U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Coos Bay District

Worksheet
Documentation of NEPA Adequacy (DNA)

BLM Office: Coos Bay District
Tracking No.: DOI-BLM-ORWA-C000-2016-0001-DNA
DNA Title: District Emergency Relief for Federally Owned Road Repairs
Federal Highways Administration Reference Number: ERFO OR-2015-1 BLM
EA Reference Number: DOI-BLM-ORWA-C000-2014-0001-EA

A. Description of the Proposed Action

The Bureau of Land Management (BLM) proposes to repair segments of eight BLM-owned and maintained roads damaged in the storm events of December 2014. **Table 1** provides location information for the repair sites, as well as the proposed borrow and waste sites.

Table 1. Road repair locations, legal descriptions, and land ownership.

Road Name	Map/ Site IDs	Field Office	Site Type	Road Number	Mile Post	Township, Range, Section	Land Ownership–BLM LUA
Old Blue	1	Umpqua	Repair	23–08–28.0	4.5	T. 24 S., R. 08 W., Sec. 04	Private
Blue Ridge	2	Umpqua	Repair	26–12–04.2	1.0	T. 27 S., R. 12 W., Sec. 03	BLM–GFMA
South Blue Ridge	3	Umpqua	Repair	27–12–03.1	0.3	T. 27 S., R. 12 W., Sec. 03	BLM–GFMA
Middle Creek	4	Umpqua	Repair	27–11–29.0	11.5	T. 27 S., R. 10 W., Sec. 04	Private
West Fork Brummit Creek	5	Myrtlewood	Repair	28–10–10.2	2.2	T. 27 S., R. 10 W., Sec. 34	Private
	6A				3.0		BLM–LSR
	6B						
	6C						
	6D						Private
	6E						
	6F						
	6G						
	6H						
	6-Bo1		Borrow preferred	N/A	N/A	T. 27 S., R. 10 W., Sec 20	BLM–LSR
	6-Bo2		Borrow back up	N/A	N/A	T. 27 S., R. 10 W., Sec 21	BLM–LSR
	6-W		Waste	N/A	N/A	T. 27 S., R. 10 W., Sec 21	BLM–LSR
Weaver-Sitkum	7A	Myrtlewood	Repair	28–10–26.1	1.01	T. 28 S., R. 10 W., Sec. 23	BLM–GFMA
	7B				1.03		
	7C				1.5		
	7-Bo		Borrow	N/A	N/A	T. 28 S., R. 10 W., Sec. 23	BLM–GFMA
Big Creek	8	Myrtlewood	Repair	29–11–28.0 Segment G1	0.5	T. 28 S., R. 10 W., Sec. 31	BLM–C/D
Lower Signal Tree	9	Myrtlewood	Repair	29–09–36.0	5.7	T. 29 S., R. 09 W., Sec. 33	BLM–GFMA

Bo=borrow site, W=waste site, GFMA=General Forest Management Area, LSR=Late-Successional Reserves,C/D=Connectivity/Diversity

The BLM proposes to initiate these road repairs in 2016.

The BLM would remove landslide debris, excavate damaged roadways, remove trees, replace culverts, backfill fill slopes and subgrades, install riprap buttresses, soil nail and shotcrete unstable slopes, resurface roadways with aggregate, and repave damaged roadways. Soil nailing is a technique that inserts and grouts (cements) reinforcing bars (rebar) into pre-drilled, regularly spaced holes. **Table 2** provides a brief summary of the proposed actions.

Table 2. Summary of the proposed actions at each repair, waste, and borrow site.

Road Name	Map/ Site IDs	Proposed Action
Old Blue	1	Minor excavation, soil nailing, shotcrete, repaving ~150' of road
Blue Ridge	2	Minor excavation, soil nailing, shotcrete
South Blue Ridge	3	Minor excavation, soil nailing, shotcrete
Middle Creek	4	Repave ~50' of roadway
West Fork Brummit Creek	5	Remove landslide debris
	6A	Excavate and remove debris, backfill of ~200' of embankment, repave ~200' of roadway, ditch repair
	6B	Excavate, remove debris, excavate and replace 30" diameter culvert and downspout, backfill embankment, armor trench with rip rap, repaving ~30' of road, ditch repair
	6C	Excavate and remove debris, ditch repair
	6D	Replace downspout, backfill embankment, ditch repair
	6E	Excavate and remove debris, backfill embankment, ditch repair
	6F	Excavate and install 30" diameter culvert, backfill embankment, ditch repair
	6G	Excavate new channel for Reeves Creek, excavate and replace 5' diameter culvert with an 8.5'diameter culvert, ditch repair
	6H	Excavate and protect roadside slope with rip rap, ditch repair
	6-Bo1	Create a new borrow site (~½ acre), remove ~50 Douglas-fir/red alder (~10–20" DBH), excavate up to ~4,000 CY of fill
	6-Bo2	Create a new borrow site (~½ acre), remove ~35 Douglas-fir (12–20" DBH), excavate up to ~4,000 CY of fill
	6-W	Place waste material on a decommissioned road
Weaver-Sitkum	7A	Replace fill slope, replace surface aggregate
	7B	Remove ~6–12 Douglas-fir (~14–24" DBH), realign road ~2' into hillside for ~75'
	7C	Replace fill slope, replace surface aggregate
	7-Bo	Create a new borrow site (~½ acre), remove approximately ~25 Douglas-fir (~14–24" DBH), excavate ~4,000 CY of fill
Big Creek	8	Minor excavation, soil nailing, shotcrete
Lower Signal Tree	9	Excavate and replace 36" diameter culvert, rip rap, geotextiles, repaving ~115' of roadway

CY = cubic yard
DBH = diameter at breast height
Note: All numeric values are approximations.

Common types of heavy equipment required for repairs would include, but would not be limited to, an excavator to remove loose debris and vegetation and to contour slope faces, a cement truck to haul and dispense cement, dump trucks to end-haul debris and dispense aggregate and paving materials, and graders and rollers to contour, compact, and finish roadway surfaces. A gas or diesel generator would power the cement mixer and pressure the hose to dispense cement for soil nailing operations. Soil nailing would utilize a drill-mounted attachment on an excavator or similar piece of heavy equipment.

The BLM proposes to remove approximately 122 trees (in total) at borrow and repair sites to facilitate road repairs. The BLM identified the trees proposed for removal in the following sections. The BLM may need to remove additional hazard trees for safety or operational purposes, and to ensure that the contractor's operation complies with applicable State safety laws, codes, or regulations. These additional trees would be minimal in number and treated on a case-by-case basis. The BLM would deck trees over 6" DBH for disposal as a commercial sale or for firewood permits.

The BLM would dispose of excavated soil and vegetation at proposed waste sites, or if needed, at additional pre-disturbed areas meeting waste area best management practices criteria (e.g., a road shoulder, existing stockpile site, or borrow site). The BLM would only utilize pre-disturbed sites for waste sites.

Site 1: Old Blue Road (23–08–28.0) Milepost 4.5
Saturation of the fill slope along the Old Blue Road caused the road-fill to fail during the December 2014 storm event. Once the fill slope failed, encroachment under the pavement caused portions of the roadway to collapse (**Figure 1** and **Map 1**).

