities:

- Road maintenance and reconstruction (capital improvement)
- Bridges and major culverts
- Road decommissioning
- Culvert upgrades
- Periodic monitoring and inspections
- New road construction (capital improvement)
- Traffic management
- Reporting

3.1 ROAD MAINTENANCE AND RECONSTRUCTION (CAPITAL IMPROVEMENT)

A cornerstone of this Plan is roadway maintenance. A companion to this activity is the TMP Map Set (GIS maps), Volume 2, that identifies the location and type of each road and bridge included in the Plan. This activity defines PacifiCorp, USDA-FS, and USDI-BLM requirements for road maintenance. The road maintenance activity identifies maintenance specifications for each road level. PacifiCorp and USDA-FS responsibilities are defined and different means of satisfying road maintenance obligations are identified:

- Road maintenance responsibilities
- Road maintenance schedule
- Road maintenance levels
- Road maintenance specifications
- Annual and deferred road maintenance activities
- Reconstruction (capital improvement) and emergency road maintenance
- Changes in road maintenance levels
- Prioritized Level 1 roads with mitigation prescriptions
- Prioritized Level 1 roads with barriers
- Snow removal
- Methods of satisfying road maintenance obligations

3.1.1 Road Maintenance Responsibilities

Commencing on the effective date of the SA, PacifiCorp will assume 100 percent maintenance and capital improvement responsibility for roads listed on the updated Schedule 15.2 (see Exhibit H) as PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation). Maintenance and capital improvement activities will be consistent with USDA-FS requirements, as amended, found at USDA-FS Manual Sections 7730 and 7720, respectively, and corresponding sections of the USDA-FS Handbook for Road Maintenance Section 7709.58 (see Exhibit N); and USDI-BLM Manual 9100 Series and

the Roseburg District Resource Management Plan (USDI-BLM 1990), Appendix D, Part H (see Exhibit O). Schedule 15.2 of the SA includes maintenance levels required for each road type (see Exhibit H for roads within USDA-FS-managed lands and Exhibit I for roads within USDI-BLM-managed lands).

The prime maintainer is the party that performs on-the-ground ongoing maintenance of a road, particular segment of road, or structures such as culverts, signs, and bridges. Road maintenance responsibilities include the following:

- PacifiCorp road maintenance and road use rights as a licensee will be secured where appropriate on USDA-FS-managed lands and USDI-BLM-managed lands through the use of a USDA-FS Road Use Permit as defined in Exhibit G, and a USDI-BLM Grant of ROW as defined in Exhibit E.
- Road maintenance responsibilities on Jointly Maintained Hydro Roads and PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation) will be consistent with USDA-FS road maintenance levels and specifications as described below. Maintenance activities will include normal and emergency maintenance categories as described below.
- The USDA-FS will be the prime maintainer for all Jointly Maintained Hydro Roads and PacifiCorp-Maintained Recreation Roads (Levels 3-5) located within NFS lands as defined in Exhibit H.
- PacifiCorp will be the prime maintainer of PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation) as defined in Exhibit H.
- On Joint Access T-Line Roads, the party requiring first access to such a road (typically Level 1) will incur all costs and responsibilities for opening up the road and then closing it afterwards when all work has been completed.
- PacifiCorp road maintenance responsibilities for USDI-BLM-managed roads are defined in Exhibit I.
- PacifiCorp road maintenance responsibilities for some Level 1 roads with mitigation prescriptions in lieu of decommissioning are defined in Exhibit K.
- PacifiCorp road maintenance responsibilities for providing barriers on some Level 1 roads are defined in Exhibit L.
- Road signs (warning, directional, and regulatory) are included as a part of road maintenance in the Plan. Guide signs at recreation sites are included as part of the RRMP.

3.1.2 Road Maintenance Schedule

The USDA-FS will schedule required road maintenance on JMH Roads as agreed upon at the annual transportation meeting and further documented in the Rolling 5-Year Transportation Action Plan (see Exhibit C for a framework).

PacifiCorp will schedule required road maintenance on PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation) as agreed upon at the annual transportation meeting and further documented in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

At the annual transportation meeting and in the Rolling 5-Year Transportation Action Plan, PacifiCorp, the USDA-FS, and USDI-BLM will prioritize and track progress on road maintenance upgrades for three actions over the next 10-15 years including:

- PacifiCorp is responsible for Level 1 roads with mitigation prescriptions (see Exhibit K). Mitigation measures will be completed by PacifiCorp by 2013. Progress will be tracked and reported annually.
- PacifiCorp is responsible for Level 1 roads requiring barriers (see Exhibit L). All Level 1 roads require barricading. While not identified in the SA, barricading all Level 1 roads is date certain. During 2004 to 2008, PacifiCorp will install road barriers as needed as work is completed and workers exit the road. During 2009 to 2013, PacifiCorp will install barriers on all remaining Level 1 roads that have no existing barriers. This overall schedule starts with completion of the Plan or May 2004. Progress will be tracked and reported annually and addressed in the Rolling 5-Year Transportation Action Plan. Some barriers have already been installed by PacifiCorp prior to completion of the Plan and are noted in Exhibit L. As an alternative, PacifiCorp has the right to upgrade to a Level 2 road, or to decommission a Level 1 road, in lieu of barricading.

3.1.3 Road Maintenance Levels

The USDA-FS and USDI-BLM have developed road classification systems with 5 levels, as summarized below. The Level 2 definition is somewhat different between the USDA-FS and USDI-BLM, while the others are similar. These two road classification systems are presented below for road conditions and situations that are relevant to the Project.

USDA-FS Road Maintenance Levels - USDA-FS road maintenance Levels (1-5) are defined in Section 1.5, Explanation of Terms and Definitions.

USDI-BLM Road Maintenance Levels - USDI-BLM road maintenance (Levels 1, 2, and Special Road/Trail) are also defined in Section 1.5, Explanation of Terms and Definitions.

3.1.4 Road Maintenance Specifications

Maintenance specifications for USDA-FS and USDI-BLM roads are presented below for road conditions and situations that are relevant to the Project.

USDA-FS Specifications - Road maintenance specifications for USDA-FS-managed roads are defined in Exhibit N.

USDI-BLM Specifications - USDI-BLM road maintenance specifications are defined below and in Exhibits O and S. In addition, one special road/trail requirement exists in the Susan Creek area.

- USDI-BLM Level 1/Joint Access T-Line Roads - The party requiring access to Level 1 roads will incur all costs and responsibilities for opening up the road and then closing it afterwards when all work has been completed.
- USDI-BLM Level 2 - Minimum standards for this maintenance level include drainage structures to be inspected within a 3-year period and maintained as needed. Grading will be conducted as necessary to correct drainage problems. Brushing will be conducted as needed to allow administrative access. Slides may be left in place, provided they do not adversely affect drainage.
- USDI-BLM Special Road/Trail Maintenance Needs - To protect both the investment in the trail and the public recreation opportunities, the following standard will be applied when transmission line maintenance activities damage the trail along TL39-04/23: (1) the trail will be restored to current ADA standards with compacted, one-quarter inch minus crushed rock; and (2) upon completion of the transmission line maintenance activities that damage the trail, restoration must be completed within 4 days during the peak recreation use season of May 1 through October 31. Restoration should be completed within 2 weeks during the off-season months.

3.1.5 Annual and Deferred Road Maintenance Activities

The majority of road and bridge maintenance work includes activities that may be planned well in advance. All parties will perform normal maintenance activities on Level 1-5 roads in a consistent and timely manner. Normal maintenance activities will include both recurrent and deferred maintenance activities. Recurrent maintenance will include all work that is needed on a continuing basis with accomplishment annually or more frequently. Deferred maintenance includes work that is deferred one or more years until it can be economically or efficiently performed.

Annual maintenance activities will be coordinated by the parties at the annual transportation meeting prior to the Annual Resource Coordination Meeting. Road maintenance activities will be defined in the Rolling 5-Year Transportation Action Plan (see Exhibit C for framework).

Road maintenance activities will be required as a result of both traffic-generated and non-traffic-generated conditions. These two types of maintenance are described below.

Traffic-Generated Maintenance - Work, except repair of major damage, made necessary as a direct result of, or to minimize the effect of, use and wear by general traffic. The following are considered normal traffic-generated maintenance activities:

- Surface blading
- Dust abatement
- Gate repair
- Surface rock replacement
- Asphalt maintenance
- Asphalt patching
- Striping (pavement marking)
- Chip seals
- Snow removal
- Guardrail repair

Non-Traffic-Generated Maintenance - Work necessary as a direct result of general weathering processes or uncontrollable influences that cannot be attributed to traffic use. The following are considered general non-traffic-generated maintenance activities:

- Restoration
- Minor structure replacement
- Brushing
- Ditch cleaning
- Sign, guardrail, and gate maintenance
- Slide removal
- Culvert cleaning
- Revegetation
- Hazard tree removal

Vegetation management techniques used in road and bridge maintenance on NFS lands will be limited to approved methods identified by the USDA-FS. These methods are defined in a draft EIS on invasive plants (USDA-FS in prep.). PacifiCorp will consult with the USDA-FS and USDI-BLM at the annual transportation meeting prior to implementing vegetation management.

Revegetation techniques used in road maintenance on NFS lands will be limited to those identified in the ECP and the VMP.

3.1.6 Reconstruction (Capital Improvement) and Emergency Road Maintenance

During the term of the new license, capital improvement and emergency road maintenance will likely be necessary due to unanticipated natural causes, occasional high

levels of road use, and potential major damage. Capital improvement and emergency road maintenance include repair of roads due to major damage caused by unusual natural events and situations that are not repairable by annual and deferred maintenance activities. Reconstruction can often be planned in advance and should be addressed as needed at the annual transportation meeting and defined in the Rolling 5-Year Transportation Action Plan (see Exhibit C). It also includes repairs due to road use that either intentionally or unintentionally affects the general serviceability of the road or results in wear or damage in excess of that occurring in the area under normal operating conditions and procedures. Capital improvement or reconstruction and emergency road maintenance also include restoration work needed as a result of major damage to restore a road to the standard and serviceability that existed prior to the damage. The work would include, but is not limited to, asphalt overlays, roads resurfacing, retaining wall construction, slide correction and repair, and road widening.

Flooding conditions are common to the UNF and affect the road system. The resultant damage varies with the intensity of the runoff and local conditions. It is important to recognize this potential and take positive action to minimize damage through appropriate prevention measures and aggressive action prior to and during high runoff periods.

The FERM Plan is designed to align the UNF with FSM 7734 (Repairs Performed with Emergency Relief-Federally Owned Funds) and also to provide an outline to follow in the event of a storm with enough magnitude to cause damage to the NFS roads and resources.

Emergency actions will begin when damaging conditions are imminent and will continue until the need for immediate action is reduced. The UNF Forest Supervisor will declare a flood emergency when it can be determined that a storm will cause damage severe enough to warrant.

3.1.7 Changes in Road Operational Maintenance Levels

Road operational maintenance activities on some roads will need to be increased (from Level 2 to 3 for example) to meet identified road operational maintenance standards as defined in the updated Schedule 15.2 of the SA (see Exhibit H for roads within USDA-FS-managed lands and Exhibit I for roads within USDI-BLM-managed lands). This will be accomplished in a prioritized, phased approach over a period of 10 to 15 years and will be tracked annually by PacifiCorp. USDA-FS and USDI-BLM road operational maintenance definitions and requirements may change over the term of the new license and will be included in updates of the Plan as necessary.

At the annual transportation meeting, PacifiCorp and the USDA-FS and USDI-BLM will agree upon a list of prioritized road maintenance upgrades and an efficient timetable for upgrading roads to the maintenance specifications identified for each road. For seldom-used PacifiCorp-Maintained Roads (Hydro or T-line), upgrades will occur only when use increases substantially to warrant increased maintenance. All work on roads requiring increased maintenance will be completed within the period specified in the SA (see

Exhibit B). At the annual transportation meeting, priority will be given to roads with potential resource damage and public safety issues.

Road operational maintenance levels (Levels 1-5) may be increased or decreased to address changing conditions and/or Project-related needs through the term of the new license. Any changes (increase/decrease) will be proposed at the annual transportation meeting by the prime maintainer and will be agreed upon by the parties prior to the change taking effect.

3.1.8 Prioritized Level 1 Roads with Mitigation Prescriptions

PacifiCorp will implement mitigation prescriptions on some Level 1 roads in lieu of their decommissioning. This mitigation work does not decrease the total 8.6 miles of decommissioning described in Exhibit J of this Plan. Level 1 roads with mitigation prescriptions are defined in Exhibit K.

Prioritization for implementation of these mitigation prescriptions will be planned in advance and addressed at the annual transportation meeting. Implementation will be defined in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

3.1.9 Prioritized Level 1 Roads with Barriers

PacifiCorp will install road barriers where needed on some Level 1 roads. Roads requiring barriers are defined in Exhibit L. Barrier installation will be phased and completed within 10 years beginning by May 2004 and completed by 2013. Roads with existing barriers are defined in the TMP Map Set, Volume 2.

Prioritization of Level 1 roads requiring barriers will be planned in advance and addressed at the annual transportation meeting. Implementation will be defined in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

Specifications for road barriers using the berm and ditch methodology (the preferred method) are included in Exhibit L.

3.1.10 Snow Removal

Snow removal on Jointly Maintained Hydro Roads will be managed by the USDA-FS, while snow removal on PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation as applicable) will be managed by the PacifiCorp. Only necessary Project roads will be plowed by PacifiCorp as part of this Plan. This activity will be conducted in accordance with appropriate Commercial Road Rules and Snow Plowing Restrictions as defined in Exhibit U.

Snow removal needs and scheduling will be planned and coordinated in advance and addressed at the annual transportation meeting. Implementation will be defined in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

3.1.11 Methods of Satisfying Road Maintenance Obligations

Commencing in 2005, PacifiCorp and the USDA-FS (not USDI-BLM) will cost-share maintenance on roads listed on the updated Schedule 15.2 of the SA (see Exhibit H) as Jointly Maintained Hydro Roads in accordance with the cost-sharing ratios and maintenance levels listed on the updated Schedule 15.2. Cost-sharing ratios may be changed during the term of the new license if agreed upon in writing by the parties. Maintenance and capital improvements will be done in accordance with USDA-FS Management Handbook provisions (see Exhibit N). Payments for such cost sharing may commence before 2005 upon written agreement between PacifiCorp and the USDA-FS.

The parties may satisfy annual and deferred road maintenance obligations as follows:

- Annual Maintenance Obligations. For satisfying annual maintenance obligations, the USDA-FS may assume full responsibility for performing such maintenance on Jointly Maintained Hydro Roads (Level 3-5 roads) on NFS lands based on discussions and agreements between the parties. PacifiCorp will make advanced cash deposits to the USDA-FS for their share of the work, based on annual maintenance plan and shares in Exhibit H. By mutual agreement, all parties may also perform some portion of the recurrent work for other Level 1 or 2 roads. These decisions will be made at annual transportation meetings and documented in the Rolling 5-Year Transportation Action Plan (see Exhibit C).
- Deferred Maintenance Obligations. Two alternatives may be considered for satisfying such maintenance obligations:
 - Option 1 – Annual payment may be made for a share of the estimated cost of mutually agreed-upon work based on the estimated annual costs in the Rolling 5-Year Transportation Action Plan and documented and verified at the end of each calendar year through accounting for each PWP; and
 - Option 2 – Performance of such maintenance by either party in lieu of payment or transfer of funds between the parties. Credits for deferred work performed may be used to help offset all or a portion of any other agreed-upon maintenance obligations if agreed to by all parties. Such credits will be included in the annual accounting of expenditures for each PWP.

3.2 BRIDGES AND MAJOR CULVERTS

The maintenance of Project-related bridges and major culverts provides for long-term road access to Project generation facilities and transmission lines. Maintenance responsibilities and schedules are described below including inventory, maintenance, cost sharing, and bridge transfers to the USDA-FS by PacifiCorp.

3.2.1 Bridge and Major Culvert Maintenance Responsibilities

PacifiCorp will, in consultation with the USDA-FS and USDI-BLM, complete an inventory of bridges and major culverts. The inspection process will utilize the standards of the federal Highway Safety Act of September 9, 1966 (23 United States Code [USC] §§ 401-411) (see Exhibit P). Commencing upon the effective date of the SA, PacifiCorp will assume 100 percent maintenance responsibility for bridges and major culverts identified in the updated Schedule 15.5 (see Exhibit M) as being on PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation).

Bridge and major culvert structures on PacifiCorp-Maintained Roads (Hydro, T-Line, and Recreation) will be periodically maintained according to identified maintenance needs following routine bridge inspections per the National Bridge Inspection Specifications (NBIS) included in Exhibit P.

PacifiCorp and the USDA-FS will cost-share bridge and major culvert maintenance on Jointly Maintained Hydro Roads. Cost sharing will occur on bridges and major culverts along roadways under the classification of Jointly Maintained Hydro Roads in accordance with the cost-share ratios set forth in the updated Schedule 15.2 (see Exhibit H). The owner of each bridge or major culvert, as shown on the updated Schedule 15.5 (see Exhibit M), will bear the full cost of deferred maintenance on such bridge.

3.2.2 Bridge and Major Culvert Maintenance Schedule

PacifiCorp will perform critical deferred maintenance (safety related) on PacifiCorp-owned bridges and major culverts identified during inspections by the first anniversary of the new license, or 2005, whichever occurs earlier; and will perform non-critical deferred maintenance on PacifiCorp-owned bridges and major culverts by the tenth anniversary of the new license. Cost sharing on bridge inspections and annual maintenance will commence when the new license is issued by FERC.

Prioritization of bridges and major culverts will be planned in advance and addressed at the annual transportation meeting. Bridge and major culvert inspections, refurbishment, upgrades, or replacement will be defined and tracked in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

3.2.3 Bridge Ownership Transfers

Bridges and major culverts on joint use roads that are owned by PacifiCorp and have been fully inspected and upgraded (per bridge inspection needs defined in Exhibit P) may be transferred to the USDA-FS. The required USDA-FS transfer process, bridge design standards, and a list of potential bridge transfers is included in Exhibit Q. The USDA-FS will review transfer requests made by PacifiCorp and will accept such bridges and major culverts when these standards have been met.

3.2.4 Bridge Inspections

Prior to issuance of the new license or 2005 (whichever occurs first), PacifiCorp will complete bridge inspections on PacifiCorp-owned bridges in accordance with established federal standards. These inspections will be used to determine PacifiCorp's deferred maintenance obligations (critical and non-critical). After these initial inspections have been completed, PacifiCorp and USDA-FS will jointly share the cost of bridge inspections at the same ratio as set forth for the road containing that bridge, according to the standards of the Federal Highway Safety Act (FHSA) and NBIS (see Exhibit P).

The party responsible for the inspection of any bridge on a jointly maintained road will furnish copies of the bridge inspection report to the other party.

3.3 ROAD DECOMMISSIONING

To enhance the natural environment surrounding the Project, meet requirements of the FLRMP, and improve watershed conditions, up to 8.6 miles of abandoned roadway will be decommissioned by PacifiCorp. Several Project-related roadways or roadway segments have been identified in this Plan for road decommissioning. Other abandoned roads in the vicinity are also candidates, including USDI-BLM roads. This activity sets out the responsibilities and schedule for road decommissioning activities.

3.3.1 Road Decommissioning Responsibilities

In cooperation with the USDA-FS and USDI-BLM, the parties have identified several PacifiCorp-Maintained Roads (Hydro and T-Line) in need of decommissioning as presented in the updated Schedule 15.4 (see Exhibit J). Per the SA, PacifiCorp will decommission up to 8.6 miles of existing roadway. This will be accomplished according to defined road prescriptions in the Plan (see Exhibit J). PacifiCorp has identified one road to be decommissioned on USDI-BLM-administered lands (road number TL45_07/16) (see Exhibit J and the TMP Map Set, Volume 2). The remainder of the decommission road segments are on NFS lands.

Existing roads that are no longer needed to access NFS lands and USDI-BLM-managed lands are candidates for decommissioning. The objectives for decommissioning of a road are to re-establish vegetation and, as necessary, restore ecological processes interrupted or adversely impacted by the road. Decommissioning may include various levels of

treatments to stabilize and rehabilitate the road. Treatments may include one or more of the following activities:

- Blocking the entrance to the road;
- Removing culverts and re-establishing former drainage patterns;
- Installing waterbars on the road surface;
- Pulling back road shoulders and removing unstable road fills;
- Ripping of the roadbed to promote water infiltration;
- Stabilizing slopes;
- Scattering slash over the roadbed;
- Restoring vegetation in the road prism; and
- Other methods designed to meet specific conditions associated with the road.

In extreme instances, decommissioning may involve complete elimination of the roadbed by restoring natural contours and slopes.

The specific treatments for an individual road will be identified by an appropriate interdisciplinary team of resource specialists based on site-specific conditions along the candidate road.

For roads similar to the type of Transmission Line and Hydro roads being considered for decommissioning, the cost per mile for road decommissioning is typically in the range of \$10,000 to \$20,000 per mile (2004). However, costs may vary depending upon the specific treatments identified for a specific road or segment. Also, these costs are for contracts procured under federal acquisition regulations, such as the payment of Davis-Bacon wage rates to employees of the contractor.

PacifiCorp-Maintained Roads (Hydro or T-line) and Jointly Maintained Hydro Roads may be decommissioned if certain conditions are met including:

- The action is agreed upon by all parties;
- The road is no longer needed;
- The road causes significant resource damage that cannot be adequately or cost-effectively mitigated;
- Road use is no longer feasible or desirable; and
- The action is consistent with the SA.

The balance of any unused road decommissioning mileage will be reviewed at the annual transportation meeting and included in the Rolling 5-Year Transportation Action Plan as appropriate (see Exhibit C). Any unused balance will be held for 4 years or through 2008 (whichever is sooner) for future decommissioning opportunities.

If PacifiCorp, the USDA-FS, and USDI-BLM agree, alternative road segments with approximately the same decommissioning cost (same value per mile) as those listed may be substituted for possible decommissioning. Other PacifiCorp substitute decommission roads (yet to be defined) may be applied to the unused mileage balance (up to 8.6 miles).

In addition to approximately the same value per mile, priority will be given to the Project license area inside the FERC boundary, then inside the Umpqua basin on NFS lands or USDI-BLM-managed lands, as agreeable to all parties.

Any PacifiCorp-Maintained Road (Hydro or T-Line) that PacifiCorp determines is no longer needed for Project operations will be decommissioned upon USDA-FS or USDI-BLM approval as appropriate, as soon as practicable in accordance to the same standards, with PacifiCorp bearing the financial responsibilities.

3.3.2 Road Decommissioning Schedule

All road decommissioning by PacifiCorp will be completed by the fourth anniversary of the new license. Road decommissioning activities will be addressed at the annual transportation meeting. Such activities will be planned in advance and included in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

3.4 CULVERT UPGRADES

Some road culverts on Project-related roads need to be modified to allow for adequate fish passage (SA 15.6), to pass a 100-year flood, and provide for aquatic connectivity (SA 10.7). This activity defines the responsibilities and schedule for culvert upgrades. PacifiCorp inventoried ditch relief and stream crossing culverts in 2002-2003 with assistance from the USDA-FS. The USDA-FS, under contract by PacifiCorp, then analyzed the culverts to determine their ability to meet a 100-year flow capacity as well as their overall stability. The inventoried culvert locations are shown on the TMP Map Set, Volume 2. A Culvert Assessment Report presenting the findings of the culvert inventory data assessment will be completed in 2004, which will identify a priority listing for culvert replacement. This report will be reviewed and approved by the USDA-FS and ODFW. PacifiCorp is also required to identify and upgrade culverts to an ODFW fish passage standard. The USDA-FS conducted a fish passage culvert survey in 2000. Based on this survey, it was determined that there were seven culverts on streams known to be fish-bearing. These seven fish-bearing culverts are located on Jointly Maintained Hydro Roads and are shown in the TMP Map Set, Volume 2. Therefore, the responsibility for upgrading these culverts to appropriate ODFW standards will be the joint financial responsibility of both PacifiCorp and the USDA-FS. PacifiCorp has reimbursed the USDA-FS for their cost of conducting the initial inventory of these culverts as part of the culvert inventory during 2002-2003. PacifiCorp, USDA-FS, and ODFW will cooperative to develop construction requirements and a schedule for culvert replacement. As the USDA-FS 2000 inventory did not address all culverts, there are several culverts that are currently being monitored for fish presence. The monitoring results will be displayed in the Culvert Assessment Report.

3.4.1 Culvert Inventory Responsibilities

The Culvert Assessment Report, when finalized, will include the results of the 2002-2003 culvert inventory and an assessment indicating which culverts require modifications to

allow for adequate fish passage and which culverts require replacement or other modifications to pass a 100-year flood.

The standard for improvements for fish passage will be ODFW standards defined in Schedule 15.6 of the SA (see Exhibit B) (ODFW 2001). PacifiCorp will consult with ODFW to consider any necessary changes to design criteria and incorporate such changes, provided the costs are not more than 125 percent of the existing design costs as of the effective date of the SA and adjusted for inflation. The cost of upgrading culverts along a roadway will be divided on the same basis as costs for road maintenance along the same roadway as set forth in Exhibit H.

3.4.2 Culvert Upgrade Schedule

All culverts requiring upgrading to accommodate a 100-year flood will be upgraded by the eleventh anniversary of a new license at an average rate of approximately 7.5 percent of such culverts per year.

PacifiCorp will replace or upgrade culverts that are associated with other PM&E measures at the time of the scheduled implementation of the particular PM&E measure.

For culverts requiring modifications for fish passage barriers, PacifiCorp will upgrade such culverts commencing after the new license becomes final at a rate of approximately 20 percent of such culverts a year, to be completed by the fifth anniversary of the new license.

Road culverts associated with Priority 1 and Priority 2 aquatic sites (SA 10.7) shall be replaced or removed with adequately sized drainage structures by the date established in Schedule 10.6 of the SA for the aquatic site. These culverts are identified in the TMP Map Set, Volume 2 and will be further identified in a tabular format in the Culvert Assessment Report.

If the USDA-FS cannot fund its share of costs for culvert upgrades in any year, the schedule for work on such culverts will be adjusted to accommodate funds appropriated by Congress.

Culvert upgrades will be reviewed and scheduled at the annual transportation meeting and included in the Rolling 5-Year Transportation Action Plan as appropriate (see Exhibit C).

Road culverts associated with Priority 1 and Priority 2 aquatic sites (SA 10.7) shall be replaced or removed with adequately sized drainage structures by the date established in the Schedule 10.6 of the SA for the aquatic site. These culverts will be identified in the Culvert Assessment Report.

3.5 PERIODIC MONITORING AND INSPECTIONS

Monitoring and inspection activities address the need for coordinated road, bridge, and major culvert monitoring and inspection activities over the term of the new license. These activities are necessary to properly maintain the road system servicing the Project for continuous access when needed.

3.5.1 Road Monitoring Responsibilities and Schedule

All Project-related roads, bridges, and major culverts will be monitored on a periodic basis by the parties. These monitoring data will be used to identify existing and anticipated problems and to facilitate appropriate maintenance as identified in Exhibits M, N, and O.

The prime maintainer of each roadway (as defined in Exhibits H, I, and M) will conduct appropriate road, bridge, and major culvert monitoring activities, as needed, to properly manage and maintain the identified roads and bridges. The following road monitoring activities will be conducted:

- Conduct asphalt pavement management surveys on paved joint use roads and PacifiCorp-Maintained Roads at least every 5 years.
- Monitor the overall condition and safety of the roads and culverts that are listed in Exhibits H, I, and M.
- Monitor resources adjacent to roads, including erosion, through the ECP.
- On selected roadways where a change in use level has occurred, or is perceived to have occurred, periodically monitor road traffic volumes and composition to determine the appropriate percentage responsibility to be assigned to the parties for cost-sharing purposes (PacifiCorp and USDA-FS only). Four USDA-FS traffic counters are currently operational. To the extent possible and agreed upon by the two parties, monitoring will include the number of vehicles, type of vehicles, and vehicle destination on the selected roadway(s).
- For cost-sharing purposes (PacifiCorp and USDA-FS only), a baseline is shown as a percentage in the SA (see Exhibits H, I, and M). Thereafter, agreed-upon roads will be monitored when road traffic changes substantially and one of the two parties requests that a new baseline be considered and then established.
- The USDA-FS will maintain a Structure Inventory and Appraisal (SI&A) form for all structures on NFS lands based on inspections by any party.
- The USDA-FS will file an annual report with the Oregon State Bridge Engineer as required by law. The USDI-BLM will also do the same for any bridges or major culverts on BLM-managed land, as applicable.

- Road condition surveys will be conducted every 3 years on a rotating basis for all Level 1 roads used or needed by PacifiCorp. Level 1 maintenance conditions are defined in Exhibit N.
- A Road Hazard Analysis will be performed by the prime maintainer as necessary per Exhibit R.

3.5.2 Bridge Monitoring Responsibilities and Schedule

All bridges and major culverts subject to federal Highway Safety Act requirements will be inspected at intervals not to exceed 2 years (Road Maintenance Levels 3-5) in accordance with Exhibit P using NBIS. All other bridges and major culverts open to public use will be inspected at least every 4 years (Road Levels 1 and 2), with some exceptions, with approval by the UNF Engineering Staff or USDI-BLM Engineering Staff. The bridge and major culvert inspection schedule is defined in Exhibit M.

A Hazard Analysis will be performed by the prime maintainer as necessary per Exhibit R.

Planned road, bridge, and major culvert monitoring and inspection will be reviewed at annual transportation meetings and included in the Rolling 5-Year Transportation Action Plan as appropriate (see Exhibit C).

3.5.3 Mapping Omissions and Updates

As additional or modified road segments or road realignments and their associated transportation structures are identified over the term of the new license, PacifiCorp will periodically update the TMP Map Set, Volume 2, and associated Plan Exhibits as appropriate. These mapping and database updates over time will become part of the PacifiCorp GIS database and this Plan. Should PacifiCorp determine that these roads or facilities are no longer needed for Project operations, PacifiCorp shall decommission them as soon as is practicable according to the standards outlined in Section 15 of the SA.

Should PacifiCorp determine that these roads or facilities are needed for Project operations, PacifiCorp will be responsible for operating and maintaining these roads to current USDA-FS or USDI-BLM standards, as applicable.

3.6 NEW ROAD CONSTRUCTION (CAPITAL IMPROVEMENT)

Road capital improvement activities address the need to potentially develop new Project-related roads and/or reconstruct existing ones to serve the Project over the term of the new FERC License. In addition, temporary road construction will be needed to implement some SA actions with follow-on road obliteration to return the area back to a natural condition.

3.6.1 New Road Construction Responsibilities

If needed, PacifiCorp will be responsible for new road construction for Project use over the new license term. These roads will be designed and constructed by PacifiCorp in consultation with the USDA-FS and/or USDI-BLM, as appropriate. When new Project-related road construction is anticipated, PacifiCorp will prepare a road development plan for the period(s) when the new development is anticipated. New road construction plans, estimated costs, permitting requirements, NEPA documentation needs per the RCP, and costs will be identified and approved at the annual transportation meeting and included in the Rolling 5-Year Transportation Action Plan (see Exhibit C). New roads, if needed, will be constructed and maintained in accordance with USDA-FS or USDI-BLM standard specifications, as applicable.

PacifiCorp will be responsible for temporary roads requiring new construction identified in the SA, such as the Stink Hole wetlands project access or Lemolo No. 1 Forebay development. After an SA-related project has been constructed, PacifiCorp will be responsible to obliterate the temporary road and to return the area to a near natural condition in consultation with the USDA-FS.

3.6.2 New Road Construction Schedule

When new or temporary Project-related road capital improvement is anticipated, PacifiCorp will prepare a road capital improvement schedule. The new or temporary road capital improvement schedule will be reviewed and coordinated at the annual transportation meeting. A final agreed-upon schedule, including design, permitting, and NEPA documentation per the RCP, will be included in the Rolling 5-Year Transportation Action Plan (see Exhibit C).

3.7 TRAFFIC MANAGEMENT

In the Rolling 5-Year Transportation Action Plan each year (see Exhibit C), PacifiCorp and the USDA-FS will work together in developing access and traffic management plans as needed for Jointly Maintained Roads and PacifiCorp-Maintained Roads (Hydro, Recreation, and T-Line). Appropriate traffic control measures will be identified at the annual transportation meeting including the placement of signs and barriers, or other reasonable protection from traffic hazards, as appropriate. Roads that may present a significant safety hazard to public traffic will be closed to public motor vehicle use as needed.

“Road” signs are addressed in this Plan, while “guide” signs are addressed in the RRMP. The replacement or modification of road signs will be discussed and agreed upon by the parties at the annual transportation meeting.

Potential traffic hazards on NFS roads will be identified and mitigated in accordance with the USDA-FS Transportation System Operations Handbook, Chapter 50 (see Exhibit R). The USDA-FS will control and manage all traffic on Jointly Maintained Hydro Roads. This responsibility includes establishing road use rules, plans for signing, and restrictions

for timber haul and public use. All emergency or other road closures to public traffic on Jointly Maintained Hydro Roads will be approved and implemented by the USDA-FS.

The USDA-FS may close Jointly Maintained Hydro Roads to the public, or require public closure of PacifiCorp-Maintained Roads (Hydro, Recreation, and T-Line), where required for public safety or adopted resource protection standards contained within the FLRMP, as amended, or the RCP. Closure conditions may include extreme fire conditions, environmental degradation to sensitive resources, storm damage, and protection of public health and safety.

PacifiCorp will adhere to road and bridge closures, use restrictions, and travel management guidelines as identified by the USDA-FS or in the RCP. Potential traffic hazards on PacifiCorp-Maintained Hydro Roads, PacifiCorp-Maintained T-line Roads, and PacifiCorp-Maintained Recreation Roads will be identified and jointly evaluated by the parties and will be mitigated as necessary by PacifiCorp.

NFS commercial road rules and snow plowing requirements that apply to the Project are defined in Exhibit U. The objectives of these road rules and regulations are to:

- Provide commercial users with a uniform and timely system concerning use requirements on roads in advance of applying for permits or bidding on contracts.
- Provide Forest Officers with a system to display their road use requirements and to administer them uniformly with all commercial users.
- Implement a responsive system for issuing permits or making other arrangements for authorizing road use to meet the special needs unique to any commercial user.

Temporary traffic restrictions and closures will be revisited at the annual transportation meeting and the Rolling 5-Year Transportation Action Plan (see Exhibit C). Restrictions or closures may be lifted or continued as agreed upon by the parties.

Traffic management studies will be conducted on roads where active maintenance activities occur or on roads with damage due to natural causes such as a slide or failure. These traffic studies will be performed on PacifiCorp-Maintained Roads (Hydro, Recreation, and T-Line) and Jointly Maintained Hydro Roads where necessary to identify required hazard mitigation if any (see Exhibit R). The probability of an accident occurring and the severity of a potential accident will need to be assessed to determine the risk of potential accidents at a site or road segment. Mitigation measures will be developed and implemented based on the degree of probability for a potential accident. The USDA-FS will approve traffic-related studies or mitigation measures on NFS roads. Such measures will be reviewed and discussed during the development of the Rolling 5-Year Transportation Action Plan (see Exhibit C) each year.

PacifiCorp will be responsible for all costs associated with traffic management activity at the same percentage as road maintenance, as defined in Exhibit F.

3.8 REPORTING

This Plan includes four reporting requirements that are discussed below:

- Rolling 5-Year Transportation Action Plan
- Annual Notification to the RCC
- Reporting to the FERC
- Area of Vegetation Manipulation
- Tracking of Expenditures

3.8.1 Rolling 5-Year Transportation Action Plan

PacifiCorp will prepare a Rolling 5-Year Transportation Action Plan on an annual basis, with input from the USDA-FS and USDI-BLM as appropriate, including the preparation of PWP. This document will be presented to the parties at the annual transportation meeting. A framework for the annual plan is presented in Exhibit C. Following input from the parties, the annual plan will be finalized and approved by the parties. If no agreement is reached prior to the Annual Resource Coordination Meeting, any disagreements will be resolved via Section 22 of the SA.

The Rolling 5-Year Transportation Action Plan (see Exhibit C) will document the prior year, the current year, and the next 3 years' planned activities, including estimated costs for each of the years. No cost-sharing information is required for roads on USDI-BLM-administered lands. These plans will be detailed for the following plan activities:

- Road maintenance and capital improvement (restoration)
- Bridges and major culverts
- Road decommissioning
- Culvert upgrades
- Periodic monitoring and inspections
- Road capital improvement
- Traffic management
- Reporting requirements

3.8.2 Annual Notification to the RCC

Once the Rolling 5-Year Transportation Action Plan has been completed, 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.

3.8.3 Periodic Reporting to the FERC

Every 10 years, PacifiCorp will prepare a Plan Monitoring Report and submit it to the FERC for review. The USDA-FS and USDI-BLM may review and comment on a draft of the Plan Monitoring Report prior to its filing with the FERC. The 10-year Plan Monitoring Report will utilize the annual Rolling 5-Year Transportation Action Plans and

minutes of the annual transportation meetings and Annual Resource Coordination Meetings as a basis for this reporting. Progress toward completion of specific actions in the Plan will be tracked and summarized by PacifiCorp.

3.8.4 Annual Reporting of Area of Vegetation Manipulation

During the preparation of the Rolling 5-Year Transportation Action Plan each year, PacifiCorp and the USDA-FS will report the area of vegetation manipulation (site disturbance area) during the previous year. This area will be calculated in approximate acres and reported to the USDA-FS for further compilation and reporting on a Forest-wide basis by the UNF.

3.8.5 Tracking of Expenditures Reporting

Each party will provide progress accounting that will include a review, reconciliation, and preparation of the previous fiscal year's accomplishments, accrued costs, and cost-sharing accounting. To this end, each party will track annual expenditures of labor, overhead, expenses, and other materials for each PWP and Plan activity defined and agreed upon by the parties in the Rolling 5-Year Transportation Action Plan. Within 60 days of the end of an operating quarter, each party will compile all appropriate PWP and Plan activity expenditures incurred during the previous quarter. This information will be provided to the other party for review and comment on a quarterly basis. Quarterly reports will be compiled into an annual expenditure report.

The USDA-FS will provide a quality accounting of all expenditures related to the Plan, including an annual summary based on the federal fiscal year. The annual USDA-FS accounting report will be provided quarterly and then summarized by December 31 of each year. PacifiCorp will reconcile USDA-FS and PacifiCorp expenditures on a calendar year basis and will provide a summary of reconciliation in the Rolling 5-Year Transportation Action Plan that is updated annually. Following review and discussion of the cost data by the parties, appropriate payments, or in lieu work, will be made or scheduled as needed. This accounting does not involve the USDI-BLM.

4.0 REVISIONS AND UPDATES

This Plan was completed in 2004 in consultation with ODFW and reviewed and approved by the USDA-FS and USDI-BLM. Implementation of this Plan is expected to occur throughout the 35-year term of the new license. However, some flexibility has been allowed to address unanticipated changes in conditions over time.

During the annual review process involving the preparation of a Rolling 5-Year Transportation Action Plan (see Exhibit C), adjustments or revisions may be made to some specific activities or schedules to address errors or concerns. PacifiCorp, USDA-FS, and USDI-BLM will jointly agree on any scheduled changes of specific actions during these annual transportation meetings prior to the Annual Resource Coordination Meeting.

This Plan, including the main document with its Exhibits A through U in Volume 1 and the TMP Map Set, Volume 2, may be updated as the information contained herein is updated and revised by the parties. This Plan will be reviewed and updated as agreed upon by the parties. This review will occur in conjunction with the annual transportation meetings.

Recommendations for changes to this Plan may be submitted in writing by any party. Agreed-upon changes to this Plan will be incorporated into a revised Plan by PacifiCorp. The revised Plan will be submitted to the FERC for review. Any disagreements on revisions to the Plan may be submitted to the RCC for resolution. Revisions to this Plan may not contradict overall decisions made and agreed upon in the SA. Factors that may trigger a review and possible revision of this Plan include:

- Revisions and updates to the Umpqua National Forest FLRMP (2008 is the next planned update, then approximately every 15 years);
- Revisions and updates to the USDI-BLM Roseburg District RMP;
- Catastrophic natural events, such as major forest fires, windstorms, floods, or other natural disasters;
- West Cascades Scenic Byway proposal implementation and related traffic increases or changes;
- Substantial and sustained changes (5 consecutive years) in annual recreation use level projections in the Project area at the Composite Plan level of at least 20 to 25 percent (increase or decrease);
- New federal or state policies, regulations, and laws that may significantly affect transportation facilities in the Project area for the new license term; and
- Significant increase in timber hauling activity on NFS lands that may affect Project-related roads.

Cost-sharing percentages are identified in the SA (see Exhibit H) and will not be modified as a result of any potential future changes to this Plan, unless mutually agreed upon by the parties.

5.0 REFERENCES

- ODFW (Oregon Department of Fish and Wildlife). 2001. Oregon Department of Fish and Wildlife Guidelines and Criteria for Stream-Road Crossings. Included in the Settlement Agreement (Schedule 15.6) pursuant to ORS 498.351 and ORS 509.605, et al. Salem, OR.
- Oregon Plan for Salmon and Watersheds and Oregon Watershed Enhancement Board. 1999. A Guide to Oregon Permits Issued by State and Federal Agencies (as amended). Salem, OR.
- PacifiCorp. 1995a. Application for a New License for Major Modified Project. Exhibit E. January 1995. Portland, OR.
- PacifiCorp. 1995b. Draft Transportation Management Plan. North Umpqua Hydroelectric Project. December 1995. Portland, OR.
- PacifiCorp. 2004a. Aesthetics Management Plan (AMP). Prepared by EDAW, Inc. for PacifiCorp. Portland, OR.
- PacifiCorp. 2004b. Erosion Control Plan (ECP). Prepared by Washington Group International for PacifiCorp. Portland, OR.
- PacifiCorp. 2004c. Recreation Resource Management Plan (RRMP). Prepared by EDAW, Inc. for PacifiCorp. Portland, OR.
- PacifiCorp. 2004d. Vegetation Management Plan (VMP). Prepared by EDAW, Inc. for PacifiCorp. Portland, OR.
- PacifiCorp. 2004e. Historic Properties Management Plan (HPMP). Prepared by EDAW, Inc. for PacifiCorp. Portland, OR.
- PacifiCorp. 2005. Resource Coordination Plan (RCP) (to be developed by PacifiCorp). Portland, OR.
- PacifiCorp, USDA Forest Service, USDI Bureau of Land Management, USDI Fish and Wildlife Service, NOAA National Marine Fisheries Service, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and Oregon Water Resources Department. 2001. North Umpqua Project Settlement Agreement (June 13, 2001). Portland, OR.
- USDA-FS (USDA Forest Service). 1990. Umpqua National Forest Land and Resource Management Plan (FLRMP) (as amended). Roseburg, OR.
- USDA-FS. 1998a. Diamond Lake and Lemolo Lake Areas Watershed Analysis. Umpqua National Forest. Roseburg, OR.

- USDA-FS. 1998b. Engineering Management (EM) 7100-15, Sign and Poster Guidelines for the USDA-FS. Washington, D.C.
- USDA-FS. 1999. Fish Creek Watershed Analysis. Umpqua National Forest. Roseburg, OR.
- USDA-FS. 2001a. Calf-Copeland Watershed Analysis. Umpqua National Forest. Roseburg, OR.
- USDA-FS. 2001b. Middle North Umpqua Watershed Analysis. Umpqua National Forest. Roseburg, Oregon.
- USDA-FS. 2003a. Draft Environmental Assessment for Integrated Noxious Weed Management on the Umpqua National Forest. Umpqua National Forest. Roseburg, OR.
- USDA-FS. 2003b. Forest Service Manual (FSM) 2700 – Special Uses Management. Chapter 2770 – Federal Power Act Projects. Amendment 2700-2003-2. October, 14, 2003. Washington, DC.
- USDA-FS. In preparation. Draft USDA-FS Region 6 Environmental Impact Statement on Invasive Plants. USDA-FS Pacific Northwest Regional Office. Portland, OR.
- USD-FS. In preparation. Draft Region 6 EIS on Invasive Plants.
- USDA-FS. website. Accessed May 22, 2003. URL = <http://www.fs.fed.us/r6/fremont/sycan/text/intro.htm>
- USDA-FS, USDI-BLM (USDI Bureau of Land Management), and Oregon Parks and Recreation Department. 1992. North Umpqua River Management Plan. Roseburg, OR.
- USDI-BLM. 1985 and 1987. Final Environmental Impact Statement (EIS) for Northwest Area Noxious Weed Control Program, Final Supplemental EIS for Noxious Weeds, and Respective Records of Decision.
- USDI-BLM. 1990. Roseburg District Resource Management Plan (RMP) (as amended). Roseburg, OR.

Transportation Management Plan

Volume 1 Exhibits A through U

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

Prepared by:

EDAW, Inc.
Seattle, Washington
and
PacifiCorp
Portland, Oregon

In consultation with:

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

April 30, 2004

VOLUME 1 EXHIBITS

- A TMP and SA Implementation Summary
- B Settlement Agreement (Section 15)
- C Rolling 5-Year Transportation Action Plan Framework
- D Land Use Authorization (LUA) Between PacifiCorp and the USDA – FS for Roads outside the FERC Project Boundary
- E Grant of Right-of-Way to PacifiCorp by the USDI-BLM
- F Cooperative Road Agreement between PacifiCorp and the USDA – FS
- G USDA-FS Road Use Permit for Joint T-line Roads outside the FERC Boundary
- H USDA-FS – PacifiCorp Road Operational Maintenance Responsibilities (Modified SA Sch. 15.2)
- I USDI-BLM – PacifiCorp Road Operational Maintenance Responsibilities
- J Road Decommissioning Responsibilities and Prescriptions (Modified SA Sch. 15.4)
- K USDA-FS Level 1 Roads with Mitigation Prescriptions
- L USDA-FS Road Barriers
- M Bridge and Major Culvert Maintenance Responsibilities (Modified SA Sch. 15.5)
- N USDA-FS System Management Handbook FSH 7709.58 and Maintenance Specifications for Level 1-5 Roads
- O USDI-BLM Road Capital Improvement and Maintenance Specifications
- P National Bridge Inspection Specifications (NBIS)
- Q Bridge Ownership Transfers, Requirements, and Design Standards
- R Hazard Analysis
- S USDI-BLM Road Maintenance Levels
- T Joint Use Roads outside the FERC Boundary Subject to the Land Use Authorization (LUA)
- U USDA-FS Commercial Road Rules and Snow Plowing Restrictions

Exhibit A TMP and SA Implementation Summary

Exhibit A - Settlement Agreement Section 15.0 Transportation Implementation Schedule

Measure (1)	Start Date (2)	End Date (3)	Date Certain	License Dependent (3)	Comments
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 with RCC funding
15.4 Road decommissioning	L4			X	May be partially addressed earlier with RCC funding
15.5 100% maintenance of project roads	SA, 2001		X		
15.5.1 Cost-share bridges	L1, 2005	L10		X	Critical maintenance date certain in 2005; other maintenance license department 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
<p>Notes:</p> <ol style="list-style-type: none"> 1. Where measure is construction activity, the date given corresponds with completion of construction. Where measure is ongoing in nature (e.g., funding) date given corresponds with initiation of action. 2. Where measure is date certain, both a calendar date and an anniversary of the new license are provided, with the earliest of the two controlling. Where measure is license-dependant, the new license anniversary indicates when measure is to be complete. 3. License-dependant means the measure is to be implemented only at the stated time after the new license becomes final, as that phrase is defined in the Settlement Agreement. <p>Source: North Umpqua Hydroelectric Project Settlement Agreement (June 13, 2001)</p>					

Exhibit B Settlement Agreement (Section 15)

SECTION 15. TRANSPORTATION MANAGEMENT

15.1 Transportation Management Plan. PacifiCorp included a draft transportation management plan in its 1995 license application to FERC. PacifiCorp shall complete, in consultation with BLM and the USDA-FS, a final Transportation Management Plan ("TMP") within 12 months after the Effective Date, containing the same principles as are incorporated in the draft and the specific provisions listed below. The TMP will include a traffic management plan detailing which PacifiCorp-Maintained Hydro Roads and PacifiCorp-Maintained Transmission Roads will be open to public access and under what conditions. The TMP shall also include a plan for monitoring roads and bridges for review of maintenance activities and for damage. PacifiCorp shall be required to comply with the TMP during the term of the New License. The final TMP will be subject to BLM and USDA-FS approval.

