



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

COOS BAY DISTRICT OFFICE

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In Reply Refer To:

5400/1792 (ORC030)

DOI-BLM-OR-C030-2011-0007-EA

North Fork Ridge Road Re-Route Environmental Assessment

February 13, 2012

Dear Concerned Citizen:

We have prepared the Decision Record for the North Fork Ridge Road Re-Route Environmental Assessment (DOI-BLM-OR-C030-2011-0007-EA). The proposed Action is to construct 1100 feet of new road and renovate approximately 1.5 miles of existing road.

We have posted the Decision Record on the District Internet site: <http://www.blm.gov/or/districts/coosbay/plans/index.php>.

Please direct requests for copies, questions, or comments to Coos Bay District BLM, 1300 Airport Lane, North Bend, OR. 97459-2000; call (541) 756-0100; FAX (541) 751-4303, or email to BLM_OR_CB_Mail@blm.gov, ATTN: Steven Fowler.

Sincerely,

/s/ A. Dennis Turowski

A. Dennis Turowski

Umpqua Field Manager



United States Department of the Interior

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DECISION RECORD

North Fork Ridge Road Re-Route

Background

In 2006, a large landslide damaged the North Fork Ridge Road at mile post 1.9. The road has been repaired twice since then due to continuing movement of this large landslide. Subsequent movement of the slide has again damaged the road, this time making it impassable to vehicular traffic. The road is necessary to facilitate management of federal and private lands in the area, especially for wildfire suppression activities.

Decision

It is my decision to authorize the implementation of the Proposed Action as described on pages 6-8 of the North Fork Ridge Road Re-Route Environmental Assessment (EA) DOI-BLM-OR-C030-2011-0007-EA, which is incorporated by reference. This Alternative best responds to the need for the action (EA p.3).

Conformance and Compliance

This project is designed to conform to both the 2008 *Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management* (2008 FEIS) and its *Record of Decision* (2008 ROD/RMP) and the 1994 *Coos Bay District Resource Management Plan/Final Environmental Impact Statement* (USDI 1994) and its *Record of Decision* (1995 ROD/RMP), as supplemented and amended. Consequently, this project will be consistent with the goals and objectives in both the 1995 and 2008 RODs and RMPs.

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al. v. Sherman, et al.*, No. 08-1067-JCC (W.D. Wash.), granting Plaintiffs' motion for partial summary judgment and finding NEPA violations in the *Final Supplemental to the 2004 Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (USDA and USDI, June 2007). In response, parties entered into settlement negotiations in April 2010, and the Court filed approval of the resulting Settlement Agreement on July 6, 2011. Projects that are within the range of the northern spotted owl are subject to the survey and management standards and guidelines in the 2001 ROD, as modified by the 2011 Settlement Agreement.

I have reviewed the NEPA document for the North Fork Ridge Road Re-Route project and have determined it is consistent with the Coos Bay District Resource Management Plan as amended by the 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines*, as modified by the 2011 Settlement Agreement.

Based on analysis by the Umpqua Field Office biologists, it has been concluded that the proposed activities in the North Fork Ridge Road Re-Route EA will have “no effect” to threatened northern spotted owl and marbled murrelet or their designated critical habitat (pp. 14-16).

In addition, the Proposed Action has been determined to have “no effect” to threatened Oregon Coast coho salmon. Similarly, project activities would not adversely affect Essential Fish Habitat under the Magnuson- Steven Fishery Conservation and Management Act (16 U.S.C. 1855(b)) (EA p. 25).

Based on the analysis, it is concluded that implementation of the Proposed Action will not increase the likelihood of or the need for listing of any Special Status Species under the ESA as identified in BLM Manual 6840 and BLM OR/WA 6840 Policy (EA p. 16).

Analysis by the Umpqua Field Office hydrologist has concluded that the proposed activities in the North Fork Ridge Road Re-Route EA will not prevent attainment of ACS Objectives (EA pp. 20-25).

The North Fork Ridge Road Re-Route project complies with the Clean Water Act, the National Historic Preservation Act, and the Clean Air Act. This project area does not contain any designated Wilderness, Wild & Scenic Rivers, prime or unique farmlands, or cultural resources (EA pp.25-26).

The North Fork Ridge Road Re-Route EA (DOI-BLM-OR-C030-2011-0007-EA) resulted in a Finding of No Significant Impact (FONSI), thus development of an Environmental Impact Statement (EIS) is not required.

Public Involvement

The general public was informed of the planned EA through a letter (June 30, 2011) to those on the Coos Bay District's mailing list, which included persons who had requested scoping notices of forest management EAs. BLM posted an announcement on the District's internet site requesting comments for scoping. No comments were received.

The *North Fork Ridge Road Re-Route* EA and Finding of No Significant Impact were made available for public comment on January 11, 2012. The comment period closed on January 26, 2012. The BLM received one public comment. In response to the public comment, additional language clarifying the project description and management within Late-Successional Reserves was added to the EA. These minor additions did not change the proposed action or the analysis of effects; they only provided additional clarity to the analysis. The updated environmental document was made available to the public February 13, 2012.

Rationale for the Decision

The proposed action would most effectively meet the purpose and need for action, which is to connect two major road systems to facilitate access for management of public lands, especially access to the North Fork Ridge waterhole for use in fire suppression.

Administrative Remedies

The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management Regulations at 43 CFR Subpart 5003 Administrative Remedies, protests of this decision may be filed with the authorized officer *Dennis Turowski* within 15 days of the publication date of the notice of decision advertisement in *The World*, Coos Bay, OR.

43 CFR § 5003.3 subsection (b) states: “Protests shall be filed with the authorized officer and would contain a written statement of reasons for protesting the decision.” This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. Only written and signed hard copies of protests that are delivered to the Coos Bay District Office will be accepted. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

43 CFR § 5003.3 subsection (c) states: “Protests received more than 15 days after the publication of the notice of decision or the notice of sale are not timely filed and shall not be considered.” Upon timely filing of a protest, the authorized officer shall reconsider the project decision to be implemented in light of the statement of reasons for the protest and other pertinent information available to him. The authorized officer shall, at the conclusion of the review, serve the protest decision in writing to the protesting party (ies). Upon denial of a protest, the authorized officer may proceed with the implementation of the decision as permitted by regulations at 5003.3(f).

If no protest is received by the close of business (4:30 pm) within 15 days after publication of the decision notice, this decision will become final. If a timely protest is received, the project decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available, and the Coos Bay District Office will issue a protest decision.

For further information, contact Steven Fowler at 1300 Airport Lane, North Bend, Oregon, 97459 or (541) 756-0100.

Decision Approved by:

/s/ A. Dennis Turowski

A. Dennis Turowski
Umpqua Field Manager

February 13, 2012

Date

North Fork Ridge Road Re-Route

ENVIRONMENTAL ASSESSMENT

EA No. DOI-BLM-OR-C030-2011-0007-EA

February 10, 2012

Umpqua Field Office

Coos Bay District

Bureau of Land Management

1300 Airport Lane

North Bend, Or. 97459

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Chapter 1 Purpose and Need for Action

Background

The Coos Bay BLM District office has prepared the following Environmental Assessment for the North Fork Ridge (NFR) Road Re-Route, No. DOI-BLM-OR-C030-2011-0007-EA. This project involves constructing 0.21 miles of new road and renovating Road No 26-10-31.2 within lands designated as Late Successional Reserve / Late-Successional Management Area (LSR) and Riparian Reserve under the 1995 RMP in order to re-open a main access road closed by massive landslide occurring on BLM's North Fork Ridge Road, No. 27-10-6.0. The project is not located within Riparian Management Areas designated under the 2008 RMP. Since the NFR Road Re-Route project is located in LSR 261, the project complies with the recommendations recommendations from the *South Coast – Northern Klamath Late-Successional Reserve Assessment* (USDA and USDI 1998).

North Fork Ridge Road was originally built in the late 1950's as part of the Bureau of Public Roads Project No. 622-A. In 2006 a large landslide at mile post (m.p.) 1.9 damaged the road. The road has had to be repaired twice since then due to continued slide activity. The continuing movement of this large slide has again damaged the road making it impassable. The BLM District Geologist has determined that this large slide is likely to continue moving resulting in a costly process of making continual repairs.

Location and Analysis Area

The location of the landslide is approximately 8 miles east of the 4-corners junction at Fairview. The project is located in T.26S, R.10W, Section 30 and 31, Willamette Meridian, Coos County, Oregon.

Need for the Project

North Fork Ridge Road connects 2 major road systems: South Fork Coos Road to the north and Middle Creek Road to the south. Since 2006, access to these road systems has been limited due to the closure of BLM Road No. 27-10-6.0 at m.p. 1.9. Because of the chronic landslide and subsequent road closure, a 26.35 mile detour is needed to get from one side of the road closure to the other. This limits administrative and public access. Most importantly, the road closure limits movement by fire suppression authorities in the event of a wildfire, where time is critical.

Purpose (Objectives) of the Project

A reasonable action alternative must meet the objectives provided in the ROD (Record of Decision) and RMP for projects to be implemented within the planning area. This project is designed to conform to the management objectives, land use allocations, and management direction set out in the Coos Bay District's 2008 ROD and RMP. However, due to continuing uncertainty regarding planning in Western Oregon, it is also designed to be consistent with the District's 1995 RMP. The ROD/RMP and applicable statutes specify the following objectives to be accomplished in managing the lands in the project area.

2008 Resource Management Plan (RMP) Objectives:

1. Provide legal access to BLM-administered lands and facilities to support resource management programs (p. 45).

2. New permanent or temporary roads and stream crossing structures will be constructed where needed for implementation of management direction (pg. 48)
3. Decrease the risk of large wildfires, and reduce the cost and associated hazard of fire suppression (pg. 43)

1995 Resource Management Plan (RMP) Objectives:

1. Develop and maintain a transportation system that serves the needs of users in an environmentally sound manner. Arterial and major collector roads will form the backbone of the transportation system in the planning area (p.69).
2. Provide appropriate fire suppression responses to wildfires that will help meet resource management objectives and minimize the risk of large-scale high intensity wildfires (pg. 74).
3. Respond to all wildfires by taking appropriate suppression responses. In most cases, responses will consist of aggressive initial attack to extinguish fires at the smallest size (pg. 75)
4. Construct roads in Late Successional Reserves if the potential benefits of silviculture, salvage and other activities exceeded 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, routed through unsuitable habitat where possible, and designed to minimize adverse impacts (pg. 70).

Decision Factors

The following is a list of items involved in the decision making process:

1. Provide access that best meets the transportation needs of the BLM.
2. Comply with applicable laws and Bureau policies including, but not limited to, the Clean Water Act, the Endangered Species Act, the O&C Act, the Magnuson-Stevens Fishery Conservation and Management Act and the Special Status Species Program.

Conformance with existing Land Use Plans

This project is designed to conform to both the 2008 *Final Environmental Impact Statement for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management* (2008 FEIS) and its *Record of Decision* (2008 ROD/RMP) and the 1995 *Coos Bay District Resource Management Plan/Final Environmental Impact Statement* (USDI 1994) and its *Record of Decision* (1994 ROD/RMP), as supplemented and amended. Consequently, this project will be consistent with the goals and objectives in both the 1995 and 2008 RODs and RMPs.

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al., v. Sherman, et al.*, No. 08-1067-JCC (W.D. Wash.), granting the Plaintiffs' motion for partial summary judgment and finding NEPA violations in the

Final Supplemental to the 2004 Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines (USDA and USDI, June 2007). In response, parties entered into settlement negotiations in April 2010, and the Court filed approval of the resulting Settlement Agreement on July 6, 2011. Projects that are within the range of the northern spotted owl are subject to the survey and management standards and guidelines in the 2001 ROD, as modified by the 2011 Settlement Agreement.

The North Fork Ridge Road Re-Route project is consistent with the 2008 Coos Bay District Resource Management Plan as modified by the 2011 Settlement Agreement.

Endangered Species Act

The BLM will not initiate consultation with the U.S. Fish and Wildlife Service (USFWS) as the Proposed Project has been determined to have “*no effect*” to threatened northern spotted owl and marbled murrelet and their designated critical habitat.

The BLM will not initiate consultation with the National Marine Fisheries Service as the Proposed Project has been determined to have “*no effect*” to threatened Oregon Coast coho salmon. Additionally, project activities would not adversely affect essential fish habitat under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1855 (b))

Decisions to be Made

The Field Manager of the Umpqua Field Office, Coos Bay BLM, must decide whether to build the proposed road re-route for North Fork Ridge Road. This project is described in detail in Section 2.2.

The Field Manager must also determine if implementation of the selected alternative would or would not constitute a major Federal Action significantly affecting the quality of the human environment. If the Manager decides it would not significantly affect the quality of the human environment, then the manager can prepare and sign a FONSI (Finding of No Significant Impact).

If the Manager determines that the selected alternative would significantly alter the quality of the human environment, then the project must be dropped, modified, or have an EIS (Environmental Impact Statement) and a ROD (Record of Decision) prepared and signed before the NFR Road Re-route could be constructed.

Public Involvement

The primary purpose of scoping is to identify agency and public concerns relating to a proposed project, and as such helps define the environmental impacts of concern to be examined in detail in the EA. The general public was notified of the proposed project and EA through the publication of a scoping letter. Scoping notices were sent to adjacent landowners, agencies that have requested these documents, and other interested parties from the District’s NEPA mailing list. The scoping period ran from June 30, 2011 to July 30, 2011. No comments were received during the scoping process.

Chapter 2 Alternatives

This Chapter is a description of each alternative

This EA contains the analysis of a no action alternative, a proposed action alternative and alternatives considered but not analyzed in detail. For an action alternative to be considered, it must meet the purpose and need while not violating any minimum environmental standards. The alternatives developed are consistent with the 1995 and 2008 RMPs and satisfy the purpose and need of implementing the RMP(s).

No Action

The No Action Alternative provides a baseline for the comparison of the alternatives. This alternative describes the existing condition and the continuing trends.

The failed section of road would continue to remain closed to administrative and public traffic. The road receives no maintenance and no efforts would be made to repair the road. No action would be taken to de-commission the road.

Proposed Action

The proposed action is to construct 0.21 miles of permanent surfaced road through Late-Successional Reserve (LSR) designated land. Road building would be a full-bench construction. The new section of road would connect the North Fork Ridge Road on the north to Road No. 26-10-31.2 on the south.

The portion of the North Fork Ridge Road that is located on the active slide area would be decommissioned by removing the existing asphalt surface so as to limit delivery of asphalt pieces to the downslope drainage. After asphalt removal, the bare ground would be planted with conifer seedlings and mulched.

Design Features for the Proposed Action

This section describes measures designed to avoid, minimize or rectify impacts on resources and are included as part of the proposed action. Design features are site-specific measures, restrictions, requirements, or mitigations included in the design of a project in order to reduce adverse environmental impacts.