The BLM proposes to stabilize the failed area with approximately 117 self-drilling soil nails, 51 self-drilling micropiles, 700 square feet of geosynthetically-confined soil wall, and 1,500 square feet of reinforced shotcrete. Contouring the failure surface prior to soil nailing would require minor excavation and the removal of vegetation and debris. The BLM would repave approximately 150 feet of roadway.

Operations would take approximately 3 weeks, working 6 days per week, and 10 hours per day to complete. Intermittent traffic delays would occur during this period.

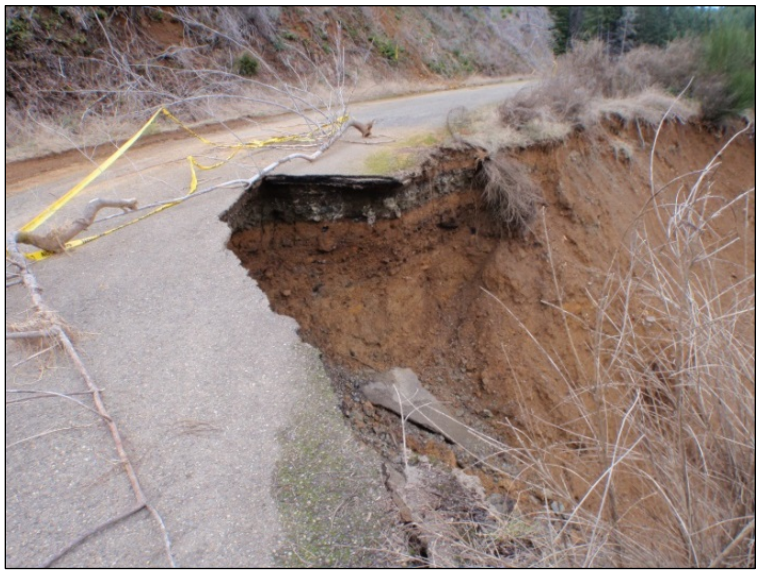

Figure 1. Site 1, Old Blue Road, Milepost 4.5 on January 22, 2015.

Site 2: Blue Ridge Road (26–12–04.2) Milepost 1.0
Heavy rain from the December 2014 storm event directed additional water from an adjacent loop road onto the Blue Ridge Road at milepost 1.0. The fill slope at the slide initiation point became saturated and failed (**Figure 2** and **Map 2)**.

Emergency work removed debris, closed the adjacent loop road, and redirected the loop road drainage, which temporarily dewatered the site. A BLM contractor installed an erosion control blanket and applied weed-free mulch and native seed to the failure site (i.e., below the road) to decrease erosion.

The BLM proposes to stabilize the compromised fill slope by installing approximately 72 soil nails along 115 linear feet of fill slope and reinforcing the soil nails with 910 square feet of 4-inch shotcrete. Contouring the failure surface would require minor excavation and the removal of vegetation and debris. The BLM would stop traffic during soil nail installation, but would allow intermittent traffic movement between nailing. The BLM would allow continuous traffic movement after working hours. The BLM may modify the adjacent loop road (e.g., water bars, blocking, or contouring) to prevent future runoff issues.

Operations would take approximately 2 weeks, working 6 days per week, and 10 hours per day to complete.

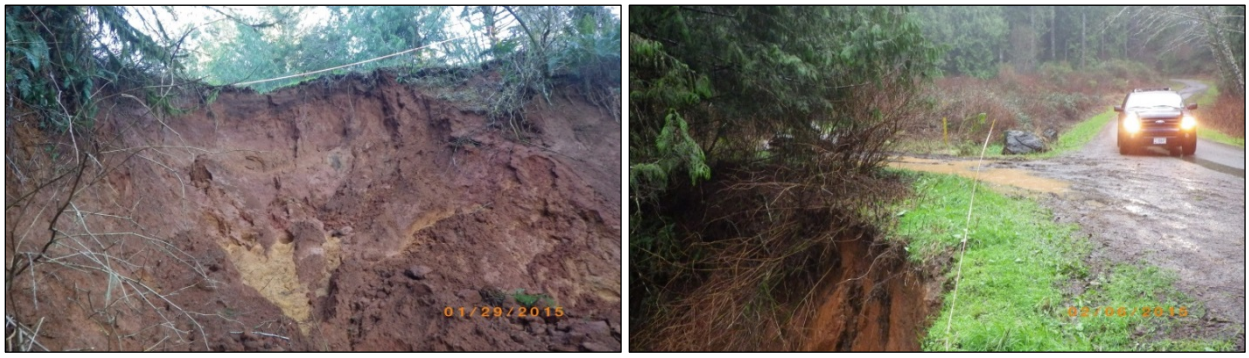

Figure 2. Site 2, Blue Ridge Road, Milepost 1.0 on January 29, 2015. *Left*: View from below the roadway. *Right*: View of roadside edge.

Site 3: South Blue Ridge Road (27–12–03.1) Milepost 0.3
Saturation of the fill slope during the December 2014 storm event caused the fill slope to fail (**Figure 3** and **Map 2**).

The BLM proposes minor excavation to contour the failure surface and remove vegetation and debris. The operation would then stabilize the roadside embankment with approximately 69 self-drilling soil nails and 910 square feet of 4" reinforced shotcrete.

Operations would take approximately 2 weeks, working 6 days per week, and 10 hours per day to complete. The BLM would temporarily close this road during repair operations.

Figure 3. Site 3, South Blue Ridge Road, Milepost 0.3 on December 23, 2014.

Site 4: Middle Creek Road (27–11–29.0) Milepost 11.5
The storm event of December 2014 plugged the 48" diameter culvert at milepost 11.7, and the 18" diameter cross-drain pipe at milepost 11.5 plugged and could not handle the extra volume of water, causing water to flow across and down the road. The flowing water eroded the fill and undermined the pavement (**Figure 4** and **Map 3**).

Emergency work cleaned up debris, repaired the fill slope at milepost 11.7, and armored the fill slope with riprap. The emergency work opened the ditch line between milepost 11.5 and 11.7, replaced the 18" culvert at milepost 11.5, and repaired surface damage and the section of road lost at the pipe replacement location with crushed aggregate. Emergency work included the application of seed and mulch to the site.

The BLM proposes to pave approximately 50 feet of the emergency repair surface with 15 tons of asphalt. Middle Creek Road is a high traffic road with 5–10 trucks an hour using the road, depending on logging operations. Paving operations would occur over approximately 1–2 days, and would cause intermittent traffic delays lasting less than 20 minutes.