15.2 Maintenance Responsibility. Commencing on the Effective Date, PacifiCorp will assume 100 percent maintenance and capital improvement responsibility for roads listed on attached Schedule 15.2 as PacifiCorp-Maintained Hydro and PacifiCorp-Maintained Transmission Roads. Maintenance and capital improvement activities will be consistent with USDA-FS requirements found at USDA-FS Manual sections 7730 and 7720, respectively, and corresponding sections of the USDA-FS Handbook for Road Maintenance section 7709.58 and BLM Manual 9100 Series and the Roseburg District Resource Management Plan (June 1995), Appendix D, Part H. Schedule 15.2 includes maintenance levels required for each road.

15.3 Cost Sharing. Commencing in 2005, PacifiCorp and the USDA-FS will cost-share maintenance and capital improvements on roads listed on attached Schedule 15.2 as Joint Use Hydro Maintenance, in accordance with the cost-sharing ratios and maintenance levels listed on Schedule 15.2. Cost-sharing ratios may be changed during the term of the New License as provided in the TMP. Maintenance and capital improvements shall be according to the USDA-FS Manual and Handbook provisions cited in Section 15.2. Payments for such cost sharing may commence before 2005 upon written agreement between PacifiCorp and USDA-FS.

15.4 Road Decommissioning. In cooperation with USDA-FS, PacifiCorp has identified PacifiCorp-Maintained Hydro Roads and PacifiCorp-Maintained Transmission Roads in need of decommissioning as shown on attached Schedule 15.4. The listed road segments, totalling 8.6 miles of road, will be decommissioned by PacifiCorp according to the

North Umpqua Settlement Agreement

USDA-FS Manual and Handbook provisions cited in Section 15.2 above and shall be completed by the fourth anniversary of the New License. If PacifiCorp, USDA-FS, and BLM agree, alternate road segments with approximately the same decommissioning cost as those listed may be substituted for decommissioning. Any PacifiCorp-Maintained Hydro Road or PacifiCorp-Maintained Transmission Road that PacifiCorp determines is no longer needed for Project operation by PacifiCorp shall be decommissioned as soon as is practicable according to the same standards.

15.5 Bridges. PacifiCorp shall, in consultation with the USDA-FS, complete an inventory of bridges and a process for inspection of bridges as part of the TMP according to the standards of the Highway Safety Act of September 9, 1966 (23 USC §§ 401-411). Commencing upon the Effective Date, PacifiCorp will assume 100 percent maintenance responsibility for bridges identified on attached Schedule 15.5 as being on PacifiCorp-Maintained Hydro Roads and PacifiCorp-Maintained Transmission Roads.

15.5.1 Bridge Cost Sharing. PacifiCorp and the USDA-FS will cost-share bridge maintenance and bridges on roads under the classification of Joint Use Hydro Maintenance in accordance with the cost-share ratios set forth on Schedule 15.2; provided that the owner of each bridge, as shown on attached Schedule 15.5, shall bear the full cost of deferred maintenance on such bridge. PacifiCorp shall perform critical deferred maintenance (safety related) on PacifiCorp-owned bridges, identified during bridge inspections by the first anniversary of the New License, or 2005, whichever occurs earlier; and shall perform non-critical deferred maintenance on PacifiCorp-owned bridges by the tenth anniversary of the New License. PacifiCorp and USDA-FS will jointly share the cost of bridge inspections at the same ratio as set forth for the road containing that bridge according to the standards of the Highway Safety Act. Cost sharing on bridge inspections and annual maintenance shall commence when the New License becomes final.

15.6 Upgrading Culverts. PacifiCorp shall, in consultation with the USDA-FS, BLM, and ODFW, complete an inventory of culverts on Project lands as part of the TMP. The inventory shall indicate which culverts require modifications to allow fish passage and which culverts require modifications to pass a 100-year flood. For culverts requiring modifications for fish passage barriers, PacifiCorp shall upgrade such culverts commencing after the New License becomes final at a rate of approximately 20 percent of such culverts a year, to be completed by the fifth anniversary of the New License. The standard for improvements for fish passage shall be the standards of ODFW as set forth in Schedule 15.6. PacifiCorp shall consult with ODFW to consider any subsequent changes to such design criteria and shall incorporate such changes, provided the costs are not more than 125 percent of existing designs as of the Effective Date as adjusted for inflation. The cost of upgrading culverts shall be allocated on the same basis as costs for road maintenance set forth in Sections 15.2 and 15.3 above for each such road. Inventoried culverts requiring upgrading to accommodate a 100-year flood will be upgraded by the eleventh anniversary of a New License at an average rate of approximately 7.5 percent of such culverts per year. PacifiCorp shall replace or upgrade culverts that are associated with other PM&E Measures at the time of scheduled implementation of the said measure. If the USDA-FS cannot fund its

North Umpqua Settlement Agreement

share of costs on culverts in any year, the schedule for work on such culverts shall be adjusted to accommodate the funds available.

Exhibit C Rolling 5-Year Transportation Action Plan Framework

ROLLING 5-YEAR TRANSPORTATION 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)

ATTACHMENTS

PacifiCorp PPL Project Work Plan #s: _____ (insert #s)
USDA–FS FS Project Work Plan #s: _____ (insert #s)

SUMMARY OF PLANNED TMP ACTIVITIES FOR CALENDAR YEAR (____)

(insert bulleted summaries and PWP #s)

3.1 Road Maintenance and Reconstruction (Capital Improvement)

-

3.2 Bridge and Major Culverts

-

3.3 Road Decommissioning

-

3.4 Culvert Upgrades

-

3.5 Periodic Monitoring and Inspections

-

3.6 New Road Construction (Capital Improvement)

-

3.7 Traffic Management

-

3.8 Reporting

-

TMP ACTIVITIES SUMMARY BY CALENDAR YEAR

TMP Activities	PRIOR YEAR CY _____ Dates.....\$		CURRENT YR. CY _____ Dates.....\$		OUT YEAR #1 CY _____ Dates \$		OUT YEAR #2 CY _____ Dates \$		OUT YEAR #3 CY _____ Dates \$	
3.1 ROAD MAINTENANCE AND RECONSTRUCTION (CAPITAL IMPROVEMENT)										
PacifiCorp-Maintained Road Maintenance										
• Work description (PWP # __):										
• Work description (PWP # __):										
Jointly-Maintained Road Maintenance										
• Work description (PWP # __):										
• Work description (PWP # __):										
3.2 BRIDGE AND MAJOR CULVERTS										
PacifiCorp-Maintained Bridge and Major Culvert Maintenance										
• Work description (PWP # __):										
• Work description (PWP # __):										

TMP Activities	PRIOR YEAR CY _____ Dates.....\$		CURRENT YR. CY _____ Dates.....\$		OUT YEAR #1 CY _____ Dates \$		OUT YEAR #2 CY _____ Dates \$		OUT YEAR #3 CY _____ Dates \$	
Jointly- Maintained Bridge and Major Culvert Maintenance										
• Work description (PWP # __):										
• Work description (PWP # __):										
3.3 ROAD DECOMMISSIONING										
PacifiCorp-Responsible Road Decommissioning										
• Work description (PWP # __):										
• Work description (PWP # __):										
3.4 CULVERT UPGRADES										
PacifiCorp-Responsible Culvert Inventory										
• Work description (PWP # __):										
• Work description (PWP # __):										
PacifiCorp-Responsible Culvert Upgrades										
• Work description (PWP # __):										
• Work description (PWP # __):										

TMP Activities	PRIOR YEAR CY _____ Dates.....\$		CURRENT YR. CY _____ Dates.....\$		OUT YEAR #1 CY _____ Dates \$		OUT YEAR #2 CY _____ Dates \$		OUT YEAR #3 CY _____ Dates \$	
3.5 PERIODIC MONITORING AND INSPECTIONS										
PacifiCorp Road, Bridge and Major Culvert Monitoring										
• Work description (PWP # __):										
• Work description (PWP # __):										
PacifiCorp-Responsible Bridge and Major Culvert Inventory and Inspections										
• Work description (PWP # __):										
• Work description (PWP # __):										
3.6 NEW ROAD CONSTRUCTION (CAPITAL IMPROVEMENT)										
PacifiCorp-Responsible Road Development (If Needed)										
• Work description (PWP # __):										
• Work description (PWP # __):										

Program/Activities	PRIOR YEAR CY _____ Dates.....\$		CURRENT YR. CY _____ Dates.....\$		OUT YEAR #1 CY _____ Dates \$		OUT YEAR #2 CY _____ Dates \$		OUT YEAR #3 CY _____ Dates \$	
3.7 TRAFFIC MANAGEMENT										
• Work description (PWP # __):										
• Work description (PWP # __):										
3.8 REPORTING										
• Rolling 5-Year Action Plan Development										
• Annual Notification to the RCC										
• Periodic Reporting to the FERC										
• Annual Reporting of the Area of Vegetation Manipulation										
• Tracking of Expenditures Reporting										

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

-
-

Annual Calendar Year Balance Sheet (Enter in Excel)

Item by PWP #	Budget Planned \$	Budget Spent \$	Budget Variance \$	Comments

SUMMARY OF PLANNED ACTIVITIES FOR THE NEXT THREE CALENDAR OUT-YEARS

(Insert bullet summaries below)

3.1 Road Maintenance and Reconstruction (Capital Improvement)

-

3.2 Bridge and Major Culverts

-

3.3 Road Decommissioning

-

3.4 Culvert Upgrades

-

3.5 Periodic Monitoring and Inspections

-

3.6 New Road Construction (Capital Improvement)

-

3.7 Traffic Management

-

3.8 Reporting

-

CHANGES IN TMP RESPONSIBILITIES OF THE PARTIES: ASSUMPTIONS, RATIONALE, AND PERCENTAGES

Provide a description below:

-

Sample TMP Project Work Plan (PWP)

For (Add Name)

Project:		Timber Sale Planning		Salvage Sale Planning		Eng. Development		DE Phase II Overday		Totals
Job Code:		TMP103		SSP503		YR2003		YR2004		
Personnel	Cost/day	Days	Cost	Days	Cost	Days	Cost	Days	Cost	Days
C.Emerson	\$186.90	100	\$18,690	10	\$1,869	2	\$374	2	\$374	114
C. Cole	\$145.00	100	\$14,500	30	\$4,350		\$0		\$0	130
Temp GS-5 (1)	\$113.36	95	\$10,769	30	\$3,401	3	\$340		\$0	128
Temp GS-5 (fall)	\$109.00		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
Temp GS-4	\$99.90		\$0		\$0		\$0		\$0	0
SCA	\$43.68		\$0		\$0		\$0		\$0	0
Vehicles/Equipment	Cost/Mn-Mi	Mn/Miles	Cost	Mn/Miles	Cost	Mn/Miles	Cost	Mn/Miles	Cost	Months/Miles
255-7203 - Exp FOR	276.00	12	\$3,312		\$0		\$0		\$0	12
255-7203 - Exp USE	0.18	8000	\$1,440		\$0		\$0		\$0	8,000
8188 FOR	198.00	6	\$1,188		\$0		\$0		\$0	6
8188 USE	0.19	2000	\$380		\$0		\$0		\$0	2,000
	0.00		\$0		\$0		\$0		\$0	0
	0.00		\$0		\$0		\$0		\$0	0
	0.00		\$0		\$0		\$0		\$0	0
	0.00		\$0		\$0		\$0		\$0	0
Supplies/Misc.			Cost		Cost		Cost		Cost	
Overtime			\$0		\$0		\$0		\$0	\$0
Travel & Training			\$300		\$0		\$0		\$0	\$300
Supplies			\$400		\$0		\$0		\$0	\$400
			\$0		\$0		\$0		\$0	\$0
			\$0		\$0		\$0		\$0	\$0
			\$0		\$0		\$0		\$0	\$0
Direct Project Totals			\$50,979		\$9,620		\$714		\$374	\$61,687
Program Management			\$100		\$100		\$100		\$100	\$400
Overhead %	10.0%		\$5,108		\$972		\$81		\$47	\$6,209
Total Project Cost			\$56,187		\$10,692		\$895		\$521	\$68,295

Remarks

Prepared By:

**Exhibit D Land Use Authorization (LUA) Between PacifiCorp and the USDA-
FS for Roads outside the FERC Project Boundary**

FEDERAL LAND POLICY AND MANAGEMENT ACT
FOREST ROAD EASEMENT

THIS EASEMENT, dated this ____ day of *, 20**, from the United States of America, acting by and through the Forest Service, Department of Agriculture, hereinafter called Grantor, to * a Corporation of the State of *, hereinafter called Grantee.

WITNESSETH:

WHEREAS, Grantee has applied for a grant of an easement under the Act of October 21, 1976 (90 Stat. 2743; 43 U.S.C. 1761), for a road over certain lands or assignable easements owned by the United States in the County of Douglas, State of Oregon, and administered by the Forest Service, Department of Agriculture.

NOW THEREFORE, Grantor, for and in consideration of the payment of an annual use fee paid by Grantee does hereby grant to Grantee, subject to existing easements and valid rights, a nonexclusive easement for use of a road, whether existing or as constructed or reconstructed, over and across the following described lands in the County of Douglas, State of Oregon:

The location of the road is shown approximately on exhibit * attached hereto.

This grant is made subject to the following terms, provisions, and conditions applicable to Grantee, its permittees, contractors, assignees, and successors in interest.

A. Grantee shall comply with applicable Federal or State law and shall comply with State standards for public health and safety, environmental protection, and siting, construction, operation, and maintenance of or for rights-of-ways for similar purposes, if those standards are more stringent than applicable Federal standards.

B. Except as hereinafter limited, Grantee shall have the right to use the road for the purposes set forth in clause D, subject to such traffic control regulations and rules as Grantor reasonably may impose upon or require of other users of the road without unreasonably reducing the rights herein granted.

C. Upon the change of ownership of the Grantee's land served by this road, the rights granted under this easement can be transferred or assigned to the new owner upon written notification to Regional Forester.

D. This easement shall continue for as long as needed for access to the **North Umpqua Hydroelectric FERC Project 1927**; Provided, and so forth.; Provided, That the Grantee shall make no use of the road for hauling forest products or other commercial use of the road until it pays or makes arrangements acceptable to the Grantor to pay its share of the road construction or reconstruction costs; and Provided further, that the Grantor shall review terms and conditions of this easement at the end of each 30-year period from the date of issuance, and may incorporate in the easement such new terms, conditions, and stipulations as existing or prospective conditions may warrant. These shall have the same force and effect as if included in the original grant.

E. All construction or reconstruction of the road shall be in accordance with plans, specifications, and written stipulations approved by the Grantor prior to beginning such construction or reconstruction.

F. The rights herein conveyed do not include the right to use the road for access to developments for short- or long-term residential purposes, unless and until the Grantor and the Grantee agree upon traffic control regulations, rules, and other provisions to accommodate such use of the road.

G. Grantee shall pay the Grantor for its share of maintenance cost or perform maintenance, as determined by the Grantor. The maintenance obligation of the Grantee shall be proportionate to total use and commensurate with its use. Any maintenance performed by the Grantee shall be authorized by and shall conform with an approved maintenance plan. In the event the road requires maintenance, restoration, or reconstruction work to accommodate

the Grantee's needs, the Grantor shall authorize the work required in the same manner as provided herein for maintenance or in clause E for reconstruction. The Grantee shall perform such work at its own expense.

H. Grantee shall pay annually in advance a sum determined by the Forest Service to be the fair market value of the use authorized by this easement. The initial payment is set at \$ * for the remainder of the calendar year. Payments for each subsequent calendar year shall be the amount of \$* adjusted using the Implicit Price Deflator-Gross National Product index (IPD-GNP), or other factor selected by the Forest Service, to reflect more nearly the current fair-market value of the use. At intervals to be determined by certain changes in the indexes used to establish the linear rights-of-way fee schedule, the fee shall be reviewed and adjusted as necessary to assure that it is commensurate with the value of the rights and privileges authorized. In addition to the annual payment, the permittee shall pay its proportionate share of road costs prior to using the road for commercial use. Failure of the Permittee to pay the annual payment, late charges, or other fees or charges shall cause the easement to terminate.

Grantee shall pay an interest charge on any fee amount not paid by the payment due date.

Interest shall be assessed using the most current rate prescribed by the United States Department of Treasury Financial Manual (TFM-6-8020). Interest shall accrue from the date the fee payment was due. In addition, certain processing and handling administrative costs may be assessed in the event the account becomes delinquent and added to the amounts due.

A penalty of 6 percent per year shall be assessed on any fee amount overdue in excess of 90 days from the due date of the first billing.

Payments will be credited on the date received by the designated collection officer or deposit location. If the due date(s) for any of the above payments or fee calculation statements fall on a nonworkday, the charges shall not apply until the close of business of the next workday.

I. This easement shall terminate in the event an easement is granted subsequently by the United States to a public road agency for operation of this road as a public highway.

J. Grantee shall pay the United States for all injury, loss, or damage, including fire suppression costs, in accordance with existing Federal and State laws.

K. Grantee shall indemnify the United States for any and all injury, loss, or damage, including fire suppression costs the United States may suffer as a result of claims, demands, losses, or judgments caused by the Grantee's use or occupancy under this easement.

This easement is granted subject to the following reservations by Grantor:

The right to cross and recross the road at any place by any reasonable means and for any purpose in such manner as will not interfere unreasonably with Grantee's use of the road.

2. The right to relocate the road on which this use is authorized to the extent necessary to accommodate the management needs of the National Forests.

3. The right to use the road for all purposes deemed necessary or desirable by Grantor in connection with the protection, administration, management, and utilization of Grantor's lands or resources, now or hereafter owned or controlled.

4. The right alone to extend rights and privileges for use of the road and right-of-way to other Government departments and agencies, States, and local subdivisions thereof, and to other users including members of the public; Provided, That the Grantor shall control such use so as not to interfere unreasonably with use of the road by Grantee or to cause Grantee to bear a share of the cost of maintenance greater than is commensurate with the Grantee's use of the road.

The grant of a right to use the road described in this easement does not create an obligation on the Forest Service of the United States to maintain the road in a usable condition.

The Regional Forester may take action to suspend, revoke, or terminate this easement under the Rules of Practice Governing Formal Adjudicatory Administrative Proceedings Instituted by the Secretary Under Various Statutes in 7 CFR 1.130-1.151. An administrative proceeding is not required when the easement terminates on the occurrence of a fixed or agreed-upon condition, event, or time.

IN WITNESS WHEREOF, the Grantor, by its (Deputy) Regional Forester, Forest Service, has executed this easement pursuant to the delegation of authority by the Secretary of Agriculture to the Assistant Secretary for Natural Resources and Conservation, the delegation of authority by the Assistant Secretary for Natural Resources and Conservation, to the Chief, Forest Service, 7 CFR 2.60, and the delegation of authority by the Chief, Forest Service, dated August 16, 1982, (47 FR 36465), on the day and year first above written.

UNITED STATES OF AMERICA

* NAME
Forest Supervisor
Umpqua National Forest
Pacific Northwest Region
Forest Service
Department of Agriculture

ACKNOWLEDGEMENT

State of Oregon)

County of Douglas) ss.

On this _____ day of _____, 20** before me a Notary Public within and for said State, personally appeared *NAME, Forest Supervisor, Umpqua National Forest, Pacific Northwest Region, Forest Service, U.S. Department of Agriculture, and the same person who executed the within and foregoing instrument, who, being by me duly sworn according to law, did say that said instrument was signed in behalf of the United States of America by its authority duly given and by him delivered as and for its act and deed, and he did further acknowledge that he executed said instrument as the free act and deed of the United States of America, for the purposes and consideration herein mentioned and set forth and I do hereby so certify.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year above written.

By: _____
* Name
Notary Public for the State of Oregon
Residing at Sutherlin
My Commission Expires _____

Exhibit D Land Use Authorization – Special Use Permit

Forest Road Special-Use Permits. Use this permit to authorize construction and use of a road that is on the general routing of a planned Forest Development Road or is a road that will substitute for a planned system road.

**U. S. DEPARTMENT OF AGRICULTURE
Forest Service**

**FOREST ROAD
SPECIAL-USE PERMIT
Act of October 21, 1976
(PL 94-579); 36 CFR 251.50
et seq.**

FS-2700-4b (01/93)
OMB No. 0596-0082

Holder No.	Issue Date	Expir. Date
----	././	././
Type Site	Authority	Auth. Type
753	676	20
Region/Forest/District	State/County	
././	--	
Cong. Dist.	Latitude	Longitude
----	----	----

____ (Name) of ____ (Address) (hereafter called the Permittee) is hereby authorized to (construct and) use the following described National Forest Development Road within the ____ National Forest for the following purposes:

The road covered by this permit is located in the County of _____, State of _____, and is shown on the attached map and identified as follows: (give road name and terminus and legal description of lands crossed).

This permit authorizes use of approximately ____ miles of road.

This permit is made subject to the following terms, provisions, and conditions:

1. This permit is subject to all existing easements and valid rights existing on this date.
2. Permittee shall comply with applicable Federal or State law and shall comply with State standards for public health and safety, environmental protection, and siting construction, operation, and maintenance if those standards are more stringent than applicable Federal standards.
3. The Permittee shall cut no timber except as authorized by construction stipulations or maintenance agreements.
4. Permittee shall pay the United States for all injury, loss, or damage, including fire suppression costs, in accordance with Federal and State laws and regulations.
5. Permittee shall indemnify the United States for any and all injury, loss, or damage, including fire suppression costs the United States may suffer as a result of claims, demands, losses, or judgments caused by the Permittee's use or occupancy under this permit.
6. Permittee shall pay annually in advance a sum determined by the Forest Service to be the fair market value of the use authorized by this permit. The initial payment is set at \$_____ for the remainder of the calendar year. Payments for each subsequent calendar year shall be the amount of \$_____ adjusted using the Implicit Price Deflator-Gross National Product index (IPD-GNP), or other factor selected by the Forest Service, to reflect more nearly the current fair-market value of the use. At intervals to be determined by certain changes in the indexes used to establish the linear rights-of-way fee schedule, the fee shall be reviewed and adjusted as necessary to assure that it is commensurate with the value of the rights and privileges authorized. In addition to the annual payment, the permittee shall pay its proportionate share of road costs prior to using the road for commercial use. Failure of the Permittee to pay the annual payment, late charges, or other fees or charges shall cause the permit to terminate.

7. The Permittee shall pay an interest charge on any fee amount not paid by the payment due date.

Interest shall be assessed using the most current rate prescribed by the United States Department of Treasury Financial Manual (TFM-6-8020). Interest shall accrue from the date the fee payment was due. In addition, certain processing and handling administrative costs may be assessed in the event the account becomes delinquent and added to the amounts due.

A penalty of 6 percent per year shall be assessed on any fee amount overdue in excess of 90 days from the due date of the first billing.

Payments will be credited on the date received by the designated collection officer or deposit location. If the due date(s) for any of the above payments or fee calculation statements fall on a non-workday, the charges shall not apply until the close of business of the next workday.

8. Permittee shall pay the Forest Service for its share of maintenance cost or perform maintenance, as determined by the Forest Service for all commercial use of the road. The maintenance obligation of the Permittee shall be proportionate to total use and commensurate with its use. Any maintenance to be performed by the Permittee shall be authorized by and shall be performed in accordance with an approved maintenance plan. In the event the road requires maintenance, restoration, or reconstruction work to accommodate the Permittee's needs, the Forest Service shall authorize the work required in the same manner as provided herein for maintenance or in clause 10 for reconstruction. The Permittee shall perform such work at its own expense.

9. The exercise of the use permitted shall be subordinate to any easement on said road subsequently granted by the United States to a public road agency for operation as a public highway.

10. Any construction or reconstruction of the road shall be in accordance with plans, specifications, and written stipulations approved by the Forest Service prior to beginning such construction or reconstruction.

11. The United States shall have unrestricted use of the road and right-of-way for all purposes deemed necessary or desirable in connection with the protection, administration, management, and utilization of Federal lands or resources, and it shall have the right alone to extend rights and privileges for use of the right-of-way and road thereon to States and local subdivisions thereof and to other users including members of the public, except users of land or resources owned or controlled by the Permittee. The Forest Service shall control such use to avoid unreasonable interference with use of the road by the Permittee.

12. The Forest Service may relocate the road to the extent necessary to accommodate the management needs of the National Forests.

13. This permit may be terminated or suspended upon breach of any of the conditions herein, or revoked at the discretion of the Regional Forester.

14. Unless sooner terminated in accordance with the provisions of the permit, or revoked by the Regional Forester, this permit shall expire and terminate on (Date) . The permit shall not be reissued. 2/

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this day of , 200 .

Permittee
by _____
(Name)
(Title)
(Company)

USDA - Forest Service

(Name)
Forest Supervisor

National Forest

Public reporting burden for this collection of information, if requested, is estimated to average 1 hour per response for annual financial information; average 1 hour per response to prepare or update operation and/or maintenance plan; average 1 hour per response for inspection reports; and an average of 1 hour for each request that may include such things as reports, logs, facility and user information, sublease information, and other similar miscellaneous information requests. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Washington D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB # 0596-0082), Washington, D.C. 20503.

SAMPLE

Exhibit D Land Use Authorization – Special Use Permit (Private Road)

Private Road Special-Use Permits. Issue permits (Form FS-2700-4c, Private Road Special-Use Permit, ex. 01) for minor roads not on the Forest Development Road system for short-term use to remove forest products or other resources from non-Federal land. This authorization also authorizes non-system road construction for access to mining claims and mineral lease areas and for other temporary or short-term roads constructed in connection with other uses of National Forest System land.

**U. S. DEPARTMENT OF AGRICULTURE
Forest Service**

**FOREST ROAD
SPECIAL-USE PERMIT
Act of October 21, 1976
(PL 94-579); 36 CFR 251.50
et seq.**

FS-2700-4c (1/93)
OMB No. 0596-0082

Holder No.	Issue Date	Expir. Date
----	--/--	--/--
Type Site	Authority	Auth. Type
753	676	20
Region/Forest/District	State/County	
----	-----	
Cong. Dist.	Latitude	Longitude
----	----	----

____ (Name) of _____ (Address) (hereafter called the Permittee) is hereby authorized to use National Forest System lands for the construction, reconstruction, maintenance, and use of a road within the National Forest for the following purposes:

Insert purpose here

The lands covered by this permit are located in the County of _____, State of _____ and are described as follows:

(include short legal descriptions here).

This permit covers a right-of-way _____ miles in length, _____ feet in width, containing approximately _____ acres, and is located upon the ground according to the survey line, figures, measurements, widths, and other references shown on the map or plat attached hereto and made a part hereof.

This permit is made subject to the following terms, provisions, and conditions:

1. This permit is subject to all existing easements and valid rights existing on this date.
2. The Permittee in exercising the privileges granted by this permit shall comply with all applicable State and Federal laws, Executive Orders, and Federal rules and regulations, and shall comply with all State standards for public health and safety, environmental protection, and siting construction, operation, maintenance of or for rights-of-way for similar purposes if those standards are more stringent than applicable Federal standards.
3. The Permittee shall cut no timber except as authorized by construction stipulations or maintenance agreements.
4. The Permittee shall provide maintenance so that no damage occurs on adjacent National Forest System land. The Permittee shall construct and maintain lead-off drainage and water barriers as necessary to prevent erosion.
5. Permittee shall pay the United States for all injury, loss, or damage, including fire suppression costs, in accordance with Federal and State laws.

6. Permittee shall indemnify the United States for any and all injury, loss, or damage, including fire suppression costs the United States may suffer as a result of claims, demands, losses, or judgments caused by the Permittee's use or occupancy under this permit.

7. Permittee shall pay annually in advance a sum determined by the Forest Service to be the fair market value of the use authorized by this permit. The initial payment is set at \$ _____ for the remainder of the calendar year. Payments for each subsequent calendar year shall be the amount of \$ _____ adjusted using the Implicit Price Deflator-Gross National Product index (IPD-GNP), or other factor selected by the Forest Service, to reflect more nearly the current fair market value of the use. At intervals to be determined by certain changes in the indexes used to establish the linear rights-of-way fee schedule, the fee shall be reviewed and adjusted as necessary to assure that it is commensurate with the value of the rights and privileges authorized. Failure of the Permittee to pay the annual payment, late charges, or other fees or charges shall cause the permit to terminate.

8. The Permittee shall pay an interest charge on any fee amount not paid by the payment due date.

Interest shall be assessed using the most current rate prescribed by the United States Department of Treasury Financial Manual (TFM-6-8020). Interest shall accrue from the date the fee payment was due. In addition, certain processing and handling administrative costs may be assessed in the event the account becomes delinquent and added to the amounts due.

A penalty of 6 percent per year shall be assessed on any fee amount overdue in excess of 90 days from the due date of the first billing.

Payments will be credited on the date received by the designated collection officer or deposit location. If the due date(s) for any of the above payments or fee calculation statements fall on a non-workday, the charges shall not apply until the close of business of the next workday.

9. All construction or reconstruction of the road shall be in accordance with plans, specifications, and written stipulations approved by the Forest Service prior to beginning such construction or reconstruction.

10. The Permittee shall repair fully all damage to National Forest roads and trails caused by the exercise of the privileges granted by this permit.

11. The United States may use the roads without cost for all purposes deemed necessary or desirable in connection with the protection and administration of the lands or resources of the United States, provided that it will use the road for commercial hauling purposes, other than the removal of timber cut in construction or maintenance of the road or other occasional incidental use, only after arranging to pay or perform its pro rata share of road maintenance.

12. The Forest Service alone may extend rights and privileges for use of the road constructed on the premises to other non-Federal users provided that such users shall pay a fair share of the current replacement cost less depreciation of the road to the permittee, and reconstruct the road as necessary to accommodate their use.

13. The Forest Service retains the right to occupy and use the right-of-way and to issue or grant rights-of-way for land uses, for other than road purposes, upon, over, under, and through the permit area provided that the occupancy and use do not interfere unreasonably with the rights granted herein.

14. The Forest Service shall have the right to cross and recross the premises and road at any place by any reasonable means and for any purpose in such manner as does not interfere unreasonably with use of the road.

15. The Permittee shall maintain the right-of-way clearing by means of chemicals only after the Forest Supervisor has given specific written approval. Application for such approval must be in writing and must specify the time, method, chemicals, and the exact portion of the right-of-way to be chemically treated.

16. Unless sooner terminated in accordance with the provisions of the permit, or revoked by the Regional Forester, this permit shall expire and terminate on (Date) . The permit shall not be reissued.1/

17. This permit may be terminated or suspended upon breach of any of the conditions herein, or revoked at the discretion of the Regional Forester.

18. Upon termination or revocation of this special-use authorization, the Permittee shall remove within a reasonable time the structures and improvements and shall restore the site to a condition satisfactory to the authorized officer, unless otherwise waived in writing or in the authorization. If the Permittee fails to remove the structures or improvements within a reasonable period, as determined by the authorized officer, they shall become the property of the United States, but this does not relieve the Permittee from liability for the removal and site restoration costs.

In Witness Whereof, the parties hereto have caused this permit to be duly executed on this ____ day of _____, 200____.

Permittee

By _____
(Name)
(Title)
(Company)

USDA - Forest Service

(Name)
Forest Supervisor

National Forest

Public reporting burden for this collection of information, if requested, is estimated to average 1 hour per response for annual financial information; average 1 hour per response to prepare or update operation and/or maintenance plan; average 1 hour per response for inspection reports; and an average of 1 hour for each request that may include such things as reports, logs, facility and user information, sublease information, and other similar miscellaneous information requests. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Washington D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB # 0596-0082), Washington, D.C. 20503.

SAMPLE

Exhibit D Land Use Authorization – Road Use Permit

USDA Forest Service
R6-FS-7700-41 (8/95)

ROAD USE PERMIT

Authority: Acts of October 13, 1964, and October 21, 1976
(16 U.S.C. 532-38 and 43 U.S.C. 1761-71) (Re: FSH 7709.59)

John A. Sample, of 00001 Sample Street, Sample OR, 90000 (hereafter called the permittee) is hereby granted use of the following road(s) or road segments, and/or related transportation facilities:

ROUTE 1 Rd. 3829 from the Watson patented mining claim to Rd. 2212; Thence Rd. 2212, from its jct. With 3829, to Co. Rd. 2460.

ROUTE 2 Rd. 3829-026 from the Pasadena patented mining claim to 3829-025 (except for the said road as it crosses the Sampson patented mining claim); Thence Rd. 3829-025, from its jct. with Rd. 3829-026 to Rd. 3829 (except for the said road as it crosses the Sampson and Luck Strike patented mining claims); Thence Rd. 3829 from its jct. with Rd. 3829-025 to Rd. 2212; Thence Rd. 2212, from its jct. With 3829, to Co. Rd. 2460.

ROUTE 3 Rd. 3828-176 from the Arlington patented mining claim to its jct. with Rds. 3828 & 2358; Thence Rd. 2358 from its jct. with Rd. 3828 to County Rd. 2460.

ROUTE 4 Rd. 3828-160 from the Victor patented mining claim to its jct. with Rd. 3828; Thence Rd. 3828 from its jct. with Rd. 3828-160 to Rd. 2358; Thence Rd. 2358 from its jct. with Rd. 3828 to Co. Rd. 2460.

On the Umpqua National Forest, subject to the provisions of this permit, including clauses 1 through 21, on page(s) 1 through 5 for the purpose of hauling.

The exercise of any of the privileges granted in this permit constitute acceptance of all the conditions of the permit.

1. ROAD USE PERMIT FEES. The rate for sharing under this permit is:

ROUTE 1 = \$0.82 /MBF

ROUTE 2 = \$0.70 /MBF

ROUTE 3 = \$1.26 /MBF

ROUTE 4 = \$2.12 /MBF

Permittee's share of investment will be met as provided for in Clause 2.

The rate for sharing maintenance is shown in Clause 9.

2-1. WORK REQUIRED TO ACCOMMODATE PERMITTED USE. In accordance with this use, the permittee shall perform the work described below and in accordance with plans and specifications attached hereto:

Place 20 cubic yards of crushed aggregate per year at locations on any Forest Service Roads, as designated by Forest Service Representative

See Attached Road Maintenance Specification 831 - Ditch Maintenance (10/99)*

See Attached Road Maintenance Specification 834 - Drainage Structures (9/96)*

See Attached Road Maintenance Specification 811 - Blading (7/91)

See Attached Road Maintenance Specification 811 - Blading (9/96)

*Applicable if ditches or drainage structures damaged during use.

ACCEPTED:			
	Permittee (Signature)	Name	Date
ACCEPTED:			
	Issuing Officer (Signature)	Name (Title: Forest Supervisor)	Date

WORK PERFORMANCE SCHEDULE. (Construction of required improvements or reconstruction will be completed within n/a months and before hauling commences.)* (Work shall be performed in accordance with the attached schedule. In no case will haul be allowed to exceed the value of completed work.)* Credit will be allowed in the total of \$n/a, which is the engineering estimate for the cost of the work, to be credited to the share to be borne by this permitted use. In the event that permitted use will exceed the value of required work performed, the difference between the value of permitted use and work performed will be deposited in cash as provided in clause 2-3.

2-2. COOPERATIVE WORK. Although not required to accommodate the use herein permitted, it is desirable to the Forest Service and the permittee to have certain construction or reconstruction work accomplished coincident to use of the road.

The permittee shall perform the work described below in accordance with plans and specifications attached hereto. Upon satisfactory performance, credit will be allowed in the total of \$n/a to the share to be borne by the permittee

2-3. CASH DEPOSITS REQUIRED IN LIEU OF WORK PERFORMANCE. The permittee will deposit \$n/a with the Forest Service on or before n/a. The amount deposited will be credited to the share to be borne by the permittee.

2-4. ROAD USE FEE. In consideration for this use, the permittee shall deposit with the Forest Service, the sum of \$67.40 (and thereafter in individual deposits, equivalent to estimated charges before next payment is made, as called for by the Forest Service in advance of current road use).* When preferred by a permittee, a payment guarantee may be furnished in lieu of advance deposits.

This permit is accepted subject to all of its terms and conditions.

PAYMENT GUARANTEE. Notwithstanding the provisions of clause 1, if the permittee furnishes and maintains an acceptable payment bond in a penal sum of not less than \$n/a guaranteeing payments for road use up to this amount, or in lieu thereof deposits in a Federal depository, through the Regional Fiscal Agent, and maintains therein negotiable securities of the United States having a market value in like sum and agreement authorizing the bond approving officer to sell or collect such securities if payment is not made within n/a days of request therefore, the Forest Service shall permit road use in advance of cash payment up to the penal sum of such bond, or market value at time of deposit of negotiable securities; provided that regardless of penal sum of such payment bond, or the value of such deposited securities, the permittee shall pay cash within n/a days of request therefore, for all performed road use. If any payment is not received within n/a days of request therefore, the Forest Service may suspend all hauling under this permit until payments due are received, and may take such action as is necessary to collect such payments from the payment guarantee surety, or by sale or collection of securities guaranteeing payments. In the event the permittee fails to make payment and collection is obtained from the surety, or from the sale or collection of the deposited securities, the Forest Service may thereafter require the permittee to make payments in advance of road use.

3. USE PLANS. Prior to December 31 each year this permit is in effect, permittee shall notify the District Ranger in writing of the approximate time when such use will commence, the anticipated duration of such use, the names and addresses of permittee's contractors or agents who will use the

road on behalf of permittee, the estimated extent of use, and such other information relative to permittee's anticipated use as the Forest Service may from time to time reasonably request. If and when during the year there is any significant change with respect to the information so supplied by permittee, the permittee will notify the District Ranger promptly in writing of such change. Plans and changes will be approved by the Forest Service before use may commence.

4. USE RECORDS. The permittee shall Monthly, or at other Forest Service approved intervals when the permittee is hauling over this road, furnish the log scale records, or other records satisfactory to the forest service which give the volume of road use in terms related to rates in clause 1 under the authority of this permit.

5. COMPLIANCE WITH LAWS AND REGULATIONS. The permittee, in exercising the privileges granted by this permit, shall comply with the regulations of the Department of Agriculture and all Federal, State, county and municipal laws, ordinances, or regulations which are applicable to the area, or operations covered by this permit.

6. USE NONEXCLUSIVE. The privileges granted in this permit to use this road are not exclusive. The Forest Service may use this road and authorize others to use it at any and all times. The permittee shall use said road in such manner as will not unreasonably or unnecessarily interfere with the use thereof by other authorized persons, including Forest Service.

7. RULES GOVERNING USE. The permittee, its agents, employees, contractors or employees of contractors, shall comply with all reasonable rules prescribed by the Forest Service for control and safety in the use of this road and to avoid undue damage to the road. Such rules will include:

- (1) Closing the road or restricting its use when, due to weather conditions or the making of alterations or repairs, unrestricted use would, in Forest Service judgment, cause excessive damage, or create hazardous conditions;
- (2) Closing the road during periods when, in Forest Service judgment, there is extraordinary fire danger;
- (3) Traffic controls, which in Forest Service judgment, are required for safe and effective use of the road by authorized users thereof;
- (4) Prohibiting the loading of logs on trucks while such trucks are standing on the roadway surface, except to recover lost logs; and
- (5) Prohibiting the operation on this road of any vehicles or equipment having cleats or other tracks which will injure the surface thereof;
- (6) Prohibition on the operation of log-hauling vehicles (of a width in excess of 8 feet and a gross weight of vehicles and load in excess of 80,000 lbs.
- (7) Regulating the number of vehicles so as to prevent undue congestion of this road.
- (8) Prohibiting the use of an "active ingredient" as defined in Section 2 of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (86 Stat. 973), in violation of said act on the land described in this permit.
- (9) Other - Specify (Optional) Permittee shall post the road or roadways with signs conforming to the Manual on Uniform Traffic Devices as listed below: (a) Road Construction Ahead, (b) End Construction, and (c) Caution Trucks Entering - 500 feet.

8. INSURANCE. Permittee or his contractors and assigns shall be required to carry public liability and property damage insurance for the operation of vehicles in the amounts established by applicable state laws, cooperative agreements, or easements issued on the subject road or roads. In any event, the permittee must carry liability insurance and property damage insurance of not less than \$250,000 for injury or death to one person, \$500,000 for injury or death to two or more persons, and \$250,000

for damage to property. The permittee itself shall be responsible for furnishing to the Forest Service proof of satisfactory insurance when said insurance is to be furnished by other than the permittee. Proof of satisfactory insurance may be required by the Forest service prior to hauling over the road(s) and will be for the duration of the permit and such insurance policy shall bear an endorsement requiring the issuing company to give 10 days prior written notice to the Forest Supervisor of Umpqua National Forest, of cancellation or material change.

9. MAINTENANCE. The permittee shall bear the expense of maintenance proportionate to his use. This expense will be borne by performance and/or deposits.

When deposit or payments are required in lieu of performance of maintenance, the rate will be:

ROUTE 1 = \$1.80 /MBF

ROUTE 2 = \$1.54 /MBF

ROUTE 3 = \$2.76 /MBF

ROUTE 4 = \$4.65 /MBF

which is agreed to be the cost of such works; the deposits or payments to be made at such times and in such amounts as requested by the Forest Service. Provided, however, that the rate shall be revised upward or downward on December 31 of each year hereafter, based on estimated costs and uses anticipated; Provided further, that payment shall not relieve the permittee from liability for repair of damages due to carelessness or negligence on its part or on the part of its contracts or agents.

Maintenance shall be performed in accordance with Forest Service specifications or requirements for maintenance as hereinafter listed, or as may be mutually agreed upon from time to time and shall consist of (1) current maintenance as necessary to preserve, repair, and protect the roadbed, surface and all structures and appurtenances, and (2) resurfacing equivalent in extent to the wear and loss of surfacing caused by operations authorized by this permit.

9a. MAINTENANCE AND RESURFACING REQUIREMENTS AND SPECIFICATIONS.

(Specify) See attached Road Maintenance Specification 831 Ditch Maintenance (10/99)*

See Attached Road Maintenance Specification 831 - Ditch Maintenance (10/99)*

See Attached Road Maintenance Specification 834 - Drainage Structures (9/96)*

See Attached Road Maintenance Specification 811 - Blading (7/91)

See Attached Road Maintenance Specification 811 - Blading (9/96)

*Applicable if ditches or drainage structures damaged during use.

10. PERFORMANCE BOND. In the event the permittee is to perform his proportionate share of road maintenance, road resurfacing, or betterment, as determined and within time periods established by the Forest Supervisor, the Forest Service may require as a further guarantee of the faithful performance of such work that the permittee furnish and maintain a surety bond satisfactory to the Forest Service in the sum of **n/a** dollars (\$**n/a**), or in lieu of a surety bond, deposit into a Federal depository, as directed by the Forest Service, and maintain therein cash in the sum of **n/a** dollars (\$**n/a**), or negotiable securities of the United States having market value at time of deposit of not less than **n/a** (\$**n/a**). As soon as security for the performance of road maintenance (and betterment) requirements or the settlement of claims incident thereto is completed, unencumbered cash guarantees or negotiable securities deposited in lieu of surety bond will be returned to the permittee.

11. FIRE PREVENTION AND SUPPRESSION. The permittee shall take all reasonable precautions to prevent and suppress Forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a permit from the Forest Service.

12. DAMAGES. The permittee shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this permit, and promptly upon demand shall pay the United States for any damage resulting from negligence, or from violation of the terms of this permit or of any law or regulation applicable to the National Forests, by the

permittee, or by his agents, contractors, or employees of the permittee acting within the scope of their agency, contract, or employment.

13. OFFICIALS NOT TO BENEFIT. No member of, or delegate to, Congress or Resident Commissioner shall be admitted to any share or part of this agreement, or to any benefit that may arise herefrom, unless it is made with a corporation for its general benefit.

14. OUTSTANDING RIGHTS. This permit is subject to all outstanding rights.

15. SUSPENSION. Upon the failure of the permittee, its agents, employees, or contractors to comply with any of the requirements of this permit, the officer issuing the permit may suspend operations in pursuance of this permit.

16. TERMINATION. This permit shall terminate on December 31, 2007, unless extended in writing by the Forest Service. It may be terminated upon breach of any conditions herein.

17. CLAUSE CONTROL. In the event of any conflict between any of the preceding printed clauses or any provision thereof and any of the following clauses or any provisions thereof, the following clauses will control.

18. SAFETY. Unless otherwise agreed in writing, when permittee's operations are in progress adjacent to or on Forest Service controlled roads and trails open to public travel, permittee shall provide the use with adequate warning of hazardous or potentially hazardous conditions associated with permittee's Operation. A specific traffic control plan for each individual project shall be agreed to by permittee and Forest Service prior to commencing operations. Devices shall be appropriate to current conditions and shall be covered or removed when not needed. Except as otherwise agreed, flaggers and devices shall be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), and in specifications attached hereto.

19. DRIVER'S COPY. Drivers of all vehicles hauling logs shall have a copy of page 1 of this agreement in their possession. This agreement will be presented, on request, to any Forest Officer.

20. LOAD MARKING. Unless approved otherwise in writing by the District Ranger, all wood products shall be painted with a blue letter "P" on each log across the top layer on the front and back of the load.

21. SNOW REMOVAL. Snow removal shall be done in a manner to preserve and protect the roads, to the extent necessary to ensure safe and efficient transportation of materials, and to prevent excessive erosion damage to roads, streams, and adjacent lands. Permittee shall:

- (1) Remove snow from the entire road surface width, including turnouts.
- (2) Remove snow slides, earth slides, fallen timber, and boulders that obstruct normal road surface width.
- (3) Remove snow, ice, and debris from culverts so that the drainage system will function efficiently at all times.
- (4) Perform all items of snow removal currently to ensure safe, efficient transportation. Work shall be done in accordance with the following minimum standards of performance:
- (5) Deposit all debris, except snow and ice, removed from the road surface and ditches at agreed locations and away from stream channels.
- (6) Not undercut roadbanks nor remove gravel or other selected surfacing material off the roadway surface.

- (7) Assure that ditches and culverts are kept functional during and following roadway use.
- (8) Not leave snow berms on the road surface. Berms on the shoulder of road shall be removed and/or drainage holes shall be opened and maintained. Drainage holes shall be spaced as required to obtain satisfactory surface drainage without discharge on erodible fills.
- (9) Not use dozers to plow snow on roads without written approval of the Forest Service.
- (10) Leave a minimum of 2 inches of snow depth to protect the roadway.
- (11) Restore any damage resulting from the snow removal in a timely manner.

SAMPLE

Exhibit E Grant of Right-of-Way to PacifiCorp by the USDI-BLM

(a template is provided herein; the actual document to be inserted after received from the USDI-BLM and final documentation is prepared by PacifiCorp for the USDI-BLM after license issuance)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
RIGHT-OF-WAY GRANT/TEMPORARY USE PERMIT

SERIAL NUMBER OR

1. A right-of-way is hereby granted pursuant to Title V of the Federal Land Policy and Management Act of October 21, 1976 (90 Stat. 2776; 43 U.S.C. 1761).

2. Nature of Interest:

a. By this instrument, the holder:

receives a right to construct, operate, maintain, and terminate buried communications cables, and the necessary above ground appurtenances thereof on public lands described as follows:

T. S., R. W., Willamette Meridian, Oregon
Sec.

b. The right-of-way area granted herein is _____ feet wide, _____ feet long and contains _____ acres, more or less.

c. This instrument shall terminate on _____, _____ years from its effective date unless prior thereto, it is relinquished, abandoned, terminated, or modified pursuant to the terms and conditions of this instrument or any applicable federal law or regulation.

d. This instrument may be renewed. If renewed, the right-of-way shall be subject to the regulations existing at the time of renewal and any other terms and conditions that the authorized officer deems necessary to protect the public interest.

e. Notwithstanding the expiration of this instrument or any renewal thereof, early relinquishment, abandonment, or termination, the provisions of this instrument, to the extent applicable, shall continue in effect and shall be binding on the holder, its successors, or assigns, until they have fully satisfied the obligations and/or liabilities accruing herein before or on account of the expiration, or prior termination, of the grant.

3. Rental:

For and in consideration of the rights granted, the holder agrees to pay the Bureau of Land Management fair market value rental as determined by the authorized officer unless specifically exempted from such payment by regulation. Provided, however, that the rental may be adjusted by the authorized officer, whenever necessary, to reflect changes in the fair market rental value as determined by the application of sound business management principles, and so far as practicable and feasible, in accordance with comparable commercial practices.

4. Terms and Conditions:

- a. This grant is issued subject to the holder's compliance with all applicable regulations contained in Title 43 Code of Federal Regulations parts 2800 and 2880.
- b. Upon grant termination by the authorized officer, all improvements shall be removed from the public lands within 30 days, or otherwise disposed of as provided in paragraph (4)(d) or as directed by the authorized officer.
- c. Each grant issued pursuant to the authority of paragraph (1)(a) for a term of 20 years or more shall, at a minimum, be reviewed by the authorized officer at the end of the 20th year and at regular intervals thereafter not to exceed 10 years. Provided, however, that a right-of-way granted herein may be reviewed at any time deemed necessary by the authorized officer.
- d. The stipulations, plans, maps, or designs set forth in Exhibits "A" and "B", dated the date of this grant, attached hereto, are incorporated into and made a part of this grant instrument as fully and effectively as if they were set forth herein in their entirety.
- e. Failure of the holder to comply with applicable law or any provision of this right-of-way grant shall constitute grounds for suspension or termination thereof.
- f. The holder shall perform all operations in a good and workmanlike manner so as to ensure protection of the environment and the health and safety of the public.
- g. This grant is subject to all valid rights existing on the effective date of this grant.
- h. There is reserved to the authorized officer, the right to grant additional rights-of-way or permits for compatible uses on, over, under or adjacent to the land involved in this grant.
- i. The right-of-way shall be relinquished to the United States if the authorized uses are no longer needed.
- j. Compliance will be in accordance with all other terms and conditions as specified herein and in Exhibit "B", attached hereto and made a part hereof.
- k. The holder shall indemnify the United States against any and all liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- l. The United States will not be held liable for any damage to the facilities appurtenant to authorized use caused by the general public or as a result of fire, wind, or other natural disasters or as a result of silvicultural practices, timber harvesting operations, or other actions stemming from the normal land management activities of the Bureau of Land Management.

IN WITNESS WHEREOF, The undersigned agrees to the terms and conditions of this right-of-way grant.

Bureau of Land Management

(Signature of Holder)

(Signature of Authorized Officer)

(Title)

(Title)

(Date)

(Effective Date of Grant)

APPLICATION FOR TRANSPORTATION AND
UTILITY SYSTEMS AND FACILITIES
ON FEDERAL LANDS

FORM APPROVED
OMB NO. 1004-0060
Expires: August 31, 1998

FOR AGENCY USE ONLY

NOTE: Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

Application Number

Date Filed

1. Name and address of applicant (include zip code)

2. Name, title, and address of authorized agent if different from Item 1 (include zip code)

3. TELEPHONE (area code)

Applicant

Authorized Agent

4. As applicant are you? (check one)

- a. ☐ Individual
- b. ☐ Corporation*
- c. ☐ Partnership/Association*
- d. ☐ State Government/State Agency
- e. ☐ Local Government
- f. ☐ Federal Agency

* If checked, complete supplemental page

5. Specify what application is for: (check one)

- a. ☐ New authorization
- b. ☐ Renewing existing authorization No.
- c. ☐ Amend existing authorization No.
- d. ☐ Assign existing authorization No.
- e. ☐ Existing use for which no authorization has been received*
- f. ☐ Other*

* If checked, provide details under Item 7

6. If an individual, or partnership are you a citizen(s) of the United States? ☐ Yes ☐ No

7. Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (length, width, grading, etc.); (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space is needed.)

8. Attach a map covering area and show location of project proposal

9. State or Loc. government approval: ☐ Attached ☐ Applied for ☐ Not required

10. Nonreturnable application fee: ☐ Attached ☐ Not required

11. Does project cross international boundary or affect international waterways? ☐ Yes ☐ No (If "yes," indicate on map)

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

13a. Describe other reasonable alternative routes and modes considered.

b. Why were these alternatives not selected?

c. Give explanation as to why it is necessary to cross Federal Lands.

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name)

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

18. Describe the probable effects that the proposed project will have on: (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 9601 et seq., and its regulations. The term hazardous materials also includes any nuclear or by product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

20. Name all the Department(s)/Agency(ies) where this application is being filed.

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant

Date

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

APPLICATION FOR TRANSPORTATION AND UTILITY SYSTEMS
AND FACILITIES ON FEDERAL LANDS

GENERAL INFORMATION
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined produce produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved rights-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

Department of Agriculture
Regional Forester, Forest Service (USFS)
Federal Office Building, P.O. Box 21628
Juneau, Alaska 99802-1628
Telephone: (907) 586-7847 (or a local Forest Service Office)

Department of the Interior
Bureau of Indian Affairs (BIA)
Juneau Area Office
9109 Mendenhall Mall Road, Suite 5, Federal Building Annex
Juneau, Alaska 99802
Telephone: (907) 586-7127

Bureau of Land Management (BLM)
222 West 7th Ave., Box 13
Anchorage, Alaska 99513-7599
Telephone: (907) 271-5477 (or a local BLM Office)

National Park Service (NPS)
Alaska Regional Office, 2525 Gambell St., Rm. 107
Anchorage, Alaska 99503-2892
Telephone: (907) 257-2585

U.S. Fish & Wildlife Service (FWS)
Office of the Regional Director
1011 East Tudor Road
Anchorage, Alaska 99503
Telephone: (907) 786-3440

Note-Filings with any Interior agency may be filed with any office noted above or with the: Office of the Secretary of the Interior, Regional Environmental Officer, Box 120, 1675 C Street, Anchorage, Alaska 99513.

Department of Transportation
Federal Aviation Administration
Alaska Region AAL-4, 222 West 7th Ave., Box 14
Anchorage, Alaska 99513-7587
Telephone: (907) 271-5285

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual departments/agencies may authorize the use of this form by applicants for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS
(Items not listed are self-explanatory)

- Item
1. Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
 2. Generally, the map must show the section(s), township(s), and range(s) within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
 3. 10 and 12 - The responsible agency will provide additional instructions.
 4. Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
 5. The responsible agency will provide instructions.
 6. Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
 7. 16 through 19 - Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.

Application must be signed by the applicant or applicant's authorized representative.

Public reporting burden for this form is estimated to vary from 30 minutes to 25 hours per response, with an average of 2 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-873), 1849 C Street, N.W., Washington, D.C. 20240, and the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

If additional space is needed to complete any item, please put the information on a separate sheet of paper and identify it as "Continuation of Item".

SUPPLEMENTAL

NOTE: The responsible agency(ies) will provide additional instructions	CHECK APPROPRIATE BLOCK	
	ATTACHED	FILED*
I - PRIVATE CORPORATIONS		
a. Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State.	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications.	<input type="checkbox"/>	<input type="checkbox"/>
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
II - PUBLIC CORPORATIONS		
a. Copy of law forming corporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Proof of organization	<input type="checkbox"/>	<input type="checkbox"/>
c. Copy of Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY		
a. Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
b. If one partner is authorized to sign, resolution authorizing signature is	<input type="checkbox"/>	<input type="checkbox"/>
c. Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
d. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>

* If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

NOTICE

The Privacy Act of 1974 provides that you be furnished the following information in connection with information required by this application for an authorization.

AUTHORITY: 16 U.S.C. 310; 5 U.S.C. 301.

PRINCIPAL PURPOSE: The information is to be used to process the application.

ROUTINE USES: (1) The processing of the applicant's request for an authorization. (2) Documentation for public information. (3) Transfer to appropriate Federal agencies when concurrence is required prior to granting a right in public lands or resources. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the information is voluntary. If all the information is not provided, the application may be rejected.

DATA COLLECTION STATEMENT

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certification for the use of Federal lands.

The Federal agencies use this information to evaluate the applicant's proposal.

The public is obligated to submit this form if they wish to obtain permission to use Federal lands.

A reproducible copy of this form may be obtained from the Bureau of Land Management, Division of Lands, 1620 L Street, Rm. 204, Washington, D.C. 20036.

**Exhibit F Cooperative Road Agreement between PacifiCorp
and the USDA-FS**

Draft May 2, 2003

COOPERATIVE FOREST ROAD AGREEMENT

BETWEEN THE

U.S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE

AND

PACIFICORP

This Agreement, made as of the ____ day of 20__, is by and between PacificCorp, hereinafter called the "Cooperator.", and the Umpqua National Forest, Region 6 of the Forest Service, United States Department of Agriculture ("Forest Service").

Authority: This Agreement is under the authority of under authority of the Cooperative Funds Act of June 30, 1914, 16 U.S.C. 498; the Grainger-Thye Act of April 24, 1950, 64 Stat. 83, 16 U.S.C. 572; the National Forest Roads and Trails Act of October 13, 1964, 78 Stat. 1089, 16 U.S.C. 535-538; regulations issued by the Secretary of Agriculture; and the Federal Power Act of June 8, 1920, as amended.

Purpose of Agreement:

WHEREAS, PacificCorp is the licensee of the North Umpqua Hydroelectric Project, Federal Energy Regulatory Commission ("FERC") Project No. 1927 ("project"); and

WHEREAS, the project is located on lands under the control of Forest Service; and

WHEREAS, the Forest Service and PacificCorp are parties to the North Umpqua Hydroelectric Project Settlement Agreement (Settlement Agreement or SA), dated June 13, 2001; and

WHEREAS, the relicensing of the project has created a continuing need for PacificCorp-maintained roads and jointly-maintained roads and bridges that provide access for PacificCorp to project facilities, and access to project related recreation facilities; and

WHEREAS, the parties have constructed, operate, and maintain roads and bridges within the project boundary and roads located outside the boundary which facilitate operation of the project; and

WHEREAS, it is mutually deemed necessary for the parties to coordinate and make provisions for developing, operating, maintaining, and apportioning the costs of such roads and bridges; and

WHEREAS, the parties have agreed in the SA to establish a Transportation Management Plan ("TMP") to coordinate and implement identified cooperative programs and activities and cost sharing more effectively; and

WHEREAS, the parties agree that this Agreement shall apply to all roads upon which the Forest Service, and PacifiCorp have joint road use rights by virtue of the project License or other land use authorizations of the North Umpqua Hydroelectric Project, prior to or subsequent to this Agreement; and

WHEREAS, the parties agree that all such roads and bridges shall be maintained to agreed-upon maintenance standards in a timely manner in accordance with this Agreement and the TMP; and

WHEREAS, the parties agree that all such maintenance shall be performed and the costs shared between the parties in accordance with this Agreement and the TMP, provided that nothing contained herein shall invalidate any current FERC license article or the Settlement Agreement.

THEREFORE, the parties hereto agree as follows:

Section 1- Explanation of Terms

Annual Transportation Action Plan - the annual transportation management and coordination plan that is jointly prepared by the parties that addresses all road and bridge cost sharing, construction, reconstruction, operation, and maintenance to be coordinated or performed during the upcoming annual period. The Annual Transportation Plan is to include tables similar to the examples provided in the TMP, Exhibit _ (Sample Annual Transportation Plan Tables)

Designated Representative - Person(s) or position(s) designated on Exhibits A and B attached hereto, with the authority to obligate the cooperating parties by signing documents related to this Agreement. Each party may revise its respective exhibit by notifying the other party in writing.

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

Licensee - PacifiCorp

Major Damage and Emergency Repairs - Damage resulting from:

- a. Natural causes that is not repairable by normal maintenance practices; considered in excess of that normally occurring for the area; and not anticipated or provided for in the Annual Maintenance Plan, or
- b. Road use that intentionally or unintentionally affects serviceability of the road or results in wear or damage in excess of that occurring in the area under normal operating conditions and procedures.

Prime Maintainer - the party responsible for the performance of most on-the-ground recurrent maintenance of a road, particular segment of road, or a bridge structure.

Project - the North Umpqua Hydroelectric Project, FERC Project No. 1927, including all lands associated therewith located within the boundary of the project as described in Exhibit G to PacifiCorp's Application for a License to FERC.

Restoration - Work necessary, as a result of major damage, to restore a road to the standard and serviceability that existed prior to the damage.

Road and Bridge Operations - the management and control of traffic and road users and the inspection and evaluation of the condition and safety of roads and bridges.

Road and Bridge Maintenance - the level of service provided by, and maintenance required for, a road consistent with mutually agreed-upon road management objectives and maintenance criteria. Five road and bridge maintenance levels have been defined in the TMP.

Road Maintenance - The performance of work activities needed to preserve or protect a roadway including surface, shoulders, roadside, structures, and such traffic-control devices as are necessary for its safe and efficient use to the standard provided through construction, the most recent reconstruction, or other condition as agreed.

Transportation Management Plan (TMP) - the transportation planning and policy document that includes programs related to the coordination and cost sharing of all project transportation-related needs of PacifiCorp for the term of the new license and coordination with BLM and/or Forest Service. The TMP is made a part of this Agreement by reference herein.

Rolling 5-Year Transportation Action Plan - the transportation management and coordination plan that is jointly prepared by the parties that addresses all road and bridge cost sharing, construction, reconstruction, operation, and maintenance to be coordinated or performed during the upcoming annual period, the next out-year period, and a projection for the 5-year period.

Settlement Agreement - North Umpqua Hydroelectric Project Settlement Agreement (Settlement Agreement or SA), dated June 13, 2001, as amended.

Section 2 - Identification of Roads

Roads covered by this Agreement are identified in the TMP, Exhibits __ (Road Inventory). Bridges covered by this Agreement are identified in the TMP, Exhibit __ (Bridge Inventory).

Section 3 - Annual Transportation Action Planning

A written Annual Transportation Plan (see Project Agreements), consistent with the requirements, definitions, and information in this Agreement and the TMP, will be prepared and executed by the respective designated representatives of the Cooperator and the Forest Service. This plan shall be agreed upon by April 1 of each year (or such other appropriate date as may be mutually agreed upon) and shall cover all maintenance work performed or planned to be performed during the calendar year. If, for any reason, the plan is not agreed to on a timely basis, those issues not resolved shall be elevated to the next highest management level of both the Cooperator and the Forest Service for resolution. Pending resolution by higher-level management, all agreed upon portions of the Annual Maintenance Plan shall proceed accordingly so that needed maintenance work is not delayed.

In the event resolution cannot be reached, the Forest Service or the Cooperator will exercise rights acquired or reserved under the Settlement Agreement to ensure the needed work is accomplished. The Cooperator and the Forest Service shall bear their proportionate cost for the work performed.

The Annual Transportation Action Plan may contain or reference other requirements, definitions, maintenance specifications, materials and equipment rates, and information consistent with this agreement that the parties mutually deem necessary to effectively maintain the road system to the last agreed upon standard.

The parties will annually exchange a 5-year projection of activities when it is mutually deemed necessary to determine anticipated use for planning recurrent and deferred maintenance work on specific projects over a 5-year planning horizon. The Forest Service shall consider such projections for the purpose of planning future maintenance under this agreement and, when requested by the Cooperator shall keep them confidential.

In the event a party finds it cannot perform its assignment outlined in the Annual Transportation Action Plan, it shall notify the other party in writing so that alternate arrangements can be made.

In the event that one party is not performing its assigned work, the other party shall notify the responsible party in writing. The responsible party shall then make arrangements to correct the deficiencies. If this is not accomplished, the other party may complete the work. Cost records shall be adjusted to reflect credit for completed work.

Annual Transportation Action Plan. The Annual Plan will include the anticipated recurrent and deferred road maintenance work needed during the calendar year. It shall include a 5-year projection of deferred maintenance work envisioned on roads covered by this Agreement. The parties will consider the needs of all roads covered by this Agreement whether or not they are being or will be actively used during the plan period.

The Annual Transportation Action Plan will include, as a minimum, estimates of the following information:

- Road number and segments or groups of roads;
- Length in miles;
- Planned maintenance, by traffic generated and non-traffic generated categories;
- Shares of non-traffic generated work attributable to each party;
- Shares of traffic generated work attributable to each party;
- Performance responsibility and credits for each party;
- A summation of the total traffic and non-traffic generated maintenance obligation for each party for the year; and

The above information will be estimated and documented at the Annual Transportation Meeting and reconciled for actual work performed and road use at the year-end closeout for each calendar year.

Annual Maintenance Accounting. The year-end closeout of the Annual Transportation Action Plan will be reconciled and documented in writing by the designated representatives. Excess balances for maintenance work performed during the plan period will be paid in cash, unless agreed otherwise by the designated representatives.

Section 4 - Basis for Sharing the Cost of Various Elements of Maintenance

The basis for sharing the maintenance costs of each individual road or group of roads shall be shown in the Annual Maintenance Plan and will be in accordance with the Settlement Agreement and TMP.

Section 5 - Project Agreements

When maintenance or other work on a road covered by this agreement is to be financed in whole or in part from funds provided by the party not having jurisdiction, the parties shall enter into a project agreement providing for performing the work and its financing. A project agreement is not required for improvement of a road or a road segment over which the party performing and financing such improvement has jurisdiction and funding responsibility under the Settlement Agreement. Project agreements shall be supplements to this general agreement and subject to the agreements, provisions, and conditions herein contained.

- a. A project agreement shall be entered into prior to beginning of work for which a project agreement is required.

b. The project agreement shall include the following elements:

- (1) Identification of road or road segment to be improved or constructed.
- (2) Description of work to be accomplished.
- (3) Schedule of work and designation of the party or parties to perform the work.
- (4) Estimates of cost of road work.
- (5) Agreement as to how cost of work is to be borne including arrangements to share in the work or to deposit funds with the performing party for a share of the costs.

c. If funds are provided by the Cooperator on an advance basis for work to be performed by the Forest Service, they shall be deposited in the Treasury of the United States to the credit of Cooperative Work, Forest Service. Any unused balance of cooperative funds for the purposes outlined in the project agreement shall be returned to the Cooperator after completion of the work performed or upon agreement of the Forest Service, unless otherwise agreed.

The amount of cooperative funds as set forth in the project agreement shall be the maximum commitment of the cooperator to the project unless changed by a modification of the project agreement.

d. If funds are provided by the Forest Service for work to be performed by the Cooperator the arrangements shall be set forth in the project agreement. Payments to the Cooperator shall be made as provided for in the project agreement. If it appears that the project cost may exceed the estimate and additional funds may be needed, no obligation shall arise against the Federal government with respect to the increased cost except by modification of the project agreement prior to incurring any commitment.

Section 6 - Annual Meeting and Continuing Consultation

The Cooperator and Forest Service shall meet at least once each year to review matters covered by this agreement and to agree on actions to implement this agreement including, but not limited to, (1) approval of changes in the listing of roads in the TMP; (2) approval of the annual transportation action plan; (3) approval of project agreements for maintenance, construction or reconstruction; and (4) updating the Rolling 5-Year Transportation Action Plan. It is also the intent of the parties to arrange for continuing consultation between their representatives with the objective of reaching prompt agreement by the parties on all matters of mutual concern which are covered by this agreement. The Forest Supervisor of the Umpqua National Forest for the Forest Service, and _____ for the cooperator shall be responsible for making the arrangements for formal meetings and continuing consultation.

Section - 7 Major Damage and Emergency Repairs

The cost of repairing major damage to roads and bridges from natural causes will be shared in accordance with be shared under the same basis as annual maintenance.

The cost of repairing major damage associated with road use or damage caused as a result of a party's failure to make timely repairs will be borne entirely by the party causing the damage.

There shall be no major damage caused by either the Cooperator or Forest Service to a road that materially impacts the road's service ability for use without agreement from all owners of the road.

Section 8 - Road Improvements Without Agreement

Whenever one party chooses to upgrade the standard of a jointly owned road without the other party's participation, the non-participating party's maintenance share will be based on costs attributable to road maintenance costs for the previously existing road standard.

Section 9 - Other Requirements

A. No member of, or delegate to, Congress or resident Commissioner shall be admitted to any part or share of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

B. NONDISCRIMINATION. The Cooperator shall comply with all Federal statutes relating to nondiscrimination and all applicable requirements of all other Federal laws, Executive orders, regulations, and policies. These include but are not limited to Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, 2000e-16), which prohibits discrimination on the basis of race, color, disability, or national origin.

C. AVAILABILITY OF FUNDS. The Forest Service's obligation for performance of this instrument is contingent upon the availability of appropriated funds from which payment can be made. No legal liability on the part of the Forest Service for any payment may arise for performance under this instrument, until funds are made available to the Forest Service for performance and until the recipient/cooperator receives notice of availability to be confirmed in a written Project Agreement by the Forest Service.

Nothing herein shall be construed as obligating the Forest Service to expend and/or involve the Forest Service in any contract or other obligation for future payment of money in excess of appropriations authorized by law and administratively allocated for this work.

D. OVERHEAD Deposits made or credits earned in favor of the Forest Service under terms of this Agreement may include charges for necessary overhead expenses that are

identified in advance by the Forest Service in the Project Agreements. Reimbursements made or credits earned in favor of the Cooperator under terms of this Agreement may include charges for necessary overhead expenses that are identified in advance by the Cooperator in the Project Agreements.

E. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).

F. REFUNDS. Contributions authorized for use by the Forest Service which are not spent or obligated for the project(s) approved under this instrument will be refunded to the cooperator or authorized for use for new projects by the cooperator.

G. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Cooperator(s) from participating in similar activities with other public or private agencies, organizations, and individuals.

Section 10 - Termination, Modification

MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.

TERMINATION. Any of the parties, in writing, may terminate the instrument, in whole, or in part, at any time before the date of expiration.

COMMENCEMENT/EXPIRATION DATE. This instrument is executed as of the date of last signature and is effective through _____, at which time it will expire, unless extended in writing.

Section 11 - Principle Contacts

The principal contacts for this instrument are:

Forest Service Project Contact	PacifiCorp Project Contact
USDA Forest Service, Umpqua National Forest	Pacificorp
Phone:	Phone:

Forest Service Administrative Contact	Cooperator Administrative Contact
Hydropower Coordinator	
USDA Forest Service	
2900 Stewart Parkway	
Roseburg, OR 97470	
Phone:	Phone:

We The Parties Hereto have executed this instrument on the day and year below written.

_____, Forest Supervisor
Umpqua National Forest

Date

PacifiCorp

Date

**Exhibit G USDA-FS Road Use Permit for Joint T-line Roads
outside of the FERC Boundary**

Exhibit G Road Use Permit

USDA Forest Service
R6-FS-7700-41 (8/95)

ROAD USE PERMIT

Authority: Acts of October 13, 1964, and October 21, 1976
(16 U.S.C. 532-38 and 43 U.S.C. 1761-71) (Re: FSH 7709.59)

John A. Sample, of 00001 Sample Street, Sample OR, 90000 (hereafter called the permittee) is hereby granted use of the following road(s) or road segments, and/or related transportation facilities:
ROUTE 1 Rd. 3829 from the Watson patented mining claim to Rd. 2212; thence Rd. 2212, from its jct. With 3829, to Co. Rd. 2460.

ROUTE 2 Rd. 3829-026 from the Pasadena patented mining claim to 3829-025 (except for the said road as it crosses the Sampson patented mining claim); Thence Rd. 3829-025 from its jct. with Rd. 3829-026 to Rd. 3829 (except for the said road as it crosses the Sampson and Buck Strike patented mining claims); Thence Rd. 3829 from its jct. with Rd. 3829-025 to Rd. 2212; thence Rd. 2212, from its jct. With 3829, to Co. Rd. 2460.

ROUTE 3 Rd. 3828-176 from the Arlington patented mining claim to its jct. with Rds. 3828 & 2358; Thence Rd. 2358 from its jct. with Rd. 3828 to County Rd. 2460.

ROUTE 4 Rd. 3828-160 from the Victor patented mining claim to its jct. with Rd. 3828; Thence Rd. 3828 from its jct. with Rd. 3828-160 to Rd. 2358; Thence Rd. 2358 from its jct. with Rd. 3828 to Co. Rd. 2460.

On the Umpqua National Forest, subject to the provisions of this permit, including clauses 1 through 21, on page(s) 1 through 5 for the purpose of hauling.

The exercise of any of the privileges granted in this permit constitute acceptance of all the conditions of the permit.

1. ROAD USE PERMIT FEES. The rate for sharing under this permit is:

ROUTE 1 = \$0.82 /MBF
ROUTE 2 = \$0.70 /MBF
ROUTE 3 = \$1.26 /MBF
ROUTE 4 = \$2.12 /MBF

Permittee's share of investment will be met as provided for in Clause 2.

The rate for sharing maintenance is shown in Clause 9.

2-1. WORK REQUIRED TO ACCOMMODATE PERMITTED USE. In accordance with this use, the permittee shall perform the work described below and in accordance with plans and specifications attached hereto:

Place 20 cubic yards of crushed aggregate per year at locations on any Forest Service Roads, as designated by Forest Service Representative

See Attached Road Maintenance Specification 831 - Ditch Maintenance (10/99)*

See Attached Road Maintenance Specification 834 - Drainage Structures (9/96)*

See Attached Road Maintenance Specification 811 - Blading (7/91)

See Attached Road Maintenance Specification 811 - Blading (9/96)

*Applicable if ditches or drainage structures damaged during use.

ACCEPTED:			
	Permittee (Signature)	Name	Date
ACCEPTED:			
	Issuing Officer (Signature)	Name (Title: Forest Supervisor)	Date

WORK PERFORMANCE SCHEDULE. (Construction of required improvements or reconstruction will be completed within n/a months and before hauling commences.)* (Work shall be performed in accordance with the attached schedule. In no case will haul be allowed to exceed the value of completed work.)* Credit will be allowed in the total of \$n/a, which is the engineering estimate for the cost of the work, to be credited to the share to be borne by this permitted use. In the event that permitted use will exceed the value of required work performed, the difference between the value of permitted use and work performed will be deposited in cash as provided in clause 2-3.

2-2. COOPERATIVE WORK. Although not required to accommodate the use herein permitted, it is desirable to the Forest Service and the permittee to have certain construction or reconstruction work accomplished coincident to use of the road.

The permittee shall perform the work described below in accordance with plans and specifications attached hereto. Upon satisfactory performance, credit will be allowed in the total of \$n/a to the share to be borne by the permittee

2-3. CASH DEPOSITS REQUIRED IN LIEU OF WORK PERFORMANCE. The permittee will deposit \$n/a with the Forest Service on or before n/a. The amount deposited will be credited to the share to be borne by the permittee.

2-4. ROAD USE FEE. In consideration for this use, the permittee shall deposit with the Forest Service, the sum of \$67.40 (and thereafter in individual deposits, equivalent to estimated charges before next payment is made, as called for by the Forest Service in advance of current road use).* When preferred by a permittee, a payment guarantee may be furnished in lieu of advance deposits.

This permit is accepted subject to all of its terms and conditions.

PAYMENT GUARANTEE. Notwithstanding the provisions of clause 1, if the permittee furnishes and maintains an acceptable payment bond in a penal sum of not less than \$n/a guaranteeing payments for road use up to this amount, or in lieu thereof deposits in a Federal depository, through the Regional Fiscal Agent, and maintains therein negotiable securities of the United States having a market value in like sum and agreement authorizing the bond approving officer to sell or collect such securities if payment is not made within n/a days of request therefore, the Forest Service shall permit road use in advance of cash payment up to the penal sum of such bond, or market value at time of deposit of negotiable securities; provided that regardless of penal sum of such payment bond, or the value of such deposited securities, the permittee shall pay cash within n/a days of request therefore, for all performed road use. If any payment is not received within n/a days of request therefore, the Forest Service may suspend all hauling under this permit until payments due are received, and may take such action as is necessary to collect such payments from the payment guarantee surety, or by sale or collection of securities guaranteeing payments. In the event the permittee fails to make payment and collection is obtained from the surety, or from the sale or collection of the deposited securities, the Forest Service may thereafter require the permittee to make payments in advance of road use.

3. USE PLANS. Prior to December 31 each year this permit is in effect, permittee shall notify the District Ranger in writing of the approximate time when such use will commence, the anticipated duration of such use, the names and addresses of permittee's contractors or agents who will use the

road on behalf of permittee, the estimated extent of use, and such other information relative to permittee's anticipated use as the Forest Service may from time to time reasonably request. If and when during the year there is any significant change with respect to the information so supplied by permittee, the permittee will notify the District Ranger promptly in writing of such change. Plans and changes will be approved by the Forest Service before use may commence.

4. USE RECORDS. The permittee shall Monthly, or at other Forest Service approved intervals when the permittee is hauling over this road, furnish the log scale records, or other records satisfactory to the forest service which give the volume of road use in terms related to rates in clause 1 under the authority of this permit.

5. COMPLIANCE WITH LAWS AND REGULATIONS. The permittee, in exercising the privileges granted by this permit, shall comply with the regulations of the Department of Agriculture and all Federal, State, county and municipal laws, ordinances, or regulations which are applicable to the area, or operations covered by this permit.

6. USE NONEXCLUSIVE. The privileges granted in this permit to use this road are not exclusive. The Forest Service may use this road and authorize others to use it at any and all times. The permittee shall use said road in such manner as will not unreasonably or unnecessarily interfere with the use thereof by other authorized persons, including Forest Service.

7. RULES GOVERNING USE. The permittee, its agents, employees, contractors or employees of contractors, shall comply with all reasonable rules prescribed by the Forest Service for control and safety in the use of this road and to avoid undue damage to the road. Such rules will include:

- (1) Closing the road or restricting its use when, due to weather conditions or the making of alterations or repairs, unrestricted use would, in Forest Service judgment, cause excessive damage, or create hazardous conditions;
- (2) Closing the road during periods when, in Forest Service judgment, there is extraordinary fire danger;
- (3) Traffic controls, which in Forest Service judgment, are required for safe and effective use of the road by authorized users thereof;
- (4) Prohibiting the loading of logs on trucks while such trucks are standing on the roadway surface, except to recover lost logs; and
- (5) Prohibiting the operation on this road of any vehicles or equipment having cleats or other tracks which will injure the surface thereof;
- (6) Prohibition on the operation of log-hauling vehicles (of a width in excess of 8 feet and a gross weight of vehicles and load in excess of 80,000 lbs.
- (7) Regulating the number of vehicles so as to prevent undue congestion of this road.

(8) Prohibiting the use of an "active ingredient" as defined in Section 2 of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (86 Stat. 973), in violation of said act on the land described in this permit.

(9) Other - Specify (Optional) Permittee shall post the road or roadways with signs conforming to the Manual on Uniform Traffic Devices as listed below: (a) Road Construction Ahead, (b) End Construction, and (c) Caution Trucks Entering - 500 feet.

8. INSURANCE. Permittee or his contractors and assigns shall be required to carry public liability and property damage insurance for the operation of vehicles in the amounts established by applicable state laws, cooperative agreements, or easements issued on the subject road or roads. In any event, the permittee must carry liability insurance and property damage insurance of not less than \$250,000 for injury or death to one person, \$500,000 for injury or death to two or more persons, and \$250,000

for damage to property. The permittee itself shall be responsible for furnishing to the Forest Service proof of satisfactory insurance when said insurance is to be furnished by other than the permittee. Proof of satisfactory insurance may be required by the Forest service prior to hauling over the road(s) and will be for the duration of the permit and such insurance policy shall bear an endorsement requiring the issuing company to give 10 days prior written notice to the Forest Supervisor of Umpqua National Forest, of cancellation or material change.

9. MAINTENANCE. The permittee shall bear the expense of maintenance proportionate to his use. This expense will be borne by performance and/or deposits.

When deposit or payments are required in lieu of performance of maintenance, the rate will be:

ROUTE 1 = \$1.80 /MBF

ROUTE 2 = \$1.54 /MBF

ROUTE 3 = \$2.76 /MBF

ROUTE 4 = \$4.65 /MBF

which is agreed to be the cost of such works; the deposits or payments to be made at such times and in such amounts as requested by the Forest Service. Provided, however, that the rate shall be revised upward or downward on December 31 of each year hereafter, based on estimated costs and uses anticipated; Provided further, that payment shall not relieve the permittee from liability for repair of damages due to carelessness or negligence on its part or on the part of its contracts or agents.

Maintenance shall be performed in accordance with Forest Service specifications or requirements for maintenance as hereinafter listed, or as may be mutually agreed upon from time to time and shall consist of (1) current maintenance as necessary to preserve, repair, and protect the roadbed, surface and all structures and appurtenances, and (2) resurfacing equivalent in extent to the wear and loss of surfacing caused by operations authorized by this permit.

9a. MAINTENANCE AND RESURFACING REQUIREMENTS AND SPECIFICATIONS.
(Specify) See attached Road Maintenance Specification 831 Ditch Maintenance (10/99)*

See Attached Road Maintenance Specification 831 - Ditch Maintenance (10/99)*

See Attached Road Maintenance Specification 834 - Drainage Structures (9/96)*

See Attached Road Maintenance Specification 811 - Blading (7/91)

See Attached Road Maintenance Specification 811 - Blading (9/96)

*Applicable if ditches or drainage structures damaged during use.

10. PERFORMANCE BOND. In the event the permittee is to perform his proportionate share of road maintenance, road resurfacing, or betterment, as determined and within time periods established by the Forest Supervisor, the Forest Service may require as a further guarantee of the faithful performance of such work that the permittee furnish and maintain a surety bond satisfactory to the Forest Service in the sum of **n/a** dollars (\$**n/a**), or in lieu of a surety bond, deposit into a Federal depository, as directed by the Forest Service, and maintain therein cash in the sum of **n/a** dollars (\$**n/a**), or negotiable securities of the United States having market value at time of deposit of not less than **n/a** (\$**n/a**). As soon as security for the performance of road maintenance (and betterment) requirements or the settlement of claims incident thereto is completed, unencumbered cash guarantees or negotiable securities deposited in lieu of surety bond will be returned to the permittee.

11. FIRE PREVENTION AND SUPPRESSION. The permittee shall take all reasonable precautions to prevent and suppress Forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without a permit from the Forest Service.

12. DAMAGES. The permittee shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this permit, and promptly upon demand shall pay the United States for any damage resulting from negligence, or from violation of the terms of this permit or of any law or regulation applicable to the National Forests, by the

permittee, or by his agents, contractors, or employees of the permittee acting within the scope of their agency, contract, or employment.

13. OFFICIALS NOT TO BENEFIT. No member of, or delegate to, Congress or Resident Commissioner shall be admitted to any share or part of this agreement, or to any benefit that may arise herefrom, unless it is made with a corporation for its general benefit.

14. OUTSTANDING RIGHTS. This permit is subject to all outstanding rights.

15. SUSPENSION. Upon the failure of the permittee, its agents, employees, or contractors to comply with any of the requirements of this permit, the officer issuing the permit may suspend operations in pursuance of this permit.

16. TERMINATION. This permit shall terminate on December 31, 2007, unless extended in writing by the Forest Service. It may be terminated upon breach of any conditions herein.

17. CLAUSE CONTROL. In the event of any conflict between any of the preceding printed clauses or any provision thereof and any of the following clauses or any provisions thereof, the following clauses will control.

18. SAFETY. Unless otherwise agreed in writing, when permittee's operations are in progress adjacent to or on Forest Service controlled roads and trails open to public travel, permittee shall provide the use with adequate warning of hazardous or potentially hazardous conditions associated with permittee's Operation. A specific traffic control plan for each individual project shall be agreed to by permittee and Forest Service prior to commencing operations. Devices shall be appropriate to current conditions and shall be covered or removed when not needed. Except as otherwise agreed, flaggers and devices shall be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), and in specifications attached hereto.

19. DRIVER'S COPY. Drivers of all vehicles hauling logs shall have a copy of page 1 of this agreement in their possession. This agreement will be presented, on request, to any Forest Officer.

20. LOAD MARKING. Unless approved otherwise in writing by the District Ranger, all wood products shall be painted with a blue letter "P" on each log across the top layer on the front and back of the load.

21. SNOW REMOVAL. Snow removal shall be done in a manner to preserve and protect the roads, to the extent necessary to ensure safe and efficient transportation of materials, and to prevent excessive erosion damage to roads, streams, and adjacent lands. Permittee shall:

- (1) Remove snow from the entire road surface width, including turnouts.
- (2) Remove snow slides, earth slides, fallen timber, and boulders that obstruct normal road surface width.
- (3) Remove snow, ice, and debris from culverts so that the drainage system will function efficiently at all times.
- (4) Perform all items of snow removal currently to ensure safe, efficient transportation. Work shall be done in accordance with the following minimum standards of performance:
- (5) Deposit all debris, except snow and ice, removed from the road surface and ditches at agreed locations and away from stream channels.
- (6) Not undercut roadbanks nor remove gravel or other selected surfacing material off the roadway surface.

- (7) Assure that ditches and culverts are kept functional during and following roadway use.
- (8) Not leave snow berms on the road surface. Berms on the shoulder of road shall be removed and/or drainage holes shall be opened and maintained. Drainage holes shall be spaced as required to obtain satisfactory surface drainage without discharge on erodible fills.
- (9) Not use dozers to plow snow on roads without written approval of the Forest Service.
- (10) Leave a minimum of 2 inches of snow depth to protect the roadway.
- (11) Restore any damage resulting from the snow removal in a timely manner.

SAMPLE

**Exhibit H USDA-FS - PacifiCorp Road Operational Maintenance
Responsibilities (Modified SA Sch. 15.2)**

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

Route	Road name	Map #	Maint. Level	PacifiCorp Cost Share %	Owner	Termini (from)	Termini (to)	Mile
Jointly Maintained Hydro Roads								
2610000	LEMOLO LAKE	62,63	4	20	USDA-FS	2612000	2610680	3.00
2610000	LEMOLO LAKE	63-66	5	60	USDA-FS	1380000	2612000	5.19
2610670	LEM.1 FB-S.SIDE	62	2	20	USDA-FS	2610672	End	0.06
2610680	LEM NO.1 GENERATOR	56,62	2	20	USDA-FS	2610000	3400078	2.98
2612000	N. SHORE LEMOLO LAKE	63-65	5	20	USDA-FS	2610000	2614000	2.30
2614000	S & E SHORE LEMOLO L	64,65	5	20	USDA-FS	2610000	2612000	2.74
3400000	TOKETEE RIGDON RD	43,50-53	3	10	USDA-FS	3402000	3400100	2.85
3400000	TOKETEE RIGDON RD	43,50-53	5	10	USDA-FS	3400025	3402000	2.46
3400000	TOKETEE RIGDON RD	43,50-53	5	25	USDA-FS	1380000	3400025	1.43
3400100	LEM.NO2. CANAL SPUR	53,54	3	20	USDA-FS	3400000	3400072	0.03
3400100	LEMOLO 2 CANAL	53,54	3	20	USDA-FS	3400000	3400072	1.55
3400101	HOT SPRINGS	53,57	2	20	USDA-FS	3400000	3400104	0.02
3401000	THORN PRAIRIE	50,58-61	3	20	USDA-FS	3400000	3401701	8.87
3401000	THORN PRAIRIE	63	3	20	USDA-FS	3401800	2610000	0.49
3401800	LEMOLO FALLS	61-63	2	20	USDA-FS	3401000	3401000	3.55
3401860	LEMOLO 1 SPILLVALVE	63	1	20	USDA-FS	2610000	LEMOLO LAKE DAM RD	0.24
3402000	THORN MTN.	51	3	20	USDA-FS	3400000	3402053	1.23
3700000	FISH CREEK	44-46	5	10	USDA-FS	1380000	3701000	2.94
3700010	FISH CR FOREBAY	37,41,44	3	20	USDA-FS	3700000	3701300	2.12
3701000	BIG CAMAS	41,42,45	4	20	USDA-FS	3700000	3701210	2.72
3701220	UPPER FC CANAL ROAD	41,42	2	20	USDA-FS	3701000	3701235	1.46
3701300	BRINK ROAD	37	1	20	USDA-FS	GATE	SWITCHBACK	0.63
3701300	BRINK ROAD	37,40,41	2	20	USDA-FS	3701232	GATE	1.50
4700630	STUMP LAKE GAGE	49	2	20	USDA-FS	1380000	End	0.21
4775000	MEDICINE CREEK ROAD	36	3	20	USDA-FS	1380000	TL42_04/13	0.08
4775011	SODA SPRINGS RD	34-36	3	20	USDA-FS	4775000	WATER QUALITY STATIO	1.98
4776000	TOKETEE RANGER ST RD	43,46	5	20	USDA-FS	1380000	4776080	2.26
4776000	TOKETEE RANGER ST RD	43,46	5	30	USDA-FS	4776080	3400000	0.24
4776200	CLRWTR NO.2 FOREBAY	43,44,46	2	20	USDA-FS	4776000	4776252	1.57
4776300	CLEARWATER	46-48	2	20	USDA-FS	4776200	4780000	6.49
4776350	CANAL T.S.	46,47	2	20	USDA-FS	4776300	4776250	0.63
4780000	CLEARWATER 1 CANAL	48,49	3	20	USDA-FS	1380000	4776300	2.02

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

Route	Road name	Map #	Maint. Level	PacifiCorp Cost Share %	Owner	Termini (from)	Termini (to)	Mile
PacifiCorp Maintained Hydro Roads								
	3400077 SPUR	55	2	100	USDA-FS	3400072	End	0.10
	CLEARWATER 2 SPUR RD	46	2	100	USDA-FS	4776200	4776250	0.01
	E. END SS SHORELINE	36	2	100	USDA-FS	4775010	End	0.16
	LEM.NO2. CANAL SPUR	52,53	2	100	USDA-FS	3400000	3400090	0.52
	LEMOLO LAKE DAM RD	63	2	100	USDA-FS	3401860	End	0.30
	LEMOLO NO1 PH	56	2	100	USDA-FS	2610680	End	0.17
	LOWR CLEARWTR VILL	43	2	100	USDA-FS	4776000	LOWR CLEARWTR VILL	0.14
	SLD.CRK.HOUSING RD	36	2	100	USDA-FS	4775010	End	0.23
	SPOTTED OWL CR. SPUR	52	2	100	USDA-FS	3400090	End	0.34
	TL53_02/1	43,46	2	100	USDA-FS	4776100	End	0.12
	TOKETEE VILLAGE LANE	37	2	100	USDA-FS	4775010	End	0.23
	TOKETEE VILLAGE LOOP	37	2	100	USDA-FS	4775010	4775010	0.18
	UPPR CLEARWTR VILL	43,46	2	100	USDA-FS	4776000	End	0.12
2610610	EVEN FLOW RD	63	2	100	USDA-FS	2610000	End	0.16
2610670	LEM.1 FB-S.SIDE	62	2	100	USDA-FS	2610672	End	0.05
2610672	LEMOLO 1 CANAL	62,63	2	100	USDA-FS	2610670	End	2.78
2610680	LEM NO.1 GENERATOR	56	2	100	USDA-FS	3400078	3400072	0.35
2610686	LEMOLO NO.1 PENSTOCK	56,62	2	100	USDA-FS	2610680	End	1.34
3400005	TOKETEE FALLS ROAD	43	2	100	USDA-FS	PARKING AREA	End	0.06
3400006	TOK FLOWLINE & DAM	43	2	100	USDA-FS	3400000	End	0.20
3400007	BONE YARD	43	2	100	USDA-FS	3400000	End	0.13
3400008	TOKETEE DAM	43	2	100	USDA-FS	3400000	End	0.19
3400030	LEM NO.2 GENERATOR	50	2	100	USDA-FS	3400000	3400000	0.12
3400034	LEMOLO NO.2 PENSTOCK	50,51	2	100	USDA-FS	3400000	End	0.35
3400051	BURN PILE ACCESS	51	2	100	USDA-FS	3400000	End	0.09
3400052	CANAL ACCESS	51	2	100	USDA-FS	3400000	3400071	0.19
3400053	CANAL ACCESS	51	2	100	USDA-FS	3400000	3400071	0.11
3400071	LEMOLO 2 CANAL	51-53	2	100	USDA-FS	3402000	3400000	3.53
3400072	BURMA ROAD	54-56	2	100	USDA-FS	3400100	2610680	6.53
3400080		53	2	100	USDA-FS	3400000	3400071	0.16
3400086	LEMOLO 2 CANAL	51-53	2	100	USDA-FS	3400071	3400085	0.39
3400090	DEER CR. DIVERSION	52,53	2	100	USDA-FS	3400000	End	1.03
3402051	LEMOLO 2 CANAL	51	2	100	USDA-FS	3402000	End	0.20

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

Route	Road name	Map #	Maint. Level	PacifiCorp Cost Share		Owner	Termini (from)	Termini (to)	Mile
				%					
3402052		51	2	100		USDA-FS	3402071	End	0.19
3402071		51	2	100		USDA-FS	3402000	End	0.81
3701210	FISH CR CANAL ROAD	41,42	2	100		USDA-FS	3701000	3701220	1.44
3701211	FISH DAM ROAD	42	2	100		USDA-FS	3701220	3701210	0.44
3701220	UPPER FC CANAL ROAD	40-42	2	100		USDA-FS	3701235	End	0.40
3701224		41	2	100		USDA-FS	3701232	3701310	0.04
3701232		41	2	100		USDA-FS	3701300	3701310	0.22
3701300	BRINK ROAD	37	1	100		USDA-FS	1380000	SWITCHBACK	0.81
3701310	FISH CR CANAL ROAD	40-42	2	100		USDA-FS	3701000	3701300	3.11
3701383	FISH CR FOREBAY	37,40	2	100		USDA-FS	3701300	3701300	0.71
4700630	STUMP LAKE REC ROAD	49	2	100		USDA-FS	4700630	End	0.07
4700640	STUMP LAKE ACCESS	49	2	100		USDA-FS	1380000	End	0.06
4775010	COPCO RD	36,37	2	100		USDA-FS	4775000	4775051	2.69
4775010	TOKETEE SCHOOL ROAD	37	2	100		USDA-FS	4775051	4775010	0.08
4775050		37	2	100		USDA-FS	4775050	End	0.04
4775050	FISH CR POWERHOUSE	37	2	100		USDA-FS	TOK PH & SL	SLIDE CR DAM WEST	0.14
4775050	SLIDE CR DAM WEST	37	2	100		USDA-FS	FISH CR POW	4775010	0.27
4775050	TOK PH & SLIDE DAM	37	2	100		USDA-FS	4775010	End	0.26
4775050	TOKETEE PENSTOCK	37	2	100		USDA-FS	TOKETEE SUR	End	0.06
4775050	TOKETEE SURGE TANK	37	2	100		USDA-FS	TOK PH & SL	End	0.63
4775051	TOKETEE SCHOOL ROAD	37	2	100		USDA-FS	1380000	4775010	0.22
4776010	CLRWTR NO.1 CANAL	48,49	2	100		USDA-FS	1380000	4776300	3.07
4776080	CLEARWATER SHOP	43	2	100		USDA-FS	4776000	4776090	0.02
4776080	PPL CO. FACILITIES	43	2	100		USDA-FS	4776000	4776090	0.05
4776090	PPL CO. FACILITIES	43	2	100		USDA-FS	4776105	End	0.10
4776100	CLEARWATER VILLAGE	43,46	2	100		USDA-FS	4776000	End	0.31
4776100	CLRWTR PENSTOCK ROAD	43,46	2	100		USDA-FS	TL53_02/1	End	0.13
4776105	CLEARWATER SHOP	43	2	100		USDA-FS	4776000	End	0.17
4776200	CLRWTR NO.2 FOREBAY	43,46	2	100		USDA-FS	4776251	4776200	0.76
4776201	CLR.NO2.PENSTK	43,46	2	100		USDA-FS	4776200	End	0.14
4776250	CLEARWATER 2 CANAL	43,46,47	2	100		USDA-FS	4776200	4776300	5.92
4776352	CANAL T.S.	46	2	100		USDA-FS	4776250	4776350	0.11
4776650	CLEARWTR NO.1 PENSTK	48	2	100		USDA-FS	4776300	End	0.72

Route	Road name	Map #	Maint. Level	PacifiCorp Cost Share %	Owner	Termini (from)	Termini (to)	Mile
PacifiCorp Recreation Roads								
2610570	POOLE CR CG	63	5	100	USDA-FS	2610000	End	1.38
2610901	BUNKER HILL CG	63,64	3	100	USDA-FS	2612000	End	0.26
2614430	E LEMOLO CG	64,65	3	100	USDA-FS	2614000	End	0.76
2614440	INLET CG	64	3	100	USDA-FS	2614000	2614440	0.33
3400005	TOKETEE FALLS ROAD	43	3	100	USDA-FS	3400000	PARKING AREA	0.09
3400025	TOKETEE CG	43,50	3	100	USDA-FS	3400000	3400025	1.02
3402053	LEM.NO2.C.G.	51	3	100	USDA-FS	3402000	End	0.11
PacifiCorp Maintained Transmission Roads								
	TL39_01/25	23	1	100	USDA-FS	BOUNDARY ROAD	End	0.04
	TL39_01/26	23,24	1	100	USDA-FS	BOUNDARY ROAD	End	0.56
	TL39_01/31	26,28	1	100	USDA-FS	TL46_01/28	End	0.02
	TL39_01/33	28,29	1	100	USDA-FS	1380000	End	0.68
	TL39_01/34	29	1	100	USDA-FS	4713000	End	0.17
	TL39_01/35	29	1	100	USDA-FS	TL39_03/35	End	0.08
	TL39_01/36	30	1	100	USDA-FS	4713256	End	0.27
	TL39_01/37	30,31	1	100	USDA-FS	TL39_02/37	End	0.03
	TL39_01/38	31	1	100	USDA-FS	1380000	End	0.30
	TL39_01/43	33,34	1	100	USDA-FS	TL46_04/39	End	0.78
	TL39_02/27	24	1	100	USDA-FS	TL39_02/27	End	0.20
	TL39_02/29	25	1	100	USDA-FS	TL46_04/26	End	0.03
	TL39_02/34	29	1	100	USDA-FS	TL39_01/34	TL39_06/31	0.18
	TL39_02/36	30	1	100	USDA-FS	TL39_01/36	End	0.12
	TL39_02/37	30,31	1	100	USDA-FS	TL39_03/37	End	0.45
	TL39_02/38	31	1	100	USDA-FS	TL39_01/38	End	0.54
	TL39_02/40	32	1	100	USDA-FS	1380000	TL46_04/36	0.57
	TL39_02/41	32,33	1	100	USDA-FS	TL39_06/41	End	0.09
	TL39_02/47	39,40	1	100	USDA-FS	2800000	2800620	1.17
	TL39_03/30	26	1	100	USDA-FS	OLD UMPQUA HWY	End	0.59
	TL39_03/31	26,28	1	100	USDA-FS	TL46_02/28	End	0.35
	TL39_03/32	26,28	1	100	USDA-FS	TL39_04/32	End	0.41
	TL39_03/33	29	1	100	USDA-FS	1380000	End	0.37
	TL39_03/35	29,30	1	100	USDA-FS	TL39_05/35	TL39_01/35	0.30
	TL39_03/36	30	1	100	USDA-FS	4713256	End	0.20

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

PacifiCorp								
			Maint.	Cost Share				
Route	Road name	Map #	Level	%	Owner	Termini (from)	Termini (to)	Mile
	TL39_03/37	30,31	1	100	USDA-FS	TL46_07/34	1380000	0.98
	TL39_03/40	32	1	100	USDA-FS	TL39_02/40	End	0.03
	TL39_03/46	38	1	100	USDA-FS	2800620	End	0.32
	TL39_03/48	40	1	100	USDA-FS	3701382	End	0.19
	TL39_04/28	25	1	100	USDA-FS	TL39_02/27	End	0.32
	TL39_04/32	28	1	100	USDA-FS	OLD UMPQUA HWY	End	0.92
	TL39_04/33	29	1	100	USDA-FS	TL39_03/33	End	0.07
	TL39_04/34	29	1	100	USDA-FS	4713000	TL46_01/32	0.33
	TL39_04/36	30	1	100	USDA-FS	TL39_03/36	End	0.18
	TL39_04/37	31	1	100	USDA-FS	TL39_03/37	End	0.36
	TL39_04/38	31	1	100	USDA-FS	TL39_06/38	End	0.37
	TL39_04/41	33	1	100	USDA-FS	TL39_04/41	End	0.00
	TL39_04/45	38, 39	1	100	USDA-FS	2800700	End	0.06
	TL39_04/46	39	1	100	USDA-FS	2800700	End	0.08
	TL39_05/28	25	1	100	USDA-FS	TL39_06/28	TL46_04/25	0.29
	TL39_05/35	30	1	100	USDA-FS	TL39_03/35	TL39_06/35	0.37
	TL39_05/38	31	1	100	USDA-FS	TL39_06/38	End	0.12
	TL39_05/39	32	1	100	USDA-FS	TL46_01/37	End	0.04
	TL39_06/28	25	1	100	USDA-FS	TL39_05/28	End	0.06
	TL39_06/35	30	1	100	USDA-FS	4713000	End	0.30
	TL39_06/36	30	1	100	USDA-FS	TL39_07/36	TL39_07/36	0.13
	TL39_06/38	31	1	100	USDA-FS	1380000	End	0.36
	TL39_06/40	32	1	100	USDA-FS	TL39_06/40	End	0.08
	TL39_06/41	32,33	1	100	USDA-FS	TL39_01/42	End	0.47
	TL39_06/42	33,34,38	1	100	USDA-FS	TL46_04/39	End	1.66
	TL39_06/47	40	1	100	USDA-FS	2800622	End	0.34
	TL39_06/49	37,40	1	100	USDA-FS	3701383	End	0.08
	TL39_07/36	30	1	100	USDA-FS	1380000	End	0.48
	TL39_07/47	40	1	100	USDA-FS	2800620	End	0.42
	TL39_08/42	33	1	100	USDA-FS	TL46_04/39	End	0.05
	TL42_01/2	36,37	1	100	USDA-FS	TL42_10/1	TL42_02/2	0.18
	TL42_01/4	35,36	1	100	USDA-FS	1380000	End	0.25
	TL42_02/2	36,37	1	100	USDA-FS	4775010	End	0.12
	TL42_03/1	37	1	100	USDA-FS	4775010	End	0.01

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

PacifiCorp								
				Cost Share				
Route	Road name	Map #	Maint. Level	%	Owner	Termini (from)	Termini (to)	Mile
	TL42_03/2	36	1	100	USDA-FS	4775010	End	0.38
	TL42_03/3	36	1	100	USDA-FS	4774010	End	0.02
	TL42-1_04/1	36	1	100	USDA-FS	4775010	End	0.04
	TL42_04/1	37	1	100	USDA-FS	4775010	End	0.03
	TL42_04/2	36	1	100	USDA-FS	TL42_03/2	End	0.02
	TL42_04/3	36	1	100	USDA-FS	SLIDE CREEK TRANSFER	End	0.02
	TL42_05/3	36	1	100	USDA-FS	TL42_06/3	End	0.08
	TL42_06/3	36	1	100	USDA-FS	4775011	End	0.07
	TL42_07/3	35,36	1	100	USDA-FS	4775011	End	0.10
	TL42_08/1	37	1	100	USDA-FS	4775010	End	0.14
	TL42_09/1	37	1	100	USDA-FS	TL42_08/1	End	0.08
	TL42_10/1	37	1	100	USDA-FS	TL42_09/1	End	0.09
	TL46_01/23	23,24	1	100	USDA-FS	TL39_01/26	End	0.02
	TL46_01/25	24	1	100	USDA-FS	BOUNDARY ROAD	End	0.10
	TL46_01/28	26,28	1	100	USDA-FS	3800031	End	0.21
	TL46_01/32	29	1	100	USDA-FS	TL39_04/34	TL46_07/31	0.04
	TL46_01/35	31	1	100	USDA-FS	TL39_04/37	End	0.02
	TL46_01/37	32	1	100	USDA-FS	TL46_01/37	End	0.15
	TL46_01/43	35	1	100	USDA-FS	4775011	End	0.04
	TL46_02/26	25	1	100	USDA-FS	OLD UMPQUA HWY	End	0.20
	TL46_02/28	26,28	1	100	USDA-FS	TL39_30/31	3800017	0.19
	TL46_02/29	26,28	1	100	USDA-FS	TL39_03/32	End	0.20
	TL46_02/33	30	1	100	USDA-FS	TL39_02/36	End	0.01
	TL46_02/37	32	1	100	USDA-FS	TL39_02/40	End	0.04
	TL46_02/42	34,35	1	100	USDA-FS	TL46_03/42	End	0.24
	TL46_03/24	24	1	100	USDA-FS	TL46_03/24	End	0.18
	TL46_03/26	25	1	100	USDA-FS	4710520	End	0.01
	TL46_03/28	26,28	1	100	USDA-FS	TL39_03/31	End	0.04
	TL46_03/31	29	1	100	USDA-FS	TL39_04/33	End	0.13
	TL46_03/32	29	1	100	USDA-FS	TL39_03/35	End	0.08
	TL46_03/33	30	1	100	USDA-FS	TL39_02/36	End	0.04
	TL46_03/38	33	1	100	USDA-FS	TL39_06/41	End	0.03
	TL46_03/41	34,38	1	100	USDA-FS	TL46_08/41	End	0.08
	TL46_03/42	34,35	1	100	USDA-FS	4775011	End	0.07

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

PacifiCorp								
				Cost Share				
Route	Road name	Map #	Maint. Level	%	Owner	Termini (from)	Termini (to)	Mile
	TL46_04/23	24	1	100	USDA-FS	BOUNDARY ROAD	End	0.06
	TL46_04/25	25	1	100	USDA-FS	TL39_04/28	End	0.20
	TL46_04/26	25	1	100	USDA-FS	4710520	End	0.07
	TL46_04/31	29	1	100	USDA-FS	TL39_01/34	End	0.04
	TL46_04/36	31,32	1	100	USDA-FS	TL39_02/40	End	0.29
	TL46_04/37	32	1	100	USDA-FS	TL39_02/40	End	0.03
	TL46_04/39	33	1	100	USDA-FS	TL39_01/43	4760000	0.58
	TL46_04/42	34,35	1	100	USDA-FS	4775504	End	0.32
	TL46_05/23	24	1	100	USDA-FS	BOUNDARY ROAD	End	0.03
	TL46_05/31	29	1	100	USDA-FS	TL39_02/34	End	0.05
	TL46_05/36	31,32	1	100	USDA-FS	TL46_04/36	End	0.07
	TL46_05/41	34,38	1	100	USDA-FS	TL46_08/41	End	0.06
	TL46_05/42	34,35	1	100	USDA-FS	TL39_02/27	End	0.05
	TL46_06/23	24	1	100	USDA-FS	BOUNDARY ROAD	End	0.03
	TL46_06/31	29	1	100	USDA-FS	TL39_02/34	End	0.04
	TL46_06/32	30	1	100	USDA-FS	TL39_05/35	End	0.02
	TL46_06/41	34,38	1	100	USDA-FS	TL46_08/41	End	0.02
	TL46_06/42	34,35	1	100	USDA-FS	TL46_04/42	End	0.04
	TL46_07/31	29	1	100	USDA-FS	TL46_01/32	End	0.01
	TL46_07/34	31	1	100	USDA-FS	TL39_03/37	End	0.03
	TL46_08/25	25	1	100	USDA-FS	TL39_05/28	End	0.02
	TL46_08/41	34,35,38	1	100	USDA-FS	4775011	End	0.77
	TL51_01/1	37,43	1	100	USDA-FS	4700570	End	0.03
	TL51_02/1	37,43	1	100	USDA-FS	4700570	End	0.05
	TL51_02/3	43,46	1	100	USDA-FS	TL51_01/3	End	0.03
	TL51_04/2	37,43	1	100	USDA-FS	3400000	End	0.22
	TL51_06/1	37,43	1	100	USDA-FS	1380000	End	0.37
	TL51_07/1	37,43	1	100	USDA-FS	TL51_06/1	End	0.17
	TL53_02/1	43,46	1	100	USDA-FS	4776100	End	0.07
	TL53_02/2	50	1	100	USDA-FS	3400000	End	0.19
	TL53_02/9	60	1	100	USDA-FS	3401000	3401701	0.03
	TL53_03/12	61	1	100	USDA-FS	3401704	End	0.02
	TL53_03/3	50	1	100	USDA-FS	3400000	End	0.10
	TL53_04/12	56,61	1	100	USDA-FS	3401702	End	0.06

Exhibit H

USDA-FS - PacifiCorp Road Maintenance Responsibilities (Modified SA Schedule 15.2)

PacifiCorp								
				Cost Share				
Route	Road name	Map #	Maint. Level	%	Owner	Termini (from)	Termini (to)	Mile
	TL53_04/3	57	1	100	USDA-FS	3400050	End	0.10
	TL53_04/5	57	1	100	USDA-FS	3400102	End	0.09
	TL53_05/12	56	1	100	USDA-FS	2610680	End	0.15
	TL53_06/11	61	1	100	USDA-FS	3401701	End	0.01
	TL53_06/9	60	1	100	USDA-FS	3401000	3401701	0.07
	TL55_03/2	50	1	100	USDA-FS	3400030	End	0.03
	TL57_01/5	47	1	100	USDA-FS	4776300	End	0.06
	TL57_01/6	47	1	100	USDA-FS	4776250	4776300	0.05
	TL57_02/1	43,46	1	100	USDA-FS	TL53_02/1	End	0.03
	TL57_02/5	47	1	100	USDA-FS	4776250	End	0.05
	TL57_03/1	43,46	1	100	USDA-FS	4776200	End	0.06
	TL57_03/2	46	1	100	USDA-FS	4776250	End	0.06
	TL57_03/5	47	1	100	USDA-FS	4776300	End	0.13
	TL57_04/1	43,46	1	100	USDA-FS	4776200	End	0.01
	TL57_04/5	47	1	100	USDA-FS	4776300	End	0.06
	TL57_05/1	43,46	1	100	USDA-FS	4776200	End	0.02
	TL57_05/5	47	1	100	USDA-FS	4776300	End	0.04
	TL57_06/1	43,46	1	100	USDA-FS	4776200	End	0.03
	TL57_07/1	43,46	1	100	USDA-FS	4776250	End	0.05
	TL57_08/1	43,46	1	100	USDA-FS	4776200	End	0.05
	TL57_09/1	43,46	1	100	USDA-FS	4776200	End	0.64
1461000		61	1	100	USDA-FS	1461000	3401701	0.16
2800700	TL39_03/46	38,39	1	100	USDA-FS	2800620	End	0.00
3400050	TL53_01/4	51,57	1	100	USDA-FS	3400000	End	0.44
3400102	TL53_05/5	53,57,59	1	100	USDA-FS	3400101	End	0.81
3400103	TL53_03/5	57	1	100	USDA-FS	3400102	3400101	0.87
3400104	TL53_04/4	57	1	100	USDA-FS	3400101	End	0.42
3401010	TL53_01/3	50	1	100	USDA-FS	3401000	End	0.37
3401601	TL53_05/6	59	1	100	USDA-FS	3401000	3401701	0.30
3401650		59	1	100	USDA-FS	3401000	3401710	0.08
3401701	LEM NO.1 POWERLINE	58-61	1	100	USDA-FS	3401704	End	5.74
4700570		37,43	1	100	USDA-FS	1380000	End	0.62
4710026	TL39_03/25	23	1	100	USDA-FS	4710020	End	0.27
4710446	TL39_06/26	24	1	100	USDA-FS	4710445	End	0.17

Route	Road name	Map #	Maint. Level	PacifiCorp Cost Share %	Owner	Termini (from)	Termini (to)	Mile
4710520	TL39_01/29	25	1	100	USDA-FS	OLD UMPQUA HWY	TL46_03/26	0.30
4713256		30	1	100	USDA-FS	1380000	4700256	0.51
4775011	SODA SPRINGS RD	34,35	1	100	USDA-FS	4775011	1414000	0.79

**Exhibit I USDI-BLM - PacifiCorp Road Operational Maintenance
Responsibilities**

Exhibit I
USDI-BLM - PacifiCorp Road Operational Maintenance Responsibilities

Map #	Road Name	PacifiCorp Road #	USDI-BLM Road #	Mile	Operational Maint. Level	Maint. Resp.	Road Ownership
10,11,67	SWIFTWATER TIE		26-3-1.1	0.33	3	USDI-BLM	USDI-BLM
11	HILL CR		26-2-7.0	0.23	3	USDI-BLM	USDI-BLM
11	NORTH UMPQUA SP	TL39_03/19	26-2-7.2	0.68	2	PacifiCorp	USDI-BLM
11		TL39_04/18		0.43	2	PacifiCorp	USDI-BLM
11		TL39_04/19		0.13	2	PacifiCorp	USDI-BLM
11		TL39_07/18		0.21	2	PacifiCorp	USDI-BLM
11,12		TL39_05/19		0.17	2	PacifiCorp	USDI-BLM
12	COMMUNITY PIT RD		26-2-17.1	0.42	3	USDI-BLM	USDI-BLM
12		TL39_05/20		0.31	2	PacifiCorp	USDI-BLM
12		TL39_08/20		0.20	2	PacifiCorp	USDI-BLM
12,21	FRONTIER VILLAGE		26-2-17.2	0.01	2	PacifiCorp	USDI-BLM
19	ACE WILLIAMS MTN SP		26-3-35.2	0.04	2	PacifiCorp	USDI-BLM
19	ACE WILLIAMS MTN SP		26-3-35.3	0.15	2	PacifiCorp	USDI-BLM
19		TL46_04/13		0.17	2	PacifiCorp	USDI-BLM
20	BOB BUTTE TIE		26-2-31.2	0.57	2	USDI-BLM	USDI-BLM
20	THUNDER MTN RD		26-3-34.2	0.76	3	USDI-BLM	USDI-BLM
20	THUNDER MTN SP		26-2-31.5	0.03	2	USDI-BLM	USDI-BLM
20		TL46_04/15		0.21	2	PacifiCorp	USDI-BLM
20		TL46_05/15		0.06	2	PacifiCorp	USDI-BLM
20,21	BOB BUTTE TIE		26-2-20.1	1.09	2	USDI-BLM	USDI-BLM
20,21	BOB BUTTE TIE	TL46_08/16		0.11	2	PacifiCorp	USDI-BLM
20,21		TL46_07/16		0.34	2	PacifiCorp	USDI-BLM
20,21,68	BOB BUTTE		26-2-21.0	2.12	2	USDI-BLM	USDI-BLM
21	SMITH FORD		26-2-22.0	0.08	2	USDI-BLM	USDI-BLM
21		TL46_01/17		0.06	2	PacifiCorp	USDI-BLM
21		TL46_01/18		0.17	2	PacifiCorp	USDI-BLM
21		TL46_02/17		0.11	2	PacifiCorp	USDI-BLM
21		TL46_05/17		0.04	2	PacifiCorp	USDI-BLM
22	SMITH SPRINGS		26-2-22.2	0.90	2	USDI-BLM	USDI-BLM
22	SUSAN CR		26-2-14.0	0.20	2	USDI-BLM	USDI-BLM
22	SUSAN CR CONNECTOR		26-2-14.5	0.04	2	USDI-BLM	USDI-BLM
22	SUSAN CR RD		26-2-23.0	0.49	2	USDI-BLM	USDI-BLM
22		TL39_01/23		0.21	2	PacifiCorp	USDI-BLM

USDI-BLM - PacifiCorp Road Operational Maintenance Responsibilities

Map #	Road Name	PacifiCorp Road #	USDI-BLM Road #	Mile	Operational Maint. Level	Maint. Resp.	Road Ownership
22		TL39_02/22		0.14	2	PacifiCorp	USDI-BLM
22		TL39_03/22		0.24	2	PacifiCorp	USDI-BLM
22		TL39_03/23		0.03	2	PacifiCorp	USDI-BLM
22		TL39_04/22		0.02	1	PacifiCorp	USDI-BLM
22		TL39_04/23		1.03	2	PacifiCorp	USDI-BLM
22		TL39_07/22		0.62	1	PacifiCorp	USDI-BLM
22		TL46_03/19		0.05	2	PacifiCorp	USDI-BLM
22		TL46_04/19		0.04	1	PacifiCorp	USDI-BLM
22		TL46_05/19		0.02	1	PacifiCorp	USDI-BLM
22		TL46_05/20		0.03	2	PacifiCorp	USDI-BLM
22		TL46_06/20		0.03	1	PacifiCorp	USDI-BLM
22		TL46_07/20		0.03	1	PacifiCorp	USDI-BLM
23		TL39_03/24		0.24	2	PacifiCorp	USDI-BLM
23		TL46_03/21		0.23	2	PacifiCorp	USDI-BLM
23		TL46_04/21		0.06	2	PacifiCorp	USDI-BLM
23	BURNT MTN RD	TL39_01/25	26-2-13.0	0.08	2	PacifiCorp	USDI-BLM
23		TL39_01/25		0.22	2	PacifiCorp	USDI-BLM
23		TL39_04/24		0.16	2	PacifiCorp	USDI-BLM
67,68	LONE ROCK SP		26-3-15.0	0.42	2	USDI-BLM	USDI-BLM
67,68	SWIFTWATER TIE		26-3-13.0	1.81	2	USDI-BLM	USDI-BLM

**Exhibit J Road Decommissioning Responsibilities and Prescriptions
(Modified SA Sch. 15.4)**

Exhibit J

**Road Decommissioning Responsibilities and Prescriptions
(Modified SA Schedule 15.4)**

Ref #*	Route	Road Name	Map #	Miles	Agency	Completed Date	Estimated Cost	Prescription
		DEC_2612000-INLET	64	0.22	USDA-FS		\$1,187	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
	3400016	DEC_3400016	43	0.67	USDA-FS		\$3,671	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
22	3400101	DEC_3400101-SPUR	53	0.06	USDA-FS		\$500	Add large rock barriers to prevent vehicle traffic.
2		DEC_3400_SPUR_North	50	0.06	USDA-FS		\$344	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
1		DEC_3400_SPUR_South	50	0.06	USDA-FS		\$320	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
13		DEC_3701210-SPUR	42	0.09	USDA-FS		\$551	Decompact by subsoiling to 20" depth. Pull back fill edge and berm where not vegetated. Construct cross ditches every 100 feet. Block entrance with woody material. Re-vegetate with native species.
	3701221	DEC_3701221-SPUR	41, 43	0.10	USDA-FS	2002	\$583	Decommissioning accomplished in 2002 with early implementation funds. Work was: Decompact by subsoiling to 20" depth. Pull back fill on steep sections and outslope bed 30%. Remove culverts and re-establish channel banks. Block entrance with woody material. Re-vegetate with native species.
26	3701230	DEC_3701230	37, 41	0.27	USDA-FS	2002	\$1,540	Decommissioning accomplished in 2002 with early implementation funds. Work was: Decompact by subsoiling to 20" depth. Pull back fill on steep sections and outslope bed 30%. Remove culverts and re-establish channel banks. Block entrance with woody material. Re-vegetate with native species.
29	3701233	DEC_3701233	40, 41	0.39	USDA-FS	2002	\$2,251	Decommissioning accomplished in 2002 with early implementation funds. Work was: Decompact by subsoiling to 20" depth. Pull back fill on steep sections and outslope bed 30%. Remove culverts and re-establish channel banks. Block entrance with woody material. Re-vegetate with native species.
	4700570	DEC_4700570	37	0.01	USDA-FS		\$1,500	Culvert failure site: remove culvert, recontour channel banks for stability. Re-vegetate with native species.

**Road Decommissioning Responsibilities and Prescriptions
(Modified SA Schedule 15.4)**

Ref #*	Route	Road Name	Map #	Miles	Agency	Completed Date	Estimated Cost	Prescription
16	4700640	DEC_4700640	49	0.50	USDA-FS		\$2,742	Decompact by subsoiling to 20" depth, except for 35" wide trail tread. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
17	4700641	DEC_4700641	49	0.24	USDA-FS		\$1,302	Decompact by subsoiling to 20" depth, except for 35" wide trail tread. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
	4776100	DEC_CLRWTR PENSTOCK	43	0.01	USDA-FS		\$55	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
		DEC_MILL CREEK	51	0.06	USDA-FS		\$342	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
	3400077	DEC_SALLY-JOAN	55, 56	1.90	USDA-FS		\$56,882	Remove all culverts. Pull fills from stream crossings and waste on flat, stable road segments. Decompact by subsoiling to 20" depth. Pull back fill edge and berm where not vegetated. Construct cross ditches every 100 feet where grade exceeds 5%. Block entrance with woody material. Re-vegetate with native species.
19	3400026	DEC_STINKHOLE BEACH	50	0.14	USDA-FS		\$797	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
4		DEC_TL39_01/25	23	0.10	USDA-FS		\$800	Remove scotch broom by mechanically pulling it out of the ground in the spring before seeds mature and/or before the ground hardens, prior to road decommissioning. Site 1 is in a culturally sensitive area. Pulling scotch broom is not expected to pose a problem, however the District Cultural Technician should be consulted.
6		DEC_TL39_01/34	29	0.10	USDA-FS		\$3,000	10 cu yd failure at stream crossing with 25% delivered and 75% to be delivered in the future. Recommendation: Engineer stream crossing repairs placing geofabric and 10 cu yd of 24" riprap material.

**Road Decommissioning Responsibilities and Prescriptions
(Modified SA Schedule 15.4)**

Ref #*	Route	Road Name	Map #	Miles	Agency	Completed Date	Estimated Cost	Prescription
14		DEC_TL39_01/35	29	0.17	USDA-FS		\$5,000	NEPA will be required for this site. Recommendation for the erosion control: Spread straw mulch to cover all bare soil with an application rate of 1.25 T per acre using certified weed free straw. Plant 2.0 Acer macrophyllum (Big Leaf Maple) and Alnus sp. (alder species) along the edge of the stream on both sides, with the direction of a qualified botanist. Place logs over the road surface and at the stream edge where the opportunity allows. All erosion control measures should be in place prior to October 1.
11		DEC_TL39_04/34	29	0.11	USDA-FS		\$4,000	Subsoil (minimum depth 18") to improve revegetation and cross-ditch (2).
		DEC_TL39_05/28	25	0.17	USDA-FS		\$1,800	Subsoil (minimum depth 18") to improve revegetation and cross-ditch (15).
		DEC_TL46_07/16	20	0.17	USDI-BLM		\$1,800	Subsoil to 18" depth to improve revegetation and cross-ditch very 100 feet
23	3401010	DEC_TL53_01/3	50, 51	0.21	USDA-FS		\$1,149	Decompact by subsoiling to 20" depth. Pull back any outside edge berm. Block entrance with woody material. Re-vegetate with native species.
24	3701220	DEC_UPPER FC CANAL	41, 42	1.39	USDA-FS	2002	\$7,908	Decommissioning accomplished in 2002 with early implementation funds. Work was: Decompact by subsoiling to 20" depth. Pull back fill on steep sections and outslope bed 30%. Remove culverts and re-establish channel banks. Block entrance with woody material. Re-vegetate with native species.
		TOTAL MILES		7.20				
		SA Requirement		8.60				
		Remaining Miles Needed		1.40				
*Ref # matches the entry number from 3/18/02 and 4/17/02 Road Decommissioning Tables								

Exhibit K USDA-FS Level 1 Roads with Mitigation Prescriptions

Map #	District	PacifiCorp Road #	Route	Begin Termini	Ending Termini	Miles	GIS Miles	Maint. Level	Maintenance Responsibility	Mitigation Proposal
28	NURD	TL39-04/32 A	4700-038 Trail 1530	0.1	0.9	1	0.71	1	PacifiCorp	Road TL 39_04/32 and the 1530 hiking trail share the same alignment for approx. 0.90 miles. To protect the investment in the trail and the public recreation opportunities the following standard should be applied when line maintenance activities damage the trail Est. cost \$2,200. a) The trail will be restored to standards trail specifications. b) Brushing shall be limited to min. needed for vehicle access at time or repair. Width is min need for a single lane vehicle. c) Upon completion of line maintenance activities that damage the trail, restoration must be completed within four days during the peak recreation use season of May 1st through October 31st. Restoration should be completed within two weeks during the off-season months.
28	NURD	TL39-04/32 B	4700-038	0.9	TL 4/32	1.1		1	PacifiCorp	Road TL 39-04/32B Needs water-bars constructed with a 24 inch minimum depth 75 feet apart. Road surface will be bladed to allow for proper drainage. Block Road. Est. Cost included in above
31,32	NURD	TL39_07/36		138	MP 0.13	0.17	0.35	1	PacifiCorp	Waterbar main access route. Construct 5 waterbars over the upper 400 feet of road. Place 200 feet of drainage pipe, geofabric, and gravel to drain the spur off Old Highway into ODOT drainage pipe running down center of the main access road from Highway 138 to first switchback above slide area. Block Road. Est. cost \$4,000

Exhibit L USDA-FS Road Barriers

Exhibit L

USDA-FS Road Barriers

Route	Road Name	Map #	Maintenance	Gate	Type of Barrier		Pending	Action Needed
			Level		Berm	Sign		
	TL39_01/26	23,24	1		Berm			
	TL39_03/33	29	1		Berm			
	TL42_01/4	35,36	1		Berm			
	TL42_02/2	36,37	1		Berm			
	TL42_03/2	36	1		Berm			
	TL42_04/1	36	1		Berm			
	TL42_04/1	37	1		Berm			
	TL42_04/3	36	1		Berm			
	TL42_06/3	36	1		Berm			
	TL42_07/3	35,36	1		Berm			
	TL42_08/1	37	1		Berm			
3400034	LEMOLO NO.2 PENSTOCK	50,51	2		Berm			
3401701	LEM NO.1 POWERLINE	58-61	1		Berm			
3402071		51	2		Berm			
4710026	TL39_03/25	23	1		Berm			
	LOWR CLEARWTR VILL	43	2	Gate				
	TL39_01/25	23	1	Gate				
	TL39_01/33	28,29	1	Gate				
	TL39_02/47	39,40	1	Gate				
	TL39_06/35	30	1	Gate				
	TL46_04/39	33	1	Gate				
	TL51_06/1	37,43	1	Gate				
2610670	LEM.1 FB-S.SIDE	62	2	Gate				
2614430	E LEMOLO CG	64,65	3	Gate				
3402071		51	2	Gate				
3701300	BRINK ROAD	37	1	Gate				
3701300	BRINK ROAD	37	1	Gate				
4775050	TOK PH & SLIDE DAM	37	2	Gate				
4775010	COPCO RD	36,37	2			Sign		
	LEMOLO LAKE DAM RD	63	2				Pending	
	TL39_01/26	23,24	1				Pending	
	TL39_01/31	26,28	1				Pending	
	TL39_01/33	28,29	1				Pending	
	TL39_01/34	29	1				Pending	
	TL39_01/35	29	1				Pending	

Route	Road Name	Map #	Maintenance	Gate	Type of Barrier		Pending	Action Needed
			Level		Berm	Sign		
	TL39_01/35	31	1				Pending	
	TL39_01/36	30	1				Pending	
	TL39_01/37	30,31	1				Pending	
	TL39_01/38	31	1				Pending	
	TL39_01/43	33,34	1				Pending	
	TL39_02/27	24	1				Pending	
	TL39_02/29	25	1				Pending	
	TL39_02/34	29	1				Pending	
	TL39_02/36	30	1				Pending	
	TL39_02/37	30,31	1				Pending	
	TL39_02/38	31	1				Pending	
	TL39_02/40	32	1				Pending	
	TL39_02/47	39,40	1				Pending	
	TL39_03/30	26	1				Pending	
	TL39_03/31	26,28	1				Pending	
	TL39_03/32	26,28	1				Pending	
	TL39_03/33	29	1				Pending	
	TL39_03/35	29,30	1				Pending	
	TL39_03/36	30	1				Pending	
	TL39_03/37	30,31	1				Pending	
	TL39_03/40	32	1				Pending	
	TL39_03/46	38	1				Pending	
	TL39_03/48	40	1				Pending	
	TL39_04/28	25	1				Pending	
	TL39_04/33	29	1				Pending	
	TL39_04/34	29	1				Pending	
	TL39_04/36	30	1				Pending	
	TL39_04/37	31	1				Pending	
	TL39_04/38	31	1				Pending	
	TL39_04/41	33	1				Pending	
	TL39_04/45	38, 39	1				Pending	
	TL39_04/46	39	1				Pending	
	TL39_05/28	25	1				Pending	
	TL39_05/35	30	1				Pending	
	TL39_05/38	31	1				Pending	

Route	Road Name	Map #	Maintenance	Gate	Type of Barrier		Pending	Action Needed
			Level		Berm	Sign		
	TL39_05/39	32	1				Pending	
	TL39_06/28	25	1				Pending	
	TL39_06/35	30	1				Pending	
	TL39_06/36	30	1				Pending	
	TL39_06/38	31	1				Pending	
	TL39_06/40	32	1				Pending	
	TL39_06/41	32,33	1				Pending	
	TL39_06/42	33,34,38	1				Pending	
	TL39_06/47	40	1				Pending	
	TL39_06/49	37,40	1				Pending	
	TL39_07/36	30	1				Pending	
	TL39_07/47	40	1				Pending	
	TL39_08/42	33	1				Pending	
	TL42_01/2	36,37	1				Pending	
	TL42_02/2	36,37	1				Pending	
	TL42_03/1	37	1				Pending	
	TL42_03/3	36	1				Pending	
	TL42_04/2	36	1				Pending	
	TL42_05/3	36	1				Pending	
	TL42_09/1	37	1				Pending	
	TL42_10/1	37	1				Pending	
	TL46_01/23	23,24	1				Pending	
	TL46_01/25	24	1				Pending	
	TL46_01/28	26,28	1				Pending	
	TL46_01/32	29	1				Pending	
	TL46_01/37	32	1				Pending	
	TL46_01/43	35	1				Pending	
	TL46_02/26	25	1				Pending	
	TL46_02/28	26,28	1				Pending	
	TL46_02/29	26,28	1				Pending	
	TL46_02/33	30	1				Pending	
	TL46_02/37	32	1				Pending	
	TL46_02/42	34,35	1				Pending	
	TL46_03/24	24	1				Pending	
	TL46_03/26	25	1				Pending	

Route	Road Name	Map #	Maintenance Level	Gate	Type of Barrier Berm	Sign	Pending	Action Needed
	TL46_03/28	26,28	1				Pending	
	TL46_03/31	29	1				Pending	
	TL46_03/32	29	1				Pending	
	TL46_03/33	30	1				Pending	
	TL46_03/38	33	1				Pending	
	TL46_03/41	34,38	1				Pending	
	TL46_03/42	34,35	1				Pending	
	TL46_04/23	24	1				Pending	
	TL46_04/25	25	1				Pending	
	TL46_04/26	25	1				Pending	
	TL46_04/31	29	1				Pending	
	TL46_04/36	31,32	1				Pending	
	TL46_04/37	32	1				Pending	
	TL46_04/39	33	1				Pending	
	TL46_04/42	34,35	1				Pending	
	TL46_05/23	24	1				Pending	
	TL46_05/31	29	1				Pending	
	TL46_05/36	31,32	1				Pending	
	TL46_05/41	34,38	1				Pending	
	TL46_05/42	34,35	1				Pending	
	TL46_06/23	24	1				Pending	
	TL46_06/31	29	1				Pending	
	TL46_06/32	30	1				Pending	
	TL46_06/41	34,38	1				Pending	
	TL46_06/42	34,35	1				Pending	
	TL46_07/31	29	1				Pending	
	TL46_07/34	31	1				Pending	
	TL46_08/25	25	1				Pending	
	TL46_08/41	34,35,38	1				Pending	
	TL51_01/1	37,43	1				Pending	
	TL51_02/1	37,43	1				Pending	
	TL51_02/3	43,46	1				Pending	
	TL51_04/2	37,43	1				Pending	
	TL51_06/1	37,43	1				Pending	
	TL51_07/1	37,43	1				Pending	

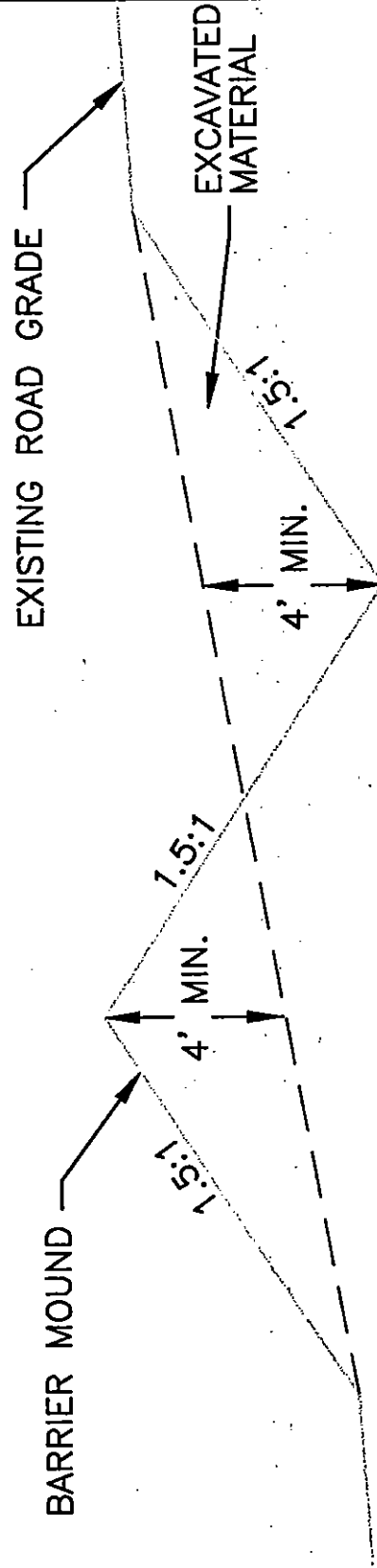
Route	Road Name	Map #	Maintenance	Gate	Type of Barrier		Pending	Action Needed
			Level		Berm	Sign		
	TL53_02/1	43,46	1				Pending	
	TL53_02/2	50	1				Pending	
	TL53_02/9	60	1				Pending	
	TL53_03/12	61	1				Pending	
	TL53_03/3	50	1				Pending	
	TL53_04/12	56,61	1				Pending	
	TL53_04/3	57	1				Pending	
	TL53_04/5	57	1				Pending	
	TL53_05/12	56	1				Pending	
	TL53_06/11	61	1				Pending	
	TL53_06/9	60	1				Pending	
	TL55_03/2	50	1				Pending	
	TL57_01/5	47	1				Pending	
	TL57_01/6	47	1				Pending	
	TL57_02/1	43,46	1				Pending	
	TL57_02/5	47	1				Pending	
	TL57_03/1	43,46	1				Pending	
	TL57_03/2	46	1				Pending	
	TL57_03/5	47	1				Pending	
	TL57_04/1	43,46	1				Pending	
	TL57_04/5	47	1				Pending	
	TL57_05/1	43,46	1				Pending	
	TL57_05/5	47	1				Pending	
	TL57_06/1	43,46	1				Pending	
	TL57_07/1	43,46	1				Pending	
	TL57_08/1	43,46	1				Pending	
	TL57_09/1	43,46	1				Pending	
1461000		61	1				Pending	
2800700	TL39_03/46	38,39	1				Pending	
3400050	TL53_01/4	51,57	1				Pending	
3400072	BURMA ROAD	54-56	2				Pending	
3400102	TL53_05/5	53,57,59	1				Pending	
3400103	TL53_03/5	57	1				Pending	
3400104	TL53_04/4	57	1				Pending	
3401010	TL53_01/3	50	1				Pending	

Route	Road Name	Map #	Maintenance Level	Gate	Type of Barrier Berm	Sign	Pending	Action Needed
3401601	TL53_05/6	59	1				Pending	
3401650		59	1				Pending	
3401701	LEM NO.1 POWERLINE	58-61	1				Pending	
3401860	LEMOLO 1 SPILLVALVE	63	1				Pending	
3701300	BRINK ROAD	37	1				Pending	
4700570		37,43	1				Pending	
4710446	TL39_06/26	24	1				Pending	
4710520	TL39_01/29	25	1				Pending	
4713256		30	1				Pending	
4775010	COPCO RD	36,37	2				Pending	
4775011	SODA SPRINGS RD	34,35	1				Pending	
4775011	SODA SPRINGS RD	34-36	3				Pending	

ROAD CLOSURE BARRIER

640(04)

(NOT TO SCALE)



NOTES:

- 1) BARRIER MOUND SHALL BE LOCATED ON THE SIDE OF EXCAVATION NEAREST THE BEGINNING OF THE ROAD.
- 2) LOCATION AND LIMITS AS STAKED BY THE ENGINEER.

T-835 ROADWAY DRAINAGE MAINTENANCE (2/02)

835.01 Description

This work consists of providing post haul drainage on roads.

835.02 Maintenance Requirements

A. Drainage

1. Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles. Repair and reinstall waterbars, barriers or berms existing prior to the Purchaser's operation. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.
2. Continuous blade shaping of the roadbed is not required under this specification.
3. Work to be done at staked locations shall be as indicated on the stake and/or stated in SPECIAL PROJECT SPECIFICATIONS:
4. Any of the following methods are acceptable for use at eroded or rutted locations:
 - (a) Method A: Outsloping the roadbed at not less than 13 mm (1/2inch) per meter (yard) of width.
 - (b) Method B: Insloping the roadbed at not less than 13 mm (1/2inch) per meter (yard) of width.
 - (c) Method C: Water bar roadbed at locations staked on the ground and construct as SHOWN ON THE DRAWINGS or as included in SPECIAL PROJECT SPECIFICATIONS.
5. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 6 meters (20 feet) of the structure.

6. Either clean culverts and other fabricated structures to provide drainage from road ditches and make the ditch functional or provide waterbar(s) across the roadbed. Removed structures shall become Purchaser's property to be removed from Government land. Remove and replace any purchaser-installed temporary drainage structures with a water bar.

B. Slides, Slumps and Slough

1. Slides and slough may be left in place, provided they do not potentially impound water or divert water from watercourses. As necessary, reshape the various surfaces to provide drainage.

2. Provide drainage to effectively decrease or eliminate the entry of surface water into slides, slumps, and roadbed surface cracks. Place berms, waterbars or ditches as needed to intercept and remove runoff water from the roadbed. Surface seal cracks by covering over with native soil materials to prevent additional water entry and compact with equipment tires.

C. Entrance Devices

Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles having four (4) wheels and a width in excess of 1.3 m. (50 inches).

D. Seeding

Seed and fertilize all disturbed areas in accordance with requirements set forth in Section T-841.

**Exhibit M Bridge and Major Culvert Maintenance Responsibilities
(Modified SA Sch. 15.5)**

Exhibit M

Bridge and Major Culvert Maintenance Responsibilities (Modified SA Schedule 15.5)

Bridge Name	Bridge Road Name	Bridge	Map #	Maintenance Level	Last Inspection Date	Score*	Owner	Maintenance Responsibility
Above Norma Cr. @Fl 5	3400072-5.0	U-06	55	2	Oct-03	7	PPL	PMH
Beaver Cr. @Upper End Fl.6	3701221-0.5	U-33	41, 42	2	Oct-03	7	PPL	PMH
Below Lemolo #2 Div. Dam	3400072-6.5	U-04	56	2	Oct-03	8	PPL	PMH
Below Norma Cr. @Fl. 5	3400072-4.9	U-07	55	2	Oct-03	7	PPL	PMH
Below Sally Creek @Fl 7	3400072-3.9	U-09	55	2	Oct-03	7	PPL	PMH
Below Toketee Falls School - (Powerhouse)	4775010-2.2	U-39	37	2	Oct-03	6	PPL	PMH
**Charlie Camp @Charlie Cr.	3400100-1.5	U-12	54	2	Oct-03	7	PPL	JMH
Clearwater #2 Div. Dam	4776250-0.1	U-23	47	2	Oct-03	7	PPL	PMH
Clearwater #2 Forebay	4776200-1.5	U-25	43, 46	2	Oct-03	5	USDA-FS	JMH
Clearwater #2 Tailrace	4775010-0.4	U-26	43, 46	2	Oct-03	6	PPL	PMH
**Clearwater Canal Culvert	4776300-2.2	U-24	47	2	Oct-03	6	PPL	JMH
Clearwater River @Hwy. - Beckleys's Crossing	4776000-0.1	U-56	46	5	Oct-00	8	USDA-FS	JMH
Copeland Cr.	2800-49.1	U-59	39	4	Oct-00	7	USDA-FS	JATL
**Cottage (west of Guest House)	4776000-0.3	U-29	43	5	Oct-03	6	PPL	JMH
Deer Cr. Div. Dam Fl.21	3400090-0.8	U-14	52	2	Oct-03	7	PPL	PMH
**Deer Cr./Toketee Rigdon	3400000-6.6	U-15	52, 53	5	Oct-03	6	PPL	JMH
Deer Leap	3402000-0.5	U-16	51	3	Oct-00	9	USDA-FS	JMH
Fairview Ck. (MC)	4710-4.2	U-60	24	3	May-98	8	USDA-FS	JATL
Fall Creek	4710-2.9	U-61	24	3	Aug-03	8	USDA-FS	JATL
**Fish Creek Canal @ Forebay	3701300-3.3	U-34	37, 40	2	Oct-03	7	PPL	JMH
Fish Creek Canal Intake	3701220-4.0	U-30	42	2	Oct-03	7	PPL	PMH
**Fish Creek Canal upstream of FL5	3701000-3.6	U-32	41, 42	4	Oct-03	7	PPL	JMH
Fish Creek Canal, Fl.2	3701210-1.2	U-31	42	2	Oct-03	6	PPL	PMH
Hot Springs	3401000-0.7	U-49	50	3	Sep-00	8	USDA-FS	JMH
Lemolo	2614-2.5	U-58	64	5	Jun-03	8	USDA-FS	JMH
Lemolo #1 Powerhouse	2610680	U-46	56	2	Oct-03	8	PPL	PMH
**Lemolo #1 Spillway	2610000-5.1	U-44	63	5	Oct-03	8	PPL	JMH
**Lemolo #1- Canal #2	2610672-2.7	U-02	62	2	Oct-03	6	PPL	JMH
**Lemolo #1-Canal #1	1414000-0.1	U-01	63	2	Oct-03	7	PPL	JMH
Lemolo #2 Forebay	3402071	U-17	51	2	Oct-03	7	PPL	PMH
Lemolo #2 Tailrace	3400000-2.0	U-18	50	5	Oct-00	8	USDA-FS	JMH
**Mowich Creek Culvert	4776300-3.5	U-22	47, 48	2	Apr-95		PPL	JMH
**Needle (east of Guest House)	4776000-0.4	U-28	43	5	Oct-03	7	PPL	JMH
No Tunnel Culvert	4776300-1.1	U-54	47	2	Apr-95		PPL	PMH

Exhibit M
Bridge and Major Culvert Maintenance Responsibilities (Modified SA Schedule 15.5)

Bridge Name	Bridge Road Name	Bridge	Map #	Maintenance Level	Last Inspection Date	Score*	Owner	Maintenance Responsibility
**Nurse Cr. @ Fl. 10	3400115-0.0	U-11	54	2	Oct-03	7	PPL	JMH
Old Brink Road	3701300-2.2	U-35	37	2	Oct-03	7	PPL	PMH
Pipeline- across wood stave pipe	3400000-0.3	U-19	43	5	Oct-00	8	USDA-FS	JMH
Potter Creek over Canal	3400078	U-48	55	2	Oct-03	7	PPL	PMH
Potter Creek over Creek	3400072-3.4	U-47	56	2	Oct-03	6	PPL	PMH
Sally Cr. & Flume 7	3400072-4.0	U-08	55	2	Oct-03	5	PPL	PMH
Slide Creek Canal	4775010-2.1	U-40	37	2	Oct-03	4	PPL	PMH
Slide Creek Powerhouse	4775010-0.5	U-41	36	2	Oct-03	6	PPL	PMH
**Soda Springs-below dam	4775011-1.7	U-42	35	4	Oct-03	5	PPL	JMH
Toketee	3400000-0.2	U-20	43	5	Oct-00	8	USDA-FS	JMH
Toketee & Fish Creek Road	4775010	U-36	37	2	Oct-03	7	PPL	PMH
Toketee Powerhouse	4775050	U-37	37	1	Oct-03	6	PPL	PMH
Toketee Powerhouse to Sub.	4775050 Spur	U-38	37	1	Oct-03	8	PPL	PMH
**Warm Springs Cr. Culvert	2610680-2.0	U-03	56	2	Nov-94		PPL	JMH
**Washout Arch Culvert	4776000-1.2	U-53	43, 46	5	Nov-94		PPL	JMH
* Assessment Score Description (NBIS)								
0-4 = Critical								
5-6 = Fair								
7-9 = Good								
** Bridge may be transferred to USDA-FS after brought to bridge design standard for which it was built (see Exhibit Q)								

**Exhibit N USDA-FS System Management Handbook FSH 7709.58 and
Maintenance Specifications for Level 1-5 Roads**

Exhibit N USDA-FS Transportation System Maintenance Handbook (FSH 7709.58, 10)

FOREST SERVICE HANDBOOK WASHINGTON

FSH 7709.58 - TRANSPORTATION SYSTEM MAINTENANCE HANDBOOK

Amendment No. 7709.58-95-1

Effective July 28, 1995

POSTING NOTICE. Amendments are numbered consecutively by Handbook number and calendar year. Post by document name. Remove entire document and replace with this amendment. Retain this transmittal as the first page of this document. The last amendment to this Handbook was Amendment 7709.58-92-1 to FSH 7709.58.

This amendment supersedes Amendment 7709.58-92-1 to 7709.58,10.

<u>Document Name</u>	<u>Superseded (Number of Pages)</u>	<u>New (Number of Pages)</u>
7709.58,10	16	17
ID 7709.58-94-1	2	-

Digest:

13.22 - Incorporates direction formerly in interim directive 7709.58-94-1 on the use of the Cooperative Road Maintenance Agreement (FSH 1509.11, sec. 32.1).

There are no substantive changes to direction in remainder of chapter.

JACK WARD THOMAS
Chief

CHAPTER 10 - MAINTENANCE OF FOREST DEVELOPMENT ROADS

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FSH 7709.58 - TRANSPORTATION SYSTEM MAINTENANCE HANDBOOK
WO AMENDMENT 7709.58-95-1
EFFECTIVE 7/28/95

CHAPTER 10 - MAINTENANCE OF FOREST DEVELOPMENT ROADS

This chapter provides guidelines for determining road maintenance criteria, using the Forest Service Road Maintenance Management System, for sharing road maintenance responsibilities and obligations with other road users, and for planning for emergency situations.

11 - MAINTENANCE CRITERIA. Maintenance criteria describe how a road is to be maintained. The criteria include:

1. Requirements for the protection of adjacent resources or improvements such as streams, lakes, vegetation, and facilities.
2. Smoothness required for desired operating speed and for user comfort and convenience. The level of smoothness should be consistent with the road design.
3. Acceptability or nonacceptability of dust.
4. Season of use and approximate volumes and types of traffic.
5. Current and future road operation and maintenance strategies.

Establish maintenance criteria following the Process for Access Management (sec. 06). Continually review and update information to ensure that maintenance criteria remain consistent with management area direction, resource program needs, road management objectives, and available resources. Line and interdisciplinary staff participation in this process is essential.

Document road maintenance criteria through the development of road management objectives.

12 - ROAD MAINTENANCE MANAGEMENT SYSTEM. The Road Maintenance Management System provides a systematic process for field units to effectively and efficiently manage their road maintenance programs. Use the Road Maintenance Management System together with the Forest Service Central Accounting System to set priorities, plan, budget, schedule, perform, monitor, and evaluate maintenance of Forest roads. Exhibit 01 shows the maintenance management process.

Select road maintenance levels consistent with road operation and maintenance criteria. Perform condition surveys, as necessary, to determine existing road conditions. Develop maintenance prescriptions to correct identified deficiencies. Rank maintenance prescriptions in order of priority.

Combine maintenance prescriptions to develop the annual Forest Road Maintenance Plan. Consider all forest development roads and other Forest Service-maintained roads. As a minimum, the plan should document the following:

1. Work to be accomplished (maintenance activities).
2. Who will perform the work (Forest Service, timber purchaser, county, cooperator, and so forth).
3. Estimated cost of the work.
4. How the work will be financed (Federal appropriations, purchaser deposits, and so forth).
5. How the work will be accomplished (force account, contract, and so forth).
6. When the work will be accomplished.
7. What needed work will not be accomplished.

Modify the plan as necessary to balance requirements with available resources. For example, if estimated costs exceed available funding, it may be necessary to defer work, reduce maintenance frequencies, close roads, or allow roads to deteriorate. Correlate modifications with resource program needs and road operation and maintenance criteria. Obtain line approval of the proposed maintenance plan.

Schedule and accomplish work in accordance with approved plan. Continually evaluate work accomplishments -- making needed revisions and reporting accomplishments. Use the current year's program evaluation as input for developing future years' programs and updating maintenance activity standards.

12 - EXHIBIT 01 IS A SEPARATE DOCUMENT.

12.1 - Scope. Road maintenance includes any expenditure in the repair or upkeep of a road necessary to retain the road's approved traffic service level. Work items may include surface rock replacement, seal coats and asphalt overlays, bridge replacement, slide removal, and other items that contribute to the preservation of the existing road. Road maintenance is not intended to substantially improve conditions above those originally constructed; however, there may be a need for adding to or modifying the original conditions without increasing the traffic service level. Typical examples of these activities include installing additional minor culverts and traffic control devices, implementing traffic management strategies, placing small quantities of spot surfacing, and revegetating cut and fill slopes.

Some roads may be allowed to disinvest to allow uncompensated deterioration of assets gradually over time. For example, a road may need to be operated and maintained at a higher level during periods of commercial use than is required at other times.

Other situations may require that the road be stabilized to preserve the road structure and/or to reduce erosion and then closed (maintenance level 1) between use cycles. Some maintenance work activities may be deferred while the road is in a planned disinvestment or a closure cycle.

This work may be accomplished at some future date through maintenance or reconstruction, depending on complexity and extent. Opening a closed road is normally considered maintenance. Work performed to raise its traffic service level above that originally constructed is considered to be road reconstruction and should be financed accordingly. Obliterating and/or returning a road to resource production is not considered maintenance. Funding for this work is a resource program responsibility.

12.2 - Information Requirements. Record current inventory data in the Forest data management inventory system (FSH 7709.55, Transportation Planning Handbook). Information pertaining to traffic control devices is recorded in the sign plan (FSH 7109.11, Sign Handbook).

Maintain a permanent road file to document, on an as needed basis, other pertinent road maintenance information such as road management objectives, maintenance criteria, traffic data, traffic accident records, road logs, condition surveys, as-built drawings, and final construction reports.

12.3 - Maintenance Levels. Maintenance levels define the level of service provided by, and maintenance required for, a specific road. Maintenance levels must be consistent with road management objectives and maintenance criteria.

1. Factors. Consider the following factors when selecting maintenance levels:
 - a. Resource program needs, environmental and resource protection requirements, visual quality objectives, and recreation opportunity spectrum classes.
 - b. Road investment protection requirements.
 - c. Service life and current operational status.
 - d. User safety.
 - e. Volume, type, class, and composition of traffic.
 - f. Surface type.
 - g. Travel speed.
 - h. User comfort and convenience.
 - i. Functional classification.

j. Traffic service level.

Roads may be currently maintained at one level and planned to be maintained at a different level at some future date. The operational maintenance level is the maintenance level currently assigned to a road considering today's needs, road condition, budget constraints, and environmental concerns; in other words, it defines the level to which the road is currently being maintained. The objective maintenance level is the maintenance level to be assigned at a future date considering future road management objectives, traffic needs, budget constraints, and environmental concerns. The objective maintenance level may be the same as, or higher or lower than, the operational maintenance level. The transition from operational maintenance level to objective maintenance level may depend on reconstruction or disinvestment.

2. Maintenance Level Descriptions. Maintenance levels 1-5 (operational and objective) are described in the following paragraphs:

Roads assigned to maintenance levels 2-5 are either constant service roads or intermittent service roads during the time they are open to traffic. See exhibit 01 for the relationship between maintenance levels.

a. Level 1. Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period must exceed 1 year. Basic custodial maintenance is performed to keep damage to adjacent resources to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level. Appropriate traffic management strategies are "prohibit" and "eliminate."

Roads receiving level 1 maintenance may be of any type, class, or construction standard, and may be managed at any other maintenance level during the time they are open for traffic. However, while being maintained at level 1, they are closed to vehicular traffic, but may be open and suitable for nonmotorized uses.

b. Level 2. Assigned to roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log haul may occur at this level. Appropriate traffic management strategies are either to (1) discourage or prohibit passenger cars or (2) accept or discourage high clearance vehicles.

c. Level 3. Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.

Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either "encourage" or "accept." "Discourage" or "prohibit" strategies may be employed for certain classes of vehicles or users.

d. Level 4. Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double lane and aggregate surfaced. However, some roads may be single lane. Some roads may be paved and/or dust abated. The most appropriate traffic management strategy is "encourage." However, the "prohibit" strategy may apply to specific classes of vehicles or users at certain times.

e. Level 5. Assigned to roads that provide a high degree of user comfort and convenience. These roads are normally double lane, paved facilities. Some may be aggregate surfaced and dust abated. The appropriate traffic management strategy is "encourage."

3. Management Decisions. The distinction between maintenance levels is not always sharply defined. Some parameters overlap two or more different maintenance levels. Select maintenance levels based on the best overall fit of the parameters for the road in question. In those situations where the parameters do not indicate a definite selection, use the desired level of user comfort and convenience as the overriding criteria to determine the maintenance level.

Manage roads assigned operational maintenance levels 3, 4, and 5 in accordance with the requirements of the Highway Safety Act of 1966 (P.L. 89-564). See FSM 7730 for management direction.

12.3 - EXHIBIT 01 IS A SEPARATE DOCUMENT.

12.4 - Maintenance Activities and Maintenance Standards.

12.41 - Maintenance Activities. Road maintenance includes a variety of work activities. Activities may be either detailed and site specific, or broad and general. Identify individual activities in the amount of detail required for specific management situations. Maintenance activities relating to specific parts of the road prism may be combined into maintenance activity groups. Maintenance activity groups and individual maintenance activities are identified by a 4-character code. The first character of the 4-character code sequence (XXXX) identifies the activity group. The second, third, and fourth characters identify specific maintenance activities within an activity group. Develop individual maintenance activities commensurate with local needs.

Maintenance Activity Group Codes are identified below:

Maintenance Activity Group Codes

Code Number	Group Name	Description
0000	General Activities	Activities not related to components of the road.
1000	Traveled Way Activities	Activities within the traveled way or that portion of roadway, excluding shoulders, used the movement of vehicles.
2000	Shoulder Activities	Activities within the shoulder area or that portion of the road-way contiguous with traveled way for accommodation of stopped vehicles, for emergency use, and lateral support of base and surface course, if any.
3000	Drainage Activities	Activities related to drainage facilities except bridges.
4000	Roadway Activities	Activities within the roadway or that portion of the road within the limits of excavation and embankment.
5000	Roadside Activities	Activities within roadway or that portion of the road outside the limits of excavation or embankment and within the limits of the right-of-way.
6000	Structure Activities	Activities related to road structures
7000	Traffic Service Activities	Activities related to signs, markings, and other traffic control devices.
8000	Special Activities	Non-routine or special activities not identified above.
9000	Materials	Materials used in maintenance operations.

Some situations may not warrant the use of individual maintenance activities or maintenance activity groups. In these situations, use the national activity structure (NAS) codes (FSH 1309.16) to identify planned and completed work by maintenance level.

Also, consider the need to identify those roads where (1) the existing condition is such that no on-the-ground maintenance work is necessary to adequately accommodate the planned use, or (2) a conscious decision has been made not to perform any on-the-

ground maintenance and to allow the condition of the road to deteriorate to a lower level of service.

12.42 - Maintenance Standards. Maintenance standards define the labor, equipment, and material requirements to accomplish a specific maintenance activity and an average daily production rate. Use maintenance standards in the development of the annual maintenance program and as a guide for assessing accomplishment. As a minimum, develop maintenance standards for each force account maintenance activity. See exhibit 01 for a sample maintenance standard.

12.42 - Exhibit 01

Maintenance Standard

ACTIVITY NUMBER: 1010 Date: 3/21/82
ACTIVITY NAME: grading (non-surfaced level 3 roads)
Unit of Measure: lane mile Average Daily Production: 6.5

DESCRIPTION: grading (non-surfaced roads) includes keeping the traveled way in condition to facilitate user traffic at normal operating speeds and to provide proper drainage.

RESOURCE REQUIREMENTS

WORKFORCE

Series - Grade	Job Title	Number	Hours/Day
WG - 10	operator	1	8
WG - 5	laborer	1	8

EQUIPMENT

Classification Code	Description	Number	Hours/Day	Miles
670	motor grader	1	5.5	
150	pick-up	1	50	

MATERIALS

Code	Description	Use/day
none		

RECOMMENDED PROCEDURE (Optional)

12.5 - Condition Surveys. Perform condition surveys as needed to provide up-to-date knowledge of the road condition. Itemize and rank deficiencies needing correction, make recommendations for developing or updating the maintenance prescription, and provide information for traffic management decisions. Frequency and intensity of condition surveys will vary with the road maintenance level and the risk involved.

12.6 - Maintenance Prescription. Maintenance prescriptions identify the type and extent of work, location, frequency, and constraints in sufficient detail to contract work, schedule crew and equipment, and purchase materials. They form the basis for the annual forest road maintenance plan. Update maintenance prescriptions as needed to reflect changes in management objectives, maintenance criteria, funding, and condition survey findings. Prescription detail will vary depending on the work to be done, road maintenance level, materials, environment, and terrain. In the prescription, document the work that is to be done annually and the work needed on an irregular schedule, as a minimum. Consider the guidelines shown in exhibit 01 when developing maintenance prescriptions.

12.6 - EXHIBIT 01 IS A SEPARATE DOCUMENT.

12.7 - Maintenance Plans. Prepare an annual road maintenance plan based on work described and estimated in the maintenance prescriptions. Organize and integrate the work to be accomplished by the Forest Service and other road users and maintainers, including timber purchasers, cost-share cooperators, local governments, permittees, human resource and volunteer programs, and other Federal agencies.

1. Plan Contents. Identify for each road or group of roads:
 - a. Specific work activities.
 - b. Quantity of work.
 - c. Date work is to be accomplished (for example, spring or summer, or May or July).
 - d. Estimated costs.
 - e. Funding sources.
 - f. Work performance responsibilities.

Balance plan detail with the needs of the individual Forest and the on-the-ground situation. Consider all forest development roads in the plan. Equate individual user's maintenance responsibilities with the requirements specified in the timber sale contract, cost share agreement, permit, or cooperative agreement as appropriate.

2. Plan Development. Develop plans for different administrative units such as National Forests, Ranger Districts, zones, or counties as appropriate. Automated data

processing systems may be useful in developing annual maintenance plans, evaluating different maintenance strategies, and coordinating work between different maintainers.

The preliminary maintenance plan, based on doing all the work identified in the maintenance prescription, provides management with a reliable assessment of total needs. If the needs identified in the preliminary plan exceed available resources, make appropriate adjustments. Establish priorities by maintenance activity to ensure that available funding is directed to the highest priority work. In adjusting plans to meet available resources, consider:

1. Deferring specific maintenance activities or other actions to reduce resource needs,
2. Implementing seasonal or yearlong road closures,
3. Restricting certain types of traffic, and
4. Reducing the frequency of maintenance operations. Obtain line officer approval of actions taken to make the maintenance plan match available resources. Modify road management objectives and/or land management and resource program objectives when significant changes are necessary.

12.8 - Plan Implementation and Monitoring.

12.81 - Scheduling. In planning, consider logical sequences of work accomplishments, seasonal limitations, unanticipated work, delays, and weather in developing the maintenance schedule. Unless a more specific schedule is required, schedule work by season (spring, summer, fall, or winter). Monitor and update the schedule to accommodate changes in work requirements, weather, workforce, equipment or materials availability, unanticipated road use, work performance by other maintainers, or emergency situations.

Include provisions in road maintenance contracts, cooperative agreements, and permits to adjust the anticipated work schedule as needed to conform with current needs and constraints.

12.82 - Performance. Perform a confirmation condition survey of the road to be maintained prior to initiating maintenance work to (1) confirm that the work activities specified in the maintenance plan still need to be accomplished and/or (2) determine if additional work is required. Modify maintenance plans and work schedules accordingly.

12.83 - Inspection. Review completed work for compliance with maintenance specifications. Redo nonconforming work. Meet with appropriate line officers to review a representative sample of the completed work.

12.84 - Monitoring and Evaluation. Monitor work accomplishments and associated costs as needed to address management needs. Include samples of work

accomplished by force account, contract, timber purchasers, and others. Summarize and analyze work accomplishment data as appropriate.

Evaluate overall program accomplishment for conformance with the established maintenance level, road operation and maintenance criteria, and road management objectives. Compare actual costs with estimated costs and budgeted funds.

Use accomplishment reports and field review reports to (1) monitor work performance against planned work program, (2) make adjustments in the utilization of workforce, equipment, or methods of work, (3) update maintenance standards, and (4) estimate future maintenance needs and costs.

13 - MAINTENANCE SHARING.

13.1 - Principles. Share financial responsibility for maintaining forest development roads with cooperators, local governments, road users (commercial and noncommercial), or a combination thereof, commensurate with road use. See FSM 7730 for specific policy.

Allocate financial responsibility for costs associated with management of the forest development road system (road management objectives, condition surveys, maintenance prescriptions, traffic counting, maintenance planning, and other associated activities) to the Forest Service except that the financial responsibility for work made necessary by specific users or groups of users may be allocated to those specific users or groups of users. Other financial responsibilities depend, to some degree, on the type of traffic using the road. Allocation of traffic type is shown below:

Traffic Type	Responsibility Allocated To
1. General Use Traffic	State, Local Government, Forest Service; depending on individual situation (for example: Road jurisdiction, authority, use permits, Memorandums of Understanding, and order prohibitions).
2. National Forest Traffic	
a. Forest Administrative Traffic	Forest Service*
b. Forest Commercial Traffic	Commercial User
c. Forest Visitor Traffic	Forest Service*

- | | |
|---|---|
| 3. Non-Forest Service
Commercial Traffic | State, Local Government, Forest Service, Commercial User; dependent upon individual situation (for example, road jurisdiction, authority, use permits, Memorandums of Understanding, and other prohibitions). |
| 4. Cooperator (Cost Share)
Traffic | In accordance with agreement (FSM 5460). |

* Under certain conditions, responsibility is allocated to commercial users. See section 13.4.

13.2 - Sharing Requirements. The legal basis for requiring road users to share in the maintenance of forest development roads is found in 36 CFR 212.7. Implement these sharing requirements through contracts, permits, and agreements as described in the following sections.

13.21 - Timber Sale Contracts. Section B(T)5.4 of Form FS-2400-6, Timber Sale Contract, makes timber purchasers responsible for road maintenance commensurate with their use. Include maintenance specifications and/or special requirements in the appropriate C provisions of the Timber Sale Contract. See FSM 2420, FSM 2430, and FSH 2409.15, Timber Sale Administration Handbook, for specific direction.

13.22 - Cost Share Agreements. (FSM 7732.24). Cooperatively maintain the cost share road system to the agreed upon maintenance level in a timely manner to the standards of original construction or reconstruction or as otherwise agreed to in writing. Develop signed maintenance agreements with each cooperator in accordance with the Cooperative Road Maintenance Agreement in FSH 1509.11, section 24.

13.23 - Road Maintenance Agreements. Implement maintenance agreements with State, county or local government agencies, and other Federal agencies to document the sharing of road maintenance responsibilities. See FSM 1530 for policy and model agreement for the exchange of road maintenance responsibilities or maintenance operations between Federal agencies. See FSH 1509.11, Grants and Agreements Handbook, chapter 30, for direction and sample agreement for cooperative maintenance activities with States, counties, or local governments.

13.24 - Road Use Permits. Include appropriate road maintenance requirements in Road Use Permit, Form FS-7700-41, when authorizing use of existing forest development roads where unrestricted road use has been limited by a road order pursuant to 36 CFR 261.54 and where use is not covered by contract, authorization, or agreement.

13.25 - Special Use Authorizations. Include appropriate road maintenance requirements in special use authorizations used to authorize construction of roads or to

grant rights of use in existing roads. See FSM 2730 for specific policy and direction on special use permits.

13.26 - Off-Highway Haul (OHH). Limit sharing of road maintenance costs to that associated with standard highway load traffic. Except for unusual situations, the Forest Service does not share in maintenance costs attributable to OHH (FSM 7730.5). Assign all maintenance costs attributable to OHH to the user.

13.3 - Methods of Sharing. Road users may redeem their maintenance sharing responsibilities in several different ways. The most common methods are described below.

13.31 - Work Performance. Require road users to perform road maintenance work equal in value to their commensurate road maintenance obligation. This may involve performing all or selected maintenance activities on a continuing or rotating basis.

13.32 - Cooperative Work. Use this procedure when the Forest Service performs or is responsible for performing a portion of the total maintenance job and the cooperator(s) is responsible for performing the remainder of the total maintenance job. This procedure may also apply when the Forest Service agrees to fully maintain one road and the cooperator agrees to fully maintain another road. Use this procedure to enhance program efficiencies with other Federal agencies and local governments.

The policy statement on interagency exchange of road maintenance signed by the Forest Service, Fish and Wildlife Service, Park Service, Bureau of Land Management, and Bureau of Indian Affairs is the enabling document that provides an umbrella for the local officers of these agencies to enter into a yearly, seasonal, or periodic road maintenance agreement. See FSM 1531.07g for Policy and Model Interagency Road Maintenance Exchange Agreement.

Use this process to offset maintenance work on a value-for-value basis with counties and local government agencies. Develop cooperative agreements with counties and local government agencies that provide for the Forest Service to maintain county or local government roads and for the county or local governments to maintain Forest development roads. Ensure that roads are included in the operating plan of the cooperative agreement and that offsetting maintenance work is on a value-for-value basis. When completed, verify that the agreed-to work has been performed and is of equal value.

13.33 - Deposited Funds. Use this procedure in situations where the user's share is relatively small in comparison with the total maintenance job, when it is not feasible for the user to perform the work, or when work (such as surfacing replacement or brush cutting) will not be required until some future date. Collect from users those funds that are equal in value to their maintenance obligation. Arrange for the maintenance work to be accomplished. See FSM 6510 for fiscal direction on use of deposited funds.

13.34 - Contributed Materials. Users may contribute maintenance materials, equal in value to their maintenance obligation, to the Forest Service. Include these materials in

the Forest Service maintenance program either immediately or at some future date. Use this process in situations that require stockpiling of surfacing material, supplying culvert pipe or other drainage materials, supplying dust abatement, or other materials. The Forest Service also may contribute maintenance materials, equal in value to the agency's maintenance obligation, when others will perform the work.

13.35 - Forest Service Payment. Pay the road user to perform the maintenance work for which the Forest Service is responsible. Follow established procurement procedures (FSM 6510).

13.4 - Commensurate Sharing. A knowledge of road users, types, classes, use season, and volumes of use for each route is necessary to properly assess responsibilities for maintenance.

Determine the amounts of such use by traffic surveillance and analysis. Estimate use if documented traffic data is not available.

Identifying other parties as having financial responsibility for road maintenance does not imply that the Forest Service has relinquished any of its management prerogatives or responsibility to ensure that maintenance is performed to prescribed standards. The Forest Service may authorize the user to actually perform the work or to deposit the monies to pay for performance by the Forest Service or some other party.

13.41 - Responsibility and Associated Costs. Determine the total costs associated with on-the-ground maintenance performance by computing the total amount of work of each activity to be performed and applying realistic costs. Next, determine each user's commensurate financial responsibility. The preferred procedure for this determination is described below. Other procedures may be used provided the procedures comply with the intent of the Forest Roads and Trails Act of 1964 (16 U.S.C. 532-538) and have been approved by the Regional Forester. This procedure is not applicable to cost share roads. See section 13.22 for direction on cost share roads. See FSM 2400 and FSH 2409.15, Timber Sale Administration Handbook, for policy and guidelines on timber sale maintenance requirements and allowances.

1. Roads Assigned to Maintenance Levels 1 and 2. Most roads managed in maintenance levels 1 or 2, prior to commercial use, experience only minor noncommercial traffic during periods of commercial use. If noncommercial traffic is significant during periods of commercial use, it may be regulated by order (36 CFR 261) and signed accordingly. Therefore, the impact of noncommercial traffic on the total maintenance needs during periods of commercial use will usually be insignificant. The Forest Service is financially responsible for maintenance work made necessary due to closure trespass and for road damage caused by public use during periods when public traffic is significant (for example, hunting season).

a. Maintenance Level 1 Roads. The Forest Service is financially responsible for basic custodial care during the nonuse period prior to commercial use, to keep the road stable, drainage functional, and resource damage at an acceptable level.

The commercial user is financially responsible for opening the road and making it ready for use. Maintenance work to prepare a maintenance level 1 road for use is normally limited to removal (opening) of closure devices, brushing, removal and/or repair of minor slides or slumps, cleaning of roadside ditches and drainage devices, and grading of traveled way. Use reconstruction procedures to accomplish work exceeding these guidelines.

The commercial user is financially responsible for maintaining the road during the period of commercial use. The closing of the road, following the period of use, is the financial responsibility of the last commercial user. The commercial user may perform the closure work or, at Forest Service option, deposit funds for the Forest Service to perform the work following completion of post sale activities. If the Forest Service requires the road to remain open for reasons not associated with the commercial activity, the Forest Service becomes financially responsible for closing the road at some future date.

b. Maintenance Level 2 Roads. Any maintenance work required to be completed prior to the start of commercial use to accommodate such use is the financial responsibility of the commercial user. Use reconstruction procedures to accomplish substantial improvements in road standard, to make extensive repairs, or to raise the traffic service level.

The commercial user is responsible for all required road maintenance during the period of commercial use.

2. Roads Assigned to Maintenance Levels 3, 4, and 5. Generally a mixture of commercial and noncommercial traffic exists on these roads.

a. Routine Maintenance. The financial responsibility for all routine maintenance is shared by the Forest Service and other users. Determine each user's financial responsibility on the basis of traffic units generated by their use. A traffic unit is defined as the average weight of a light, noncommercial vehicle having four or more wheels, passing a given point on a road, moving in either direction. Assign all other vehicles an equivalent traffic unit based on the ratio of their weight to that of the light, noncommercial vehicle. Establish the average weight of light, noncommercial vehicles based on sample traffic counts or other reliable data.

Limit Forest Service financial responsibility to a commensurate share of those maintenance activities required to be performed for the maintenance level assigned to the road prior to commencement of commercial use. For example, if dust abatement was not required prior to commercial use, but is required to accommodate commercial use, it should be financed entirely by the commercial user.

b. Other than Routine Maintenance. Determine the financial responsibility for other than routine maintenance in three different categories as follows:

(1) Surfacing Replacement. Establish surfacing replacement rates based on the best information available. Specify replacement rates by surfacing type and quantify in easily defined common units of measure such as cubic yards or tons of material per thousand board feet or ton-mile of haul. Use the following equation to determine each user's financial responsibility: User's financial responsibility = (Amount of haul) x (replacement rate) x (unit cost of material). Unit cost is estimated at the date of application, not to exceed the life of the timber sale, or 5 years for other situations.

The Forest Service is financially responsible for any deficit existing between the amount of funds collected by the above procedure and the total funds required to accomplish the work.

Commercial users may actually replace the surfacing on existing roads or deposit funds for future replacement by the Forest Service. The procedure to be followed will be determined by the Forest Service on a case-by-case basis.

(2) Maintenance Items With a Work Cycle of 5 Years or Less. The financial responsibility for this work is shared by the Forest Service and other users based on traffic units. Items of work may include brushing, seal coats, and bridge painting. Use the best information available to project traffic over the work cycle period. Estimate the cost of the work at the time of planned performance.

Also use this procedure in those situations where the life of a timber sale exceeds 5 years.

(3) Maintenance Items With a Work Cycle Exceeding 5 Years. Financial responsibility for this work is normally assigned to the Forest Service. Exceptions can be made, on a case-by-case basis, for unusual high cost items such as painting of large bridges whose work cycle exceeds 5 years.

13.42 - Construction-Induced Maintenance. Construction-induced maintenance includes all maintenance work resulting directly from delivery of materials, equipment, or personnel to, or from, a construction project.

The Forest Service is financially responsible for all construction-induced maintenance on existing Forest development roads that provide access for Forest Service public works or timber sale contract road construction and/or reconstruction projects. Include construction-induced maintenance as a requirement in the public works or timber sale contract. Except in unusual situations, do not require maintenance deposits from either a public works or timber sale contractor for construction-induced maintenance.

Private parties and other users are financially responsible for all construction-induced maintenance on forest development roads that result from their construction activities on either National Forest or non-National Forest lands when such use is restricted by order under 36 CFR 261.50. Determine each party's financial responsibility in accordance with the procedures previously described. Maintenance deposits for construction-induced maintenance may be required from private parties and other users.

14 - EMERGENCY PROCEDURES. Prepare plans as needed to provide direction, guidance, and administrative procedures for dealing with emergency situations such as flood, landslide, earthquake, or fire.

The repair of serious damage to forest development roads resulting from natural disasters over wide areas or catastrophic failures may qualify for Emergency Relief for Federally Owned (ERFO) roads through the Federal Highway Administration (FSM 1535.12). See FSM 7730 for direction on repairs performed with ERFO funds.

Exhibit N

USDA-FS Road Maintenance Specifications For Level 1-5 Roads

Section 1 – USDA-FS Maintenance Prescription Guidelines For Level 1 Through 5 Roads

Section 2 – USDA-FS Specifications That Apply To Maintenance Level 1, 2, or 3 Roads

Section 3 – USDA-FS Specifications That Apply To Maintenance Level 3 Through 5 Roads When the Forest Service Is The Prime Maintainer

Section 4 – USDA-FS Specifications That Apply To All Roads In Maintenance Levels 2 Through 5

Exhibit N – Section 1

USDA-FS Maintenance Prescription Guidelines

For Level 1 Through 5 Roads

Maintenance prescription guidelines.

Type of Activity	Code	Guidelines Level 1	Guidelines Level 2	Guidelines Level 3	Guidelines Level 4	Guidelines Level 5
General	0000	As needed.	As needed.	As needed.	As needed.	As needed.
Traveled Way	1000	Generally no work required.	Log out and brush as necessary to provide passage for planned traffic. Maintain road prism to provide for passage of high clearance vehicles.	Maintain surface to provide travel by prudent driver in standard passenger cars. Some surface roughness is tolerated. User comfort and convenience is a low priority. Maintain traveled way crown or cross slope to provide adequate drainage. Replace base course and surfacing as needed.	Maintain traveled way to provide for a moderate degree of user comfort and convenience and for protection of investment and resource values. Replace surfacing to depth required for blade maintenance and to prevent wear of the base course. Abate dust when needed.	Maintain surface to provide for protection of investment and resource values, and for a high degree of user comfort and convenience.
Shoulder	2000	Generally no work required.	Maintain only as necessary for planned traffic.	Maintain existing shoulders commensurate with travelled way.	Same as Level 3.	Maintain to the same standard as the traveled way.
Drainage	3000	As necessary to keep drainage facilities functional and prevent unacceptable environmental damage.	Same as Level 1.	Same as Level 1.	Same as Level 1.	Same as Level 1.

Maintenance prescription guidelines (continued).

Type of Activity	Code	Guidelines Level 1	Guidelines Level 2	Guidelines Level 3	Guidelines Level 4	Guidelines Level 5
Roadway	4000	Perform only that work needed to facilitate restoration of the roadway for future use and to alleviate erosion or sedimentation on or from roadway or roadsides. Normally defer removal of brush and trees from the roadway. Vehicle traffic is not a consideration.	Manage vegetation cover as needed for planned traffic. remove and/or repair slides and/or slumps as needed for access with high clearance vehicles or to control resource damage.	Maintain existing vegetative cover. Control vegetation to provide sight distance. Repair and/or remove slides and slumps to provide passage by prudent drivers in standard passenger cars.	Same as Level 3.	Same as Level 3.
Roadside	5000	Generally no work required.	Generally no work required.	Remove hazard trees and clean up litter.	Clean up litter in accordance with road management objectives. Remove hazard trees and perform landscape treatments as required.	Same as Level 4.

Maintenance prescription guidelines (continued).

Type of Activity	Code	Guidelines Level 1	Guidelines Level 2	Guidelines Level 3	Guidelines Level 4	Guidelines Level 5
Structure	6000	Inspect and repair only those items which cannot be deferred, and that are necessary to protect investment and preserve structural integrity.	Maintain all structures to provide for the passage of planned traffic.	Maintain all structures to provide for passage of planned traffic and to preserve structure for future use. Defer noncritical items and combine to provide for a more economical project. For example, maintain defective bridge rails, running planks, and bridge guide posts on a current basis. Defer painting of bridge rails to a logical project cycle.	Same as Level 3.	Same as Level 3.

Maintenance prescription guidelines (continued).

Type of Activity	Code	Guidelines Level 1	Guidelines Level 2	Guidelines Level 3	Guidelines Level 4	Guidelines Level 5
Traffic Service	7000	Ensure that physical closure devices and/or appropriate signing are in place and functional at the road entrance. Defer maintenance of signs within the closure until the road is opened. Correct deferred items prior to opening the road to traffic.	Install and maintain route markers; warning, regulatory, and guide signs; and other traffic control devices to provide for planned traffic and appropriate traffic management strategy.	Install and maintain route markers; warning, regulatory and guide signs; and other traffic devices to provide for planned traffic.	Same as Level 3.	SIGNS --Same as Level 3. MARKINGS --Renew centerlines, edge stripes, and other pavement and curb markings as needed to provide for planned traffic.
Source: FSH 7709.58 - TRANSPORTATION SYSTEM MAINTENANCE HANDBOOK, WO AMENDMENT 7709.58-92-1. 12.6 - Exhibit 01, EFFECTIVE 9/1/92						

General relationship between maintenance levels.

PARAMETERS	MAINTENANCE LEVEL				
	1	2	3	4	5
Service Live	Intermittent Service - Closed Status	Constant Service or Intermittent Service - Open Status (Some uses may be restricted under 36 CFR 261.50)			
Traffic Type	Open for non-motorized uses. Closed to motorized traffic.	Administrative, permitted, dispersed recreation, specialized, commercial haul.	All National Forest Traffic - General Use, Commercial Haul		
Vehicle Type	Closed-N/A	High clearance, pick-up, 4x4, log trucks, etc.	All types - passenger cars to large commercial vehicles		
Traffic Volume	Closed-N/A	Traffic volume increases with maintenance level			
Typical Surface	All types	None, Native, or Aggregate -- may be dust abated		Aggregate -- usually dust abated; paved	
Travel Speed	Closed-N/A	Travel speed increases with maintenance level			
User Comfort and Convenience	Closed-N/A	Not a consideration	Low priority	Moderate Priority	High Priority
Functional Classification	All Types	Local Collector	Local Collector Arterial	Local Collector Arterial	Local Collector Arterial
Traffic Services Level	Closed-N/A	D	A, B, C -- Traffic service level increases with maintenance level		
Traffic Management Strategy	Prohibit or Eliminate	Discourage or Prohibit cars. Accept or Discourage high clearance vehicles.	Encourage, Accept	Encourage	Encourage
Source: FHS 7709.58 - TRANSPORTATION SYSTEM MAINTENANCE HANDBOOK, WO AMENDMENT 7709.58-92-1, 12.3 - Exhibit 01, EFFECTIVE 9/4/92					

Exhibit N – Section 2

USDA-FS Specifications That Apply To

Maintenance Level

1, 2, or 3 Roads

835 – LEVEL 1 ROADWAY DRAINAGE MAINTENANCE

1. DESCRIPTION

This work consists of providing drainage on roads that have been physically closed to traffic (Level 1 roads).

INTENT: To provide drainage on roads closed to traffic (Level 1 roads). It is intended to provide drainage maintenance during periods of road storage between commercial entries or until the road can be inactivated or obliterated. It is not intended to inactivate roads unless indicated in the Maintenance Plan.

2. MAINTENANCE REQUIREMENTS

a. Access

1. The Government will provide for access through locked gates and also provide any special devices other than standard wrenches or tools, required for removal or replacement of fabricated barricades.
2. Other work associated with Contractor's access shall be the responsibility of the Contractor. The entrance shall not be left available for access to persons not associated with this contract; temporary barricades shall be used during the active performance of work.

b. Drainage

1. Upon completion of work, the roadway shall be shaped to provide for the removal of surface water, but need not be passable to vehicles. Waterbars, barriers or berms existing prior to the Contractor's operation shall be repaired or reinstalled. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.
2. Continuous blade shaping of the roadbed is not required under this specification.
3. Work to be done at staked locations shall be as indicated on the stake and/or stated in Special Project Specifications.
4. Any of the following methods are acceptable for use at eroded or ruffed locations.

835 – ROADWAY DRAINAGE MAINTENANCE (Cont')

(a) Method A: Outsloping the roadbed at not less than one-half (1/2) inch per foot.

(b) Method B: Insloping the roadbed at not less than one-half (1/2) inch per foot of width.

(c) Method C: Water bar roadbed at locations staked on the ground or shown in Special Project Specifications. Construct in accordance with Drawings included with the Special Project Specifications.

5. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within twenty (20) feet of the structure
6. Culverts and other fabricated structures providing drainage from road ditches shall either be cleaned and the ditch made functional or waterbar(s) shall be provided across the roadbed. Fabricated drainage structures discharging a natural ground within three (3) feet of roadbed elevation may be removed at prime maintainer's option to provide the waterbar. Removed structures shall become Contractor's property to be removed from National Forest. Contractor installed temporary drainage structures, if any, shall be removed and replaced with a water bar.

c. Slides, Slumps and Slough

1. Slides and slough may be left in place provided they do not potentially impound water or divert water from watercourses. Reshaping of the various surfaces shall be done as necessary to provide drainage.
2. Drainage shall be provided to effectively decrease or eliminate the entry of surface water into slides, slumps, and roadbed surface cracks. The Contractor shall place berms, waterbars or ditches as needed to intercept and remove runoff water from the roadbed. Cracks shall be surface sealed by covering over with native soil materials to prevent additional water entry and compacting with equipment tires.

835 – ROADWAY DRAINAGE MAINTENANCE (Cont')

d. Entrance Devices

Upon completion of work, entrance devices shall be replaced to effectively eliminate access by motorized vehicles having four (4) wheels and a width in excess of forty (40) inches.

e. Seeding

All disturbed areas shall be seeded and fertilized in accordance with requirements set forth in Section 841 and are incidental.

3. MEASUREMENT

Measurement for the ordered and accepted work will be the length of the road in miles as shown on the Annual Maintenance Plan.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
835(l) Roadway Drainage Maintenance	Miles

837 – DRAINAGE DIP MAINTENANCE

1. DESCRIPTION

This specification applies to maintenance level 2 and 3 roads. The work consists of separately ordered maintenance of existing drainage dips and special outlet structures on all types of roads. Included in this are rolling dips on native, aggregate, and paved roads.

INTENT: Clean and reshape drainage dips to provide for a smooth flow of water from the traveled way. This Section is to be used for maintenance of existing drainage dips and associated outlet structures when this work is not coincident with Section 811 Blading. This Section is not to be used to construct new or additional dips nor is it to be used to provide new or additional special outlet structures.

2. MATERIALS

Materials used in maintenance shall conform to the requirements of the applicable Sections for the materials within the structure.

3. MAINTENANCE REQUIREMENTS

a. Special outlet structures such as aprons, culverts, and flumes shall be removed if necessary prior to maintaining the drainage dip, or the finished dip shall be oriented to the structure for alignment and gradient.

b. Hand work may be necessary to obtain a smooth surface and uniform cross section. Any special outlet structure removed shall be reinstalled to the flow line grade established by the completed drainage dip. The first six (6) feet of any lead-off ditch or channel shall be cleaned incidental to this Section.

c. Native material drainage dips shall be shaped to reasonably conform with the lines, grades, and cross sections shown in Drawing 837-1 or staked on the ground. Removed materials shall be distributed uniformly over the downgrade road surface adjacent to the dip. Rocks shall not project more than two (2) inches above the final surface.

d. Aggregate or rock surfaced drainage dips shall be cleaned. When the prime maintainer determines the drainage dip requires shaping to conform to Drawing 837-1, existing surfacing materials shall be conserved for reuse upon completion of shaping. Conserved surfacing shall be placed and compacted with equipment prior to reinstalling any special outlet structures. Watering when required, will be in accordance with Section 891. Additional surfacing, if required, will be ordered under Section 813.

837 – DRAINAGE DIP MAINTENANCE (Cont')

e. Bituminous surfaced drainage dips shall be cleaned.

4. MEASUREMENT

Measurement of drainage dips maintained will be the number of units of each type completed and accepted.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
837(1) Clean and Shape Drainage Chip, Above Surface	Each
837(2) Clean Drainage Dip, Aggregate Surface	Each
837(3) Reshape Drainage Dip, Aggregate	Each
837(4) Clean Bituminous Drainage Dips	Each

838 – MAINTENANCE OF LEVEL 2 ROADS

1. DESCRIPTION

This work consists of making the roadway passable for use by full-size pickups and providing drainage from the traveled way and roadbed.

INTENT: To maintain the roadway of Level 2 roads for passage by high clearance vehicles.

2. MAINTENANCE REQUIREMENTS

a. Timing

Maintenance shall be performed during the normal user period as often as indicated by the maintenance plan or subsequently ordered by the prime maintainer. The Contractor shall commence maintenance within two (2) weeks of start of use.

b. Drainage

1. Drainage shall be provided at existing drainage structures. Culverts providing drainage from road ditches shall have at least two thirds of the end area usable. Culverts in live streams or natural watercourses requiring cleaning shall have the end area fully usable.

2. Cross ditches conforming to Drawing 838-1 shall be placed at staked locations to provide drainage across the full width of the roadbed. Except as provided in 2(c) herein, materials removed from cross ditches and cleaning of existing drainage dips shall be bermed downgrade on the roadbed. Cross ditches shall be angled and shall discharge at points of least fill height or on natural ground.

c. Intersections (See Drawing 838-2)

Intersections shown in the Maintenance Plan for work under this Section shall be cross ditched to drain over the full width of the listed road and define the traveled way of the adjacent road. Material removed from this cross ditch shall be placed as a berm on the roadbed and traveled way away from the intersection. A second cross ditch conforming to Drawing 838-1 shall be placed within sight of the intersection when possible, but in no case more than one hundred feet (100) from the intersection.

838 – MAINTENANCE FOR LIMITED USE (Cont')

d. Objects on Roadbed (See Drawing 838-3)

1. Upon completion, no object extending over four (4) inches above the road surface shall remain within ten (10) foot usable traveled way width. Larger objects shall be selectively removed or repositioned to provide the usable width and lateral clearance required (See Drawing 838-3). The usable width shall be centered on the roadbed or positioned away from the fill slope.
2. Logs and down trees shall be cut to provide not less than twelve (12) feet of opening for vehicle passage provided the remaining ends are in ground contact and do not interfere with drainage. The portion to be removed may be cut into chunks or left as one piece and placed in a stable position where it will not restrict drainage or vehicle passage. Limbs shall be selectively removed to provide stability or ground contact and shall be scattered downslope outside of the roadbed and drainage ways.
3. Rocks and other objects outside the ten (10) foot usable width may remain if drainage is provided from the road surfaces.

e. Slough and Slides (See Drawing 838-4)

1. Slough and slides may be left in place when surface drainage is provided for and at least ten (10) feet of width is available for vehicle passage. The roadbed immediately upgrade shall be cross ditched. Any roadside ditch between the cross ditch and the remaining materials shall be filled and shaped to drain.
2. The Contractor may reposition or ramp over slides and slough when the traveled way is less than 10 feet (See Drawing 838-4), providing the material is capable of supporting vehicles. Ramp profile gradient shall not exceed 12 percent nor have an outslope exceeding 6 percent. Ramped crossings shall be drained and bermed to a height of at least six inches on the outside of the ramped area.
3. Slough or slide materials which are not capable of supporting a vehicle shall be repositioned on the roadbed to provide the ten (10) foot width unless the Government orders it removed under Section 832.

838 – MAINTENANCE FOR LIMITED USE (Cont')

f. Slumps (See Drawing 838-5)

1. The roadbed immediately upgrade of slumps shall be cross-ditched (See Section A-A of Drawing 838-1).
2. Slumps at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to eight (8) feet provided a berm of at least six (6) inches in height is placed on the undisturbed roadbed to divert surface water and provide a curb on the downhill side.
3. Roadbed slumps shall be ramped on both ends onto undisturbed roadbed to provide at least eight (8) foot usable width. No material shall be placed on the slumped area. Removed materials shall be bermed on the roadbed to guide vehicles to the ramp location, used to block any abutting ditches, and to divert water from entering the slump area. Ramp profile gradient shall not exceed 12 percent. Areas within the slumps that could pond water shall be drained.
4. Road bed cracks shall be sealed with native soil and wheel or tamper compacted to reduce the introduction of surface water.

g. Cutting Vegetation

1. Trees, brush and limbs shall be cut and removed to provide at least twelve (12) feet of usable width centered on the existing usable road surface.
2. Encroaching limbs shall be removed to a height of (10) feet above the traveled way surface extending into the passageway from the side. Limbs extending laterally into the twelve (12) foot width shall be cut within six (6) inches of the trunk. Limbs extending down into the ten (10) foot height limitation may be cut or lopped as needed to meet the height requirement.
3. Brush and trees within the twelve (12) foot usable width corridor shall be cut parallel to and within two (2) inches of the traveled way surface.
4. Materials shall be scattered downslope outside the roadway.

838 – MAINTENANCE FOR LIMITED USE (Cont')

3. MEASUREMENT

Measurement for all work under this section will be by the mile of existing centerline length expressed to the nearest one-tenth (1/10) mile.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
838(l) Maintenance for Limited Use	Mile

Exhibit N – Section 3

USDA-FS Specifications That Apply To

Maintenance Level

3 Through 5 Roads

When The USDA-FS Is

The Prime Maintainer

811 – BLADING

1. DESCRIPTION

This work consists of surface blading native or aggregate roadbed to a condition to facilitate traffic and provide proper drainage. Blading includes shaping the crown or slope of traveled way, berms, and drainage dips in accordance with this specification. This specification is applicable only to level 3 and 4 roads shown in the Annual Maintenance Plan for blading.

Smooth blading shall remove loose surfacing materials from the wheel paths and the removed materials shall be stored in a recoverable windrow.

- a.** Watering will not be required for smooth blading. Smooth blading shall be accomplished without distorting the existing cross-slope or crown of the traveled way.
- b.** Loose surfacing materials shall be moved and stored on the high side of superelevated curves and sections with uniform inslope or outslopes. In crowned sections, the material shall be stored on either or both sides as elected. Stored materials shall be windrowed and shall be placed to provide not less than one (1) foot of smoothed traveled way on one-lane segments or twenty (20) feet of smoothed traveled way on two-lane segments or sections with turnouts.
- c.** Windrows which may collect water on the road shall have holes cut through for drainage at least every five hundred (500) feet.

2. MAINTENANCE REQUIREMENTS

a. Timing

Surface blading shall be performed during the normal use period as agreed in the annual Maintenance Plan. The frequency of surface blading shall be as stated in the Annual Maintenance Plan.

b. General

- 1.** The existing traveled way and shoulders, including turnouts unless otherwise ordered, shall be bladed and shaped to produce a surface which is uniform, consistent to grade, and crowned or cross-sloped as indicated by the character of the existing surface unless otherwise shown in the Maintenance Plan, to at least one half inch (1/2") per foot of width,

811 – BLADING (Cont')

but not more than three quarter inch (3/4") per foot of width. Surfacing materials shall be thoroughly loosened to no less than a two (2) inch depth or the depth of potholes or corrugations. Scarification to facilitate cutting to the full depth of potholes or corrugations may be elected by the prime maintainer but will be considered incidental to blading. Scarification shall not go deep enough to cause contamination of the surfacing.

2. When Section 891 is included in the Maintenance Plan, PacifiCorp shall apply water during blading when sufficient moisture is not present to prevent segregation. Water supply, hauling, and application shall be in accordance with Section 891 and shall be incidental to blading.
3. Existing native rock or aggregate surfaced drainage dips shall be shaped incidental to blading to divert surface runoff to existing outlet devices, ditches and discharge locations.
4. The prime maintainer shall establish a blading pattern which provides a uniform driving surface, retains the surfacing on the roadbed and provides a thorough mixing of the materials within the completed surface width. Upon final blading, no disturbed rock shall protrude more than two (2) inches above the adjacent surface unless otherwise provided by the prime maintainer. Material not meeting this dimension shall be removed and placed outside the roadbed so as not to obstruct drainageways or structures. This material may be scattered off the roadbed if there is free drainage.

c. Routine Blading

1. Upon completion of blading, the surfaces shall conform to the dimensions shown in the Annual Maintenance Plan.
2. Roadbed width in excess of the dimensions shown shall be shaped only as needed to provide drainage away from the traveled way. Established grasses and other vegetation shall not be removed from the excess width except as incidental to providing drainage or unless otherwise agreed.

811 – BLADING (Cont')

d. Compaction

Roads requiring compaction will be included in the Maintenance Plan. Compaction shall be performed in accordance with Special Project Specification 811-1.

Unless Compaction Method B is included in the Schedule of Items and Maintenance Plan, all traveled ways requiring compaction shall be compacted by Method A. Compaction shall commence immediately following blading. Compaction methods are:

Compaction Method A: By breaking track while operating equipment on the traveled way.

Compaction Method B: 8-10 ton pneumatic, steel or equivalent vibrating roller, operated to cover the full width two (2) times.

e. Intrusions

Where the minimum width shown in the Annual Maintenance Plan is not available, the prime maintainer will construct berms where ordered and marked on the ground. Material to provide berms will come from sources designated in the Special Project Specifications.

f. Undercutting

Roadway backslope shall not be undercut.

g. Intersections

1. At intersections, the roadbeds of side roads which are not closed or restricted from vehicular use shall be bladed to assure smooth transitions.
2. Field evidence of closure or restrictions shall be considered to be signing, cross ditching in the road surface (traveled way), earth berms or other devices placed to discourage or eliminate use by passenger cars also, roads listed for work under Sections 835, 838, or 839 shall be considered restricted.

811 – BLADING (Cont')

- 3.** Side roads listed for work under this Section shall be considered as not restricted.

h. Cleaning of Structures

Materials resulting from work under this Section shall not be allowed to remain on or in structures, such as bridges, culverts, cattleguards, or drainage dips.

i. Berms

Existing berms shall be maintained to the condition of adjacent segments when ordered by the Government.

3. MEASUREMENT

Measurement under this Section will be made by the total number of units for each item listed in the Maintenance Plan, completed and accepted.

- a.** Measurement for blading will be single-lane mile measured along the center line of the roadway (see quantity measurement terms). Two-lane roads will be measured as two (2) single-lane miles. Measurement will be measured to the nearest one-tenth (0.1) mile.
- b.** Each intersection bladed under 2(c)(2) will be equivalent to one tenth (0.1) single-lane mile; however, when the intersecting side road is scheduled for subsequent blading under this Section, no measurement will be made.
- c.** Berm maintained or established will be measured by linear foot.
- d.** No measurement will be made under this Section for Compaction Method A.
- e.** Measurement for Compaction Method B will be the same as stated in 3(a) for blading.
- f.** Measurement for smooth blading will be the same as stated for blading in 3(a).

811 – BLADING (Cont')

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
811(1) Blading Surfaced Roads	Single-Lane Mile
811(2) Blading Native and Pit Run Roads	Single-Lane Mile
811(3) Berm Maintained	Linear Foot
811(4) Establishing Berms	Linear Foot
811(5) Compaction – Method B	Single-Lane Mile
811(6) Smooth Blading	Single-Lane Mile

812 – DUST ABATEMENT

1. DESCRIPTION

This work consists of applying dust palliatives on Level 4 roads in the Maintenance Plan.

INTENT: This section is for use to abate dust. It includes standard materials specifications for applying non-petroleum products, however, petroleum products can be added. It is not intended to use this Section for providing a bituminous running surface.

2. MATERIALS

The dust palliative materials shall be as shown in the Maintenance Plan unless shown as Option (OPT) for prime maintainer's election from the following materials:

a. Water (H2O) for dust abatement will be incidental to hauling under this contract and shall be obtained from sources listed in Special Project Specification to Section 891 Water Supply, unless otherwise agreed.

b. Lignin Sulfonate (LIG S) shall be the chemical residue produced as a by-product of the acid sulfite pulping process, and supplies as a water solution. The base solution shall be ammonia, calcium, or sodium and shall be water soluble to allow field dilution. PacifiCorp shall provide certification that:

1. Solids determination has been made in accordance with the modified Technical Association of the Pulp and Paper Industry Standard T629-M53 or by a specific gravity/percent solids versus temperature graph that correlates with the Standard.

2. The Ph of the delivered material is at 4.5 minimum as determined by AASHTO-T200.

c. Magnesium Chloride (MG CL2) shall be the liquid residue of evaporative mineral recovery processes.

1. The chemical analysis shall meet the following requirements:

<u>Chemical</u>	<u>Percent by Weight of Brine</u>
Magnesium (Mg)	7.0 minimum
Chloride (CL2)	20.4 minimum
Sulfate (SO4)	3.5 maximum
Nitrate	5.0 maximum

812 - DUST ABATEMENT (Cont')

The pH shall be between 4.5 and 10.0

2. Solids determination shall be made from suppliers provided graph of specific gravity/percent solids versus temperature.

d. Petroleum derivatives shall be used only when shown in the Schedule of Items. Materials, equipment and maintenance requirements are specified in Section 892 and in the Annual Maintenance Plan. Materials shown for each listed road in the Maintenance Plan shall be the only acceptable product(s).

3. WEATHER LIMITATIONS

a. Water applications are not limited by weather forecast or temperature.

b. Commercial petroleum palliatives, Lignin Sulfonate and Magnesium Chloride shall be applied only when atmospheric temperature in the shade is a minimum of 45 degrees Fahrenheit, and steady or rising. The material shall not be applied when rain is anticipated within twenty-four (24) hours of treatment application.

4. EQUIPMENT

a. Application equipment for spreading commercial palliatives shall be so designed, equipped, maintained, and operated that the material is uniformly applied at the rate and traveled way widths shown in the Maintenance Plan.

b. Dilution of commercial palliatives shall be accomplished within source protected from contamination. The resulting mixture shall be circulated at least five (5) minutes to assure uniform mixing prior to application.

5. MAINTENANCE REQUIREMENTS

a. Water applications shall be limited to abatement for hauling vehicles under this contract and shall be provided at a frequency and rate which controls dust such that vehicle tail lights and turn signals remain visible. Rates of application shall be varied as needed but shall be low enough to avoid forming rivulets. Frequency of application shall be sufficient to accomplish the abatement without saturating and softening the traveled way. Compacted or glazed road surface or wheel tracks may be loosened as needed for water penetration.

812 – DUST ABATEMENT (Cont')

b. Commercial palliatives shall be applied at the rates determined by the Government to be appropriate at the time of application. The Maintenance Plan shows the expected average application rate and may be varied to meet field condition.

1. Lignin Sulfonate rates of application are shown in the Maintenance Plan as gallons per square yard of the undiluted product at fifty percent (50%) solids.
2. Magnesium Chloride rates of application are shown in the Maintenance Plan as gallons per square yard of the undiluted product at thirty-three percent (33%) solids.
3. Prior to initial application, when needed the road will be ordered bladed and shaped under Section 811, Blading.
4. Required subsequent applications may be applied to the existing road surface without blading unless it is ordered.
5. The prime maintainer shall not apply commercial palliatives in a manner that spatters or mars adjacent structures or trees. Palliatives shall not be placed on or across cattleguards or bridges. Dust abatement material shall be discharged only on roads approved by the Government.

6. MEASUREMENT

a. Lignin Sulfonate measurement shall be the tonnage of lignin sulfonate solids supplied as determined by manufacturer's certificate or by tests on job samples obtained during application.

b. Magnesium Chloride measurement shall be the undiluted tonnage (as corrected to 33 percent solids) as determined by manufacturer's certificate.

c. Bituminous material will be measured prior to any ordered dilution by the ton or gallon as provided in the Schedule of Items and the Special Project Specifications.

d. Addition of water to dilute commercial palliatives shall be incidental.

812 – DUST ABATEMENT (Cont')

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
Dust Abatement - Lignin Sulfonate Solids	Ton
Dust Abatement - Magnesium Chloride	Ton

814 – ASPHALT PAVEMENT PATCHING

1. DESCRIPTION

This specification applies only to level 4 and 5 roads. The work consists of patching potholes and skin patching of asphalt surfaces. The work includes preparing the area to be patched, furnishing and placing all necessary materials and work. All areas to be patched will be marked by the Government

INTENT: To be used to repair asphalt traveled way and shoulders. Patching is meant to include normal pothole patching and smaller skin patches which can be accomplished with the same equipment. More extensive work should be completed by a construction contract.

2. MATERIALS

Materials used for asphalt patching shall conform to the requirements in Sections 892 and 893. Bituminous mixture material shall conform to requirements determined by the Forest Service.

3. MAINTENANCE REQUIREMENTS

a. Potholes

1. Existing materials shall be removed to a minimum of two (2) inches or as necessary to reach firm support, but limited to a maximum twelve (12) inch depth. If firm support for a patch is not available, the hole shall be barricaded and the Government shall be notified. Prior to Contractor placing any materials, Government will determine corrections to be made.
2. The edges of the prepared hole shall be extended to form a vertical face in unfractured asphalt surfacing. The prepared hole shall generally be round or rectangular in shape and cleaned of all loose material. The bottom and sides shall be sprayed with an emulsified asphalt.
3. Prepared potholes shall be patched or barricaded immediately.
4. The bituminous mixture shall be placed in layers not exceeding four (4) inches. Each layer shall be compacted thoroughly with hand tampers, mechanical tampers, or rollers.

814 – ASPHALT PAVEMENT PATCHING (Cont)

5. Finished surface shall, as a minimum, be compacted with a tamper or a 8-to 10-ton steel roller or comparable vibratory roller. Upon completion, the compacted pothole patch shall be flush with or not more than one quarter (1/4) inch above the level of the adjacent pavement.

b. Skin Patches

1. Prior to skin patching, potholes shall be patched.
2. Minor depressions, light ravelling, or surface checking at scattered locations shown on the Drawings or marked on the ground shall be treated by applying a skin patch.
3. Prior to skin patching, the surface shall be cleaned of loose and deleterious material, then sprayed with emulsified asphalt at the rate ordered by the Government. No bituminous mixture shall be placed until the prepared surface is approved by the Government.
4. Bituminous mixture shall be distributed uniformly in layers not to exceed two (2) inches compacted depth. When multiple layers are required, joints shall be offset at least six (6) inches between layers.
5. Each layer shall be compacted with an eight (8) to ten (10) ton steel roller or comparable vibratory roller.
6. The completed patch shall have transitions which shall be at least as smooth as the adjacent pavement after twenty-four (24) hours of exposure to traffic.

c. Disposal

All materials removed from pothole and skin patching operations shall be removed to a disposal site designated by the Government, or shown on the drawings.

4. MEASUREMENT

a. Bituminous Mixture

814 – ASPHALT PAVEMENT PATCHING (Cont')

1. Hot and cold bituminous mixture will be measured by the ton. Bituminous materials incorporated into the mixture will be incidental to the item.
2. Ton Measure - The quantity of mixture will be the number of tons in the accepted work. Any material rejected in the field as not meeting specifications shall be deducted based on estimated quantities. Rejected quantities shall be reconciled between the Government and the Contractor each day. If not reconciled each day, the Government's figures will apply.
 - b. The following work is incidental:
 1. Cleaning of surfaces.
 2. Hauling and compaction of bituminous mixture.
 3. Material removal and disposal.
 - c. Emulsified asphalt used on existing surfaces will be measured by the gallon prior to dilution. Dilution materials shall be considered incidental.

Measurement will be made under:

<u>Item</u>		<u>Unit</u>
814(1) Pothole Patching		Ton
814(2) Skin Patching	Ton	
814(3) Emulsified Asphalt		Gallon

815 – PAVED SURFACE CLEANING

1. DESCRIPTION

This specification applies only to maintenance level 4 and 5 roads. The work consists of removing loose material from paved, traveled way, including bridge decks and paved shoulders.

INTENT: The use of this Section is to clean the pavement surface and/or bridge decks. The extent of cleaning necessary should be able to be accomplished by conventional method such as power broom or blowers.

2. EQUIPMENT

- a.** Equipment shall have the capability of removing all loose material from paved surfaces without damage to the surface.
- b.** Use of hydraulic flushing equipment will not be permitted within a horizontal distance of two hundred (200) feet from a live stream, unless approved by the Government.

3. MAINTENANCE REQUIREMENTS

The paved surface shall be cleaned to the width stated in 4(a) or 4(c) for the Pay Item or as ordered under 4(b). Materials shall be moved away from road centerline on double-lane roads. Bridge deck cleaning shall require all materials be moved longitudinally off the deck.

4. MEASUREMENT

- a.** Measurement for Pay Item 815(l), will be by the pass mile, determined by the product of the number of five (5) foot wide increments times the length to the nearest one tenth (0.1) mile.
- b.** Partial width passes ordered under Pay Item 815(i) will be measured as full five (5) foot passes. Additional width incidentally produced by Contractors equipment will not be considered as a partial pass.
- c.** Measurement for Pay Item 815(2) will be lane miles measured to the nearest one-tenth (0.1) miles for cleaning the entire width of the paved surface, including turnouts.

815 – PAVED SURFACE CLEANING (Cont')

d. Measurement for Pay Item 815(3) will be for cleaning the entire length and width of the surface of each bridge and paved approaches.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
815(1) Paved Surface Cleaning	Pass Mile
815(2) Paved Surface Cleaning	Single-lane Mile
815(3) Bridge Deck Cleaning Each	

816 – MAINTENANCE OF UNPAVED SHOULDERS

1. DESCRIPTION

This work consists of maintaining unpaved shoulders adjacent to a paved traveled way on maintenance level 4 and 5 roads. Work area will be identified by the prime maintainer.

INTENT: To be used to reshape aggregate shoulders on paved roads to their original configuration. Generally all work required in this Section can be accomplished by a grader with attachments.

2. MAINTENANCE REQUIREMENTS

Existing shoulder material shall be bladed and shaped the entire width to drain away from the traveled way. Vegetative or other unsuitable materials may be bladed onto slopes adjacent to the roadbed unless otherwise required in Special Project Specifications. The shoulder material shall be moistened if necessary for compaction. The shoulder shall be compacted adjacent to paved surface edge prior to final shaping. Grader wheels may be used for this compaction. Final shaping shall provide a smooth transition to the paved surface edge. Upon completion, the paved surface shall be cleaned of loose materials in accordance with Section 815 and is incidental.

3. MEASUREMENT

Measurement of unpaved shoulder maintenance will be the number of side miles of each shoulder completed and accepted. Measurement will be to the nearest one-tenth (1/10) mile determined along the centerline.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
816(l) Unpaved Shoulder Maintenance	Side Mile

818 – ASPHALT CRACK CLEANING AND SEALING

1. DESCRIPTION

This specification applies to level 4 and 5 paved roads only. The work shall consist of cleaning and filling cracks in existing asphaltic concrete surfaces that are 1/4-inch wide and wider. This work shall be performed and paid for in accordance with the following specifications.

INTENT: This section provides for cleaning and sealing of cracks that are one quarter inch wide and wider.

2. EQUIPMENT

All methods employed in performing the work and all equipment, tools and machinery used for handling the material and executing any part of the work shall be subject to the approval of the Government before the work is started, and whenever unsatisfactory, they shall be changed or improved as required. All equipment, tools, machinery and containers must be kept clean and maintained in satisfactory condition.

Sealing equipment shall consist of a double boiler type machine, capable of maintaining the temperature of the material in the range of 350 to 400 degrees Fahrenheit, with continuous circulation and agitation. Material shall never be heated above 400 degrees Fahrenheit.

3. MATERIALS

The sealing material shall comply with the requirements of ASTM D 3405-78 and AASHTO M 301-85. The Contractor shall submit a certificate of compliance signed by the manufacturer certifying that the material meets these requirements. The certificate shall be submitted prior to the use of the material in the work.

4. MAINTENANCE REQUIREMENTS

a. Cleaning of Cracks: The cracks shall be steel wire brushed, broomed, cleaned using compressed air or pressurized water jet, or cleaned and dried using a hot lance (use of a back-pack hot air blower will not be sufficient), as shown in the Schedule of Items, in order to remove all loose material, vegetation, and other objectionable material.

b. Filling: Filling of cracks and voids shall not commence until they are clean and dry. When the use of a hot lance is required, filling should closely follow cleaning. The cracks shall be sealed from the bottom up. The filler material shall be placed within 1/8-inch of the top of the crack. Any excess material

818 – ASPHALT CRACK CLEANING AND SEALING (Cont')

shall be leveled flush to the surface with a 'V' shaped squeegee device. The excess material will be squeegeed so as not to exceed 1 1/2-inches on each side of the crack. Excess material remaining in the squeegee at the end of the crack will be distributed over the crack in a return motion. If settlement of the filler material occurs, the cracks shall be refilled until they are again within 1/8-inch of the finished surface. No excess build-up of filler material will be permitted. Any spillage or loose material shall be removed from the surface.

c. Weather Limitations: The filler material shall not be applied when it is raining, excessive moisture is present, or either atmospheric or pavement temperature is 45 degrees Fahrenheit and falling. Filler material may be applied when moisture is not present and either the atmospheric or pavement temperature is 40 degrees Fahrenheit and rising.

5. MEASUREMENT

The quantity will be measured by the linear foot, lump sum, or pound of filler material used as shown in the Maintenance Plan. When measurement by the pound is specified, the Government may require the weighing of equipment for determination of actual quantities of material used. Payment by the pound will not include any materials wasted or not used as specified.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
818(1) Crack Cleaning and Sealing	Lump Sum
818(2) Crack Cleaning and Sealing, Hot Lance Cleaning Only	Lump Sum
818(3) Crack Cleaning and Sealing	Linear Foot
818(4) Crack Cleaning and Sealing, Hot Lance Cleaning Only	Linear Foot
818(5) Crack Filling Material	Pound
818(6) Crack Filling Material, Hot Lance Cleaning Only	Pound
818(7) Crack Filling Material, Gov't Furnished Mat.	Pound
818(8) Crack Filling Material, Gov't Furnished Mat., Hot Lance Cleaning Only	Pound

831 – DITCH MAINTENANCE

1. DESCRIPTION

This Section applies to level 3 through 5 roads, and provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the road listing or marked on the ground. Drainage ditch maintenance is limited to materials contained within the ditch below the elevation of the adjacent edge of the traveled way or shoulder.

INTENT: To clean and reshape all types of drainage ditches and provide a uniform cross section, but not add ditches. Cleaning is intended to mean removal of cutbank slough, rocks, limbs, and concentrations of sediment and other debris from within the ditch.

2. MAINTENANCE REQUIREMENTS

- a.** During ditch maintenance care shall be taken to retain existing low growing vegetative cover (primarily grasses and forbs).
- b.** Ditches shall be maintained by removing rock, soil, wood, and other materials. Upon completion the maintained ditch shall be of the same character as abutting segments that were not required to be maintained.
- c.** Backslopes shall not be undercut by removal operations.
- d.** Suitable material up to four (4) inches in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.
- e.** Material from ditch cleaning operations shall not be blended into or bladed across aggregate surfaced roads nor bladed onto or across bituminous surfaced roads.
- f.** Material in excess of 2(d) or subject to 2(e) will be ordered hauled to a designated waste area under Section 832. Excess materials temporarily stored on the ditch slope or edge of the shoulder shall be removed daily.
- g.** Limbs and wood chunks in excess of one (1) foot in length or three (3) inches in diameter shall be removed from ditches and placed outside the roadway.

831 – DITCH MAINTENANCE (Cont)

h. Paved surfaces shall be cleaned of all materials resulting from Contractor's ditch maintenance work. Paved surface cleaning shall be in accordance with Section 815.

i. Lead-off ditches shall be shaped to drain away from the traveled way.

3. MEASUREMENT

a. Drainage ditch maintenance will be measured to the nearest one-tenth (0.1) mile. Segments of less than one-tenth (0.1) mile will be counted as a full one tenth (0.1) mile. Lead off ditches shall be measured by the number of ditches completed.

b. Ordered haul of excess material will be measured and paid under Section 832.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
831 (1) Clean and Reshape Drainage Ditch	Ditch Mile

842 – CUTTING ROADWAY VEGETATION

1. DESCRIPTION

This specification applies to maintenance levels 3 through 5 roads. The work consists of cutting all vegetative growth including trees and other vegetation less than four (4) inches in diameter.

INTENT: This Section is to be used to cut and remove vegetation in order to improve sight distance and provide overhead clearance.

To change the starting point for brushing to eliminate brushing ditch foreslopes.

2. MAINTENANCE REQUIREMENTS

a. General

1. Brush, trees, and other vegetation less than four (4) inches in diameter within each area treated shall be cut to a maximum height of six (6) inches above the ground surface or obstruction such as rocks or existing stumps. When work is performed under this Section, the Contractor shall remove all limbs which extend into the treated area or over the roadbed to a height shown in the Special Project Specifications.
2. Signs, markers, and other road appurtenances are designated to be retained. Other items to remain will be marked on the ground.
3. The width of the vegetation to be cut shall be as shown in the Special Project Specifications.
4. Work may be performed either by hand or mechanically unless specifically shown in the Maintenance Plan. Self-propelled equipment shall not be allowed on cut and fill slopes or in ditches.
5. Damage to trunks of standing trees caused by Contractors operation shall be corrected by Contractor, either by treatment with a commercial nursery sealer or by removing the tree as directed by the prime maintainer.
6. Mechanical brush cutters shall not be operated when there are non-Contractor personnel or occupied vehicles within a hazardous distance of immediate operating area.

842 – CUTTING ROADWAY VEGETATION (Cont')

7. Trees within the cutting limits which are over four (4) inches in diameter shall be limbed in lieu of cutting.
8. When trees are limbed, limbs shall be cut within four (4) inches of the trunk.

b. Cutting Side Vegetation

1. Pass mile work will be ordered in four (4) foot increments of width regardless of slope deviations.
2. Side mile work will be ordered in uniform width for the length of the listed segments of roads.
3. The points for establishing cutting limits are as follows:
 - a. Fill and daylighted (wide roadbed) section cutting shall commence at the edge of the traveled way and proceed away from the road centerline.
 - b. Drainage ditch section cutting shall commence at the bottom of the existing ditch and proceed away from the road centerline. Cutting on ditch foreslopes is not required.
 - c. Unditched cut section cutting shall commence at the intersection of the cutbank and the roadbed and proceed away from centerline.
4. Transitions between differing increments of cutting width shall be provided. Transitions shall be accomplished in a taper length of not less than fifty (50) nor more than seventy (70) feet.

c. Debris

1. Materials resulting from the cutting operation in excess of one (1) foot in length or three (3) inches in diameter, shall not be allowed to remain on roadway slopes within the treated area, in ditches, or within water courses.

842 – CUTTING ROADWAY VEGETATION (Cont')

2. Limbs and chunks in excess of three (3) inches in any dimension shall be removed from the traveled way and shoulders.
3. Materials may be scattered downslope from the roadbed, outside of the work area and drainages. Concentrations shall be rescattered or removed.

3. MEASUREMENT

- a. Measurement for cutting vegetation by the pass mile will be determined by the number of four (4) foot passes ordered and accepted. Partial increments ordered to complete the outside edge of backslope or fill slope cutting and transitions will be measured as full passes. The length of each pass will be determined to the nearest one-tenth (1/10) mile on each road.
- b. Measurement for cutting side vegetation by the side mile will be the length of roads or segments ordered and accepted. The length will be determined to the nearest one tenth (1/10) mile on each side of each road.
- c. No reduction in the mileage between road terminal shown on the road listing will be made for areas where there is little or no vegetation to be cut.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
842(1) Cutting Side Vegetation	Pass Mile
842(2) Cutting Side Vegetation	Side Mile

861 – LOGGING OUT

1. DESCRIPTION

This specification applies to maintenance level 3 through 5 roads. The work consists of ordered removal of fallen trees and snags which encroach into the roadway or the two (2) foot roadside abutting the roadway on the cut side.

INTENT: To open roads closed by windstorm or other natural occurrences which toppled trees into the roadway. It is intended to be used for unmerchantable material. Larger volumes of merchantable volume should be handled through a salvage sale or green sheet sales.

2. MAINTENANCE REQUIREMENTS

- a.** Fallen timber, when marked with paint, shall be limbed and cut into standard log lengths shown in the Special Project Specifications. Resulting logs shall be decked at designated locations.
- b.** Unmarked materials shall be limbed and may be cut into lengths for handling and shall be decked outside ditches and drainages, off of the traveled way and turnouts or at staked locations.
- c.** Unmarked materials and any remaining trunks from marked materials shall be cut at the toe of the fill and two feet above the top of cut slope.
- d.** All materials remain the property of the Government, unless otherwise stated in the contract.
- e.** Woody debris and slash in excess of one (1) foot in length or three (3) inches in diameter shall not remain in ditches, drainage channels, or on backslopes, traveled way, shoulders or turnouts. Accumulations of debris may be ordered hauled and paid under Section 832. Materials not ordered hauled shall be scattered downslope from the roadbed, avoiding any drainage ways or concentrations.

3. MEASUREMENT

Measurement will be the number of trees ordered and acceptably logged out under this Section. Diameter size will be measured at the largest cut. Miles will be measured to the nearest tenth of a mile.

851 - LOGGING OUT (Cont')

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
Logging Out Marked Trees:	
851(1) Less Than 24 Inches Diameter	Each
851(2) 24 Inches Diameter and Over	Each
Logging Out Unmarked Trees:	
851(3) Less Than 24 Inches Diameter	Each
851(4) 24 Inches Diameter and Over	Each
851(5) All trees	Mile

891 – WATER SUPPLY AND WATERING

1. DESCRIPTION

This specification applies to maintenance levels 3 and 4 aggregate surfaced roads. The work consists of providing facilities to furnish an adequate water supply, hauling and applying water, including times outside normal work hours.

INTENT: The Contractor needs to know what water sources will be available for contract work. Common requirements associated with water sources and use are outlined

2. MATERIALS

Suitable and adequate water sources and use restrictions are designated by the Government. If the Contractor elects to provide water from other than designated sources, the Contractor shall be responsible to obtain the right to use the water including any cost for royalties involved. The rate of applications shall be based on the gallonage per mile ordered by the prime maintainer.

Suitable and adequate water sources designated available for Contractors use under the Maintenance Plan are as follows:

<u>Map</u> <u>Key No.</u>	<u>Location</u> <u>Road</u>	<u>Location</u> <u>Milepoint</u>	<u>Use Restriction</u>
TBD	TBD	TBD	TBD

3. EQUIPMENT

a. Mobile watering equipment shall have watertight tanks of known capacity. If tank capacity is not known, it shall be measured and certified by the Contractor prior to use.

b. Positive control of water application is required. Equipment shall provide uniform application of water without pending or washing.

c. An air gap or positive anti-siphon device shall be provided between the water source and the vehicle being loaded if the vehicle has been used for other than water haul if the source is a domestic potable water supply, or the water is used for tank mixing with any other materials.

891 – WATER SUPPLY AND WATERING (Cont')

d. The designated water sources may require some work prior to their use. Such work may include cleaning ponded areas, installing temporary weirs, or sandbags, pipe repair, pump installation or other items appropriate to the Contractors operations. Flowing streams may be temporarily sandbagged or a weir placed to pond water. Contractor shall obtain approval on improvements for sandbags or weirs prior to placement.

4. MEASUREMENT

a. Unless specified in the Schedule of Items, water supply sources shall be incidental to work ordered. If in the Schedule of Items, measurement for water supply will be the number of sites ordered and accepted. When the Contractor elects to furnish water from other than the site designated, the elected source will be measured as a water supply site.

b. Unless specified in the Schedule of Items as watering for a specific Section of these specifications, measurement of water haul and application will be incidental. If indicated in the Schedule of Items, measurement shall be M-GALLONS (1,000 gallons) using calibrated tanks, distributors, or accurate water meters furnished by the Contractor. Hauling shall be incidental. In no case will payment be made for more gallons than ordered by the Government.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
891(1) Water Supply Sites	Each
891(2)) Water For Section	M-Gallons
891(3) Water For Section	M-Gallons

892 – BITUMINOUS PRODUCTS

INTENT: Bituminous products are to be used in compliance with established tests and procedures.

1. ASPHALT CEMENTS

Asphalt cement shall meet the requirements of AASHTO M 20 for penetration graded asphalt cement and to AASHTO M 226 for viscosity graded asphalt cement.

2. LIQUID ASPHALTS

Liquid asphalts shall meet the requirements of the following specifications:

Rapid Curing Liquid Asphalts	AASHTO M 81
Medium Curing Liquid Asphalts	AASHTO M 82
Slow Curing Liquid Asphalts	AASHTO M 141

3. EMULSIFIED ASPHALTS

Emulsified asphalts shall meet the requirements of the following specification:

Emulsified Asphalt (Anionic) AASHTO M 140 (ASTM D 977)
Emulsified Asphalt (Cationic) AASHTO M 208* (ASTM D 2397)

4. BITUMINOUS DUST PALLIATIVES

Bituminous dust palliatives shall meet the requirements listed in Table 892.06.

5. CERTIFICATE OF COMPLIANCE

a. In accordance with the requirements of Contract Section E-3, the following format is established.

Consignee
Contract Number
Identification (Truck No., Car No., Etc.)
Type and Grade
Loading Temperature
Net Gallons

892 – BITUMINOUS PRODUCTS (Cont')

Designation
Date
With Additive (brand)
Net Weight

b. The shipment of bituminous material identified above and covered by the bill of lading complies with Government Standard Specification as modified by Special Project Specifications applicable to this project.

Producer
Signed
(Producers Representative)

6. APPLICATION TEMPERATURES

Bituminous materials shall be applied within the temperature ranges indicated in Table 892.06.
Spray Mix

TABLE 892.06 - Application Temperatures
Application Temperature Range # (Degrees F)

<u>Type & Grade of Material</u>	<u>Min./ Max.</u>	<u>Min./ Max.</u>
RT 1-2-3	60-130	60-130
RT 4-5-6	85-150	85-150
RT 7-8-9	150-225	150-225
RT 10-11-1 2	175-250	175-250
RTCB 10-11-12	60-120	60-120
Mc 30	70-145	60-105
RC-MC-SC 70	105-185	90-155
RC-MC-SC 250	140-225	125-200
RC-MC-SC 800	175-265	160-225
RC-MC-SC 3000	215-290	220-260

892 – BITUMINOUS PRODUCTS (Cont')

Emulsified Asphalts:

RS-1, SSI, SS-IH, CRS-1, CSS-1, CSS-IH	75-130	70-160
RS-2, MS-2, CR-2, CMS-2S, CMS-2	110-160	70-160
Asphalt Cement (All Grades)	400 Max.	250-325

As required to achieve viscosity of 75-150 seconds. Saybolt-Furol or as required to achieve a Kinematic viscosity of 150-300 centistrokes.

DO-1-2-3	80-125	-----
DO-4	80-175	-----
DO-6-7-8	50140	-----

7. EQUIPMENT

The Contractor shall provide equipment for heating and applying the bituminous material. The bituminous distributor shall be self-powered and mounted on pneumatic tires. It shall be equipped with a pump and a circulating spray bar. The unit shall include a tachometer, pressure gages, accurate volume measuring devices such as a visual volume dial or gage calibrated to the tank, and a tank thermometer. All equipment shall be standard, commercial types, of proven performance.

8. WEATHER LIMITATIONS

Bituminous dust palliative treatment shall be applied only when the surface to be treated contains sufficient moisture to get uniform dispersion of the dust palliative when the road surface and atmospheric temperature are 50 degrees F or more and rising, or above 60 degrees F if falling; and when the weather is not foggy, rainy, or stormy.

Exhibit N – Section 4

USDA-FS Specifications That Apply To

All Roads In Maintenance Levels

2 Through 5

832 – REMOVE AND END HAUL MATERIALS

1. DESCRIPTION

This specification applies to level 3 through 5 roads, and level 1 and 2 roads when indicated in the Annual Maintenance Plan. Work consists of loading, hauling, and placing of slide, slough, or excess materials such as rock, soil, vegetation, and other materials to designated disposal sites.

INTENT: For removing and disposing of slides, of excess and unsuitable materials. These materials may be disposed of by filling slumps or in designated waste areas. Section 841, Vegetation Establishment, must be included when revegetation of disposal sites are required.

2. MAINTENANCE REQUIREMENTS

a. Excess materials generated by work under other Sections of this contract may be ordered for removal, haul, and disposal under this Section. Removal and disposal under all Sections will be ordered without haul when a distance of less than two hundred (200) feet is involved.

b. Slide and slough materials to be removed shall include those in the area extending approximately six (6) feet vertically above the road surface and that area extending not more than four (4) feet downslope from the roadbed. Material shall be disposed of at designated sites as shown on Drawings or identified in Special Project Specifications.

The slope which generated the slide material shall be reshaped as nearly as practical to its original condition by equipment operating from road surface. Reshaping of roadside ditches in slide area shall be in accordance with Section 831.

c. When ordered by the prime maintainer, slumps shall be filled by compacting selected materials into roadway depressions. Compaction shall be by Method (2).

d. All materials removed and placed in disposal sites shall be placed by one or more of the following methods as shown in Annual Maintenance Plan or:

- 1.** Method 1 – Side Casting and End Dumping. Material may be placed by side casting and end dumping. Where materials include large rocks, a solid fill shall be provided by working smaller pieces and fines into voids. The finished surfaces shall be shaped to drain.

832 – REMOVE AND END HAUL MATERIALS (Cont’)

- 2.** Method 2 Layer Placement - Surfaces on which materials are to be placed shall be stepped or roughened prior to placing any material. Materials shall be placed in approximately

horizontal layers no more than twelve (12) inches thick. Each layer shall be compacted by operating hauling and spreading equipment over the full width of each layer.

3. MEASUREMENT

a. Removal will be measured by the cubic yard, determined by equipment measure, for materials acceptably removed.

b. Except as provided in 2(a) of this Section, haul of materials will be measured by the cubic yard mile, determined by the number of miles hauled times the cubic yards. Mileage will be measured one way rounded to the nearest 1/10 mile.

c. Placement of materials in disposal sites will be measured by the cubic yard in the hauling vehicle for materials acceptably placed.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
832(1) Removal	Cubic Yard
832(2) Haul	Yard Mile
832(3) Disposal, Placement Method 1	Cubic Yard
832(4) Disposal, Placement Method 2	Cubic Yard

813 – SPOT SURFACING

1. DESCRIPTION

This specification applies to level 2 through 4 roads. The work consists of placing surface aggregate as staked on the ground, or designated by the Government. It includes preparing the area, furnishing, hauling, and placing all necessary materials and other work necessary to blend with the adjacent road cross section.

INTENT: To provide minor spot surfacing. Any more than this should be included in a construction contract.

Crushing is not intended; material should be available in stockpile or from commercial sources.

Areas "designated by the Government" are allowed for additional work not identified by location when maintenance plan is prepared.

2. MATERIALS

a. Materials will be Government furnished when stated in Annual Maintenance Plan.

b. Materials furnished by PacifiCorp shall conform to the gradation requirements shown in the Annual Maintenance Plan.

3. MAINTENANCE REQUIREMENTS

a. The area to be spot surfaced shall be thoroughly loosened to a minimum depth of one inch (1") prior to placement of aggregate.

b. Mixing and Placing

1. When scheduled coincident with work under Section 811, spot surfacing and existing aggregate, when ordered, shall be mixed with water until a uniform mixture is obtained prior to final shaping and compaction.

2. The material shall otherwise be spread on the prepared area in layers no more than four (4) inches in depth. When more than one (1) layer is required, each layer shall be shaped and compacted before the

813 – SPOT SURFACING (Cont')

succeeding layer is placed. Upon completion; the spot surfacing shall reasonably conform to the adjacent cross section and provide smooth transitions in the road profile.

3. Compaction shall be accomplished by breaking track while operating equipment on the traveled way.

4. MEASUREMENT

a. The quantity will be the number of cubic yards measured in the vehicles, or square yards of aggregate placed, whichever is shown in the Maintenance Plan.

b. Hauling is considered incidental.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
813(1) Spot Surfacing, Grading	Cubic Yard
813(2) Spot Surfacing, Grading	Square Yard

833 – CULVERT REPLACEMENT

1. DESCRIPTION

This specification applies to level 2 through 5 roads. The work includes removal of existing culverts and bed preparation, installation and backfill of new culverts of the size and length specified. Removed culverts become the property of the Contractor. Disposal will not be allowed on Government land.

INTENT: For removing and replacing existing culverts 36 inches and less in diameter. Should be restricted to locations where depth to bottom of culvert averages no more than five feet.

2. MATERIALS

Culverts shall be furnished by the prime maintainer. The location and times for pickup of materials will be as shown in the Special Project Specifications.

3. MAINTENANCE REQUIREMENTS

Excavation for culverts shall be at least as wide as three diameters of the existing pipe, and long enough to provide for proper joining of the culvert. The completed bottom shall be firm for its entire length and width. The culvert shall be installed to maintain a uniform flow line from inlet to outlet ditch.

After the bedding is prepared and the pipe is placed, backfill material shall be placed in layers not exceeding six (6) inches loose thickness and compacted under the haunches and alongside the pipe. The material shall be readily compatible material free of frozen lumps, chunks of highly plastic clay or other objectionable material. Rocks larger than three (3) inches in greatest dimension shall not be used within one foot (1) of the pipe.

Backfill density shall be that obtained by compacting each layer with mechanical equipment designed for this purpose. Compaction shall continue until visual displacement ceases.

Backfill and compacting shall continue until backfill is a minimum of twelve (12) inches above the top of the culvert.

4. MEASUREMENT

Measurement will be made for each lineal foot of culvert specified and installed.

833 – CULVERT REPLACEMENT (Cont')

Measurement will be made under:

<u>Item Description</u>	<u>Unit</u>
308(01) Culvert Replacement (up to 36 inches dia.)	Linear Foot

834 – DRAINAGE STRUCTURE MAINTENANCE

1. DESCRIPTION

This work consists of cleaning and reconditioning culverts and other drainage structures on roads open to levels 2 through 5 roads.

INTENT: To provide the cleaning and reconditioning of culverts and associated facilities. Cleaning of catch basins, inlet and outlet channels, and ditch-line transition areas are also included in this item. Work does not include cleaning totally plugged culverts or replacing all or part of the drainage structure.

2. MAINTENANCE REQUIREMENTS

a. Drainage structures, inlet structures, culverts, catch basins, and outlet channels shall be cleaned when required by the prime maintainer, or as indicated in the Maintenance Plan. Catch basins shall be cleaned by removing the material within the area shown on Drawing 834-1.

b. The transition from the ditch-line to the catch basin shall be cleaned a distance of ten (10) feet. Outlet channels and lead-off ditches shall be cleaned a distance of six (6) feet. Debris and vegetation shall be removed and placed so as to not enter the channel or ditch or obstruct traffic. Debris and vegetation ordered to be hauled shall be hauled to a designated disposal area in accordance with Section 832.

c. Hydraulic flushing of drainage structures is not allowed unless provided for in Maintenance Plan.

d. Cleaning and reconditioning is limited to the first four (4) feet of inlet and outlet determined along the top of the structure. Reconditioning of culvert inlet or outlet shall be by field methods such as jacking out or cutting away damaged metal which obstructs flow. All cut edges and damage to galvanized coating shall be cleaned and treated with zinc rich coating. Damage or obstructions which are not field corrected under the requirements of this Section shall be reported to the prime maintainer.

3. MEASUREMENT

a. Measurement will be the number of units of each culvert type including cleaning of inlet and outlet ditches or channels and catch basins completed and accepted.

834 – DRAINAGE STRUCTURE MAINTENANCE (Cont')

- b.** Reconditioning and cleaning of drainage structures will be incidental to cleaning.
- c.** Ordered haul of materials will be measured under Section 832.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
834(1) Clean Culverts 24" Diameter and under	Each
834(2) Clean Culverts Over 24" through 48" diameter	Each
834(3) Clean Culverts Over 48" diameter	Each

841 – VEGETATION ESTABLISHMENT

1. DESCRIPTION

This specification applies to all maintenance levels, for roads indicated in the Maintenance Plan. The work consists of applying seed, fertilizer, mulch and plantings singularly or in specified combinations to roadways and disposal areas. Work area may be limited to designated portions of the roadway and roadside or include treatment of the entire area bounded by the outer limits of the road-side.

INTENT: This Special Project Specification defines types and spacings for planting containerized or bare root plant stock.

This Special Project Specification provides for prescribing the type of materials required, the application rate of each and the time you want to schedule the work done.

To prescribe treatments for vegetating areas that have been disturbed by maintenance activities. Also used for inactivated roadbeds and barriers.

2. MATERIALS AND APPLICATION RATES

The prime maintainer shall provide the materials listed in Special Project Specifications.

3. MAINTENANCE REQUIREMENTS

a. Schedule

1. The designated treatment shall be scheduled to start upon completion of other work under other Sections scheduled under this contract.
2. The treatment shall not be applied when the ground is frozen or excessively wet. Application shall be terminated during periods when there is too much wind to allow consistent treatment rates and control of the treatment area to the designated limits

b. Roadside and Slope Treatment

1. Road-side will not require advance preparation unless established in Special Project Specifications or Drawings.

841 – VEGETATION ESTABLISHMENT (Cont')

2. The designated treatment shall be applied by hand or machine. When both roadbed (under (3)(c)(1)) and slopes are listed for treatment, application may be done at the same time.
3. The Contractor will not be required to operate self-propelled equipment beyond the defined roadbed. Treatment materials shall not be applied to the fore-slope of ditches unless roadbed treatment (under (3)(c)(1)) is also required.

c. Roadbed Treatment

1. Portions of the roadbed not previously disturbed and left loose under Section 835 shall be scarified to a minimum depth of four (4) inches unless bedrock is encountered at a lesser depth. The maximum distance between furrows formed by scarification shall be twelve (12) inches.
2. Barrier mounds placed under Section 835 shall be treated while in roughened condition.

d. Mulching

Required mulch materials shall be applied in accordance with Special Project Specification.

e. Plantings

Required plantings shall be in accordance with Special Project Specification.

4. MEASUREMENT

a. Measurement will be by the acre for seeding, fertilizing and/or mulching of roadside, slopes and roadbeds. Roadbed areas will be computed based on centerline length without deduction for structures removed under Section 835 nor additional slope distances resulting from removal of structures.

b. Measurement for plantings will be the actual count of plants ordered and acceptably placed.

841 – VEGETATION ESTABLISHMENT (Cont')

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
841(1) Treating Roadside and Slopes	Acres
841(2) Treating Roadbed	Acres
841(3) Plantings	Each

SPECIAL PROJECT SPECIFICATION
841-1 – VEGETATION ESTABLISHMENT

1. MATERIALS AND APPLICATION RATES

The Contractor shall provide the following listed materials:

a. Fertilizer: Fertilizer shall be a standard commercial grade and provide the minimum percentage of available nutrients designated.

% Nitrogen % Phosphorus % Potassium % Sulfur

Fertilizer shall be furnished in sealed containers with the composition, weight, and guaranteed analysis of contents clearly marked. Application shall be at the rate of in pounds per acre as agreed to in the Maintenance Plan.

b. Seed: Grass, forb, or small shrub seeds shall be packaged separately from fertilizer and contain the designated types of seed for application at the designated rates. When legumes are designated, the seed shall be properly inoculated immediately prior to application.

Seed Type and Lbs./Acre Seed Type and Lbs./Acre

Seed shall be furnished separately or in mixture with other designated seed types in standard sealed containers with certification of (1) seed name, (2) lot number, (3) net weight, (4) percentages of purity and of germination, and (5) maximum percentage of weed seed content clearly marked for each seed type.

c. Mulch: Mulch materials and application rate shall be as shown below:

Mulch Type Application Rate

d. Timing: Materials shall be applied as scheduled below:

SPECIAL PROJECT SPECIFICATION
841-2 – VEGETATION ESTABLISHMENT

Additional requirements applicable to roads listed for planting work under Section 841 are hereby established:

1. DESCRIPTION

Vegetation establishment shall consist of planting containerized or bare root plant stock.

2. PLANTINGS (SPACING)

- a. The designated woody plant materials shall be planted at the staked locations or designated spacings.
- b. Containerized plant stock shall be placed in an appropriately sized hole formed by a dibble or other device to place the roots at the proper depth.
- c. Bare root plant stock shall be placed in a slotted cut formed by a mattocks, pulaski or other edged tool. The crown of the stem shall be placed at ground level and the roots shall not be bent or broken.
- d. The area adjacent to the hole shall be compressed by foot or special tool to form a depression up and down slope from the stem and force the soil against the container or roots with no air voids.
- e. The plantings shall be held firmly by the soil. When checked by pulling upward on the top one-half (1/2) inch of the plant stem, the planting shall either break at the hold point or the area compressed against the roots show evidence of movement. Plantings that are not held firmly by the soil shall be removed and replaced with fresh stock.

3. PLANT STOCK

- a. The Contractor shall furnish the following listed plant materials:

<u>Stock</u>	<u>Size</u>	<u>Bare Root</u>	<u>Containerized</u>
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- b. The Government will provide the following listed materials provided at least ten (10) days notice is available. Materials will be provided at: As agreed to in the Maintenance Plan.

SPECIAL PROJECT SPECIFICATION
841-2 – VEGETATION ESTABLISHMENT (Cont')

4. TIMING

Plantings shall be placed as scheduled below:

854 – HAZARD REMOVAL AND CLEANUP

1. DESCRIPTION

This specification applies to maintenance levels 2 through 5. The work consists of removing and disposing of marked hazards such as danger trees, rocks, and stumps.

2. MAINTENANCE REQUIREMENTS

a. Removal of trees shall include the felling and subsequent treatment of danger trees designated by the Government.

1. Trees and snags felled away from and at right angles to the road centerline and resting entirely beyond the roadside limits of five (5) feet beyond roadway slopes shall be limbed to provide ground contact over two-thirds (2/3) or more of its length. When the ground contact condition cannot be met, additional bucking will be done to achieve the two-thirds (2/3) contact control. Trees and snags falling cross slope shall be limbed and bucked into manageable lengths, and reoriented at Right angles to the road centerline.

2. Trees or snags falling into the roadway shall be limbed, bucked, and decked off of the roadbed.

3. All materials remain the property of the Government unless otherwise provided in the contract.

4. Woody debris and slash in excess of one (1) foot in length or three (3) inches in diameter shall not remain in ditches, drainage channels, or on backslopes, traveled way, shoulders or turnouts. Large accumulations of materials may be ordered hauled under 832. Materials not ordered hauled shall be hand piled or scattered downslope from the roadbed, avoiding any concentrations or drainages.

b. Marked rocks and stumps shall be removed.

1. Resulting holes outside the roadbed shall be backfilled with native materials and mounded to drain after settlement.

2. Removed rocks and stumps shall be hauled to the disposal site designated in the contract.

854 – HAZARD REMOVAL AND CLEANUP (Cont')

3. MEASUREMENT

Measurement will be the number of marked hazards removed.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
854(1) Removal of Danger Trees	Each
854(2) Removal of Rocks & Stumps	Each

862 – MAINTENANCE OF TRAFFIC GATES

1. DESCRIPTION

This work consists of cleaning and restoring traffic gates and appurtenances.

INTENT: To clean and restore traffic gates.

2. MATERIALS

- a.** The Government may furnish replacements for damaged or defective gate components which can be replaced.
- b.** Paint, welding materials, tools, fasteners, cleaning materials, and other materials shall be incidentally furnished by Contractor.

3. MAINTENANCE REQUIREMENT

- a.** Loose fasteners on the rigid gates shall be tightened. Ruptured welds shall be rewelded and localized cracks welded.
- b.** Each gate must be cleaned and painted with a commercial rust inhibitor paint. Color shall be as agreed.
- c.** The Contractor shall inspect the gates and report remaining deficiencies to the Government.
- d.** Government will furnish component replacements as follows:
 - 1.** Components will be available at the local Ranger District Monday through Friday, between the hours of 8:00 a.m. and 4:30 p.m. except on legal holidays. Contractor shall give 48 hours notice before obtaining materials.
 - 2.** Contractor shall be responsible for loading and transport of the furnished components and removal and disposal of old components.

4. MEASUREMENT

Measurement will be the number of traffic gates maintained.

862 – MAINTENANCE OF TRAFFIC GATES (Cont')

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
861(5) Maintenance of Gates	Each

872 – SIGN MAINTENANCE

1. DESCRIPTION

This specification applies to all maintenance levels. The work consists of cleaning, replacing, and reconditioning signs, posts, and markers.

INTENT: Standard warning, guide, regulatory signs, and various markers such as Type 2 and 3 object markers or barricade markers can be cleaned or replaced provided they use reflectorized sheeting or stick on numerals or alpha characters. Routed wood signs may be cleaned or replaced, however, refurbishing of legend or painted backgrounds is NOT included or allowed. New signs can be installed under this Section. May be scheduled concurrent with other Sections. As written this work would be considered construction work.

To inform Contractor of material location(s).

2. MATERIALS

a. Posts, fittings, metal foil backing, reflective sheeting, and direct applied (Type L-3) characters will be furnished by the prime maintainer as provided in the Special Project Specifications.

b. Cleaning solutions shall be biodegradable, having no adverse effect on existing sheeting.

3. EQUIPMENT

Use of steam cleaners and high-pressure washers are prohibited.

4. MAINTENANCE REQUIREMENTS

a. Cleaning Sign Faces

Sign faces ordered for cleaning shall be thoroughly cleaned with a solution of water, including cleaning compound, and rinsed to remove dirt and grime.

b. Reconditioning Sign Faces

- 1.** Reconditioning of existing designs and markers includes cleaning, the treatment of holes, and patching of reflective sheeting and legend contained thereon. Not more than eight patches per sign face shall be made.

872 – SIGN MAINTENANCE (Cont')

2. Holes and dents in metal signs shall be pounded out to provide a smooth face when the area involved is thirty six (36) square inches or less. Signs with areas exceeding this shall be left untreated and the Government notified within twenty-four (24) hours. Bent metal signs shall be straightened and patched.
3. Holes in metal or wood signs shall be initially patched with an adhesive backed metal foil over dry face to provide backing for reflectorized sheeting.
4. All metal foil backing shall be covered with a patch of Class 1 sheeting sized at least one (1) inch larger, but not more than two (2) inches larger than the backing material. The patched area shall be free of air bubbles and be oriented to the pattern, if any, of the reflective sign face.
5. Where patching overlaps the existing legend or there is other damage to the legend, the affected letters/numerals shall be restored to full legibility with Type L-3 direct applied characters of the color, size, type, and series used on the sign. The applied characters shall be free of air bubbles.
6. Contractor shall check for missing items on signs such as bolts, washers, nuts and lag screws. If such items are missing contractor shall replace them with fittings provided by the Government.
7. Government-furnished materials will be available on two weekdays between the hours of ____ a.m. and ____ p.m. on Monday through Friday.

c. Apply New Sign Faces

1. When listed in the Maintenance Plan, the Government will furnish 3M Series 9800 Reflective Sheeting or equivalent, mounted on a 0.005-0.010 inch aluminum substrate and bearing the appropriate legend for the installation(s).
2. Bent signs shall be straightened. Holes and dents in metal-backed signs shall be pounded out to provide a smooth face. The existing sign face shall be cleaned, degreased and any loose reflective sheeting removed.

872 – SIGN MAINTENANCE (Cont')

3. The new sign face shall be applied over the prepared surface by peeling the protective backing, orienting the material and pressing it in place with a roller, working from the center to the edges. Mounting bolt holes may be prepunched or formed after application by cutting or punching with a suitable tool; use of mounting bolts to form the holes will not be considered acceptable.
 4. After the sign face is applied to the backing blank, the top edges shall be sealed with Government-furnished tape. The tape shall be placed in contact with the new sign face and folded to the rear and secured on the backing blank. Where taping cannot be continuous, the tape shall be overlapped at least one (1) inch with the uppermost tape extending over the lower portion. Taping shall be incidental to Pay Item 872(5), Apply New Sign Face."
- d.** Broken or vandalized posts shall be replaced. The usable sign/marker, if recovered, or a Government-furnished replacement shall be mounted in conformance with MUTCD Standards. Where the post is usable but the sign is gone or requires replacement, the Contractor shall install a Government-furnished sign and hardware on the existing post. Existing posts shall be plumbed. Removed signs and posts remain the property of the Government. Sign posts shall be installed plumb with the sign plate firmly fastened to the post. Post holes shall be excavated to minimum depth of 24 inches and backfilled by tamping of suitable material in layers not exceeding 6 inches in depth.
- e.** Signs and markers which cannot be maintained in accordance with this Section shall be identified as to their location and legend and such information provided to the Government weekly.

872 – SIGN MAINTENANCE (Cont')

5. MEASUREMENT

The quantity to be measured will be the completed number of units of the various items listed in the Schedule of Items and accepted under this Section.

Measurement will be made under:

<u>Item</u>	<u>Unit</u>
872(1) Clean Sign Face	Each
872(2) Recondition Sign Face	Each
872(3) Replace Single Post and Sign	Each
872(4) Replace Double Post and Sign	Each
872(5) Remount Sign	Each
872(6) Apply New Sign Face	Each

893 – AGGREGATE

INTENT: Use of aggregates in contract is intended to be from commercial sources. Move-in and operation of a crusher is not anticipated.

1. Gradations for aggregates are included in the Maintenance Plan.
2. The inclusion of aggregate gradations does not constitute a warranty by the Government that commercial sources in the area are producing the gradation indicated. Aggregates commercially produced to meet State or County gradations and specifications for similar materials will be considered an equal alternate to the gradation in the contract provided the following quality requirements are met. Contractor shall provide testing and certification of supplied materials.
3. Aggregate for Bituminous Plant-Mix
 - a. Coarse Aggregate - Coarse aggregate (retained on the No. 8 sieve) shall be crushed stone or crushed or natural gravel and shall conform to the quality requirements of AASHTO M 63. Gradation shall conform to the provisions of the Special Project Specifications.
 - b. Fine Aggregate - Fine aggregate (passing the No. 8 sieve) shall be manufactured and conform to the quality requirements of AASHTO M 29 (ASTM D 1073). It shall be of such a gradation that when combined with the other required aggregate fractions in the proper proportion, the resultant mixture will meet the gradation required.
4. Aggregate for Bituminous Road Mix
 - a. Aggregates for bituminous road mix shall be crushed stone, or crushed or natural gravel which meets the quality requirements of AASHTO M 62 or M 63 for the specified gradation, except the sodium sulfate soundness loss shall not exceed 9 percent. The swell test will not be required.
 - b. Gradation shall be as shown in the Special Project Specifications. When crushed gravel is used, not less than 50 percent by weight of the particles retained on the No. 4 sieve shall have at least one fractured face.
5. Aggregate for Spot Surfacing

893 – AGGREGATE (Cont')

a. Aggregates for spot surfacing shall be crushed stone, crushed slag, or crushed or natural gravel which conforms to the quality requirements of AASHTO M 147, or as specified in the Special Project Specifications, except as noted below: The requirements of M 147 shall apply, except that the liquid limit shall not exceed 35 and the plasticity index shall be not be less than 4 nor more than 9.

b. Aggregate gradation shall conform to the provisions of the Special Project Specifications and AASHTO M 147.

c. When crushed gravel is used, not less than 50 percent by weight of the particles retained on the No. 4 sieve shall have at least one fractured face.

d. Gradations of each designated size of aggregates shall be obtained by crushing, screening, and blending processes as may be necessary.

e. Materials otherwise meeting the requirements of this subsection will be acceptable whenever the gradations of such materials are within the tolerances corresponding to the selected sieve sizes required by the Special Project Specifications and whenever such materials produce a compacted course meeting density requirements as specified in Specification Section 811(2)(e).

6. Aggregate for Bituminous Concrete - General

a. Coarse Aggregate

1. Coarse aggregate (retained on the No. 8 sieve) shall be crushed stone, crushed slag, or crushed or natural gravel, and unless otherwise stipulated, shall conform to the quality requirements of AASHTO M 79.

2. Light weight aggregate, if required or permitted by the Special Project Specifications, shall meet the requirements of AASHTO M 195.

3. When crushed gravel is used, it shall also meet the requirements of Section 2.1 of AASHTO M 62 and not less than 50 percent by weight of the particles retained on the No. 4 sieve shall have at least one fractured face. The coarse aggregate shall be of such gradation that when combined with other required aggregate fractions in proper proportion, the resultant mixture shall meet the gradation required under the composition of mixture for the specific type under contract.

893 – AGGREGATE (Cont')

b. Fine Aggregate

1. Fine aggregate (passing the No. 8 sieve) shall consist of natural sand, stone screenings, or slag screenings, or a combination thereof, and unless otherwise stipulated shall conform to the quality requirements of AASHTO M 29 (ASTM D 1073). Fine aggregate shall be of such gradation that when combined with other required aggregate fractions in proper proportion, the resultant mixture shall meet the gradation required under the composition of mixture for the specific type under contract.

2. Lightweight aggregate if required or permitted by the Special Project Specifications, shall meet the requirements of AASHTO M 195.

7. Aggregate for Bituminous Hot Plant-Mix

a. The provisions of 6(a) and 6(b) herein shall apply.

b. The several aggregate fractions for the mixture shall be sized, and blended to meet one of the grading requirements of the Special Project Specifications as specified on the drawings.

8. Aggregate for Cold Plant-Mix Bituminous Pavement

a. The provisions of 6(a) and 6(b) herein shall apply.

1. Aggregate for Pavement - The several aggregate fractions for the mixture shall be sized, graded, and combined in such proportions that the resulting composite blend meets one of the grading requirements of the Special Project Specifications as specified on the drawings.

2. Aggregate for Top Dressing

a. The material for the top dressing shall consist of dry sand, stone screenings, or slag screenings meeting the grading requirements of the Special Project Specifications as specified on the drawings.

893 – AGGREGATE (Cont')

b. Lightweight aggregate, if required or permitted by the Special Project Specifications, shall meet the pertinent requirements of AASHTO M 195.

9. Aggregate for Road Mix Bituminous Pavement

a. Aggregates for road mix bituminous pavement construction shall be crushed stone, crushed slag, or crushed or natural gravel which meet the quality requirements of AASHTO M 62 or M 63 for the specified gradation, except that the sodium sulfate soundness loss shall not exceed 12 percent.

b. When crushed gravel is used, at least 50 percent by weight of the particles retained on the No. 4 sieve shall have at least one fractured face. Gradation shall conform to the grading requirements of the Special Project Specifications as specified on the drawings.

c. Light weight aggregate, if required or permitted by the Special Project Specifications, shall meet the pertinent requirements of AASHTO M 195.

10. Aggregate for Cover Coats, Surface Treatments, and Bituminous Preservative Treatment

a. Aggregates shall meet the quality requirements of AASHTO M 78.

b. When tested in accordance with AASHTO T 182 (ASTM D 1664), aggregate shall have a retained bituminous film above 95 percent.

c. Aggregates which do not meet this requirement may be used for bituminous surface treatments and seal coats provided an approved chemical additive or wetting agent is used to provide a water resistant film.

d. Lightweight aggregate if required or permitted by the Special Project Specifications, shall meet the pertinent requirements of AASHTO M 195.

e. When crushed gravel is used, not less than 50 percent by weight of the particles retained on the No. 4 sieve shall have at least one fractured face. Aggregates shall meet one of the grading requirements of the Special Project specifications.

893 – AGGREGATE (Cont')

ACCEPTANCE OF BULK LIQUID PRODUCTS

The following certifications shall accompany shipments:

- a.** At the time of delivery of each load of products to be incorporated into the work, the Contractor shall furnish to the Government one copy of the Bill of Lading and a fully executed Certificate of Compliance conforming to the format established for the product in Section 892 and 894. A separate Certificate of Compliance will not be required if the standard Bill of Lading contains the information required by the certificate.
- b.** Sampling – Sampling of products may be required to validate certificates furnished by the Contractor. When sampling is directed by the Government, the actual samples will be taken by the Contractor in the presence of the Government. All delivery and distribution equipment shall be constructed to permit sampling in conformance with AASHTO T 40 test procedures. Samples shall be obtained from hauling units at the point of delivery.
- c.** Final Acceptance – Final acceptance or rejection of the material will be in accordance with other clause(s).

Prosecution of Work

- a.** Work shall be scheduled to provide completion of segments on a daily basis unless otherwise herein provided.
- b.** A monthly Work Schedule shall be prepared by the Contractor based on priorities provided in the contract unless superseded by the prime maintainer in advance of work. A copy of the Work Schedule shall be provided to the Government by the agreed day of each month.
- c.** The Government may require the Contractor to finish the portion in progress before addition work is started on any additional portion.

PUBLIC OFFICIALS NOT PERSONALLY LIABLE

There shall be no personal liability upon the Government or officer in charge, their agents or employees, for any act performed in the discharge of any duty imposed or the exercise of any power or authority conferred upon them, by, or within the scope of the contract, it being understood that in all such matters they act solely as agents and representatives of the Government.

893 – AGGREGATE (Cont')

PREWORK CONFERENCE

Prior to commencement of work, the contractor shall meet with the Government to discuss contract terms and work performance requirements, Work Progress Schedule, and Fire Prevention and Suppression Plans. The meeting will be held at the local Government District or Supervisor's Office, unless otherwise agreed.

EQUIPMENT REQUIREMENTS

When the Contractor is paid for furnishing and operating equipment on an hourly or daily basis, it shall be operated at its design speed, or the maximum speed feasible under prevailing conditions.

CONTROL STAKES

The Contractor is responsible for the preservation of existing bench marks and other control points. The cost of replacing them may be charged against the Contractor and may be deducted from the payment for the work. If the Contractor finds a missing stake he will notify the prime maintainer who will replace the missing stake within two (2) days.

STORAGE OF MATERIALS AND EQUIPMENT

Materials shall be stored to assure the preservation of their quality and fitness for work. Approved portions of the right-of-way or other areas on Government land may be used for storage purposes. All storage sites approved by the Government shall be restored to a satisfactory condition at the Contractor's expense.

USE OF PREMISES

- a. General** – The Contractor shall comply with the regulations governing the operation of premises which are occupied and shall perform the contract in a manner that will not interrupt or interfere with the conduct of Government business.

893 – AGGREGATE (Cont')

b. Camps – Before any camp or storage site is opened or operated on National Forest land or lands administered by the Government, written permission shall be obtained through the Government. Camp is interpreted to include the campsite or trailer parking area of any employee or subcontractor working on the project. Such permission, if granted, will be without charge to the contractor.

c. National Forest Road Rules applicable to the National Forest where the work is occurring are made a part of the contract by reference. Copies will be furnished on request.

LANDSCAPE PRESERVATION

The Contractor shall give attention to the effect of contract operation upon the landscape, shall take care to maintain natural surroundings undamaged, and shall conduct the work at all times in compliance with the following requirements:

a. Prevention of the Landscape Defacement. The Contractor shall not remove, deface, injure, or destroy trees, shrubs, lawns, or natural features unless specifically authorized by the Government. Unless otherwise provided in the Special Project Specifications, the Contractor shall confine contract operations to within the areas designated in contract documents. Unless otherwise provided in this contract, the Contractor shall gather rock which falls outside the roadway due to contract operations and dispose of it as directed by the Government.

b. Protection of Streams, Lakes, and Reservoirs. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, small ponds, and reservoirs with fuels, oils, bituminous dust palliatives, silt, or other harmful materials. Mechanical equipment shall not be operated in live streams without written approval of the Government.

LEGAL RELATIONS AND RESPONSIBILITIES

a. Prime Maintainer's Responsibility for Utilities

- 1.** The prime maintainer will notify all utility companies or other parties affected and make arrangements for all necessary adjustments of the public or private utility fixtures, pipelines, and other appurtenances affected by work under the contract.

893 – AGGREGATE (Cont')

2. The prime maintainer will identify, in Special Project Specifications, known locations of underground installations other than culverts and drains the Contractor could encounter in the progress of work under the contract; typically telephone cables, water supply pipes and induction loops within the pavement.

b. Contractor's Responsibility for Utilities

In the event of interruption to utility services because of accidental breakage the Contractor shall promptly notify the utility authority and shall cooperate with that authority in the restoration of service.

**Exhibit O USDI-BLM Road Capital Improvement and Maintenance
Specifications**

Exhibit O - Section 1

USDI-BLM Maintenance Prescription Guidelines

for Level 1 Through 3 Roads

USDI-BLM MAINTENANCE PRESCRIPTION GUIDELINES FOR LEVEL 1 ROADS

Objectives: To maintain roads in a manner which provides for water quality protection by minimizing surface erosion, rutting failures, sidecasting, and blockage of drainage facilities.

1. Provide the basic custodial required to protect the road investment and to ensure that the damage to adjacent land and resources is held to a minimum.
2. Grading, brushing, or slide removal is not performed unless roadbed drainage is being adversely affected, causing erosion.
3. Barricade or block road surface using gates, guard rails, earth/log barricades, boulders, logging debris or a combination of these methods. Avoid blocking roads that will need future maintenance (i.e. culverts, potential slides, ect.) with unremovable barricades. Use guardrails, gates or other barricades capable of being opened for roads needing future maintenance.
4. Maintain waterbars, cross drains, cross sloping, or drainage dips, or install if not already on the road. Drainage spacing shall be according to Table 1.
5. Exposed soil shall be seeded or protected when necessary to keep surface erosion within accepted standards.

USDI-BLM MAINTENANCE PRESCRIPTION GUIDELINES FOR LEVEL 2 AND 3 ROADS

Objectives: To maintain roads in a manner which provides for water quality protection by minimizing surface erosion, rutting failures, sidecasting, and blockage of drainage facilities.

1. Provide the basic custodial required to protect the road investment and to ensure that the damage to adjacent land and resources is held to a minimum.
2. Perform blading and shaping in such a manner as to conserve existing surface material, retain the original crowned or out-sloped self-drainage cross section, prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it will cause stream sedimentation or weaken slump prone areas. Avoid undercutting of back-slopes.
3. Keep road inlet and outlet ditches, catch-basins, and culverts free of obstructions, particularly before and during prolonged winter rainfall. However, hold routine machine cleaning of ditches to a minimum during wet weather.
4. Remove slide material when it is obstructing road surface and ditch-line drainage and either utilize for needed road improvement elsewhere or place in a stable waste area. Avoid side-casting of slide material where it will damage, overload, or saturate embankments, or flow into down-slope drainage courses.
5. Retain vegetation on cut slopes, unless it poses a safety hazard or restricts maintenance activities. Accomplish roadside brushing by cutting vegetation rather than pulling it out and disturbing the soil.
6. Patrol areas subject to road damage during periods of high runoff.
7. Reclaim/revegetate all roads not needed for future management activities.
8. Exposed soil shall be seeded or protected when necessary to keep surface erosion within accepted standards.
9. Stabilize major failures (landslides) by subsurface drainage, rock blankets, or other methods.

10. Maintain water-bars, cross drains, cross sloping, or drainage dips, or install if not already on the road. Drainage spacing shall be according to Table 1 below.

**Table 1. Guide for Drainage Spacing by
Soil Erosion Classes and Road Grade**

<u>Gradients (%)</u>	<u>Water Bar Spacing (in feet)</u>		
	<u>Erosion Class</u>		
	<u>High</u>	<u>Moderate</u>	<u>Low</u>
3-5	200	300	400
6-10	150	200	300
11-15	100	150	200
16-20	75	100	150
21-35	50	75	100
36+	50	50	50

Spacing is determined by slope distance and is the maximum allowed for the grade.

Exhibit O - Section 2
Specifications That Apply To
Maintenance Level
1 Through 3 Roads

All work shall be preformed according to the following specifications:

**USDI-BLM LANDS - SPECIAL PROJECT SPECIFICATION 841-1 –
VEGETATION ESTABLISHMENT**

1. MATERIALS AND APPLICATION RATES

The contractor shall provide the following listed materials:

- a.** Fertilizer: Fertilizer shall be a standard commercial grade which will release slowly over an eight to nine month period and provide the minimum percentage of available nutrients designated.

Available Nitrogen.....20%
Available Phosphorus..... 5%
Available Potassium.....17%
Available Boron.....0.5%

No sulphur will be allowed in the fertilizer when using a copolymer tacifier.

Fertilizer shall be furnished in sealed containers with the composition, weight, and guaranteed analysis of contents clearly marked.

Fertilizer shall be applied at the rate of 165 lbs. per acre.

- b.** Seed: Grass seed shall be packaged separately from fertilizer and contain the designated types of seed for application at the designated rates. The contractor shall supply source identified certified native seed. The seed may be available from the government or the Contractor will supply the seed.

Blue Wild Rye (*Elymus glaucus*).....40lbs of seed per acre.
California Brome (*Bromus carinatus*).....40lbs of seed per acre.

Other appropriate native seed may be available and used when approved or directed by the BLM's authorized officer.

c. Mulch

1. Hydro Mulch:

Hydro mulch will be applied on slopes greater than 45 percent.

Hydro-mulch shall be 100% virgin wood fibers colored with non-toxic green dye when using a copolymer tacifier. Paper mulch is not acceptable.

Mulch shall be a commercially produced and marketed product appropriate for mixing in a homogeneous slurry suitable for application with power sprayer. It shall be thermally produced (steamed/defibrillated) and air-dried. It shall not be produced by a hammer-milled process.

Fibers shall have an equilibrium air-dried moisture content of 12% plus or minus 3% at the time of manufacture.

Mulch shall be delivered to the slurry mix site in new, dry, clean, equal net weight sealed containers. Containers shall be clearly labeled with the name and weight of the contents.

No field adjustments will be made for fiber, which does not meet the moisture content limits, packaging requirements, or any other, specified requirements.

2. Dry Mulch

Mulch: Hay mulch shall be from perennial grass or, if specified, an annual Rye Grass, from which the seed has been removed. Straw mulch is also acceptable. The hay or straw shall be free from noxious weed seed, mold or other objectionable material. PP&L shall furnish the authorized officer with a copy of the seed certification from each field from which the hay or straw was obtained. The hay or straw shall be from fields, which have passed the current years field inspection of the Oregon Grass Seed Certification Program, or from fields certified by the County Agent, or by seed companies purchasing the seed. Commercial products may be used in lieu of straw upon written approval by the BLM's authorized officer.

Mulch: Immediately after seeding a 4-inch thick layer of mulch shall be applied.

Exhibit P National Bridge Inspection Specifications (NBIS)

CODE OF FEDERAL REGULATIONS

23 HIGHWAYS - PART 660

Subpart C - National Bridge Inspection Standards

§ 650.301 Application of Standards.

The National Bridge Inspection Standards in this part apply to all structures defined as bridges located on all public roads. In accordance with the AASHTO (American Association of State Highway and Transportation Officials) Transportation Glossary, a "bridge" is defined as a structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

§ 650.303 Inspection procedures.

- (a) Each highway department shall include a bridge inspection organization capable of performing inspections preparing reports, and determining ratings in accordance with the provisions of the AASHTO Manual¹ and the Standards contained herein.
- (b) Bridge inspectors shall meet the minimum qualifications stated in §650.307. National Bridge Inspection Standards.
- (c) Each structure required to be inspected under the Standards shall be rated as to its safe load carrying capacity in accordance with Section 4 of the AASHTO Manual. If it is determined under this rating procedure that the maximum legal load under State law exceeds the load permitted under the Operating Rating, the bridge must be posted in conformity with the AASHTO Manual or in accordance with State law.
- (d) Inspection records and bridge inventories shall be prepared and maintained in accordance with the standards.
- (e) The individual in charge of the organizational unit that has been delegated the responsibilities for bridge inspection, reporting and inventory shall determine and designate on the individual inspection and inventory records and maintain a master list of the following:
 - (1) Those bridges which contain fracture critical members, the location and description of such members on the bridge and the inspection frequency and procedures for inspection of such members. (Fracture critical members are tension members of a bridge whose failure will probably cause a portion of or the entire bridge to

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

- collapse.)
- (2) Those bridges with underwater members which cannot be visually evaluated during periods of low flow or examined by feel for condition, integrity and safe load capacity due to excessive after depth or turbidity. These members shall be described, the inspection frequency stated, not to exceed five years, and the inspection procedure specified.
 - (3) Those bridges which contain unique or special features requiring additional attention during inspection to ensure the safety of such bridges and the inspection frequency and procedure for inspection of each such feature.
 - (4) The date of last inspection of the features designated in paragraphs (e)(1) through (e)(3) of this section and a description of the findings and follow-up actions, if necessary, resulting from the most recent inspection of fracture critical details, underwater members or special features of each so designated bridge.

§ 650.305 Frequency of inspections.

- (a) Each bridge is to be inspected at regular intervals not to exceed 2 years in accordance with Section 2.3 of the AASHTO Manual.
- (b) Certain types or groups of bridges will require inspection at less than 2-year intervals. The depth and frequency to which bridges are to be inspected will depend on such factors as age, traffic characteristics, state of maintenance, and known deficiencies. The evaluation of these factors will be the responsibility of the individual in charge of the inspection program.
- (c) The maximum inspection interval may be increased for certain types or groups of bridges where past inspection reports and favorable experience and analysis justifies the increased interval of inspection. If a State proposes to inspect some bridges at greater than the specified 2-year interval, the State shall submit a detailed proposal and supporting data to the Federal Highway Administrator for approval.

§ 650.307 Qualifications of personnel.

- (a) The individual in charge of the organizational unit that has been delegated the responsibilities for bridge inspection, reporting, and inventory shall possess the following minimum qualifications:
 - (1) Be a registered professional engineer; or
 - (2) Be qualified for registration as a professional engineer under the laws of the State: or

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

- (3) Have a minimum of 10 years experience in bridge inspection assignments in a responsible capacity and have completed a comprehensive training course based on the, "Bridge Inspector's Training Manual"², which has been developed by a joint Federal State task force, and subsequent additions to the manual³.
- (b) An individual in charge of a bridge inspection team shall possess the following minimum qualifications:
 - (1) Have the qualifications specified in paragraph (a) of this section; or
 - (2) Have a minimum of years experience in bridge inspection assignments in a responsible capacity and have completed a comprehensive training course based on the "Bridge Inspectors Training Manual", which has been developed by a joint Federal State task force.
 - (3) Current certification as a Level III or IV Bridge Safety Inspector under the National Society of Professional Engineer's program for National Certification in Engineering Technologies (NICET)⁴ is an alternative acceptable means for establishing that a bridge inspection team leader is qualified.

§650.309 Inspection Report.

The findings and results of bridge inspections shall be recorded on standard forms. The data required to complete the forms and the functions which must be performed to compile the data are contained in Section 3 of the AASHTO Manual.

§660.311 Inventory.

(a) Each State shall prepare and maintain an inventory of all bridge structures subject to the Standards. Under these Standards, certain structure inventory and appraisal data must be collected and retained within the various departments of the State organization for collection by the Federal Highway Administration as needed. A tabulation of this data is contained in the structure inventory and appraisal sheet distributed by the Federal Highway Administration as part of the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (Coding Guide) in January of 1979. Reporting procedures have been developed by the Federal Highway Administration.

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

(b) Newly completed structures, modification of existing structures which would alter previously recorded data on the inventory forms or placement of load restriction signs on the approaches to or at the structure itself shall be entered in the State's inspection reports and the computer inventory file as promptly as practical, but no later than 90 days after the change in the status of the structure for bridges directly under the State's jurisdiction and no later than 180 days after the change in status of the structure for all other bridges on public roads within the State.

¹The "AASHTO Manual" referred to in this part is the 'Manual for Maintenance Inspection of Bridges 1983' together with subsequent Interim changes or the most recent version of the AASHTO manual published by the American Association of State Highway and Transportation Officials. A copy of the Manual may be examined during normal business hours at the office of each Division Administrator of the Federal Highway Administration, at the office of each Regional Federal Highway Administrator, and at the Washington Headquarters of the Federal Highway Administration. The addresses of those document inspection facilities are set forth in Appendix D to Part 7 of the regulations of the Office of the Secretary (40 CFR Part 7). In addition, a copy of the Manual may be secured upon payment in advance by writing to the American Association of State Highway and Transportation Officials, 444 N. Capitol, Street, N. W, suite 225, Washington, D.C. 20001

²The "Bridge Inspector's Training Manual" may be purchased from the Superintendent of Documents, V. S. Government Printing Office, Washington, D.C. 20402.

³The following publications are supplements to the "Bridge Inspector's Training Manual", "Bridge Inspector's Manual for Movable Bridges, " 1977, GPO Stock No. 050-002-00103-5., "Culvert Inspector's Training Manual, " July 1986, GPO Stock No. 050-001-0030-7, and "Inspection of Fracture Critical Bridge Members, " 1986, GPO Stock No. 050-001-00302-3.

⁴For information on NICET program certification contact: National Institute for Certification in Engineering Technologies, 1420 King Street, Alexandria, Virginia 22314. Attention: -John D. Antrim, P.E., Phone (703) 684-2835.

Effective date October 25, 1988.

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

Amendment (July 27, 1994)

7736.04b - Regional Foresters. (FSM 7731.04a).

7736.04c - Regional Staff Directors for Engineering Activities. It is the responsibility of the Regional Staff Director for engineering activities to certify in writing the qualifications of the following (23 CFR 650.307):

1. The individual in charge of the organizational unit who has been delegated the responsibilities for bridge inspection, reporting, and inventory.
2. The individuals in charge of bridge inspection teams.

7736.04d - Forest Supervisors. It is the responsibility of each Forest Supervisor to:

1. Ensure that technical inspections are performed on all structures meeting the definition of a bridge (FSM 7705).
2. Ensure that those bridges subject to the National Bridge Inspection Standards (NBIS) are identified.
3. Ensure that all bridges are inventoried in accordance with direction in FSM 7736.4.
4. Ensure that the bridge inventory and permanent bridge records are maintained in accordance with direction in FSH 7709.56b, Sec. 8.2, including documentation of the bridge condition and appraisal.
5. Ensure that annual reports for bridges subject to the NBIS are prepared and submitted to the State Bridge Engineer.
6. Ensure that structural load rating analyses are performed on all road bridges and, where needed, the safe load carrying capacity of all restricted bridges are posted.

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

7736.05 - Definitions. (FSM 7705).

77356.1 - Bridges Subject to the National Bridge Inspection Standards. Bridges and culverts on Forest Service development roads "open to public travel" (FSM 1535.11), and having a total length exceeding 20 feet (6.1 m) are subject to the NBIS (23 CFR 650.301).

In general, for bridge inspection program purposes, bridges subject to the NBIS are located on Forest Service development roads that have a Road Maintenance Level 3, 4, or 5 (FSH 7709.58, sec. 12.3); or a designated Traffic Service Level A, B, or C (FSH 7709.56, Sec. 4.1, Exhibit 01). There may be minor exceptions to this direction for bridges on such roads not open to public travel that are used for contractual and administrative purposes only, such as PacifiCorp.

7736.2 - Technical Inspections. Perform technical inspections for all bridges, including trail bridges, to identify actual conditions that may lead to structural or functional restrictions. Update inventory records, and establish maintenance priorities. In addition, use technical inspection reports of all road bridges to provide the basis for conducting structural analysis to determine the safe load carrying capacity.

7736.21 - Technical Inspection of Bridges Subject to the National Bridge Inspection Standards. Refer below:

7736.21a - Inspection. Inspect all road bridges subject to the NBIS (FSM 7736.01) in accordance with 23 CFR 650.303, paragraphs (a) through (e); except in paragraph (c), posting restricted bridges shall be in accordance with direction in FSM 7736.52.

7736.21b - Inspection Intervals. Inspect bridges subject to the NBIS at 2-year intervals (23 CFR 650.307). Submit all requests to increase the inspection interval for eligible bridges through the Regional Staff Director for engineering activities to the Director of Engineering, Washington Office (FSM 7736.04a), for approval in accordance with FSH 7709.56b, Section 8.12.

7736.22 - Technical Inspection of Bridges Not Subject to the National Bridge Inspection Standards. Refer below:

7736.22a - Inspection. Inspection procedures for bridges not subject to the NBIS shall be the same as in 7736.21a, except as follows:

- a. 23 CFR 650.303, paragraph (c). Inspect and rate trail bridges for load carrying capacity in accordance with Regional guidance (FHS 7709.56b, sec. 05).

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

- b. 23 CFR 650.303, paragraph (e). Application of the requirements to list bridges requiring special inspections shall be in accordance with Regional guidance (FSH 7709.56b, sec. 05).

7736.22b - Inspection Intervals. Inspect road bridges not subject to the NBIS at 2-year intervals, except when increases up to 4 years have been granted in accordance with Regional guidance (FHS 7709.56b, sec. 05). Inspection intervals for trail bridges must not exceed 4 years.

7736.23 - Inspection Reports. Record findings and results of inspections of all bridges in accordance with Regional guidance (FSH 7709.56b, sec. 05 and 8.15). Record data items compatible with the inventory requirements in FSM 7736.4.

Annually, submit a report of data required by the Federal Highway Administration (FHWA) (FHWA Coding Guide, FSM 7736.4) to the local State Bridge Engineer for each bridge subject to the NBIS. Do not report any inventory data not listed in the FHWA Coding Guide to the State of Oregon (FSM 1535.11; FSM 7736.04d, para. 6).

Exhibit Q Bridge Ownership Transfers, Requirements and Design Standards



United States
Department of
Agriculture

Forest
Service

Umpqua
National
Forest

2900 NW Stewart Parkway
Roseburg, Oregon 97470
(541) 672-6601 FAX 957-3495
TDD 957-3459

File Code: 2770

Date: March 1, 2004

Jim Waslaw
PacifiCorp
825 NE Multnomah Street, Suite 1500
Portland, OR 97232

Dear Jim:

This letter is in response to a question that came up during the December 19, 2003 meeting with Chuck Everett and Diane Barr on the final draft of the Transportation Management Plan for the North Umpqua Hydropower Project. The question was regarding the process required to transfer ownership of PacifiCorp owned bridges on National Forest System land within the North Umpqua Hydroelectric Project, to the Forest Service.

The Forest Service may accept transfer of ownership of PacifiCorp bridges on joint-use hydro-maintained roads following completion of all deferred maintenance work, as required by Section 15.5.1 of the Settlement Agreement. The identification of deferred maintenance is to be based on then current structural safety inspections by a qualified bridge engineer.

Jurisdiction of the PacifiCorp owned bridges on joint-use hydro-maintained roads is the responsibility of the Forest Service, since these bridges are located on National Forest Roads. Jurisdiction is the legal right to control and regulate the use of transportation facilities. Traffic control over these bridges will require close coordination by the Forest Service and PacifiCorp.

To transfer ownership to the Forest Service, we will need a letter from PacifiCorp requesting transfer of ownership to the Forest Service. The letter must include the following items.

1. Request for the Forest Service to accept ownership of the bridge in question.
2. Current picture of the bridge.
3. Design/Construction as-built drawings of the bridge.
4. Records indicating the year the bridge was built and any records indicating the initial cost of the bridge.
5. Drawings and any records for any modification or major maintenance work on the bridge, including the cost of the heavy maintenance or modification.
6. Drawings and records of any stream-channel work performed in association with the bridge construction or maintenance.
7. Inspection Records for the last ten years (including structural load ratings).
8. An AD-107 form (Report of Transfer or other Disposition or Construction of Property)



completed and signed by PacifiCorp's authorized officer (Sample copy attached)

9. Records documenting the completion of deferred maintenance work and the cost thereof

Prior to the Forest Service acceptance of the bridge, PacifiCorp must correct structural and safety deficiency items contained in the current N.B.I.S. inspection reports. The bridge(s) must also be capable of carrying live loads equivalent to the AASHTO design vehicle HS 20-44 as determined by a Professional Engineer. Upon acceptance of the bridge, the Forest Service will sign the AD-107 form and transmit a copy to PacifiCorp for their records.

Should you have further questions, please contact Jake O'Dowd (541) 957-3354, or John Ulicny (541) 957-3424.

Sincerely,

/S/ JAMES A. CAPLAN

/s/ James A. Caplan
JAMES A. CAPLAN
Forest Supervisor

cc: Pam Sighting, John J Sloan, John E Ulicny, Raquel M O'Connor

United States Department of Agriculture

REPORT OF TRANSFER OR OTHER DISPOSITION OR CONSTRUCTION OF PROPERTY

Report No.

Date

1. Type of Transaction (Report Each Type Separately)

- ☐ Transfer ☐ Sale ☐ Trade In ☐ Donation
☐ Construction ☐ Temporary Loan Record

2. Authorization Reference

3. Proceeds Received

\$

4. Reporting Agency

5. Receiving Agency (Or Name of Purchaser or Donee)

A. Organizational Unit

A. Organizational Unit (Or Address of Purchaser)

B. Location

B. Location

C. Signature

C. Signature

D. Title

D. Title

E. Date

6. Property Items

Quantity
(Or Property No.)Item Description
(Give Full Details Including Serial Number, If Any, and Condition Code)Inventory
Value

Certification of Property and Fiscal Officers

7. Property Officer: This transaction is completed and the necessary entries have been made to adjust the Property Records. Proceeds, if any, are to be deposited to:

8. Fiscal Officer

- A. ☐ The sum indicated below has been received in payment for the property disposed of.
 B. ☐ The necessary entries have been made to adjust accounting records.

Amount (\$)

Schedule No.

Signature

Date

Signature

Date

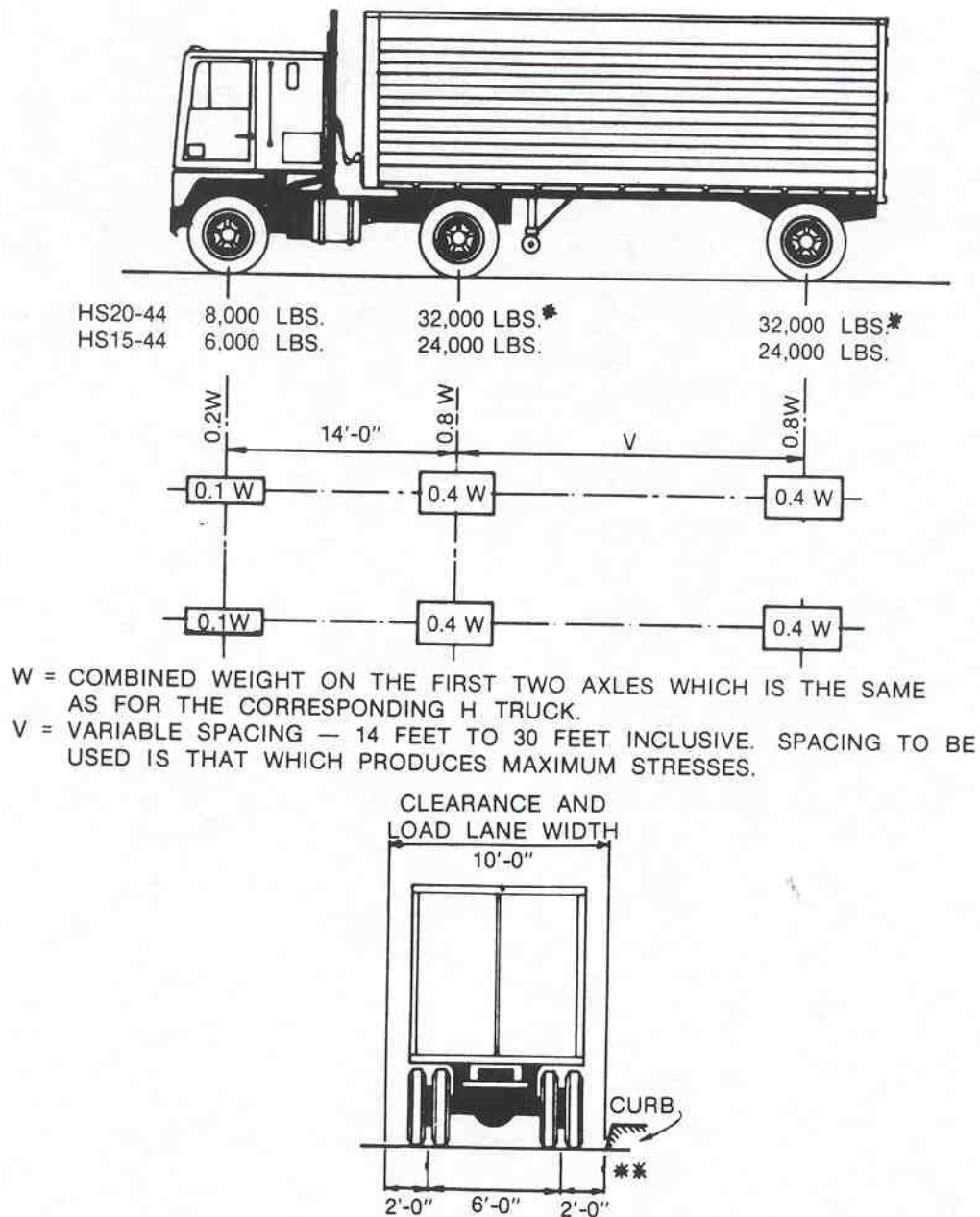


FIGURE 3.7.7A Standard HS Trucks

*In the design of timber floors and orthotropic steel decks (excluding transverse beams) for H 20 Loading, one axle load of 24,000 pounds or two axle loads of 16,000 pounds each, spaced 4 feet apart may be used, whichever produces the greater stress, instead of the 32,000-pound axle shown.

**For slab design, the center line of wheels shall be assumed to be 1 foot from face of curb. (See Article 3.24.2.)

Bridge Name	Bridge Road Name	Bridge	Map #	Maint. Level	Last Inspection Date	Score*	Owner	Maintenance Responsibility
Charlie Camp @Charlie Cr.	3400100-1.5	U-12	54	2	Oct-03	7	PPL	JMH
Clearwater Canal Culvert	4776300-2.2	U-24	47	2	Oct-03	6	PPL	JMH
Cottage (west of Guest House)	4776000-0.3	U-29	43	5	Oct-03	6	PPL	JMH
Deer Cr./Toketee Rigdon	3400000-6.6	U-15	52, 53	5	Oct-03	6	PPL	JMH
Fish Creek Canal @ Forebay	3701300-3.3	U-34	37, 40	2	Oct-03	7	PPL	JMH
Fish Creek Canal upstream of FL5	3701000-3.6	U-32	41, 42	4	Oct-03	7	PPL	JMH
Lemolo #1- Canal #2	2610672-2.7	U-02	62	2	Oct-03	6	PPL	JMH
Lemolo #1 Spillway	2610000-5.1	U-44	63	5	Oct-03	8	PPL	JMH
Lemolo #1-Canal #1	1414000-0.1	U-01	63	2	Oct-03	7	PPL	JMH
Mowich Creek Culvert	4776300-3.5	U-22	47, 48	2	Apr-95		PPL	JMH
Needle (east of Guest House)	4776000-0.4	U-28	43	5	Oct-03	7	PPL	JMH
Nurse Cr. @ Fl. 10	3400115-0.0	U-11	54	2	Oct-03	7	PPL	JMH
Soda Springs-below dam	4775011-1.7	U-42	35	4	Oct-03	5	PPL	JMH
Warm Springs Cr. Culvert	2610680-2.0	U-03	56	2	Nov-94		PPL	JMH
Washout Arch Culvert	4776000-1.2	U-53	43, 46	5	Nov-94		PPL	JMH
* Assessment Score Description (NBIS)								
0-4 = Critical								
5-6 = Fair								
7-9 = Good								

Exhibit R Hazard Analysis

Exhibit R Hazard Analysis

FSH 7709.59 - TRANSPORTATION SYSTEM OPERATIONS HANDBOOK WO AMENDMENT 7709.59-91-1 EFFECTIVE 3/1/91

CHAPTER 50 - TRAFFIC STUDIES AND OTHER ROAD OPERATION CONSIDERATIONS

Contents

51	TRAFFIC STUDIES
51.1	Traffic Surveillance
51.2	Accident Surveillance
51.3	Accident Investigations
51.4	Hazard Analysis
52	COORDINATION OF USES
52.1	Consistency
52.2	Mixed Use on Forest Development Roads
53	PUBLIC INFORMATION
53.1	Advance Notice of Changes
53.2	Maps and Signs

This chapter describes traffic studies for use in road operations and provides additional information for other road operations factors such as coordination of uses and public information.

51 - TRAFFIC STUDIES. This section describes traffic engineering studies that are frequently used in transportation system operations. Results of these studies may apply to design and maintenance, as well as to operations.

Traffic studies should be oriented toward achieving specific objectives. Before initiating traffic studies, develop an objective statement identifying the purpose of the study and the use to be made of the collected data. Such a statement facilitates designing an effective study.

51.1 - Traffic Surveillance. Traffic surveillance provides insight into the relative magnitude of road use. Traffic is measured and analyzed to determine the volume and/or classification of road uses.

Traffic surveillance is typically used to:

1. Identify traffic requirements used to establish design, operation, and maintenance criteria.

2. Estimate human-related resource use, such as camping, fishing, hunting, and wilderness visits on National Forest land.
3. Determine weights and repetitions of vehicle axle loads for pavement structure design.
4. Develop traffic patterns and growth trends for economic analyses and set priorities for investments.
5. Verify the suitability of road management objectives.
6. Determine the financial responsibility of the various road users for road investments and road maintenance (FSM 7731.51, FSH 7709.58, Transportation System Maintenance Handbook, and chapter 30 of this Handbook).

Traffic surveillance may require long-term analysis. Consider the purpose of the study, the means of carrying it out, the need to provide continuing information, and the method of financing it.

When a description of the character of traffic is needed, conduct a classification survey to identify vehicle types and uses. Origin-destination and travel time studies provide information for special transportation analysis purposes.

51.2 - Accident Surveillance. Highway Safety Program Standard No. 9, Identification and Surveillance of Accident Locations, of the Highway Safety Act (FSM 7701.3) requires a program for identifying accident locations and for maintaining surveillance of these locations. Implement this program (FSM 7731.52) to reduce accidents and their severity.

The following are minimum requirements of the accident surveillance program:

1. Develop a procedure to identify accident locations.
2. In coordination with State and local law enforcement authorities, develop an inventory of accident locations, emphasizing high frequency and severe (serious bodily injury or death) accident sites. Often, State and local law enforcement officials investigate accidents on Forest development roads and their records may be the best source of information for such an inventory.
3. Develop procedures for analyzing design and operating features associated with accident locations.
4. Identify and prioritize actions for eliminating or mitigating hazards to reduce accidents. Take action first on those cost-effective actions having the greatest potential to reduce the frequency or severity of possible accidents.
5. Develop measures to evaluate the effectiveness of the program.

Documenting and maintaining current accident surveillance data can be useful in tort claim situations.

51.3 - Accident Investigations. As a minimum, obtain a copy of the investigation report prepared by State or local law enforcement authorities. In the case of severe accidents (potentially disabling injury or death) additional accident investigation should be conducted by either Forest Service personnel or legally recognized experts, such as State or county investigators or private consultants. This investigation should be done while evidence at the accident site still exists, normally within 24 hours of the accident.

1. Accident Data. At a minimum, gather the following information:

- a. Time and location.
- b. Driver and passengers--age, condition (any obvious factors such as pre-existing physical impairments or use of alcohol or drugs), and injuries.
- c. Vehicles---type, condition, and damage.
- d. Weather conditions.
- e. Road conditions and geometrics (measurements).
- f. Probable causes and accident sequence.
- g. Diagrams and photos.
- h. Names of witnesses, attending medical personnel, and responding law enforcement and rescue personnel.

2. Road Data. As part of the accident investigation, obtain and include in the report information about the road's characteristics and its operation, including the following:

- a. Design standards and traffic volumes.
- b. Traffic control devices and their condition.
- c. Maintenance standards and records for the specific site.
- d. Improvements that have been programmed.

This information may be available from previous studies, inventories, and project records retained on the forest.

Retain all accident investigation information for at least 5 years. Consider including copies of applicable FSM and FSH direction and Regional and Forest supplements.

51.4 - Hazard Analysis. Analyze road features and traffic operations that have caused or have the potential to cause accidents as part of planning and programming for road development and maintenance projects and as part of periodic condition surveys.

On low-volume roads, accident frequency may not be high enough to indicate any significant safety problems. Making comparative analyses between hazardous sites also may be difficult because of the infrequency of accidents. Accordingly, use common sense and judgment to determine safety deficiencies and the priority for corrective action. Accident rate comparison formulas commonly used for high-volume highways are not appropriate.

Roads that are open should have a condition survey at least annually. Roads that have been closed should be checked for obvious hazards prior to being opened. Roads open to travel should also be checked following major storms or similar events that could significantly affect their condition, result in changes in their traffic service level, or have created new safety hazards.

52 - COORDINATION OF USES.

52.1 - Consistency. Regulation of use on Forest development roads should be consistent with State laws. Provide consistent travel management (signs, maps, enforcement) within the same political jurisdiction (that is, State) to avoid confusing users and other agencies that assist in administering and enforcing laws and regulations on National Forest lands. When deviating from State law by an order, the Forest Service accepts the enforcement responsibility for that order.

52.2 - Mixed Use on Forest Development Roads. Limit use on Forest development roads to "street-legal" vehicles and licensed operators, except where authorized by order or State law. ("Street legal" vehicles are those vehicles that can be operated on the streets, roads, and highways under the jurisdiction of the State, county, or other public road agency.)

In those circumstances where road use by unlicensed operators and/or non-"street legal" vehicles may be appropriate, consider the probabilities and consequences of accidents associated with such use, whether it be mixed use or sole use (Exhibit 01).

52.2 - Exhibit 01

GUIDELINE FOR MANAGEMENT OF MIXED USE

<u>PROBABILITY</u> <u>OF</u> <u>ACCIDENTS</u>	HIGH		PROHIBIT MIXED USE	
	MEDIUM		RESTRICT MIXED USE	
	LOW	ACCEPT USE WITH MONITORING		
		Minor	Moderate	Severe

53 - PUBLIC INFORMATION.

53.1 - Advance Notice of Changes. Inform users of the availability and condition of roads, including roads open to unrestricted use, roads closed, roads available with conditions on use, and road hazards. Typically, inform users through the use of maps, signs, and posters.

Provide advance notice of planned use changes on roads. Notify the public when the decision is made to implement changes in road use. If feasible, allow adequate time for users to make alternative travel plans. Emergency or unexpected changes in road availability or condition may require the use of news releases or spot announcements on radio or television.

Restrict use on new roads that are not planned to be open to the general public, prior to public use patterns becoming established.

53.2 - Maps and Signs. Use the Forest visitor map to provide travel information to users. Portray information on maps and signs in a consistent and understandable manner. Both maps and signs should portray a positive message and emphasize acceptable uses of Forest development roads (FSH 7109.11, Sign Handbook).

Exhibit S USDI-BLM Road Maintenance Levels

EXHIBIT S

USDI-BLM ROAD MAINTENANCE LEVELS

There are five USDI-BLM road maintenance levels:

Level 1 – This level is assigned to roads where minimum maintenance is required to protect adjacent lands and resource values. These roads are no longer needed and are closed to traffic. The objective is to remove these roads from the transportation system.

Minimum Standards for Level 1 – Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless roadbed drainage is being adversely affected, causing erosion. Closure and traffic restrictive devices are maintained.

Western Oregon Guidance – The objective of this maintenance level should also include road segments which are closed to vehicles on a long-term basis, but that may be used again in the future. This will facilitate assigning decommissioned roads at this level.

Level 2 – This level is assigned to roads where the management objectives require the road to be opened for limited administrative traffic. Typically, these roads are passable by high clearance vehicles.

Minimum Standard for Level 2 – Drainage structures are to be inspected within a 3-year period and maintained as needed. Grading is conducted as necessary to correct drainage problems. Brushing is conducted as needed to allow administrative access. Slides may be left in place provide they do not adversely affect drainage.

Western Oregon Guidance – Traffic is generally administrative with some minor specialized use, or moderate seasonal use. These are typically low standard, low volume, single lane, natural and aggregate surfaced, and are functionally classified as a resource road.

Level 3 – This level is assigned to roads where management objectives require the road to be open seasonally or year-round for commercial, recreational, or administrative access. Typically, these roads are natural or aggregate surfaced, but may included low use bituminous surfaced road. These roads have a defined cross section with drainage structures (e.g., rolling dips, culverts, or ditches). These roads may be negotiated by passenger cars traveling at prudent speeds. User comfort and convenience are not considered a high priority.

Minimum Standards for Level 3 – Drainage structures are to be inspected at least annually and maintained as needed. Grading is conducted to provide a reasonable level of riding comfort at prudent speeds for the road conditions. Brushing is conducted as needed to improve sight distance. Slides adversely affecting drainage would receive high priority for removal, otherwise they will be removed on a scheduled basis.

Western Oregon Guidance – These roads segments serve as a artery to other road networks and are functionally classified as a local road.

Level 4 – This level is assigned to roads where management objectives require the road to be open all year (except may be closed or have limited access due to snow conditions) and which connect major administrative features (recreational sites, local road systems, administrative sites, etc.) to Country, State, or Federal roads. Typically these roads are single or double lane, aggregate, or bituminous surface, with higher volume of commercial and recreational traffic than administrative traffic.

Minimum Standards for Level 4 – The entire roadway is maintained at least annually, although a preventative maintenance program may be established. Problems are repaired as discovered.

Western Oregon Guidance – These roads intersect County, State and Federal roads and connect with major recreation and administrative facilities. These roads are functionally classified as collector roads.

Level 5 – This level is assigned to roads where management objectives require the road to be open all year and are the highest traffic volume roads of the transportation system.

Minimum Standards for Level 5 – The entire roadway is maintained at least annually and a preventative maintenance program is established. Problems are repaired as discovered. These roads may be closed or have limited access due to snow conditions.

Western Oregon Guidance – Road segments assigned this maintenance level are **double lane**, paved roads that are open year-round. These roads intersect County, State and Federal roads and are functionally classified as a collector or arterial road.

**Exhibit T Joint Use Roads outside the FERC Boundary Subject to the
Land Use Authorization (LUA)**

Exhibit T Joint Use Roads Outside the FERC Boundary Subject to the Land Use Authorization (LUA)

Route	Road Name	Map #	Maintenance Level	Owner	Maintenance Responsibility	Mile
	OLD UMPQUA HWY	25,26,28	0	USDA-FS	* JATR	5.27
	TL39_04/32	28	1	USDA-FS	JATR	0.10
	TL51_01/3	43,46	0	USDA-FS	JATR	0.09
031	TL46_02/28	26, 28	0	USDA-FS	JATR	0.15
2610000	LEMOLO LAKE	62,63	4	USDA-FS	JMH	1.71
2610000	LEMOLO LAKE	63-66	5	USDA-FS	JMH	4.95
2610680	LEM NO.1 GENERATOR	56,62	2	USDA-FS	JMH	2.78
2612000	N. SHORE LEMOLO LAKE	63-65	5	USDA-FS	JMH	2.29
2614000	S & E SHORE LEMOLO L	64,65	5	USDA-FS	JMH	2.73
2800000		38-40	0	USDA-FS	JATR	5.57
2800620		39	0	USDA-FS	JATR	0.76
2800620		40	0	USDA-FS	JATR	0.25
2800622		40	0	USDA-FS	JATR	0.07
2800700	TL39_03/46	38,39	0	USDA-FS	JATR	0.49
3400000	TOKETEE RIGDON RD	43,50-53	3	USDA-FS	JMH	2.79
3400000	TOKETEE RIGDON RD	43,50-53	5	USDA-FS	JMH	2.96
3400100	LEM.NO2. CANAL SPUR	53,54	3	USDA-FS	JMH	0.01
3400100	LEMOLO 2 CANAL	53,54	3	USDA-FS	JMH	0.55
3400101	HOT SPRINGS	53,57	2	USDA-FS	JATR	1.20
3400101	HOT SPRINGS	53,57	2	USDA-FS	JMH	0.02
3401000	THORN PRAIRIE	50,58-61	3	USDA-FS	JMH	8.62
3401000	THORN PRAIRIE	63	3	USDA-FS	JMH	0.49
3401700		59	0	USDA-FS	JATR	0.02
3401701	LEM NO.1 POWERLINE	58-61	2	USDA-FS	JATR	0.17
3401702		56,61	0	USDA-FS	JATR	0.38
3401704		61	0	USDA-FS	JATR	0.13
3401800	LEMOLO FALLS	61-63	2	USDA-FS	JMH	3.53
3402000	THORN MTN.	51	3	USDA-FS	JMH	1.15
3700000	FISH CREEK	44-46	5	USDA-FS	JMH	2.94
3700010	FISH CR FOREBAY	37,41,44	3	USDA-FS	JMH	2.12
3701000	BIG CAMAS	41,42,45	4	USDA-FS	JMH	2.68
3701220	UPPER FC CANAL ROAD	41,42	2	USDA-FS	JMH	1.45
3701300	BRINK ROAD	37	1	USDA-FS	JMH	0.63
3701300	BRINK ROAD	37,40,41	2	USDA-FS	JMH	1.46
3701381		40	0	USDA-FS	JATR	0.19
3701382	TL39_02/48	40	0	USDA-FS	JATR	0.01
3800010		26-29	0	USDA-FS	JATR	0.64
3800017		26-28	0	USDA-FS	JATR	1.05
3800026	TL46_01/28	26, 28	0	USDA-FS	JATR	0.33
3800031	TL46_02/28	26,28	0	USDA-FS	JATR	0.65
4700630	STUMP LAKE GAGE	49	2	USDA-FS	JMH	0.09
4710	BOUNDARY RD	23,24	4	USDA-FS	JATR	3.19
4710020		23	0	USDA-FS	JATR	0.09
4710021		23	0	USDA-FS	JATR	0.19
4710445		24	0	USDA-FS	JATR	0.10
4713000		29,30	0	USDA-FS	JATR	2.03
4760000	ILLAHEE RD	32,33	0	USDA-FS	JATR	1.67
4775000	MEDICINE CREEK ROAD	36	3	USDA-FS	JMH	0.06
4775011	SODA SPRINGS RD	34-36	3	USDA-FS	JMH	1.17
4776000	TOKETEE RANGER ST RD	43,46	5	USDA-FS	JMH	1.98
4776200	CLRWTR NO.2 FOREBAY	43,44,46	2	USDA-FS	JMH	1.28
4776300	CLEARWATER	46-48	2	USDA-FS	JMH	4.80

Exhibit T Joint Use Roads Outside the FERC Boundary Subect to the Land Use Authorization (LUA)

Route	Road Name	Map #	Maintenance Level	Owner	Maintenance Responsibility	Mile
4776350	CANAL T.S.	46,47	2	USDA-FS	JMH	0.59
4780000	CLEARWATER 1 CANAL	48,49	3	USDA-FS	JMH	1.25
* The JATR Maintenance Level is not provided because PacifiCorp does not have maintenance responsibility on this road type.						

Exhibit U USDA-FS Commercial Road Rules and Snow Plowing Restrictions

Exhibit U USDA-FS Commercial Road Rules and Snow Plowing Restrictions

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ROAD RULES DIRECTORY

		<u>Phone</u>
Forest Engineer	John Sloan	541-957-3208
Assistant Forest Engineers		
Transportation	Bob Deane	541-957-3419
Facilities	Sue Helmuth	541-957-3401
Forest Trans. Planner/Systems Manager	Rick Nelson	541-957-3417
District Engineers		
Diamond Lake	Steve Nelson	541-498-2531
North Umpqua	Pat Cook	541-496-3532

COMMERCIAL ROAD RULES – OBJECTIVES AND DEFINITIONS

Note: This document is the Umpqua National Forest's Road Rules Update that replaces the December 1999 road rules. New road additions or increases in previous restrictions have been identified with three asterisks (***) immediately following the road number.

Objectives

Objectives of the Road Rules and Regulations for commercial use of roads on the Umpqua National Forest are:

1. Provide commercial users with a uniform and timely system concerning use requirements on roads in advance of applying for permits or bidding on contracts.
2. Provide Forest Officers with a system to display their road use requirements and to administer them uniformly with all commercial users.
3. Implement a responsive system for issuing permits or making other arrangements for authorizing road use to meet the special needs unique to any commercial user.

Definitions

1. Road Distress: See Exhibit A.
2. Road Damage: See Exhibit A.
3. Resource Damage: See Exhibit A.
4. Road Rule - A statement defining traffic conduct expected by commercial users (or their agents) on a Forest Service road. Rules consist of General Road Rules and Specific Road Rules.
5. General Road Rules - Rules applicable to all commercial users of Forest Service Roads. The rule applies to all roads unless modified by written waiver (permit, contract easement, etc.), or by a Specific Road Rule.
6. Specific Road Rule - Rules which modify the General Road Rules and will apply only to selected roads and bridges.

7. Waiver - A permit, contract, fire order, formal letter, etc., signed by an authorized Forest officer or representative, granting approval to modify a General or Specific Road Rule.
8. Commercial User - Any traffic generated by a timber purchaser or other commercial user of the National Forest, including but not limited to log haul, rock haul, commercial firewood hauling, guides, and outfitter traffic.

GENERAL ROAD RULES

1. The Provisions of the Oregon Revised Statutes, Chapters 483 and 487, relating to the operation of motor vehicles are applicable to all Forest Service roads on the Umpqua NF and are enforceable by State or County law officers.
2. Commercial use is not permitted on any Umpqua National Forest road unless the user has a permit or other written authorization. Refer to special order issued under Regulation 36 CFR 261.54(c).
3. The load weight, height, length, and width limitations of vehicles on roads shall be in accordance with Chapter 483 of the Oregon Revised Statutes. This rule is enforceable under either Federal Regulation (Reference Regulation 36 CFR 261.12(a)) or upon written notice to a commercial user to suspend use.
4. Waivers to rules may be allowed when such permission is in writing. Permission may be granted and documented using the proper format established in contracts or road use permits. Operations not administered by contracts or road use permits will use R6-7700-465 and apply for permission through the district ranger.
6. Five (5) to fifteen (15) days will be required to process applications for variance permits depending upon the haul route and the complexity of bridges or other sensitive structures involved.
5. Snow plowing without permit is prohibited. Snow plowing permits or written authorization will be granted unless otherwise shown on road rules (Reference Regulation 36 CFR 261.10(a)).
6. When nonskid materials are used on slippery surfaces, the residual material will be removed from the pavement surface in the spring by the commercial user placing the material. Salt will not be allowed.
7. Damaging and leaving in a damaged condition any road or segment thereof is prohibited. Damage is exclusive of ordinary maintenance described in the contract or permit. Reference Regulation 36 CFR 261.12(c), (see Exhibit A).
8. Commercial use of a National Forest road must be suspended when such use causes road damage or resource damage (see Exhibit A) or when such use will result in unsafe conditions to others. Such suspension shall be effective when the user is notified in writing or by road closures per Regulation 36 CFR 261.54(b). The commercial user is responsible for repairing road damage and restoration of the road to its original load carrying ability, lines, and grades when damage is caused by commercial users' operations.

9. All Forest roads are subject to short-term traffic restrictions and/or closures by the Forest Service due to seasonal or unusual weather conditions (such as freeze/thaw cycles, heavy precipitation, etc.), user safety, emergency traffic, or when necessary to permit reconstruction and maintenance.
10. A National Forest timber purchaser is only authorized to use those roads identified in the list attached to Timber Sale Provisions C5.42 and C5.43 and SPS 104.021, and is subject to limitations and specific rules imposed on these roads in Provision C5.12, these Road Rules, and any outstanding orders issued by the Forest Supervisor.
11. No road shall be blocked by any vehicle or other object in a manner that is an impediment or a hazard to safety or conflicts with other users unless otherwise provided in a permit or written authorization. Reference Regulation 36 CFR 261.12(d).
12. All signing requirements on roads open for public use on the Forest will meet MUTCD standards.
13. All commercial users will comply with Forest fire precautions.
14. Between May 1 and October 31, lowboy jeeps and pups may be dropped off at the locations identified in the separate list following each district's road rules. Highway legal loads must be maintained up to that point. Beyond that point the limit is 160,000 pounds except that exceeding bridge limits still requires an overload permit. The affected bridges are listed after the drop-off points.

General rule 14 is only applicable between May 1 and October 31. Outside of that time period, overload permits are required on Forest roads for any loads that exceed the legal highway loads.

ABBREVIATIONS AND CODES

Abbreviations

Abbreviations used on road restriction requirements list include:

- | | |
|----------|--|
| B | - Brushing required |
| Ba | - Additional base required |
| Co. Road | - County road |
| D | - Additional drainage work required |
| Jct | - Junction of the road being addressed with another. The second road's number will appear following Jct. |
| MP | - Milepost |
| Rcst | - Reconstruction required for alignment, width, etc. |

- S - Additional surfacing required
- S.H. - State Highway
- S.R. - Slide Repair
- T.O. - Additional turnouts required
- s.p.I - Snow plowing prohibited from November 15 to March 31 (winter recreation use)
- s.p.II - Hauling operations will be restricted from November 15 to March 31. Weekend haul is prohibited between these dates.

Codes

- A - Road closed except by permit
- R - Use restricted as shown under use limitations
- U - Unsuitable for use by vehicles rated over 10,000 pounds gross vehicle weight without required reconstruction. When appropriate, such road shall be included in A9 of a timber sale contract as an alternate facility under B5.26.
- X - Equipment or vehicle rated over 10,000 pounds gross vehicle weight prohibited. Alternate haul will not be approved.
- C - Other agency road subject to restriction.
- *** - Indicates a new addition from previous issue of the Road Rules.

EXHIBIT A - ROAD DISTRESS AND DAMAGE DEFINITIONS

Haul will be permitted when facility or environmental damage will not result.

- I. **FACILITY DISTRESS:** Indicates maintenance must be performed as specified in Special Provisions C5.42 or C5.43. If maintenance cannot be performed, use must be reduced or stopped until signs of distress are no longer present unless otherwise agreed in writing by Forest Service.

A. Facility distress indicators on gravel surfaces are:

1. Surface course deformities (potholes, soft spots, ruts, etc.) greater than 2" deep.
2. Drainage not functioning as designed (surface and/or structures).
3. Slurry affecting traction or strength of road or causing environmental damage as defined below.

B. Facility distress indicators on pavement are:

1. Any perceptible change in the pavement cross section or surface (cracking, shoving, etc.) caused by contract operations.
2. Drainage structures not functioning as designed.

II. FACILITY DAMAGE: Is a reduction in the ability of a road or structure to carry traffic that cannot be corrected by contract maintenance methods. This definition applies to all roads not listed in C5.124, Limited Strength Roads.

III. Facility damage exists when:

A. Load carrying ability of the road is reduced as a result of but not limited to:

1. Subgrade pumping and/or contamination of surfacing by subgrade.
2. Excessive soft spots, potholes, or ruts that result in subgrade deformation.
3. Improper maintenance practices result in premature loss of aggregate.

B. Maintenance methods specified in the contract cannot repair the facility. Isolated soft spots or ruts that can be repaired with incidental loads of rock are not "damage."

C. Failure to maintain drainage causes loss of surfacing, saturation of subgrade layers, degradation of surface course, or erosion of fill slopes.

D. Use of asphalt road results in permanent deformation of pavement cross section or degradation of asphalt surface.

III. ENVIRONMENTAL DAMAGE: Is the continuous bleeding of sediment, resulting from contract operations, into running streams that results in a readily visible increase in turbidity. Environmental damage exists when all of the following occur:

A. Vehicular traffic causes pumping of fines creating sediment-laden water on or from the road surface.

B. Sediment laden water resulting from pumping of fines is reaching running streams.

C. A readily visible increase in turbidity in running streams occurs at points downstream from the outfalls of culverts, ditchlines, or fords.

SPECIFIC ROAD RULES

North Umpqua District Specific Road Rules

Road No.	Code	Termini	Requirement/Limitation
25 ***	R	MP 4.4	S.R. sp II
25 ***	U	MP 4.5	No overwidth loads allowed beyond this point. S.R. sp II
25 ***	U	MP 5.9	No overlength loads allowed beyond this point. S.R. spII
25 ***	R	MP 9.0	
2500050 ***	U	MP 1.0	Slump – passable for light vehicles only
2500050 ***	U	MP 2.8	S.R.
2700095 ***	U	MP 1.5	Slump – passable for light vehicles only
27 ***	R	MP 3.45	S.R.
27 ***	R	MP 6.8	S.R.
27 ***	R	MP 8.0	S.R.
27 ***	R	MP 8.8	S.R.
2701 ***	R	MP 3.95	S.R.
2703 ***	R	MP 9.5	S.R.
2703 ***	R	MP 13.3	S.R.
2719 ***	R	MP 4.3	S.R.
2719020 ***	R	MP 8.0	Road to be decommissioned
2792003	R	MP 0.5	Road to be decommissioned
38	R	Jct. Co. 249 to MP 16.7	All commercial traffic restricted to 30 MPH. All lowboy traffic requires a pilot car.
38 ***	R	MP 1.9	S.R.
3850 ***	U	MP 1.67	S.R.
4710 ***	R	MP 0.7	S. R. (closed by slide)
4710 ***	R	MP 2.73	S. R. (closed by slide)
4710480 ***	A	MP 1.5	S. R. (closed by slide)
4711300 ***	R	MP 1.3	S. R. (closed by slide)
4713100 ***	R	MP 0.5	S. R. (closed by slide)
4714 ***	R	MP 14.0	S. R.
4760 ***	R	MP 10.63, 10.78, 11.35	S.R.

Diamond Lake District Specific Road Rules

Road No.	Code	Termini	Requirement/Limitation
2610000	R	Jct. 2610-680 to 2154	Reconstrtucon. Numerous fill slope repairs.
2610-200	U	Jct. 2610 to 4780-800	Ba. S
2610-200	R	2610-270 to 3401-500	s. p. I (no snow plow on rec. trail)
2614	R	Jct. 2610 to 2612	Commercial vehicles over 20,000 lbs. prohibited.
2614	R	Jct. 2610 to 2612	s. p. I (no snow plow on rec. trail)
2614-430	R	6000-984 to 2614	s. p. I (no snow plow on rec. trail)
2610-570	R	2610 to end	s. p. I (no snow plow on rec. trail)
2610-630	U	2610 to 6000-700	S
2612	R	2614 to FDR 60	s. p. I (no snow plow on rec. trail)
2612	R	Jct. 2610 to 6000-700	Commercial vehicles over 20,000 lbs. Prohibited.
2800-620	R	MP 0.1, MP 1.0	Reconstruction
2801	R	MP 1.44	Reconstruction
2801-100	R	MP 2.94, MP 6.75, MP .85	Reconstruction
2801-150	R	MP 0.7	Reconstruction
2801-300	R	MP 3.2	Reconstruction
3400-072	R	Jct. 3400-100 to 2610-680	Pacific Power and FS admin. Vehicles only. No heavy vehiciles unless associated with Pacific Power.
3400-100	U	MP 6.78 to Forest boundary	
3400-500	R	2610-200 to 3401	s. p. I (no snow plow on rec. trail)
3401	R	3401-500 to 2610	s. p. II
3401	R	MP 2.0	Reconstruction
3401-500	R	MP 0.70	Reconstruction
3401-500	R	MP 0.2	D
3401-800	R	3401-800 to 3401-861	s. p. II
3401-860	R	3401-800 to 2610	s. p. II
3401-890	R	Jct. 3401-800 to road end	s. p. II
3401-980	R	3401 to 3401-981	s. p. I (no snow plow on rec. trail)
3401-981	R	3401-980 to end	s. p. I (no snow plow on rec. trail)
37	R	MP 13.0 – 14.4	Reconstruction

Diamond Lake District Specific Road Rules (continued)

Road No.	Code	Termini	Requirement/Limitation
3700-550	R	3700 to end	s. p. I (no snow plow on rec. trail)
3700-800	R	MP 0.2	Reconstruction. Replace large CMP
3701	R	MP 2.5	Reconstruction
3701-080	R	MP 2.6	Reconstruction
3703	U	3703-350 to 3704	Ba, S
3703	R	Hwy 230 to 4786	s. p. I (no snow plow on rec. trail)
3703	R	4786 to 3703-200	s. p. II
3703-350	R	3703 to MP 1.0	s. p. I (no snow plow on rec. trail)
3704	U	Jct. 3704-600 to 3703	Ba, s. p. II
3704	R	3703 to 3704-700	s. p. II
4700-710	R	4792 to 4700-700	s. p. II
4775 ***	U	MP 0.18 to MP 4.01	Reconstruction
4775	U	MP 7.7 to 3402	Ba, S
4780-800	R	4780 to 2610-200	s. p. II
4785	U	Jct. 138 to 3701	s. p. II
4786	U	Jct. 3703 to MP 2.5	S, Ba, s. p. I
4786	R	MP 2.5 to 4785	s. p. I (no snow plow on rec. trail)
4786-600	R	4786 to end	s. p. I (no snow plow on rec. trail)
4786-700	R	4786 to end	s. p. I (no snow plow on rec. trail)
4790	U	Jct. 138 to 4785	Ba, S, s. p. I
4792	R	138 to end	s. p. I (no snow plow on rec. trail)
4793	R	138 to end	s. p. I (no snow plow on rec. trail)
4793-100	R	4793 to end	s. p. I (no snow plow on rec. trail)
4795	R	4795-026 to 230	s. p. I (no snow plow on rec. trail)
4795-300	R	4795 to 3703	s. p. I (no snow plow on rec. trail)
6000	R	138 to 2612	s. p. I (no snow plow on rec. trail)
6000	R	Jct. 2612 to Forest boundary	s. p. I (no snow plow on rec. trail)
6000-700	U	6000-892 to 6000-742	Ba, s
6000-700	R	6000 to 2612	s. p. I (no snow plow on rec. trail)
6000-770	U	Jct. 6000-700 to Forest boundary	S, s. p. I (no snow plow on rec. trail)
6000-986	R	6000-984 to 138	s. p. I (no snow plow on rec. trail)
6530-760	R	230 to Forest boundary	s. p. I (no snow plow on rec. trail)
6592	R	230 to 4795	s. p. I (no snow plow on rec. trail)
6592-100	R	6592 to 230	s. p. I (no snow plow on rec. trail)

DROP-OFF POINTS AND BRIDGES

Diamond Lake District Drop-off Points:

<u>Road No.</u>	<u>MP</u>	<u>Description</u>
28	7.24	Jct. Road 3701
2801-300	0.1	After bridge
34	6.75	After bridge
3401	0.73	After bridge
3402	0.74	After pavement
3700	7.09	After pavement
3701	3.78	Jct. Road 3701-220
3701-080	2.51	After bridge
3702	0.84	After pavement
4775	4.06	After pavement
6000	0.36	After pavement

North Umpqua District Drop-off Points:

<u>Road No.</u>	<u>MP</u>	<u>Description</u>
25	8.96	After bridge at Jct. Road 2500-425
2500-050	0.53	After Cavitt Creek
27	8.90	At Grease Rack pipe arch
2700-030	0.02	After crossing Little River
2700-165	7.59	Jct. Road 2700-111 and Road 27
2700-290	8.90	At Grease Rack pipe arch
2701	0.01	After crossing Little River
2703	0.00	Jct. Road 27 and Road 2703 on 27
2719	2.87	After crossing Black Creek
2719-003	0.57	Jct. Roads 2719, 2719-003, and 2719-020
2792	0.17	After crossing Little River
38	18.62	Jct. Road 38 and 3831
3803	0.00	Jct. Road 38 and 3803
3806	0.00	Jct. Road 38 and 3806
3809	0.00	Jct. Road 38 and 3809
3810	0.40	Middle of straight area
3811	0.00	Jct. Road 38 and 3811
3815	0.00	Jct. Road 38 and 3815
3816	0.05	After pavement
3817	0.00	Jct. Road 38 and 3817
3818	5.8	Jct. Road 3818-200
3812	0.00	Jct. Road 38 and 3821
3824	0.08	Jct. Road 3824-011
3825	0.00	Jct. Road 38 and 3825
3827	3.3	After bridge
3828	0.00	Jct. Road 38 and 3828
3829	0.00	Jct. Road 38 and 3829
4710	0.00	Jct. State Hwy 138 and 4710
4711	0.6	After bridge

North Umpqua District Drop-off Points (continued):

Overloads use Panther Creek route (State Hwy. 138 to 4714 to 4712)

4713	0.0	Jct. State Hwy 138 and Road 4713
4714	5.83	Jct. Road 4714 and 4714-330
4720	0.00	Jct. Road 4720 and 4714
4750	1.50	At rock pit
4770	0.00	Jct. State Hwy 138 and Road 4770

North Umpqua Bridges:

The following bridges are beyond the required drop-off point and require an overload permit:

25	8.36	Cavitt Creek Bridge
2703-150	1.5	Grotto Falls (Emile Creek) Bridge
3817	7.5	Washboard (Big Bend Creek) Bridge
4710	2.79	Fall Creek Bridge
4711	11.11	Emile Creek Bridge
4714	14.43	Little River Bridge
4720	1.59	Limpy Creek Bridge
4750	1.77	Third bridge (over Calf Creek)

ROAD OPERATIONS PERMIT INSTRUCTIONS

(R6-7700-465)

The R6-7700-465 permit will be used for all overweight vehicles, oversize vehicles, road maintenance or snow removal operations, and other operations such as blocking roadways, using closed roads, or where special conditions warrant special permit, unless such use is authorized in an existing contract, road use permit, or easement.

Permit Application

1. The permittee will apply at the District Office and will be given Form R6-7700-465 to complete along with a map of the area.
2. If applicant has a valid State or County permit, a copy of this permit should be included with the application. Although State or County permits are not a prerequisite, the information provided on such permits will be useful in completing the Road Operations Permit.
3. In all cases, the heading will be filled out completely. Depending on the nature of the request, Sections A, B, C, or D will also be completed. When application involves Section A or B, it will be necessary to include equipment identification by make, model, and serial number. It may be necessary to attach this information to the permit if such description is lengthy.
4. The application will then be returned to the District along with the map showing the routes involved.

When permit applications are received, several items must be considered, depending on type of permit being requested.

Type A - Overweight

1. Are there any structures and what are their load limits?
2. What is the configuration of the equipment? Does it conform to the standard load rating vehicle?
3. Time of Year - Are subgrades stable or soft? Will special requirements be needed to avoid damage to the roadway?
4. Will overall length of the vehicle effectively and safely be able to negotiate the road?
5. Will this vehicle movement be a hazard to other road users?
6. Does the applicant have a valid State or County permit?

Type B – Oversize

1. Will this size vehicle cause a safety hazard for other users?
2. Will the structure, road or bridge, accommodate this size vehicle without causing damage from such things as rear wheel runout or overhang?
3. Is there adequate vertical clearance from overhead wires or other overhead structures and facilities along the route?
4. Does the applicant have a valid State or County permit?

Type C - Road Maintenance or Snow Plowing

1. Will the proposed equipment cause damage to the roadway from its grousers or through surface material removal?
2. Will the road structure support traffic during this time of year?
3. Do we want to open the area to traffic considering possible game harassment, vandalism, or resource damage from the snow berm?

Type D - Other Uses

1. Blocking Roadways
 - a. Will this blockage affect administration of the Forest; e.g., storm patrol or fire patrols?
 - b. Will this present a safety hazard?
2. Using a Closed Road
 - a. Will this use cause environmental or investment damage due to time of year or proposed use?
 - b. Will this affect wildlife?

Permit Issuance Procedure

Depending on the type of permit requested, the information map, the Road Management Prescription Data, and Road Restriction information is reviewed.

1. If no restrictions are indicated, the permit may be issued by authorized District personnel.
2. If a bridge or major culvert crossing is involved or if there are other restrictions indicated, the "recommendation" portion of the permit will be signed by the person receiving the applications and the permit will be forwarded to the Forest Bridge Engineer where loading will be recalculated and determination made as to the maximum allowable load or recommendations as to the modification required to the equipment or structures to allow the equipment the movement requested. This review will take approximately 5 to 15 days.
3. In the event that the load cannot be accommodated, the permit cannot be issued as requested.
4. Whenever possible, permits will be issued for periods of use rather than on a trip basis. When this is done, it may be necessary to provide additional special provisions with the permit.

Permit Distribution

The approved permit will be distributed as follows:

Original Copy - Permittee

1 Copy - District files with additional copies provided the appropriate TSO, ER, or District Law Enforcement Officer when applicable.

1 Copy - Road Manager

SNOW PLOWING RESTRICTIONS AND PERMIT

Snow plowing without a permit is prohibited on USDA-FS-managed lands. Snow plowing permits or written authorization will be granted by the USDA-FS unless otherwise noted in the Road Rules (Reference Regulation 36 CFR 261.10(a)), including Specific Road Rules in the previous table. Roads labeled as "s. p. I – no snow plow on rec. trail" have restrictions including snow plowing prohibited from November 15 to March 31 (winter recreation use). Refer to the attached permit application for specific requirements and FSH Section 803.01 to 803.04.

Snow Removal (FSH Section 803) (2/02)

803.01 - Description

This Section provides for the removal of snow from roads to facilitate operations, and safe use, on roads listed in parent contract or Permit. Forest Service objectives are to insure safe use to all road users, and prevent damage of roads, streams, and other Forest values from erosion, plowing equipment, placement of snow and ice, and during thawing conditions. Damage is described in the National Forest Damage Policy.

803.02 - Maintenance Requirements

- a. Operation Plan: Submit a written snow removal plan to the Forest Service for approval prior to commencement of operations. The plan will show how snow removal will be accomplished to meet

the objectives defined herein. Items to be included in this plan are: types of equipment, timing and frequency of operations, and safety items. Safety will include, but is not limited to, signing needs and locations, and other traffic control as needed.

b. If permittee elects to remove snow, meet the following requirements:

- (1) Erect signs as per approval of operation plan as referred to in Section 2a above, and will meet MUTCD specifications.
- (2) Perform work in a manner to preserve and protect roads and appurtenances, and to prevent erosion damage to roads, streams, and other Forest values.
- (3) Do not undercut banks, nor blade gravel or other surfacing material off the road.
- (4) Keep roadbed drainage ditches and culverts functional during operations and upon completion of operations. Do not plow snow into ditches and culvert inlets, nor pack the existing snow down in those locations.
- (5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width. Remove snow from the total width of the travel way, including all turnouts. Plow snow away from ditches and bring across the travel way. Cast snow over the edge of fill slopes and off the shoulders whenever practical to do so, but don't deposit snow in stream channels.
- (6) Construct and maintain drain holes in the dike of snow or berm after each snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills. The Permittee is responsible for periodic inspections and maintenance to ensure that the drain holes, ditches, and culvert facilities remain open and functioning properly. Changes in this responsibility may occur if other use occurs and is agreed to in writing by both parties.
- (7) After operations effectively close roads to wheeled vehicles at times, and in the manner, specified in the operation plan.
- (8) Remove snow for either public access or project use as established in the parent contract or permit, and meet the following requirements:
 - (a) Removal for Public Access - Remove snow from all of the traveled ways including turnouts for safe and efficient use for both Permittee operation and the public. Also remove intruding windfalls, debris or slough and slide material for the full width of the traveled way and dispose of out of drainage's at agreed upon locations.
 - (b) Removal for Permittee Use - Remove snow from all the traveled ways including turnouts, for safe and efficient use and to protect the road. Also remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for Permittee operations. Removed materials may be disposed on or outside the traveled way at agreed upon locations.
- (9) Upon notice replace in kind, within 60 days after notification, any surfacing material, which has been bladed off the road. Forest Service will notify Permittee in writing as to the cubic meter equivalent of bladed off material.

803.03 - Equipment

Permittee may use any type of equipment to remove snow providing:

- a. Type or use of equipment is not restricted in Road Rules document.
- b. The equipment is of the size and type commonly used to remove snow and will not cause damage to the road.
- c. The use of dozers to remove snow requires written Forest Service approval. Equip dozers with shoes or runners to keep the dozer blade a minimum of 50 mm (2 inches) above the road surface unless agreed otherwise.

803.04 - Ice Control

Ice control may be performed when approved by Forest Service in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

EXHIBIT U USDA-FS SNOW REMOVAL PERMIT
803 (2/02)

PERMITTEE: _____

Permitted Roads: _____

Address _____

803.01

Description

This Section provides for the removal of snow from roads to facilitate operations, and safe use, on roads listed in parent contract or Permit. Forest Service objectives are to insure safe use to all road users, and prevent damage of roads, streams, and other Forest values from erosion, plowing equipment, placement of snow and ice, and during thawing conditions. Damage is described in the National Forest Damage Policy.

803.02

Maintenance Requirements

- a. Operation Plan: Submit a written snow removal plan to the Forest Service for approval prior to commencement of operations. The plan will show how snow removal will be accomplished to meet the objectives defined herein. Items to be included in this plan are: types of equipment, timing and frequency of operations, and safety items. Safety will include, but is not limited to, signing needs and locations, and other traffic control as needed.
- b. If permittee elects to remove snow, meet the following requirements:
 - (1) Erect signs as per approval of operation plan as referred to in Section 2a above, and will meet MUTCD specifications.
 - (2) Perform work in a manner to preserve and protect roads and appurtenances, and to prevent erosion damage to roads, streams, and other Forest values.
 - (3) Do not undercut banks, nor blade gravel or other surfacing material off the road.
 - (4) Keep roadbed drainage ditches and culverts functional during operations and upon completion of operations. Do not plow snow into ditches and culvert inlets, nor pack the existing snow down in those locations.

- (5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width. Remove snow from the total width of the travel-way, including all turnouts. Plow snow away from ditches and bring across the travel-way. Cast snow over the edge of fill slopes and off the shoulders whenever practical to do so, but don't deposit snow in stream channels.
- (6) Construct and maintain drain holes in the dike of snow or berm after each snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills. The Permittee is responsible for periodic inspections and maintenance to ensure that the drain holes, ditches, and culvert facilities remain open and functioning properly. Changes in this responsibility may occur if other use occurs and is agreed to in writing by both parties.
- (7) After operations effectively close roads to wheeled vehicles at times, and in the manner, specified in the operation plan.
- (8) Remove snow for either public access or project use as established in the parent contract or permit, and meet the following requirements:
 - (a) Removal for Public Access Remove snow from all of the traveled way including turnouts for safe and efficient use for both Permittee operation and the public. Also remove intruding windfalls, debris or slough and slide material for the full width of the traveled way and dispose of out of drainage's at agreed upon locations.
 - (b) Removal for Permittee Use Remove snow from all the traveled way, including turnouts for safe and efficient use, and to protect the road. Also remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for Permittee operations. Removed materials may be disposed on or outside the traveled way at agreed upon locations.
- (9) Upon notice replace in kind, within 60 days after notification, any surfacing material which has been bladed off the road. Forest Service will notify Permittee in writing as to the cubic meter equivalent of bladed off material.

803.03 Equipment

Permittee may use any type of equipment to remove snow providing:

- A. Type or use of equipment is not restricted in Road Rules document.

- B. The equipment is of the size and type commonly used to remove snow and will not cause damage to the road.
- C. The use of dozers to remove snow requires written Forest Service approval. Equip dozers with shoes or runners to keep the dozer blade a minimum of 50 mm (2 inches) above the road surface unless agreed otherwise.

803.04
Ice Control

Ice control may be performed when approved by Forest Service in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

Permittee signature and date:

Forest Service Representative