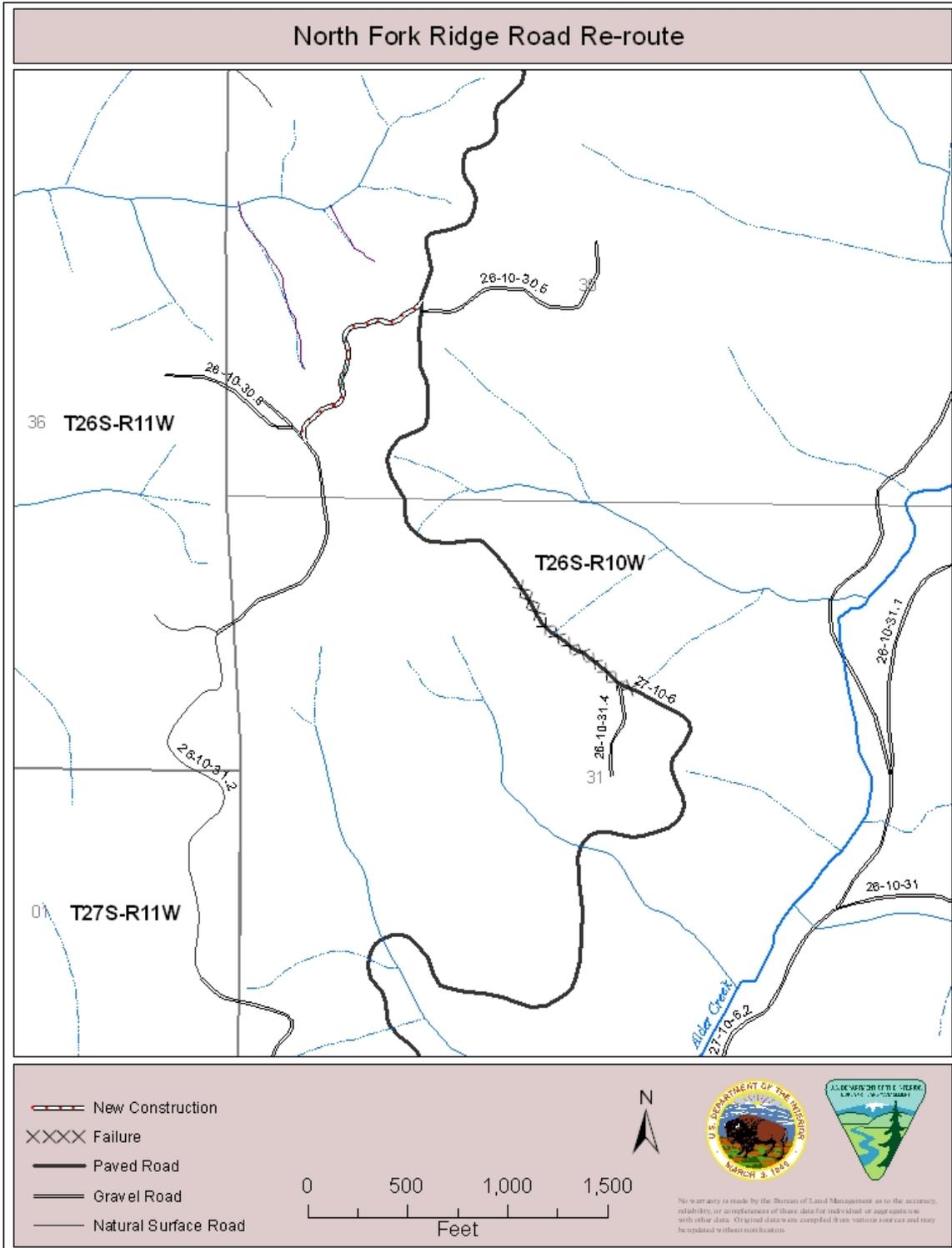


Figure 1- Project area map showing failed road and proposed re-route.

Road Construction

New road construction would use the applicable “Conservation Practices for Road and Landing Construction” Best Management Practices (p. D3-D4) found in the 1995 RMP. These include:

- Road and landing construction activities would be limited to the dry season, generally from May to October.
- Roads and landings would be designed and constructed to BLM standards, but be the narrowest and smallest sizes that would meet safety standards, objectives of anticipated uses, and resource protection.
- Roads would be located on stable locations, such as ridge tops, stable benches or flats, and gentle-to-moderate side-slopes.
- Stable end-haul (waste) sites would be located prior to end-hauling. These sites would be kept properly shaped, drained and vegetated.
- Road drainage would be designed to minimize soil erosion and stream sedimentation. Energy dissipaters, culvert down pipes, or drainage dips would be used where water is discharged onto loose material and onto erodible or steep slopes.
- Road surface shape (e.g. crowning, in-sloping, and out-sloping) that meets planned use and resource protection needs would be used.

Bare soil areas resulting from road construction would be mulched with appropriate weed-free straw, or equivalent, seeded and planted with a native or BLM-approved seed mix.

Right-of-way clearing limits including the road bed would be approximately 60 feet in width.

Road Renovation

Segments of BLM Road 26-10-31.2 would be renovated to meet the expected increase in traffic due to the re-route. Standard renovation would consist of grading to remove ruts, removal of bank slough, installing ditch-relief culverts, and adding gravel where needed in the road surface. A few roadside trees that have grown up within the road prism or have been undercut by the road cut bank would be removed to facilitate renovation activities.

Road Decommissioning

Approximately 770 feet (~0.15 miles) amount of road would be decommissioned. Decommissioning will include, but is not limited to, removing asphalt from the failed area, planting conifer seedlings, and mulching the exposed soil to reduce erosion.

Alternatives Considered but not Analyzed in Detail

The alternatives listed below were the result of discussion among agency staff during the process of formulating reasonable alternatives that would meet the purpose and need. These were considered but eliminated from detailed study.

Repair the Existing Road

The need for a re-route is caused by the chronic movement of a landslide damaging BLM Road No. 27-10-6.0. One alternative considered, but not analyzed in detail is re-building the failed section of road. This alternative was not analyzed in detail because the district geologist has recommended not re-building the failed section of road. Geologic investigations indicate the

failed area is a large, chronic translational landslide. The investigation also indicated the presence of two subsurface landslide planes that have been active in the last 5 years (Barnes, 2006 and Kleber, 2011). Field reviews of the area have determined that the volume of the active landslide area is approximately 30,000 cubic yards. Removal of that volume would be cost prohibitive and not ensure the stability of the road in this landslide prone area due to the chronic movement seen in the North Fork Ridge area. The safety of workers working on temporary fixes to the road could not be ensured without lengthy review.

Additional Decommissioning of the North Fork Ridge Road

The portion of the North Fork Ridge Road between its junction with the proposed re-route and Road No 26-10-31.2 was assessed for additional decommissioning. This assessment identified the need for retaining the segment of road on the east side of the North Fork Ridge Road for future forest management activities within the area. Forest stands accessed by the North Fork Ridge Road range in age from 46 to 25 years of age. The need for this road for future management activities limits the amount of road available to be considered for decommissioning at this time. Therefore, only the 0.17 miles of road disturbed by the landslide has been identified for decommissioning.

Chapter 3&4 Affected Environment and Environmental Consequences

Analysis Background

This Chapter combines the Affected-Environment (typically EA Chapter 3) and Effects-Analysis discussion (Chapter 4) and has been arranged by specific resource values that may be impacted. It identifies the direct, indirect and cumulative environmental effects that may result from implementation of either of the two alternatives described in Chapter 2. It also addresses the interaction between the effects of the proposed action with the current environmental baseline, describing effects that might be expected, how they would occur and the incremental effect that could result. The description of the current conditions inherently includes and represents the cumulative effects of past and current land management activities undertaken by the BLM, other federal, and tribal and private entities.

Reasonably Foreseeable Actions

Annual recurring activities are likely to occur within the project area. These include, but are not limited to, fire suppression, routine road maintenance, control of noxious weeds and silvicultural activities in young stands.

It is assumed that the adjacent private industrial forest lands would be intensively managed on an approximate 40-year harvest rotation under the direction of the State of Oregon Forest Practices Act (OAR 527).

Cumulative Effects Considerations

The Council on Environmental Quality (CEQ) provided guidance on June 24, 2005, as to the extent to which agencies of the Federal government are required to analyze the environmental effects of past actions when describing the cumulative environmental effect of a proposed action in accordance with Section 102 of the National Environmental Policy Act (NEPA). CEQ noted the “[e]nvironmental analysis required under NEPA is forward-looking,” and “[r]eview of past actions is only required to the extent that this review informs agency decision making regarding the proposed action.” This is because a description of the current state of the environment inherently includes effects of past actions. Guidance further states that “[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historic details of individual past actions.”

The information on individual past actions is merely subjective, and would not be an acceptable scientific method to illuminate or predict the direct or indirect effects of the action alternative. The basis for predicting the direct and indirect effects of the action alternative should be based on generally accepted scientific methods such as empirical research. The cumulative effects of this project upon the environment did not identify any need to exhaustively list individual past actions or analyze, compare, describe the environmental effects of individual past actions in order to complete an analysis which would be useful for illuminating or predicting the effects of the proposed action.

Resources

Fire Suppression and Access

Affected Environment

The North Fork Ridge road pond was built in 1974 because of the need to have a large water supply for fire suppression in the area. The need was again recognized in April of 1987 when the North Fork Ridge road pond was surfaced with concrete at a substantial cost for extended future use. Most access to water is usually along the valley bottoms, adjacent to streams; the availability of a water supply on ridge top dramatically shortens the time needed to transport water for fire suppression.

No Action

When the NFR Road was open to vehicle traffic the waterhole on the North Fork Ridge road served approximately 20,668 acres of BLM managed lands and 33,339 acres of private owned lands. Currently, the waterhole only supplies 50% of the area it was designed to serve. Without repair, fire suppression agencies will continue to have to use alternative drafting sites located at Skidoo Pond, Garbage Dump, and Burnt Mountain Tie pond for water in case of fire suppression needs in this area. Use of these alternate sites can increase haul by up to 26 miles on a combination of paved and gravel roads. Other nearby ponds, such as Fruin Creek pond and Elk Run Progeny pond have become silted in and overgrown with vegetation rendering them unusable. Road access to sufficient water sources for fire suppression would remain diminished under the no action alternative.

Proposed Action

The proposed action is largely driven to increase fire suppression for the protection of valuable timber resources, as well as the protection of wildlife habitat and the watershed. The construction of the road re-route would restore more ready access to the North Fork Ridge waterhole for fire suppression activities. Construction of the re-route road would reduce travel distance to this water source by up to 26 miles. This restoration of access would reduce response times for fire suppression agencies and allow for improved access to water resources for other land management activities. The project also includes renovating sections of BLM Road 26-10-31.2, which would see more traffic as a result of the re-route.

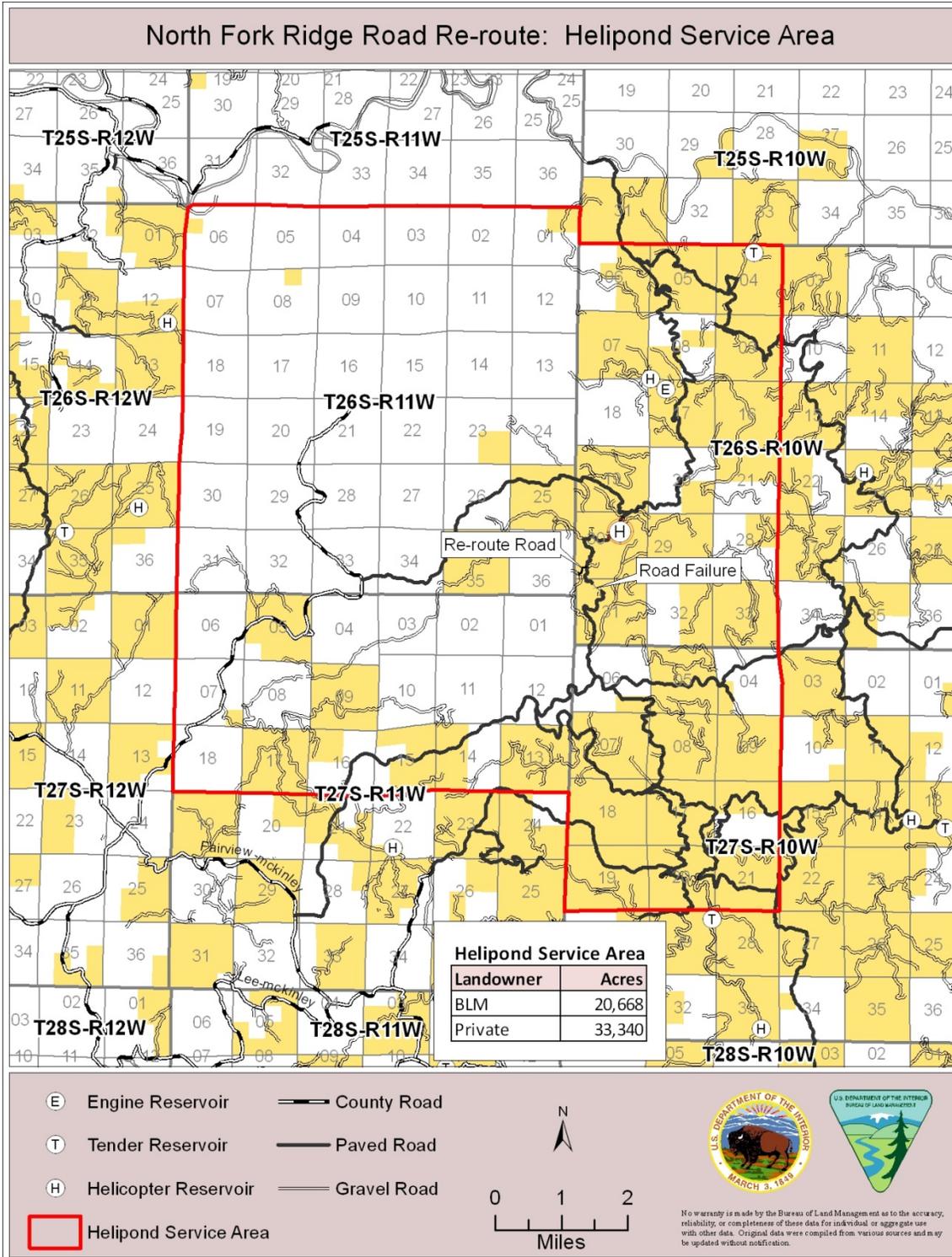


Figure 2- Road systems and fire ponds in the North Fork Ridge Road area. South Fork Coos Road system is north of the project area and Middle Creek Road system is to the south of the project area.

Geology and Soils

Affected Environment

For both the slide and the re-route, the mapped geology (Niem and Niem, 1990) is defined as the Siuslaw Member (informal) of the Flournoy Formation (Tef₃). The formation is described as a...

“...very thick bedded, massive to graded fine-grained micaceous amalgamated lithic-feldspatic sandstone with minor sequence of thin-bedded siltstone and fine- to very fine-grained sandstone beds and some very thick-bedded channelized sandstone...”

Mapped structure indicates the underlain rock dips southeast at 4° to 10° at the slide area. There is an inferred fault dipping east mapped in Alder Creek (Niem and Niem, 1990), downslope from the slide area. Mapped stratigraphy dips are not concurrent with the slope along the reroute making it suitable for construction. The proposed re-route does not encounter any mapped or observed sensitive soils.

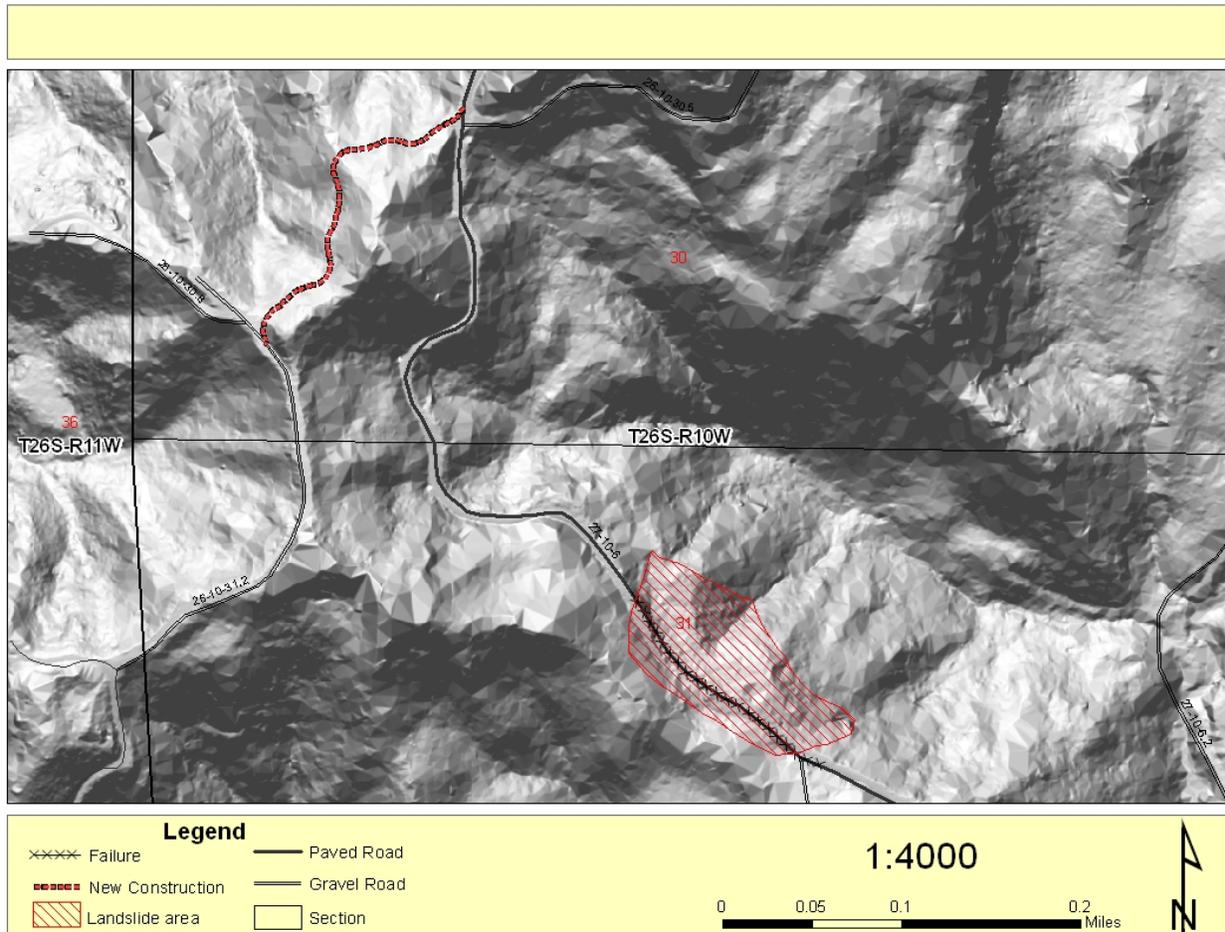


Figure 3- Light detection and ranging (LiDAR) map showing topography. Map shows the chronically failing area and the proposed re-route.

The landslide occurs along the boundary of two soil types. The ridge-top soil is Preacher-Bohannon Loams (3%-30% slope) while the downslope soil is Milbury-Bohannon-Umpcoos Association soil (50%-80%).

The proposed re-route is predominantly located on Preacher-Bohannon Loams (60%-90% slopes) and is Milbury-Bohannon-Umpcoos Association soil (50%-80%). The Preacher-Bohannon Loams (60%-90% slopes) forms on narrow ridge tops and side slopes of mountains. This soil is moderately deep to deep and well drained. Permeability of this soil combination is moderate to moderately rapid. An erosion hazard exists with this soil combination, which may increase ravel onto the roadway.

In 2006, the scarp head to the landslide was within the road surface where as now, the slide encompasses the whole road prism for approximately 700 feet. Calculations of both slide plane depths made in 2006 and 2011 may indicate the presence of two slide planes. This increase in apparent slide plane depth represents the amount of movement since 2006, which is to say that the slide has doubled in size since then.

No Action

The rotational slide under the North Fork Ridge Road will continue to move. Eventually, in geologic-time, the slide would deliver upwards of 30,000 cubic yards of earth debris, vegetation, and asphalt downslope to Alder Creek.

Proposed Action

The proposed re-route is located on a stable geological location based on a detailed field investigation by the District geologist. The new road would be constructed into the hillslope with an opposing angle (near perpendicular) of mapped bedrock bedding. The proposed action would not affect soil or geological resources.

The failed portion of the North Fork Ridge Road in the slide area was built in concurrence (near parallel) with the angle of bedrock bedding, thus exacerbating the road failure. The closed portion of North Fork Ridge road would continue to move. Removing the asphalt would eliminate the likelihood that asphalt from the failed section would be delivered to the downslope drainage.

Wildlife

Threatened and Endangered Species

Northern Spotted Owl (NSO)

The analysis area lies entirely within the Coast Range Physiographic province. The project area is within designated northern spotted owl (*Strix occidentalis*) critical habitat, and is also within LSR # 261.

| The project area is approximately 0.75 miles from owl site MSNO 4637. The median annual home range radius is 1.5 miles (4,524 acres) of which 40 percent or more (1,810 acres) should consist of suitable habitat (nesting, roosting, and foraging) to prevent impairment of owl life history functions (USDI 2008). This home range for this owl site currently contains 1533 (33.5

%) total acres of suitable (nesting, roosting, and foraging (NRF)) habitat, of which 1133 (25 %) is on BLM-managed lands. This is less than the 40% NRF habitat considered adequate for an unimpaired functioning owl site.

The nearest suitable habitat is approximately 100 yards to the southeast of the eastern end of the proposed reroute road site and 0.5 miles from the proposed waste disposal site.

The re-route site is within a 34-year old stand within the home range of owl site MSNO 4637. Similarly, the few trees that would be removed as part of the renovation of Road No. 26-10-31.2 are within a 30-year old stand. These stands are not considered dispersal habitat as they are less than 40-years old.

No Action

The stand containing the road re-route would develop into spotted owl dispersal habitat. However, the stand is considered low value dispersal habitat because the project is within 325 yards of the adjacent to private lands along the western edge of the LSR. Eventually, in the absence of major disturbances, the stand may produce suitable habitat for spotted owls, although the stand's developmental trajectory would remain different from that which occurred in most stands that currently provide suitable habitat.

Proposed Action

Habitat

There would be no near-term effect on northern spotted owl habitat as the project would not remove either suitable or dispersal habitat. Cumulatively, construction of the new road would remove 1.5 acres of 34-year old timber that, over time, could have the potential of developing into suitable habitat.

Noise Disturbance

No portion of the project is within distances which may disrupt known owl sites, or disrupt owls that may be using the suitable nesting habitat near the project area for any of the proposed actions. Additional shielding of habitat would occur because nearly all of the potentially disruptive activities would occur on the opposite side of a ridge between the project and the suitable nesting habitat. Road renovation activities are of short duration, progressive along the road, and are outside of habitat for spotted owls; they would not affect spotted owls or their habitat and no timing restrictions are required.

Marbled Murrelet

The project area lies entirely within Murrelet Zone 1; 0-35 miles inland from the ocean. The project is within designated marbled murrelet (*Brachyramphus marmoratus*) critical habitat (CHU #OR-06-b).

The road re-route site is within a 34-year old conifer stand and is not suitable nesting habitat for marbled murrelets. There is contiguous suitable habitat in the vicinity, but not within 100 yards of the project area. There are four remnant trees within 100 yards of the eastern end of the project, the closest of which is about 65 yards from the end of the proposed re-route. The nearest

occupied murrelet stand lies approximately 0.5 miles southeast of the project area. The waste disposal site is located 0.5 miles from suitable murrelet habitat.

No Action

The stand would continue to grow on its current trajectory. Eventually, in the absence of major disturbances, the stand may produce suitable habitat for murrelets, although the stand development trajectory would remain different from that which occurred in most stands that currently provide suitable habitat.

Proposed Action

There would be no direct effect on murrelet habitat as no suitable habitat would be removed.

Noise associated with proposed action could disturb nesting murrelets and negatively affect production. However, with the exception of four individual trees, the project, as proposed, is not within noise disruption distances from occupied Murrelet habitat, as described in the *Biological Opinion and Concurrence on the FY 2008-2013 Programmatic Suite of Activities Planned by the District and the Tribe* (FWS Reference No. 13420-2008-F-0118, October 8, 2008) (USFWS 2008), hereby incorporated by reference. The likelihood of these trees being occupied is low because the trees are exposed remnant trees and are subject to higher predation risk and temperature variation than a closed stand. Additional shielding of habitat would occur because nearly all of the potentially disruptive activities would occur on the opposite side of a ridge between the project and the suitable nesting habitat.

Road renovation activities are of short duration, progressive along the road, and are outside of habitat for marbled murrelets; they would not affect marbled murrelets or their habitat and no timing restrictions are required.

Cumulatively, the action would remove 1.5 acres of 34 year old timber that, over time, would have the potential of developing into suitable habitat.

Survey and Manage Species

There are no known survey and manage wildlife species present in the project area. The project area is not classified as suitable habitat for red tree voles (*Arborimus longicaudus*) and surveys are not required in accordance with *Survey Protocol for the Red Tree Vole v. 2.1* - rev. October 2002 (USDA-USDI 2002). Forest stands of the same age in the surrounding area average 12 inches in diameter, which is less than the QMD ≥ 18 inches dbh or AMD ≥ 16 inches dbh threshold that defines suitable habitat.

Special Status Species

There are no known sites of special status wildlife species present in the project area.

Migratory Birds

In the recently signed (4-12-2010) Memorandum of Understanding to Promote the Conservation of Migratory Birds between the Bureau of Land Management and the U.S. Fish and Wildlife Service, the BLM committed to evaluate the effects of planned actions on migratory bird populations. The 2008 Birds of Conservation Concern for the Northern Pacific Forest

(<http://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf>) includes the following species that could be affected by the project: olive-sided flycatcher and rufous hummingbird.

The olive-sided flycatcher is associated with conifer forest, especially where burns have left scattered large snags and live trees. It is unclear why this species is declining in an era of increasingly fragmented forests when it prefers edge habitat, but some types of harvested forests could be acting as “ecological traps” where nesting success is poor. However, in one study, this species responded positively to thinning, possibly because thinning creates the uneven canopy needed for foraging (Hagar and Howlin 2001). The relatively narrow, linear gap created in the forest canopy by the road right-of-way might have limited benefit for this species.

Reasons for population declines in the rufous hummingbird are unclear. This species was one of a group of Neotropical birds that did not respond to thinning as a whole (Hagar and Howlin 2001). Because rufous hummingbirds seem to prefer a high canopy and well-developed understory for breeding (Patterson 2003,2006), they would likely benefit from openings in the forest canopy that increase light to the understory, increasing the growth and availability of nectar-producing plants.

Water Resources

Affected Environment

The project area is in the North Fork Coquille River 5th field watershed; the road re-route location is in the Hudson Creek – North Fork Coquille River 6th field subwatershed and the slide area is in the Middle Creek 6th field subwatershed.

The project area is in the Southern Oregon Coastal Basin which has a Mediterranean climate characterized by cool, wet winters and warm, dry summers. The project area receives approximately 70 inches of precipitation annually; mainly rain between October and April (Froehlich and McNabb 1982). Small headwater streams downslope from the proposed re-route are intermittent and have discontinuous pools or they dry entirely during the summer.

The proposed re-route crosses weakly convergent topography (i.e. the heads of broad swales) and the road surface would be greater than 200 feet from any stream inception point in the Hudson Creek drainage (Figure 4). The failed portion of the North Fork Ridge Road is approximately 170 feet from the inception point of a gully that has developed downslope on landslide-disturbed ground. Other intermittent channels below the road begin greater than 240 feet downslope.

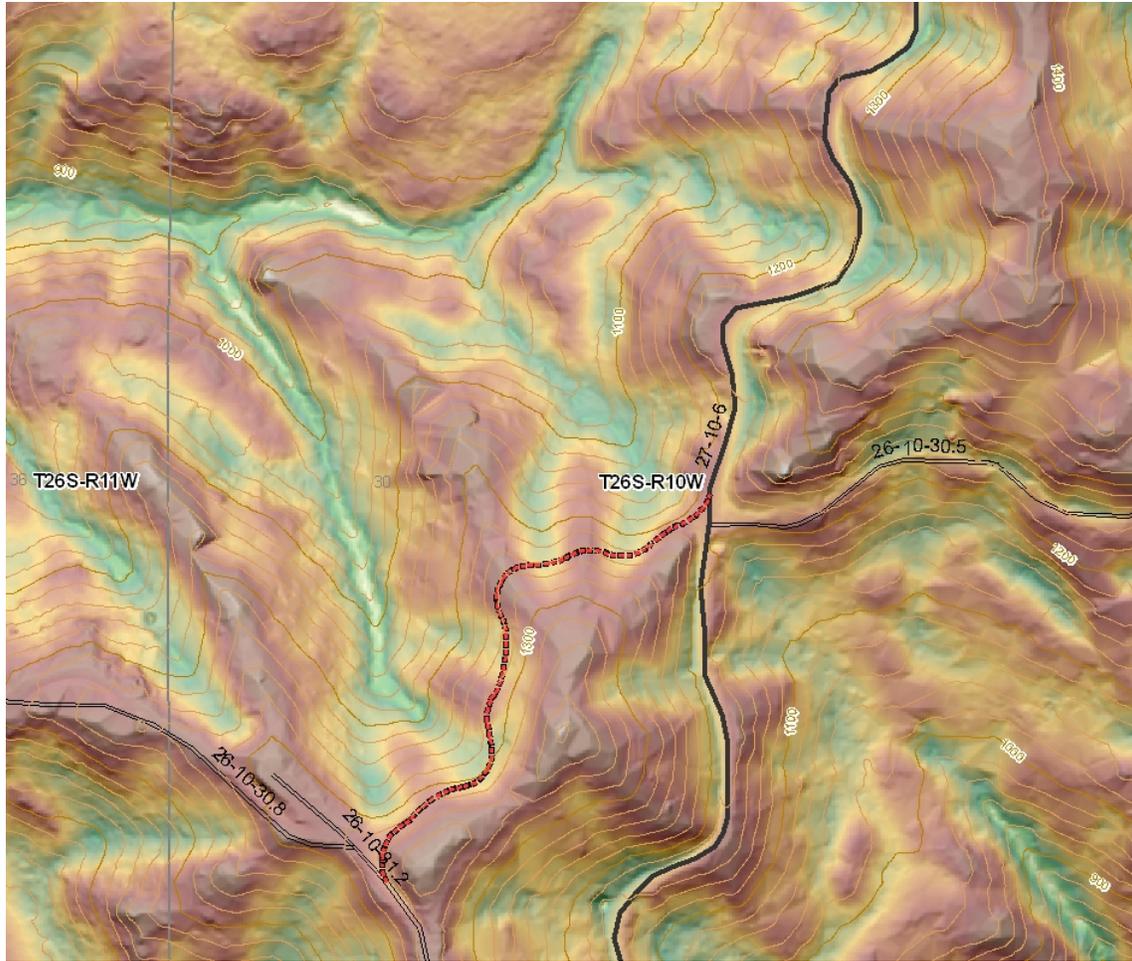


Figure 4- Light detection and ranging (LiDAR) map showing topography and the proposed re-route. Ridges are rust-colored and swales and stream channels are green.

Water Temperature

No Action

During the summer, intermittent tributaries downslope from the proposed new road are characterized by cool subsurface and surface water in isolated pools. The majority of energy for summertime stream heating comes from solar radiation, and wider waterbodies are more susceptible to heating because of their surface area exposure. The intermittent tributaries are well shaded by overstory trees and understory shrubs, they're narrow (<1 meter wetted width), and they have discontinuous pools or they dry entirely in late summer when water temperature is a concern.

The translational landslide and riparian zones in the immediate area are forested so the Alder Creek tributaries produce cool surface water (< 64.4 °F for the average of the daily maximum stream temperatures for the seven warmest consecutive days during the summer). Similar headwater tributaries in the Umpqua Resource Area at the upstream extent of perennial flow typically have 7-Day Average Maximum temperatures in the upper 50s. The presence of the asphalt roadway likely has no measurable effect on summer water temperatures because surface

water does not flow across the exposed road bed and the compacted road surface has little if any effect on subsurface flow routing.

Proposed Action

The proposed new road would not affect stream temperature. Right-of-way clearing and road construction would not occur within 175 feet of any definable stream channel showing evidence of annual scour and deposition. Riparian vegetation that provides primary shade or shade from 10 a.m. to 2 p.m., the period of greatest solar loading, is typically within 60 to 100 feet of a stream. Road construction greater than 175 feet upslope would not remove any of this primary shade, including the shrubs that are immediately adjacent to and over the streams. In addition, downslope streams are intermittent and they contain little or no surface water during the summer when water temperature is a concern.

Removing the asphalt and mulching and seeding 0.25 acre of bare ground on the failed section of Road No. 27-10-6 would change evapotranspiration in the immediate area. However, a relatively small change in the water lost to the atmosphere from the ground surface, evaporation from the surface of vegetation, and the transpiration of groundwater by plants likely would not produce a measurable change in downstream summer stream flow and temperature.

Sedimentation

No Action

Ground movement and the potential rerouting of surface and subsurface flow within the translational landslide may lead to stream bank instability and erosion. Because the landslide is a product of the underlying geology and not the construction of Road No. 27-10-6, sediment delivery to Alder Creek will continue naturally and at an indeterminate rate.

Proposed Action

Sediment delivery to stream channels via surface flow from the construction, maintenance and use of the new 0.21 mile gravel road is not expected. The new road would be disconnected from the drainage network. The road would not cross any stream channels, and there would be no overland connection between ditchlines and the downslope stream channels. Rashin and others (2006) found that stream buffers were effective at preventing sediment delivery when forestry operations were kept at least 10 meters (32 feet) from streams. The stream nearest the proposed right-of-way is greater than four times this distance downhill and the intervening slopes are fully vegetated. Fillslope failure as a mechanism for sediment delivery would be eliminated by the removal of excavated material during full bench road construction.

Removing the asphalt and mulching and seeding the failing section of Road No. 27-10-6 during the dry season would prevent sediment delivery to intermittent channels in the short- and long-term. Sediment delivery connected with the chronic movement of the translational landslide would continue despite the removal of the asphalt road bed.

Consistency with the Aquatic Conservation Strategy

Components of the Aquatic Conservation Strategy

The components of the Aquatic Conservation Strategy (ACS) are Riparian Reserves, Key Watersheds, Watershed Analysis, and Watershed Restoration.

1) Riparian Reserves

The widths of the Riparian Reserves within the project area are two site potential tree heights for fish bearing streams and one site potential tree height for perennial and intermittent streams. The site potential tree height in the North Fork Coquille River 5th field watershed is 240 feet.

2) Key Watersheds

The proposed action is not located in a Key Watershed.

3) Watershed Analysis

The project area is covered by the North Fork Coquille watershed analysis last edited in 2002. The document does not specifically mention the failing portion of Road No. 27-10-6, but advocates altering the subgrade of midslope roads which are no longer needed to improve permeability.

4) Watershed Restoration

Watershed restoration is a comprehensive, long-term program to restore watershed health and aquatic ecosystems, including the habitats supporting fish and other aquatic and riparian-dependent organisms. One of the program's most important components is the control and prevention of road-related runoff and sediment production. The Proposed Action gives the Coos Bay District BLM the ability to proactively renovate an existing road, treat a failing road surface, and develop and maintain a transportation system that serves the needs of users in an environmentally sound manner.

Existing Watershed Condition

The following acreages are approximate values based on GIS data.

Existing conditions in the **North Fork Coquille River 5th** field watershed:

- The BLM manages 36,816 acres out of 98,365 acres or 37.4% of the watershed.
- Approximately 18,810 acres or 51.1% of the BLM managed land in the watershed is in Riparian Reserves.
- The BLM controls 255.2 miles or 32.6% of all road miles in the watershed.
- Approximately 94.2% of the BLM forest in the watershed is greater than 21 years old. Stream flow increases following logging generally decrease over time and eventually disappear in about 20 to 30 years in western Oregon as maturing stands begin losing as much water to the atmosphere as the original forest (Adams and Ringer 1994).
- Small headwater streams that have intermittent or seasonal flow account for 75.7% of the stream miles in the watershed.
- Fish presence has been verified in 17.1% of the stream miles in the watershed.

Aquatic Conservation Strategy Objectives

1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.

Site Scale Evaluation

Short-Term/Long-Term

The proposed re-route would have a negligible effect on the distribution, diversity and complexity of watershed and landscape-scale features in the short- and long-term. Constructing the new road would lead to the harvest of approximately 1.5 acres (0.21 mile length x 60-foot right-of-way clearing limit) of 34 year old timber. Approximately 0.2 acre of this clearing would be at the outer edge of the Riparian Reserve surrounding the head of an intermittent channel. This 0.2 acre represents less than 0.002% of the total Riparian Reserve acres in the North Fork Coquille River watershed.

The removal of asphalt from the failed road section followed by seeding and mulching would not affect the distribution, diversity and complexity of watershed and landscape-scale features that ensure protection of aquatic systems. Riparian Reserves include unstable areas (USDI 1995); therefore, the failed road section crossing the landslide is within the Riparian Reserve. Decommissioning the road however would not produce a measurable change in downstream flow, remove vegetation that provides shade to channels containing surface water in the summer, or create a pathway for sediment to enter downslope channels.

5th Field Evaluation

Short-Term/Long-Term

The proposed action would have no measurable effects on aquatic systems at the site or 5th field watershed scale for the reasons stated above.

2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.

Site Scale Evaluation

Short-Term/Long-Term

Approximately 0.2 acre of timber at the outer boundary of a Riparian Reserve along an intermittent channel would be harvested for road construction. Harvest would occur just below the ridge dividing the Hudson Creek and Alder Creek drainages. The intermittent stream feeds into a perennial stream that eventually flows through a square mile section of harvested industrial timber company land. Spatial and temporal connectivity is compromised by checkerboard ownership, and the proposed project would not affect this. The road re-route does not cross any stream channels and therefore would not affect stream network connections to floodplains or wetlands or obstruct routes critical for aquatic and riparian-dependent species. The area is within 34 year old timber and does not contain refugia.

5th Field Evaluation

Short-Term/Long-Term

The project would not impact the physical integrity of the aquatic system at the site scale, therefore, it would not have any affect at the 5th field scale.

3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.

Site Scale Evaluation

Short-Term/Long-Term

Short-Term/Long-Term: The right-of-way clearing would be no closer than 175 feet from a definable stream channel and the new road would not cross any stream channels. Therefore, the construction would have no direct or indirect effect on shorelines, banks or bottom configurations. The physical integrity of the aquatic system would be maintained at the site scale in the short- and long-term because the road would pass through a stable location at a distance from streams sufficient to protect aquatic resources.

The removal and disposal of asphalt occurring 170 feet from the nearest channel feature (a downslope gully cut in landslide-disturbed ground) would have no effect on the physical integrity of aquatic systems.

5th Field Evaluation

Short-Term/Long-Term

The project would not impact the physical integrity of the aquatic system at the site scale, therefore, it would not have any affect at the 5th field scale.

4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.

Site Scale Evaluation

Short-Term/Long-Term

As described in the Water Resources section of this EA, the road-re-route would not affect stream temperature or contribute sediment to the aquatic system. Therefore, water quality that supports healthy riparian and aquatic systems would be maintained in the short-term and the long-term.

The removal and disposal of asphalt from the failing road would occur in locations where impacts to water quality would not occur.

5th Field Evaluation

Short-Term/Long-Term

The project would not impact the physical integrity of the aquatic system at the site scale, therefore, it would not have any affect at the 5th field scale.

5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.

Site Scale Evaluation

Short-Term/Long-Term

Construction and use of the road re-route would not affect elements of the sediment regime. The new road is located immediately below a ridge and away from defined stream channels, and full bench construction eliminates fillslope failure as a mechanism for sediment delivery. Future routine road maintenance would also keep the road surface in a safe and stable condition.

5th Field Evaluation

Short-Term/Long-Term

Because the road construction and asphalt removal would have no measurable effects to the sediment regime at the site-scale, no effects to the sediment regime would occur at the 5th field watershed scale. The road would be routinely maintained in the future in order to provide safe year-round administrative and public access and soils disturbed as a result of removing the asphalt would be seeded and mulched to prevent sediment delivery to aquatic resources.

6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetlands habitats to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.

Site Scale Evaluation

Short-Term/Long-Term

Grant and coauthors (2008) concluded that, in the rain-dominated zone, 29% of a watershed would need to be harvested in order to generate a detectable peak flow. Also, Reiter and Beschta (1995) state that “where individual trees or small groups of trees are harvested, the remaining trees will generally utilize any increased soil moisture that becomes available following harvest. Because of such ‘edge effects’, partial cuts, light shelterwoods, and thinnings are expected to have little effect, in any, on annual yields.” Ground disturbance of less than 2 acres, mainly outside of the Riparian Reserves would have no measurable effect on peak, high and low flows at the site scale in the short- or long-term.

5th Field Evaluation

Short-Term/Long-Term

Ground disturbance of less than 2 acres, mainly outside of the Riparian Reserves would have no measurable effect on peak, high and low flows at the watershed scale in the short- or long-term.

7. *Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.*

Site Scale Evaluation

Short-Term/Long-Term

The timing, variability and duration of floodplain inundation and water table elevation in meadows and wetlands would not be affected by implementation of the proposed project. The re-route road and asphalt removal sites are away from floodplains, meadows and wetlands. Site scale infiltration rates would decrease on the new road surface and increase with the removal of the asphalt, but any change would be small in the immediate area and undetectable downstream in the drainage networks of Hudson Creek and Alder Creek. Forest soils downslope of the project sites have very high infiltration capacities (Harr 1976) and they would remain undisturbed.

5th Field Evaluation

Short-Term/Long-Term

The project would not impact the physical integrity of the aquatic system at the site scale, therefore, it would not have any affect at the 5th field scale.

8. *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

Site Scale Evaluation

Short-Term/Long-Term

For the road re-route, approximately 0.2 acre of 34 year old timber would be cleared at the upslope boundary of the 240-foot wide Riparian Reserve. Young trees removed from the right-of-way are less than or equal to 120 feet tall and they would not directly contribute large woody debris (LWD) to the channel downslope because the effectiveness of riparian forests to deliver LWD is low at distances greater than approximately one tree height away from the channel (FEMAT 1993). Existing vegetation in the undisturbed forest between the project sites and the channels downslope would provide adequate cover, nutrient filtering, and appropriate rates of surface erosion. Roots within half a tree crown diameter are most important for stream bank stability, most organic matter input typically comes from within 100 feet of a stream, and microclimate gradients in headwater riparian zones are strongest within 10 meters (32 feet) of the stream center (USDI BLM 2010, McDade et al. 1990, Anderson et al. 2007).

5th Field Evaluation

Short-Term/Long-Term

The project would not impact the physical integrity of the aquatic system at the site scale, therefore, it would not have any affect at the 5th field scale.

9. *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.*

Site Scale Evaluation

Short-Term/ Long-Term

The proposed re-route would have a negligible effect on riparian-dependent plant and animal species. The road right-of-way and asphalt removal site are in upland locations and they occupy less than 2 acres total. Construction and future maintenance would not affect the dispersal of riparian-dependent species because the work sites are well away from stream channels. The project would not preclude future density management thinning in Riparian Reserves to restore stand complexity and diversity.

5th Field Evaluation

Short-Term/Long-Term

The project would not impact the physical integrity of the aquatic system. Existing populations of riparian plants and animals would essentially remain unchanged at the 5th field scale because 0.2 acre or less than 0.002% of the total Riparian Reserve acres in the North Fork Coquille River watershed would be directly affected by implementation of the project.

Resources Not Analyzed in Detail

Cultural

A Class I inventory (literature and records search) of cultural resource locations did not find any known cultural resources at or near the project location. The affected environment in the project area consists of low probability landforms that were previously disturbed by timber harvest and subsequent replanting/seeding operations. If any objects or sites of possible cultural value such as historical or prehistoric ruins, fossils or artifacts are found, the BLM would suspend all activities in the vicinity of these objects and notify the Authorized Officer of the findings.

Fisheries

The nearest fish-bearing stream is located 1.3 miles to the west of the road re-route area in Hudson Creek. Oregon Coast coho salmon (listed as Threatened under the Endangered Species Act), steelhead trout, searun cutthroat trout and resident cutthroat trout are anticipated to be present. The proposed road construction would not affect any fish species. The hydrology section of this EA has demonstrated that there would be no change in stream temperature and there would be no input of sediment in the headwater intermittent stream that feeds Hudson Creek.

Recreation

Recreational activities are apparent in the proposed action area. Under the no action alternative, recreational activities would continue in the area of the proposed re-route and the landslide area. Recreationalists with vehicles currently need to complete a 26 mile detour to get from one side of the landslide area to the other. The proposed action would restore the accessibility to recreational activities to previous levels, as before the slide.

Special Status Botanical Species

There are no T & E botanical species known or suspected to occur in the project area. No Special Status Species were located in botanical surveys for both Special Status Species and Survey and Manage botanical species completed as of July 5, 2011.

Unaffected Resources

None of the following critical elements of the human environment are located in the project area or within a distance to be affected by implementation of either alternative:

- Farmlands, Prime or Unique
- Flood Plains (as described in Executive Order 11988)
- Wild and Scenic Rivers

Chapter 5 List of Preparers

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John Guetterman	GIS specialists/EA maps
Steve Samuels	District Archaeologist
Dan VanSlyke	Fish Biologist
Nancy Zepf	Outdoor Recreation Planner
Brett Jones	Road/ROW Specialist

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