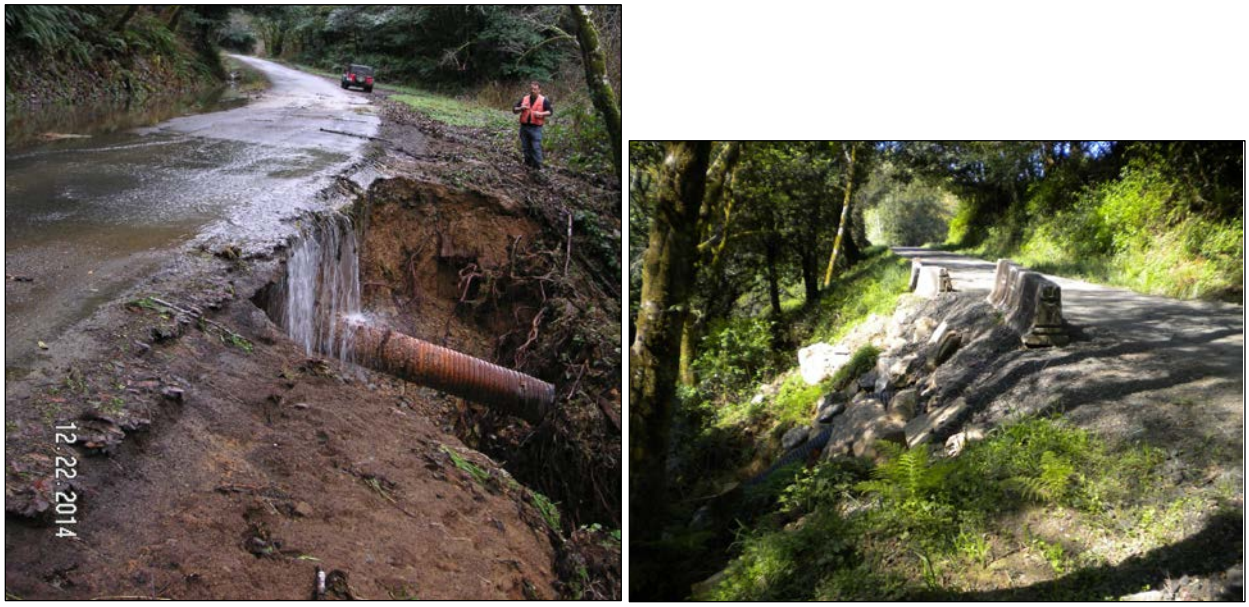

Figure 4. Site 4, Middle Creek Road and cross-drain pipe at milepost 11.5. *Left*: Damage observed on December 22, 2014. *Right*: Middle Creek Road at after emergency repairs.

Sites 5 and 6A–H: West Fork Brummit Creek Road (28–10–10.2) Milepost 2.2 and 3.0
The storm event of December 2014 activated two landslides and affected 11 points along the West Fork Brummit Creek Road. The BLM temporarily closed West Fork Brummit Creek Road after the 2014 storm damage. Once started, the BLM expects the proposed repair operations to take approximately 6 weeks to complete.

Site 5 (Milepost 2.2):
The BLM proposes to remove and dispose of approximately 400 cubic yards of debris (**Figure 5** and **Map 4**). The BLM would use slide material for back fill in repairs or place it in a designated waste area.

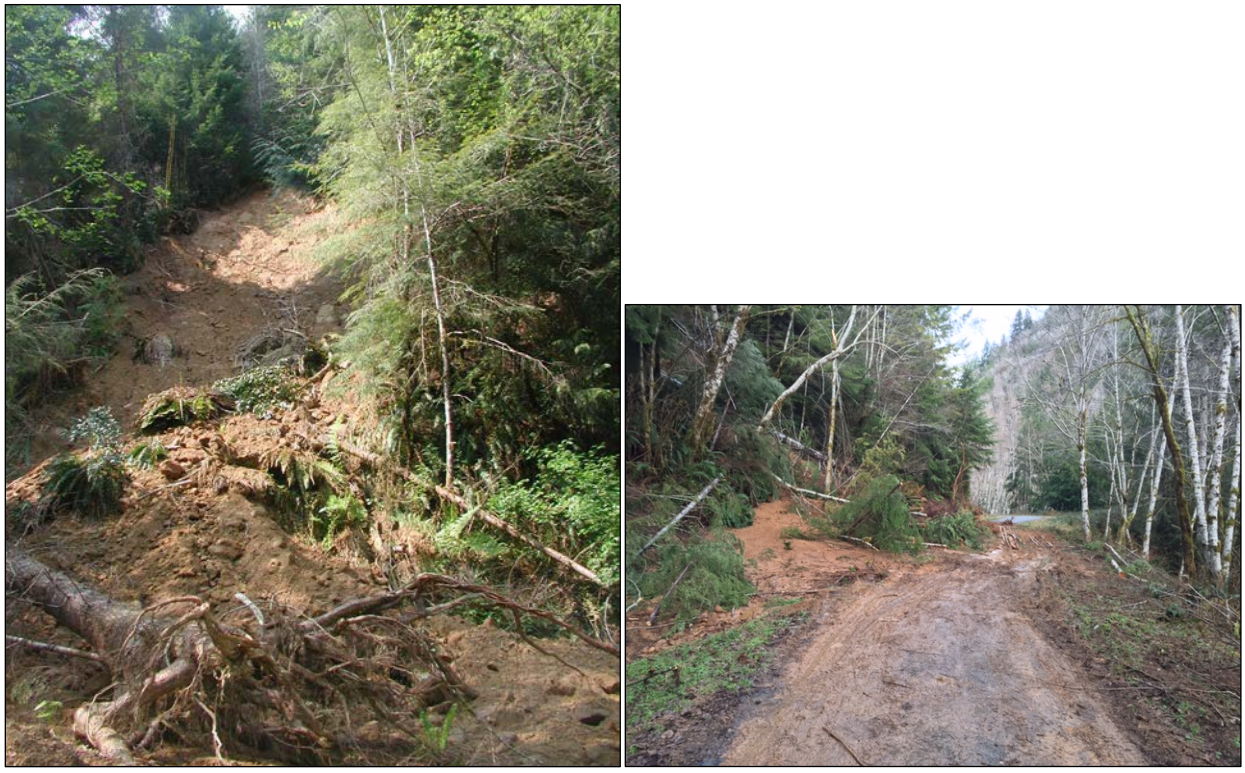

Figure 5. Site 5, West Fork Brummit Creek Road, Milepost 2.2 on January 7, 2015. *Left*: Slide chute above the roadway. *Right*: View of slide covering the roadway.

Sites 6A–H:
A debris flow caused large woody debris to plug the culvert and divert a Brummit Creek tributary into the ditch line of the road for approximately 800 feet. The diverted water eroded the ditch line down approximately 3–5 feet, undermined the road surface, and caused two cross-drain culverts to fail. The diverted water washed away 9 points of the roadway, including approximately half of the road surface and subgrade (**Map 4**).

The BLM proposes to remove landslide debris, excavate borrow fill material, repair ditch lines (from Sites 6A to 6H), remove approximately 175 cubic yards of damaged asphalt, replace culverts, replace crushed aggregate subgrades, install approximately170 tons of rip rap, and repave road surfaces with approximately 275 tons of asphalt (**Figure 6** and **Map 4**). The BLM would place weed-free native grass seed in disturbed areas.

Emergency work cleared and cleaned up debris, diverted water into the ditch, and included multiple efforts to stabilize the slope and keep culverts clear.

Borrow Site 6-Bo1:
The BLM proposes to remove approximately 50 trees, consisting of a 60:40 mix of Douglas-fir and red alder within a ½-acre area. The BLM proposes to excavate up to 4,000 cubic yards of embankment construction fill from this site. The Douglas-fir trees are approximately 50 years old and range from 10–20" DBH, with average DBH of 14". The red alder range from 8–14" DBH, with an average DBH of 12". The alder are approximately 40–50 years old. Proposed Borrow Site 6-Bo1 is approximately 3.6 miles from the northernmost failure at Site 6. See **Map 5** for specific borrow locations.

Borrow Site 6-Bo2 and Waste Site 6-W:
The BLM proposes to remove approximately 35 Douglas-fir trees in a ½-acre area. The BLM proposes to excavate up to 4,000 cubic yards of embankment construction fill from this site. The Douglas-fir trees proposed for removal range from 12–20" DBH, with an average DBH of 16". Proposed Borrow Site 6-Bo2 is approximately 2.2 miles from the northernmost failure at Site 6.

The BLM would put waste material from the repairs on the decommissioned road adjacent to the 6-Bo2 borrow site.

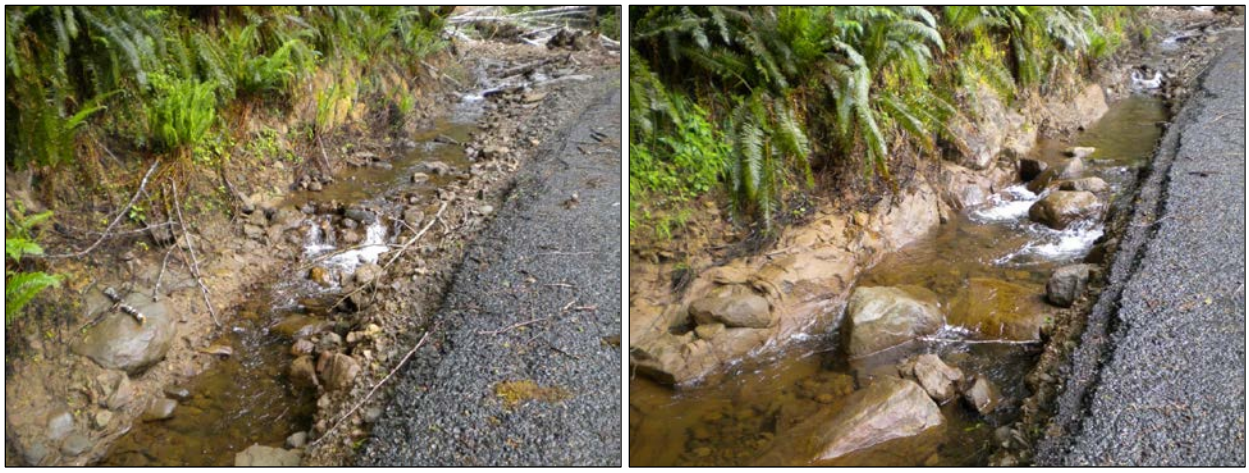

Figure 6. Typical ditch line damage between West Fork Brummit Creek Road Sites 6A and 6H.

Site 6A:
The BLM proposes to excavate and remove approximately 20 cubic yards of debris (**Figure 7** and **Map 4**). The BLM would transport approximately 2,300 cubic yards of material from proposed borrow sites to backfill and repair approximately 200 linear feet of embankment. The BLM would also repave approximately 200 feet of roadway at this site once other repairs are complete.

Figure 7. Site 6A, West Fork Brummit Creek Road, Milepost 3.0 on January 22, 2015. *Upper left*: Looking south. *All other photographs*: Looking north.

Site 6B:
The BLM proposes to excavate and remove approximately 20 cubic yards of debris, and excavate and replace a 30" culvert and downspout (**Figure 8** and **Map 4**). The BLM would place approximately 9 cubic yards of crushed aggregate below the new culvert. The BLM would backfill the slumped embankment with approximately 250 cubic yards of material from borrow sites, and armor the trench up to the culvert with 2 tons of riprap. The BLM would repave approximately 30 feet of roadway once other repairs are complete.

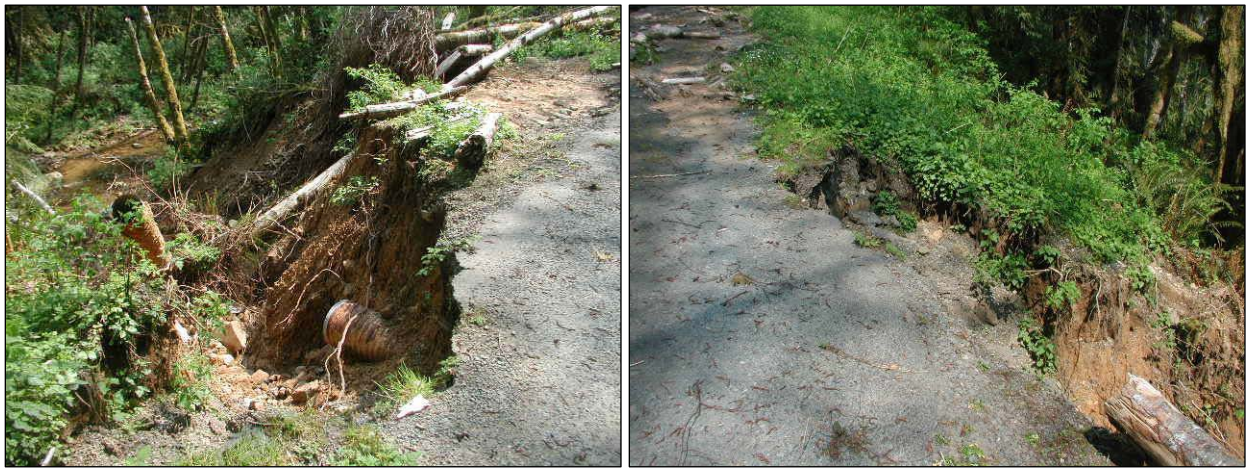

Figure 8. Site 6B, West Fork Brummit Creek Road. *Left*: Looking south. *Right*: Looking north.

Site 6C:
The BLM proposes to excavate and remove approximately 7 cubic yards of debris (**Figure 9** and **Map 4**).

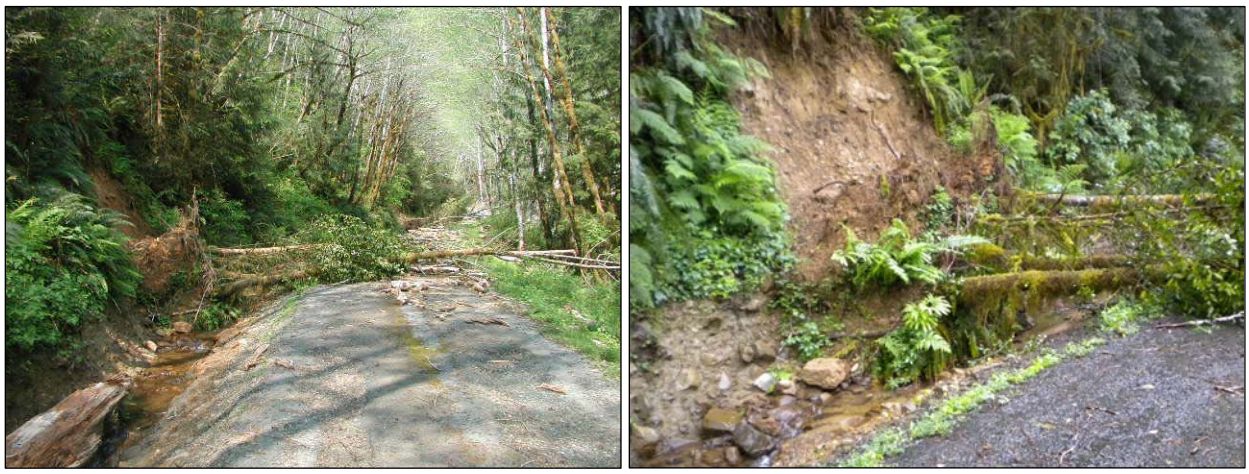

Figure 9. Site 6C, West Fork Brummit Creek Road. Both photographs face north.

Site 6D:
The BLM proposes to replace 30' of 30" diameter corrugated downspout, and backfill the embankment and dam inlet with approximately 1,600 cubic yards of borrow material from proposed borrow sites (**Figure 10** and **Map 4**).

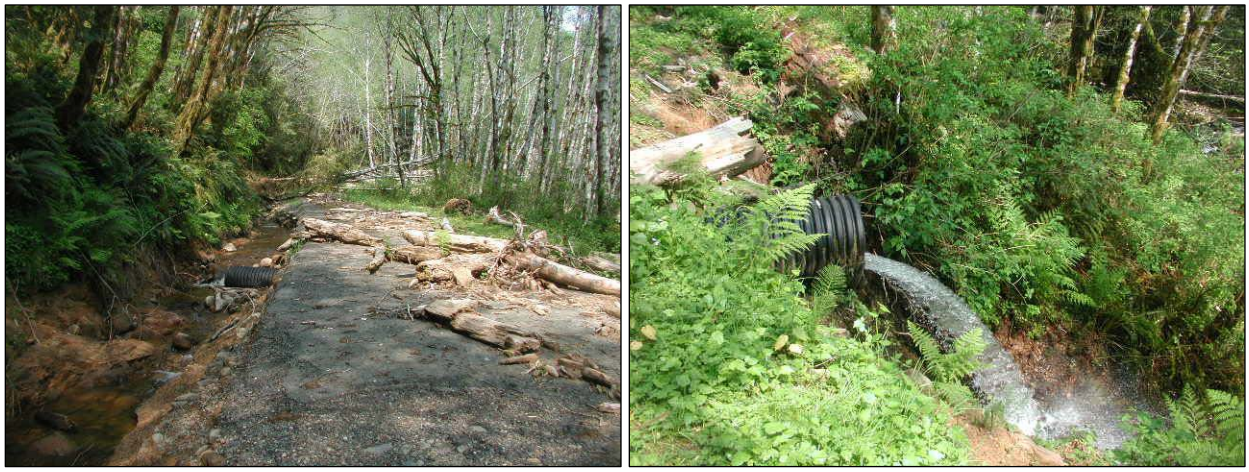

Figure 10. Site 6D, West Fork Brummit Creek Road. *Left*: Looking north along west side of the road. *Right*: Looking north along the east side of the road.

Site 6E:
The BLM proposes to excavate and remove approximately 56 cubic yards of debris, and backfill the embankment with 234 cubic yards of material from the borrow sites (**Figure 11** and **Map 4**).

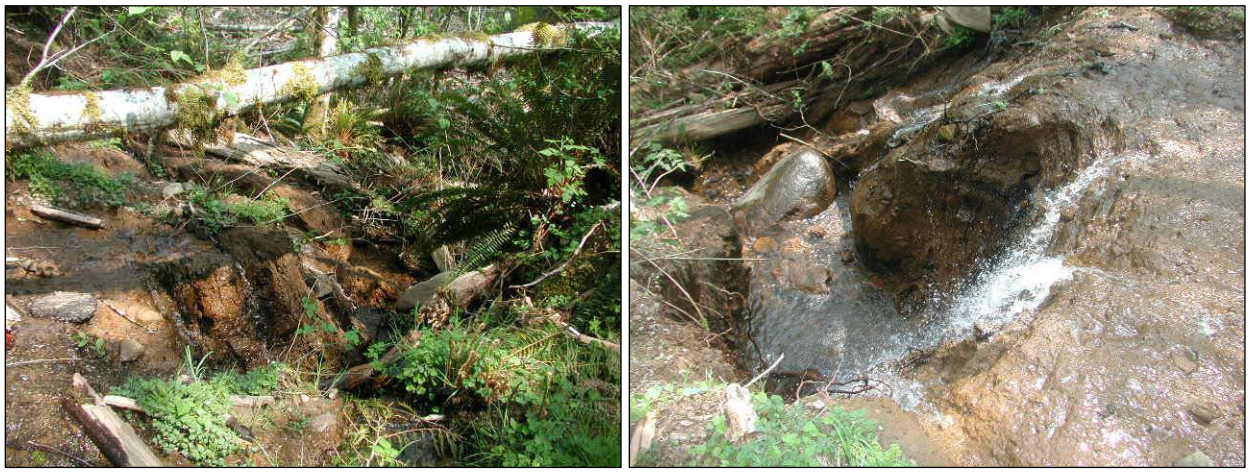

Figure 11. Site 6E, West Fork Brummit Creek Road. *Left*: Looking north. *Right*: Looking south.

Site 6F:
The BLM proposes to excavate and install a new 30" diameter culvert under the roadway. The BLM would excavate and transport approximately 235 cubic yards of material from a borrow site to backfill and repair the embankment at this location (**Figure 12** and **Map 4**).

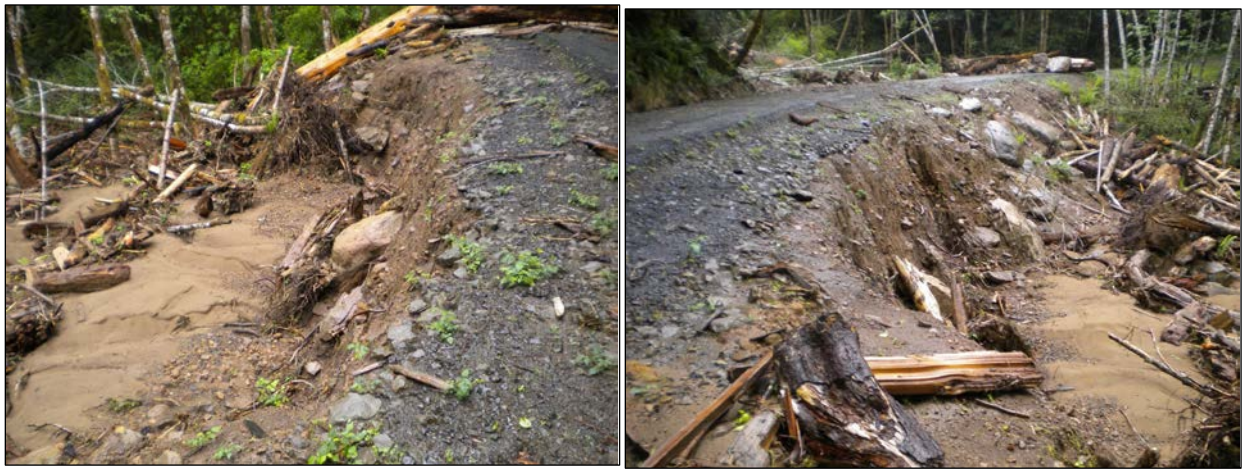

Figure 12. Site 6F, West Fork Brummit Creek Road. *Left*: Looking south. *Right*: Looking north.

Site 6G:
This site is the bottom of the debris flow channel where material plugged the culvert (**Figure 13** and **Map 4**). The debris flow deposited material across the entire roadway. This event caused erosion across the entire roadway. The BLM proposes to excavate a new channel (for Reeves Creek) approximately 200 feet upstream and west of the road. The BLM would place the woody debris within 200 feet of the road from Site 6G at Site 6H to prevent the culvert from plugging again. If needed, the BLM would excavate approximately 2,400 cubic yards of material for a new channel to the north of Reeves Creek in order to route the flow of Reeves Creek away from the ditch on the west side of the road and under the roadway. The BLM would excavate the existing 5' diameter culvert and replace it with an 8.5' diameter culvert. The BLM's culvert installation operations would include approximately 30 cubic yards of crushed aggregate and 130 cubic yards of slurry mix (concrete).

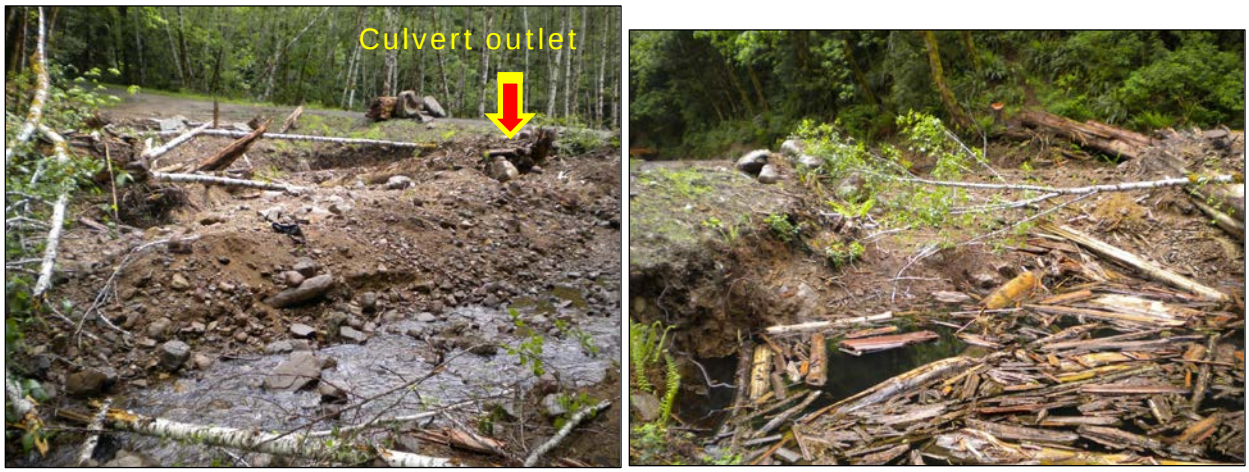

Figure 13. Site 6G/H, West Fork Brummit Creek Road. *Left*: East side of the road facing west. *Right*: West side of the road facing east.

Site 6H:
In addition to the culvert replacement between Sites 6G and 6H, the BLM proposes to excavate approximately 4,600 cubic yards of material at Site 6H. The BLM would excavate approximately 900 cubic yards of fill at borrow sites and transport those additional materials to the 6H repair site. The BLM would protect the repaired roadside slope at Site 6H with approximately 170 tons of riprap.

Sites 7A–C: Weaver-Sitkum Road (28–10–26.1) Mileposts 1.01, 1.03, 1.5
The December 2014 storm event caused fill failure and pavement encroachment at 3 locations along the BLM-owned and controlled portions of Weaver-Sitkum Road.

The BLM proposes to excavate failure surfaces for contouring and vegetation removal, followed by placement of suitable backfill material. The BLM would then compact and resurface the compromised roadway segments with aggregate. At 3 sites, the BLM would backfill and seed flank sections of the roadway. The BLM would install self-drilling soil nails faced with reinforced shotcrete to stabilize the flank sections of one site.

Once started, the BLM expects the proposed repair operations on the Weaver-Sitkum Road to take approximately 4 weeks to complete.

Borrow site 7-Bo:
The BLM proposes to remove approximately 25 trees, primarily Douglas-fir, in a ½-acre area adjacent to the repair at Site 7A (**Map 6**). The BLM proposes to excavate up to 4,000 cubic yards of embankment construction fill from this site. The BLM has measured the trees proposed for removal and they range from 16–22 inches DBH.

Site 7A (Milepost 1.01):
The BLM would transport approximately 1,500 cubic yards of borrow material to rebuild the fill slope at this location (**Figure 14** and **Map 6**). Operations would include the transport and placement of approximately 33 tons of crushed aggregate base and 15 tons of crushed aggregate surfacing materials. The BLM would apply a weed-free native seed mix at this location.

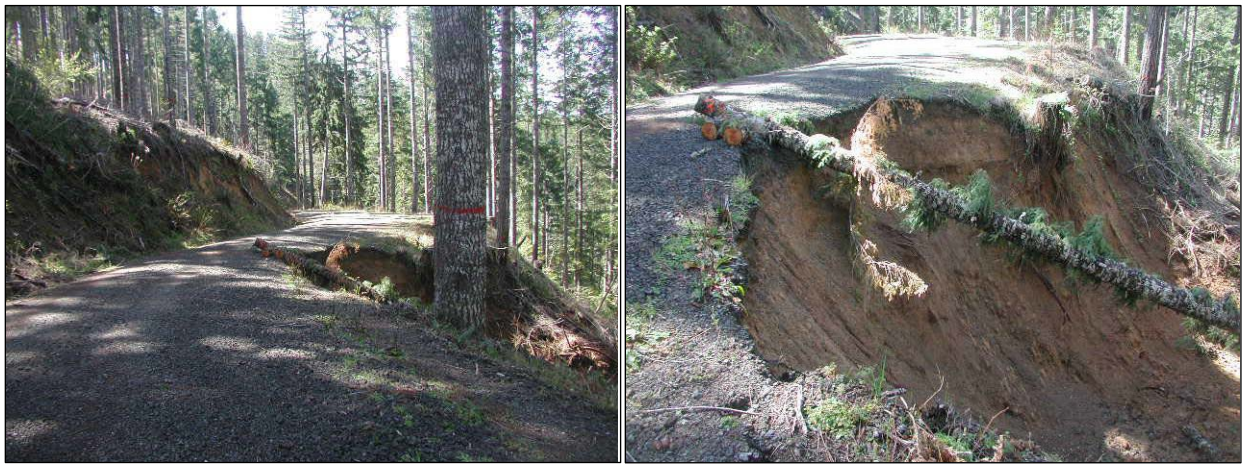

Figure 14. Site 7A, Weaver-Sitkum Road, Milepost 1.01. *Left*: Looking south. *Right*: A close up view of the damage.

Site 7B (Milepost 1.03):
At this location, the BLM would remove approximately 6–12 Douglas-fir trees to facilitate an approximate 2' realignment of the road for 75 linear feet (**Figure 15** and **Map 6**). The trees are approximately 70 years old and 14–24" DBH. Operations would excavate approximately 112 cubic yards of materials, place 20 cubic yards of fill, put down 49 tons of crushed aggregate base and 22 tons of crushed aggregate surfacing materials. The BLM would apply native grass seed at this location.

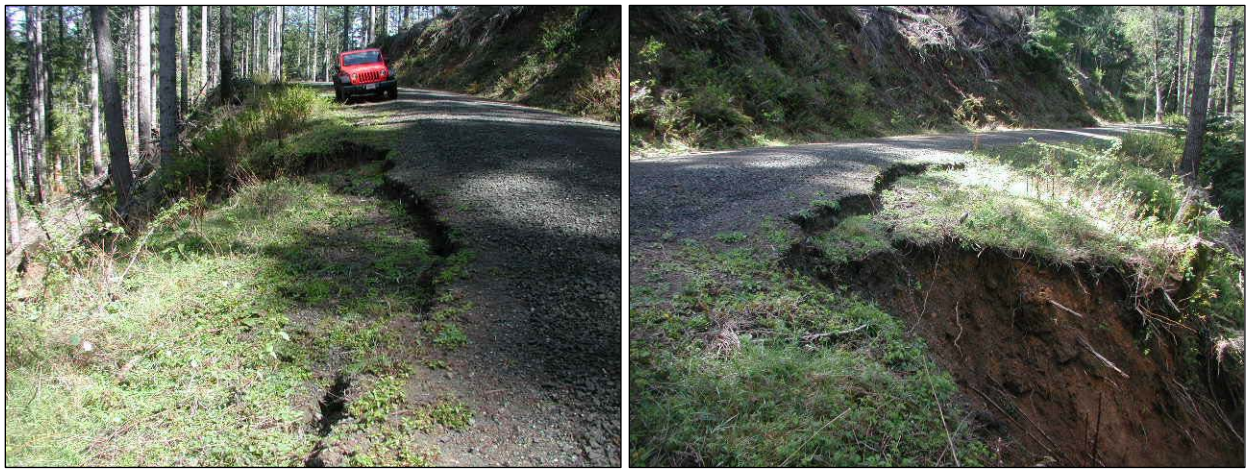

Figure 15. Site 7B, Weaver-Sitkum Road, Milepost 1.03. *Left*: Looking north. *Right*: Looking south.

Site 7C (Milepost 1.5):
The BLM would transport approximately 2,000 cubic yards of borrow material to this location to rebuild the fill slope (**Figure 16** and **Map 6**). Operations would include the transport and placement of approximately 50 tons of crushed aggregate base and 20 tons of crushed aggregate surfacing materials. The BLM would apply native grass seed at this location.

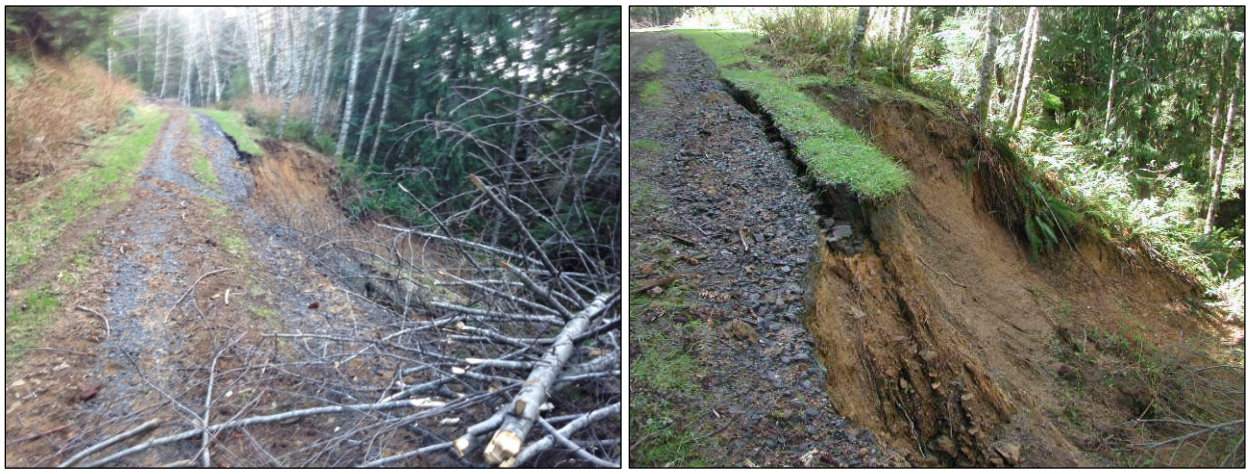

Figure 16. Site 7C, Weaver-Sitkum Road, Milepost 1.5 on January 29, 2015. *Left*: Looking south. *Right*: A close up view of the damage.

Site 8: Big Creek Road (29–11–28.0 Segment G1) Milepost 0.5
The storm event of December 2014 saturated the outer fill slope of Big Creek Road with water causing the slope to fail and slide into the stream below (**Figure 17** and **Map 7**). An additional storm in December 2015 caused further damage to the roadbed, which made it unsafe for haul traffic.

The BLM conducted emergency repair work (i.e., installed an erosion control mat, planted willows, and seeded and mulched) to try to prevent further migration of sediment into the adjacent Coho habitat. A 15' wide strip of the erosion control mat was damaged by a storm in 2015.

The BLM proposes to contour the failure surface and remove vegetation and debris with excavation equipment. The BLM would move approximately 100 cubic yards of waste to an approved waste area. The BLM would then stabilize the failed embankment with approximately 86 self-drilling soil nails (up to 20 feet long) along a 110' linear span. Operations to cover the soil nails would include the application of approximately 1,320 square feet of 4" reinforced shotcrete.

Operations would require approximately 2 weeks, working 6 days per week, and 10 hours per day to complete repairs. Intermittent traffic delays would occur during this period.

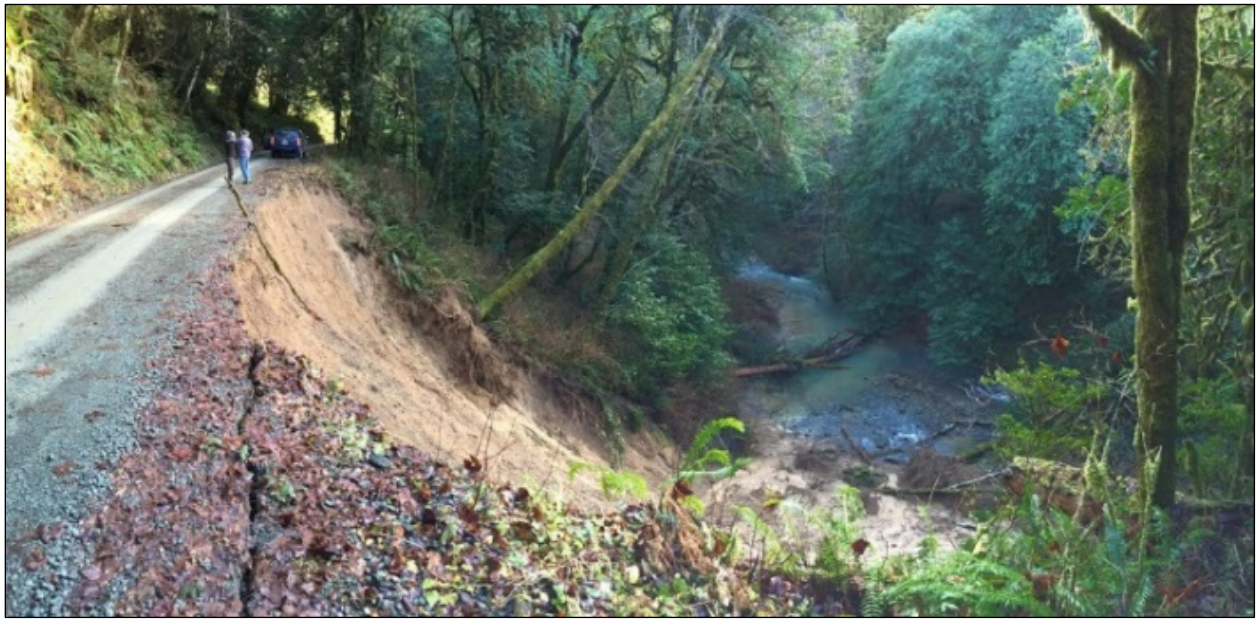

Figure 17. Site 8, Big Creek Road, Milepost 0.5 on January 21, 2015.

Site 9: Lower Signal Tree Road (29–09–36.0) Milepost 5.7
The storm event of December 2014 overwhelmed the capacity of an existing 36” diameter culvert under Lower Signal Tree Road at Milepost 5.7 (**Figure 18** and **Map 8**). The deluge caused excess storm water to accumulate and run across the road surface saturating the fill slope and resulting in fill failure and undercutting of the pavement.

The BLM proposes to excavate and replace the 36” culvert and stabilize unconsolidated material on the slope at the inlet end of the culvert with approximately 800 tons of riprap buttressing materials. The BLM would build up the subgrade with base rock, and add surface rock before repaving approximately 115 linear feet of roadway with asphalt. The BLM would rebuild the slope toe with approximately 300 square yards of geotextiles, and seed and mulch the area to reestablish vegetation.

The BLM is aware of a buried fiber optic line along portions of Lower Signal Tree Road. The fiber optic line is not located in the area of the repair; however, the BLM would have the utility located prior to repair operations.

Operations would require approximately 5 days to complete repairs. Intermittent traffic delays would occur, including approximately an hour delay during culvert replacement, and up to two hours during paving.

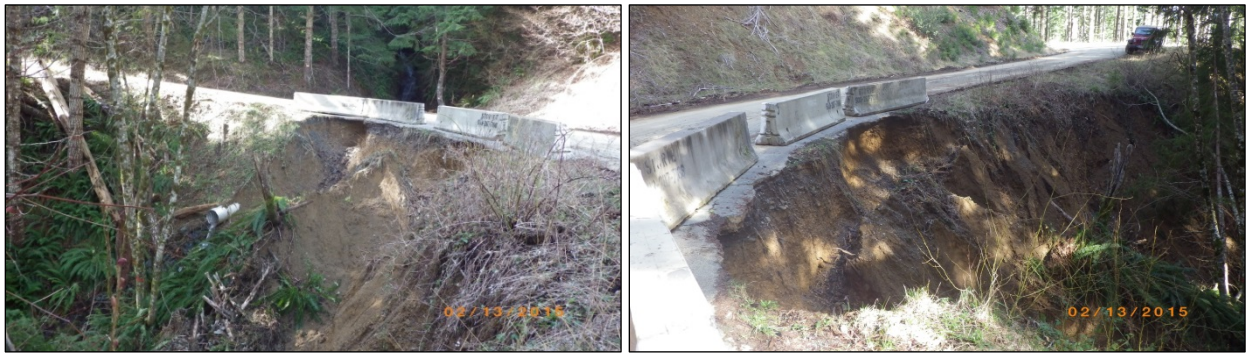

Figure 18. Site 9, Lower Signal Tree Road, Milepost 5.7 on February 13, 2015.

Project Design Features Applicable For All Sites

The proposed road repairs are similar to the proposed action of the District ERFO Road Repair EA (DOI-BLM-OR-C000-2014-0001-EA). Project implementation would follow applicable General Design Features and Best Management Practices (BMPs) listed on pages 18–19 of the EA. The EA project design features include:

- Road construction would be limited to the dry season, generally from June into October.
- Road fills would be constructed to prevent fill failure using inorganic material, compaction, buttressing, subsurface drainage, rock facing, and/or other construction methods to improve stability.
- Energy dissipation material would be placed around the inlet and outlet road drainage structures.
- Road cut and fillslopes would be designed with stable angles to minimize erosion and prevent slope failure.
- Water runoff from roads would be diverted away from headwalls, slide areas, high landslide hazard locations, and/or steep erodible fillslopes.
- Waste material excavated during construction or renovation would be end-hauled to waste areas, when side slopes exceed 60 percent and where side-cast material may enter wetlands, floodplains or other waters of the state.
- Waste areas would be located in flat stable locations away from streams and designed to disperse surface water to vegetated stable areas.
- If trees sapling size or larger need to be removed, they would be cut (i.e., not pushed over) before grubbing the site. Damage to residual trees would be avoided when falling and removing designated trees. Trees 6" DBH and larger would be decked at designated sites to be disposed with firewood permits or as a commercial sale.
- The topsoil at borrow areas would be removed and stockpiled. Upon completion of borrow removal activities, this topsoil would be spread over the disturbed area for purpose of reclamation.
- Mechanized equipment would be inspected daily for fluid leaks, and refueled, repaired, and stored overnight at least 150 feet from streams and wetlands.
- A district-approved, native grass seed mix, fertilizer (if necessary), and mulch would be applied to bare ground, including cut and fill slopes, ditch lines, borrow and waste sites.
- If, in connection with operations, anyone discovers, encounters, or becomes aware of objects or sites of potential cultural resource value on the project area, such as historic or prehistoric ruins, fossils, or artifacts, operations in the vicinity of the discovery site shall be suspended and the District Archaeologist shall be notified. Objects of cultural resource value shall be left in place and not removed. Operations may resume at the discovery site upon instructions from the Authorized Officer.

The BLM would also implement the following supplemental project design features:

- Soil nailing would not be limited to the road construction dry season; however, soil-nailing activities would follow seasonal and daily timing restrictions for spotted owl and marbled murrelet, if applicable.
- Asphalt would be disposed of properly (i.e., not in BLM waste areas).
- All equipment would be power washed to remove all dirt, mud, and vegetative material prior to accessing BLM lands.
- