



Forest Service Caring For the Land and Serving People

Fremont-Winema National Forest

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Winema Portion of the Fremont-Winema National Forests
December 2006

4. Existing Conditions

4.1 Analysis Area

The analysis area discussed in this document is the Winema National Forest located in south-central Oregon . Some segments of roads from other jurisdictions, such as State, County, and US Department of Transportation, are also considered in this analysis. The study area includes over 6089 total miles of roads under the jurisdiction of the Forest Service, however, the in-depth analysis is limited to main roads, approximately 1537 miles of arterial and collector roads and 20 miles of high standard local roads under the jurisdiction of the Winema National Forest.

Road Miles Studied in Depth

Winema National Forest		
Arterial	170.75	

Collector	1,366.6
High Standard Local	19.85
Total	1,557.2

4.2 Focus of Analysis

These Arterial, Collector, and High Standard Local Roads were selected for in-depth study because they provide primary access to and through the Winema National Forest, or to developed recreation sites, and are best suited for analyzing the broad scale issues that are addressed through a forest-wide roads analysis. All other remaining "local" roads (approximately 4500 Miles) would be analyzed through site-specific watershed and project analysis. Decisions to close or decommission roads would also be analyzed in future analysis, and are not part of this roads analysis. This future analysis work may be independent "road analyses", the upcoming Travel Management EIS or they may be incorporated in Watershed Analyses or in the NEPA analysis supporting projects.

4.3 Maintenance Level Classification (Refer to Table 4-1)

The Winema National Forest transportation system includes 6089 miles of Forest Service Roads. A primary road system was developed throughout the forest to provide essential access to communities and to the State or County highways. A secondary system was developed off of the primary system to meet most other inter-forest land management needs. Most of the forest has gentle terrain that has made road construction relatively inexpensive and convenient; thus, the forests have been roaded extensively. Many of the roads are low standard dirt roads without surfacing.

Of the 6089 miles of Forest Service Roads in the forest transportation inventory, 8 percent of the road system is in the Maintenance Level 3, 4, and 5 categories, (maintained for standard passenger cars and subject to the Highway Safety Act Standards). In addition, the State and County Road system provides an additional 361 miles of road suitable for passenger car travel. Maintenance Level 2 roads, (maintained for high clearance vehicles), accounts for 39.4% of the road system. The remaining 52.6% of roads are Maintenance Level 1 (intermittent access) roads. These roads may be either open or closed to access, depending on whether access is needed for projects or other reasons.

Table 4-1: Miles of Forest Service Roads by Maintenance Level for the

Winema National Forest

MAINTENANCE LEVEL	Winema National Forest
1 – Intermittent Access (Open or Closed depending on Project Access Needs at the time)	3205 Miles
2 – Maintained for High Clearance Vehicles (Open Roads	2400 Miles
3 – Maintained Suitable for Passenger Cars, Low User Comfort, Aggregate Surface (Open Roads)	457 Miles
4 – Maintained for Passenger Cars, Moderate Degree of User Comfort (Open Roads)	25 Miles
5 - High Standard Paved Passenger Car Road, High Degree of User Comfort (Open Roads)	2 Miles
TOTAL	6089

4.4 Classifications of Roads

There are several road system classifications either in use today, or proposed for use by the Forest Service that are important to any discussions about roads at the forest scale. These include the Highway Safety Act road system, the arterial/collector/local road system, the Forest Highway road system, and the Public Forest Service Road system. These road system classifications are briefly discussed below:

4.4.1 Highway Safety Act Road System (Refer to Table 4-1)

Forest Service maintenance level 3, 4, and 5 roads are subject to the Highway Safety Act of 1966. The Forest Service maintains a Memorandum of Understanding (MOU) with the Federal Highway Administration requiring that certain safety standards from the Highway Safety Act be met on all roads "open to public travel", as defined in the MOU. Maintenance level 3-5 roads are given this designation because they are generally available and maintained for low-clearance passenger car use. The present Highway Safety Act Road System includes 484 miles on the Winema National Forest. A list of these roads is included in the Appendix (Table 1-5).

4.4.2 Arterial/Collector/Local Road System (Refer to Table 4-2)

The arterial/collector/local road system is a classification system developed to describe the functionality of roads in the system. Arterial roads provide the main access across the Forests or from one major destination to the next. Collector roads connect to other collector roads and ultimately to arterial roads. These collector roads are so called because they collect large areas of the Forest. Local roads are often short length roads, sometimes dead-end roads that provide access to small specific areas of the Forest. These roads may access timber sales, recreation sites or other local destinations.

Table 4-2: The Arterial/Collector/Local Road System for the Winema National Forest

Designation	Winema National Forest (Miles)
Arterial	171 Miles
Collector	1,359 Miles

Local	4,559 Miles
Total	6,089 Miles

4.4.3 Forest Highway Road System (Refer to Table 4-3)

The Forest Highway Program is a federal program administered by the Federal Highway Administration with an objective of constructing and improving roads that connect National Forests to the main state transportation network. These Forest Highway routes may be State, County, or Forest Service roads that provide access to and through the National Forests. Designated Forest Highways qualify for federal funding for both improvements and enhancements under the guidelines of the Forest Highway Program. Forest Highway funding can be used for planning, design, and construction work on designated routes as well as for other enhancement work along the routes such as parking areas, interpretive sites, bicycle lanes, etc. Table 4-3 below lists the roads designated as Forest Highways within the analysis area.

Table 4-3: Forest Highway Road System for the Winema National Forest *

FH #	Other #	FH Name	Length	County(s)
18	OR 62	Crater Lake Highway	20	Klamath
		From Crater Lake NP to US 97		

	T	Г	T	1
19	US 97	Dalles/California Highway from Bend to Algoma Road at the South Forest Boundary	99	Klamath/ Deschutes
30	OR 140	Lakeview- Klamath Highway From OR 39 near Klamath Falls to US 395 in Lakeview	91	Klamath/Lake
43	OR 138/230	Diamond Lake East From FDR 46 to US 97	15	Klamath/Douglas
48	CO 1332/1333/1349/531	Klamath From OR 62 at Ft Klamath to OR 140 near Rocky Point	24	Klamath

		I		
53	OR 140	Lake of the Woods From OR 62 at White City to OR 66 near Klamath Falls	69	Klamath/Jackson
74	CO 533	Dead Indian Memorial Highway From OR 140 to CO 608	8	Klamath
76	OR 422/CO 858	Sprague River Road From US 97 South of Chiloquin to OR 140 near Beatty	35	Klamath
77	CO 600	Williamson River Road From Sprague River Road to The West Forest Boundary	98	Klamath

86	CO 660N/676	Silver Lake Highway From US 97 to OR 31 at Silver Lake	13	Klamath/Lake
149	CO 603	Clover Creek Road From OR 66 at Keno to the Dead Indian Memorial Highway	5	Klamath
158	OR 422	N. Chiloquin Highway From OR 62 to US 97	4	Klamath

^{*}Note: Mileages shown represent the total length of the highway although it may not be entirely within the boundaries of the Winema National Forest.

4.4.4 Public Forest Service Road System (Refer to Table 2-2 in the Appendix)

The Forest Service has been working closely with the Federal Highway Administration recently to develop a new Public Forest Service Road Program that is somewhat similar to the Forest Highway Program discussed above. This program would also be funded under the Federal Lands Highway Program using Highway Trust Funds under SAFETEA. By definition, a Public Forest Service Road (PFSR) is a Forest Service road that is "open to public travel", as in the definition of our Highway Safety Act roads. However, not all Highway Safety Act roads will qualify as Public Forest Service Roads. To qualify as a PFSR, the road must be a maintenance level 3, 4, or 5 road under the jurisdiction of the Forest Service, provide unrestricted access,

and serve a compelling public need. Under this definition most of our Highway Safety Act roads that are arterials or collectors are listed as "potential" PFSR's; it is not anticipated that many local roads will fit this definition. **Table 4-4 shows** the proposed PFSR's that the Winema NF has selected to work on and include in the new program under the first round of funding (2004 – 2006), if the PFSR program is approved and funded.

Table 4-4: Proposed Public Forest Service Road Projects for the Winema National Forest (FY 2004 – FY 2006)

Road	Project Name	Length (mi)	Estimate (M\$)
3200	Road 3200	3.7	24,000
3300	Road 3300	3.28	375,000
9718	Road 9718	0.4	73,000

4.5 Management Direction

Management direction for the lands involved in this analysis is detailed in the Winema National Forest Land and Resource Management Plan as amended. Major amendments include the Northwest Forest Plan, the Sycan Wild and Scenic River Management Plan, the Inland Native Fish Strategy and the Eastside Screens. Forest Service transportation system management policy is outlined under Title 7700 of the Forest Service Manual (FSM) (USDA 1994) and associated FSH 7700 Handbooks. Objectives for the transportation system are to provide access to National Forest System Lands in order to accomplish management direction and protection objectives. All Transportation activities should be integrated with land and resource management planning, incorporating interdisciplinary and cost-effective input to the transportation planning and design processes.

Goal: Provide, operate, and maintain a safe and economical transportation system that meets the access requirements of the public and the Forest resource programs in accordance with land and resource objectives.

Objectives: Plan, construct, operate, and maintain the transportation system in accordance with road management objectives (based on public and administrative access needs), and the management area direction, objectives, and standards and guidelines. Provide the minimum number of roads needed for management activities and for public access. Roads that are not needed will be returned to vegetative production. Manage open road densities to the levels needed to meet management area direction and objectives, and close roads when they are not needed for access.

Desired Future Condition In 10 Years: Continued road system development and improvements will have occurred. Almost all the Forest road system is complete, and new road construction will have consisted of low standard local road construction to provide access for timber harvest and management activities The main road system providing access into and across the Forest is being maintained for passenger car travel and mixed traffic. Many Forest roads will remain open, but they will be less inviting for use and will be in a rough or primitive state. When road access is not required, the remaining Forest roads are closed to use, yearlong or seasonally, to reduce open road densities and to lower operation and maintenance costs.

Desired Future Condition In 50 Years and Beyond: Although this will be the same as the 10-year future condition, the exception will be the further reduction of the total Forest road system, because unnecessary roads will have been closed and returned to vegetative production.

Forestwide Standards and Guidelines:

- Development and management of the Forest transportation system shall be in accordance with an approved transportation system plan. This plan shall be the official description of the transportation system. The plan consists of a series of base maps showing the location of each facility and an inventory record defining their characteristics.
- Management of the Forest transportation system shall be in accordance with an approved Forest road
 management plan The purpose of this plan is to determine the proper combination of development,
 traffic management, and maintenance of the existing road system to meet the management area
 objectives the best. This plan shall contain specific road management objectives, multiyear
 development plans, traffic management and maintenance plans, and the road plans of other agencies.
- Temporary roads may be constructed where there is a one-time need for a transportation facility. After the need is fulfilled, the road shall be closed and returned to vegetative production. Temporary roads left from past activities shall be evaluated as they are encountered during project-level analysis.
- Roads shall be constructed and maintained to the standards and levels necessary to meet the resource management objectives.

- All roads shall have approved road management objectives contained in the road management plan.
 These objectives state the intended purpose of the road; the resource objectives served; and the selected design, maintenance, and operation criteria that apply to the road.
- Road construction, reconstruction, maintenance, and signing shall be in accordance with management area objectives, and should meet recognized engineering standards contained in Forest Service manuals, design handbooks, and other technical guides.
- Existing roads not needed for future transportation purposes shall be closed and returned to vegetative productivity.
- Whenever practical, roads should be located in areas with the lowest erosion potential.
- Road construction activities shall be scheduled to minimize soil erosion when heavy rain or heavy surface runoff is most likely to occur.
- Where existing roads or trails are affecting air and water quality, steps should be taken to mitigate the problem.
- Road drainage shall be designed and maintained to minimize road runoff sediment directly into riparian areas.
- Culverts or bridges shall be of adequate size to accommodate anticipated high stream flows and fish passage.
- Stream crossings should not change floodplain or stream flow characteristics.
- Stream crossing construction shall be scheduled during low stream flow and/or outside spawning periods.
- Traffic management shall be considered as an alternative to road reconstruction when the existing facility is inadequate for mixed traffic.
- All new major transportation and utility facilities should be placed within or beside existing corridors to the extent practicable.
- Road construction or reconstruction activities within an existing utility corridor shall be coordinated with the appropriate utility company to determine which precautions are necessary to safely cross the corridor.
- Existing roads not needed for access should be closed until access is required. Roads should be closed based on one or all of the following criteria: (1) need to protect the road, soil and water, or wildlife; (2) expected access need or road use; (3) safety of expected users; (4) need to protect cultural resources; (5) need to maintain or improve habitat effectiveness for wildlife; (6) need to provide planned recreation experience opportunities; and (7) reduction in road maintenance costs.

Management Area Standards and Guidelines:

- MA-1 Semi primitive Recreation: No new roads will be constructed unless they are needed to meet the management area objectives.
- MA-1C Pelican Butte Semi primitive Recreation Area: Road 3651 shall continue to be maintained for passenger car traffic to the Cold Springs Trailhead. The road to the top of Pelican Butte (Road 3651-

- 980) shall remain open, but passenger car use will be discouraged.
- MA-2 Developed Recreation: With full consideration to public safety, roads and trails shall be constructed and maintained to standards that are consistent with recreation opportunities and the level of service needed.
- MA-2B Developed Recreation, Moderate Level Development: Access roads to these sites shall be maintained for passenger cars use.
- MA-2C Developed Recreation, High Level Development: Access shall be maintained for passenger car and recreational vehicle use.
- MA-3 Scenic Management: Roads, parking lots, and other necessary facilities shall be designed to flow with the typical lines and slopes in the landscape and/or shall be screened by natural vegetation. Closed roads should appear natural with large logs and boulders partially buried to blend with the area and should be tilled and revegetated with trees, shrubs and grasses, as appropriate to the location.
- MA-4 Unique Management Areas: Existing roads may be maintained if they are compatible with the objectives for the area. Unneeded roads and skid trails shall be closed and returned to natural conditions. All facilities shall be designed to blend with the natural setting and to preserve the uniqueness of the area.
- MA-4C Williamson River Gorge Scenic Area: Arch culverts, bridges, or similar open bottom structures should be required on permanent road crossings on all Class I and II perennial streams to provide for fish passage. A road management plan will be developed in cooperation with other interested parties.
- MA-5 Sycan National Wild and Scenic River: Roads may occasionally bridge the river area, and short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or screened railroads will be allowed. Consideration will be given to the type of use for which roads are constructed and the type of use that will occur in the river area.
- MA-7 Old-Growth Ecosystems: Road closures in specific areas and during specific periods shall be used to protect the resource. New road and other facilities construction shall be avoided in this area.
- MA-8 Riparian Areas: New road construction in riparian areas should be avoided. Where road construction is unavoidable, roads should cross riparian areas perpendicular to the landform. System and temporary roads should not be constructed through the length of a riparian area System and temporary roads crossing a riparian area shall not alter stream or ground water flow characteristics to a degree that will adversely affect the riparian characteristics. Existing roads within riparian areas should be evaluated for opportunities to reduce impacts on riparian values.
- MA-8A Riparian Areas Adjacent to Class I, II and III Streams: To provide for fish passage, arch culverts, bridges, or similar open bottom structures should be required on permanent road crossings on all Class I and II perennial streams.
- MA-9A Bald Eagle Nest Sites and Recovery Sites: Existing Forest Service roads within 0.5 mile of active nests should be closed during the January 1 to August 31 nesting season. New road networks shall be designed to facilitate easy control of access during the bald eagle nesting/roosting seasons.

- MA-13 Research Natural Areas: Any transportation facilities, such as roads and trails provided for this management area, shall have minimum impacts on the area ecosystems, and must be located and managed in the best way to fulfill the area's management objectives.
- **MA-14 Minimum Management:** Roads may be permitted across this management area to access other management areas.

4.5.2 Northwest Forest Plan – 1994

The Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl apply to the western portion of the Winema National Forest, within the range of the Northern Spotted Owl. Road related direction is as follows:

No new roads will be constructed in inventoried roadless areas in Key Watersheds. The amount of existing system and nonsystem roads within Key Watersheds should be reduced through decommissioning of roads. Road closures with gates or barriers do not qualify as decommissioning or a reduction in road mileage. If funding is insufficient to implement reductions, there will be no net increase in the amount of roads in Key Watersheds. (page B-19)

Road treatments range from full decommissioning (closing and stabilizing a road to eliminate potential for storm damage and the need for maintenance) to simple road upgrading, which leaves the road open. Upgrading can involve practices such as removing soil from locations where there is a high potential of triggering landslides, modifying road drainage systems to reduce the extent to which the road functions as an extension of the stream network, and reconstructing stream crossings to reduce the risk and consequences of road failure or washing out at the crossings. The decision to apply a given treatment depends on the value and sensitivity of downstream uses, transportation needs, social expectations, assessment of probable outcomes for success at correcting problems, costs, and other factors. (page B-31)

Within Key Watersheds: Inside Roadless Areas – No new roads will be built in remaining unroaded portions of inventoried (RARE II) roadless areas. Outside Roadless areas - Reduce existing system and non-system road mileage. If funding is insufficient to implement reductions, there will be no net increase in the amount of roads in Key Watersheds. (page C-7)

Road construction in Late-Successional Reserves for silvicultural, salvage, and other activities generally is not recommended unless potential benefits exceed the costs of habitat impairment. If new roads are necessary to implement a practice that is otherwise in accordance with these guidelines, they will be kept to a minimum, be routed through non-late-successional habitat where possible, and be designed to minimize adverse impacts. Alternative access methods, such as aerial logging, should be considered to provide access for activities in reserves. Road maintenance may include felling hazard trees along rights-of-way. Leaving material on site should be considered if available coarse woody debris is inadequate. Topping trees should be considered as an alternative to felling. (page C-16)

Access to nonfederal lands through Late-Successional Reserves will be considered and existing right-of-way agreements, contracted rights, easements, and special use permits in Late-Successional Reserves will be recognized as valid uses. New access proposals may require mitigation measures to reduce adverse effects on Late-Successional Reserves. In these cases, alternate routes that avoid late-successional habitat should be considered. If roads must be routed through a reserve, they will be designed and located to have the least impact on late successional habitat. (C-19)

Roads Management (pages C-32 to C-33):

- **RF-1.** Federal, state, and county agencies should cooperate to achieve consistency in road design, operation, and maintenance necessary to attain Aquatic Conservation Strategy objectives.
- **RF-2.** For each existing or planned road, meet Aquatic Conservation Strategy objectives by:
- 1. minimizing road and landing locations in Riparian Reserves.
- 2. completing watershed analyses (including appropriate geotechnical analyses) prior to construction of new roads or landings in Riparian Reserves.
- 3. preparing road design criteria, elements, and standards that govern construction and reconstruction.
- 4. preparing operation and maintenance criteria that govern road operation, maintenance, and management.
- 5. minimizing disruption of natural hydrologic flow paths, including diversion of streamflow and interception of surface and subsurface flow.
- 6. restricting sidecasting as necessary to prevent the introduction of sediment to streams.
- 7. avoiding wetlands entirely when constructing new roads.
- **RF-3.** Determine the influence of each road on the Aquatic Conservation Strategy objectives through watershed analysis. Meet Aquatic Conservation Strategy objectives by:
 - 1. reconstructing roads and associated drainage features that pose a substantial risk.
 - 2. prioritizing reconstruction based on current and potential impact to riparian resources and the ecological value of the riparian resources affected.
 - 3. closing and stabilizing, or obliterating and stabilizing roads based on the ongoing and potential effects to Aquatic Conservation Strategy objectives and considering short-term and long-term transportation needs.
- **RF-4.** New culverts, bridges and other stream crossings shall be constructed, and existing culverts, bridges and other stream crossings determined to pose a substantial risk to riparian conditions will be improved,

to accommodate at least the 100-year flood, including associated bedload and debris. Priority for upgrading will be based on the potential impact and the ecological value of the riparian resources affected. Crossings will be constructed and maintained to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.

- **RF-5.** Minimize sediment delivery to streams from roads. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is unfeasible or unsafe. Route road drainage away from potentially unstable channels, fills, and hillslopes.
- **RF-6.** Provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams.
- **RF-7.** Develop and implement a Road Management Plan or a Transportation Management Plan that will meet the Aquatic Conservation Strategy objectives. As a minimum, this plan shall include provisions for the following activities:
 - 1. inspections and maintenance during storm events.
 - 2. inspections and maintenance after storm events.
 - 3. road operation and maintenance, giving high priority to identifying and correcting road drainage problems that contribute to degrading riparian resources.
 - 4. traffic regulation during wet periods to prevent damage to riparian resources.
 - 5. establish the purpose of each road by developing the Road Management Objective.

(pages C-32 to C-33)

MM-2. Locate structures, support facilities, and roads outside Riparian Reserves. Where no alternative to siting facilities in Riparian Reserves exists, locate them in a way compatible with Aquatic Conservation Strategy objectives. Road construction will be kept to the minimum necessary for the approved mineral activity. Such roads will be constructed and maintained to meet roads management standards and to minimize damage to resources in the Riparian Reserve. When a road is no longer required for mineral or land management activities, it will be closed, obliterated, and stabilized. (page C-34)

4.5.3 Sycan Wild and Scenic River Management Plan - 1992

Develop a road management plan in cooperation with other interested parties.

Rehabilitate existing water chances where necessary.

To reduce the negative impact of sediment on water quality within the river corridor: Identify and reduce road-caused sediment sources within the river corridor. Upgrade all unimproved roads in riparian areas that must be retained for management purposes. Identify specific existing problem areas and implement measures to prevent further erosion. This will be an ongoing process wherein each year 10% of the roads in the basin will be treated.

To relocate or upgrade existing roads in the river corridor and prohibit establishment of new permanent roads in river corridor: Establish a road relocation priority list for fish habitat and riparian restoration. Plant roads that were obliterated for relocation purposes with native plant species. Prohibit establishment of new parallel roads in streamside areas, and minimize stream and riparian area crossings.

4.5.4 Inland Native Fish Strategy – 1995 (INFISH)

RF-1: Cooperate with Federal, Tribal, State, and county agencies, and cost-share partners to achieve consistency in road design, operation, and maintenance necessary to attain Riparian Management Objectives.

RF-2: For each existing or planned road, meet the Riparian Management Objectives and avoid adverse effects to inland native fish by:

- Completing watershed analysis prior to construction of new roads or landings in Riparian Habitat Conservation Areas within priority watersheds.
- Minimizing road and landing locations in Riparian Habitat Conservation Areas.
- Initiating development and implementation of a Road Management Plan or a Transportation Management Plan. At a minimum, address the following items in the plan:
- Road design criteria, elements, and standards that govern construction and reconstruction.
- Road management objectives for each road.
- Criteria that govern road operation, maintenance and management.
- Requirements for pre-, during-, and post-storm inspections and maintenance.
- Regulation of traffic during wet periods to minimize erosion and sediment delivery and accomplish other objectives.
- Implementation and effectiveness monitoring plans for road stability, drainage, and erosion control.
- Mitigation Plans for road failures.
- Avoiding sediment delivery to streams from the road surface.
- Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is infeasible or unsafe.
- Route road drainage away from potentially unstable stream channels, fills, and hillslopes.
- Avoiding disruption of natural hydrologic flow paths.

• Avoiding sidecasting of soils or snow. Sidecasting of road material is prohibited on road segments within or abutting RHCAs in priority watersheds.

RF-3: Determine the influence of each road on the Riparian Management Objectives. Meet Riparian Management Objectives and avoid adverse effects on inland native fish by:

- Reconstructing road and drainage features that do not meet design criteria or operation
 and maintenance standards, or that have been shown to be less effective than designed for
 controlling sediment delivery, or that retard attainment of Riparian Management
 Objectives, or do not protect priority watersheds from increased sedimentation.
- Prioritizing reconstruction based on the current and potential damage to inland native fish
 and their priority watersheds, the ecological value of the riparian resources affected, and
 the feasibility of options such as helicopter logging and road relocation out of Riparian
 Habitat Conservation Areas.
- Closing and stabilizing or obliterating, and stabilizing roads not needed for future
 management activities. Prioritize these actions based on the current and potential damage
 to inland native fish in priority watersheds, and the ecological value of the riparian
 resources affected.

RF-4: Construct new and improve existing, culverts, bridges, and other stream crossings to accommodate a 100-year flood, including associated bedloads and debris, where those improvements would/do pose a substantial risk to riparian conditions. Substantial risk improvements include those that do not meet design and operation maintenance criteria, or that have been shown to be less effective than designed for controlling erosion, or that retard attainment of Riparian Management Objectives, or that do not protect priority watersheds from increased sedimentation. Base priority for upgrading on risks in priority watersheds and the ecological value of the riparian resources affected. Construct and maintain crossings to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.

RF-5: Provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams.

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Chemult Ranger District

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Chiloquin Ranger District

38500 Highway 97 N Chiloquin, OR 97624 (541) 783-4001

Klamath Ranger District

2819 Dahlia Street Suite A Klamath Falls, OR 97601 (541) 883-6714

Lakeview Ranger District

18049 Highway 395 Lakeview, OR 97630 (541) 947-3334

Paisley Ranger District

303 Highway 31 Paisley, OR 97636 (541) 943-3114

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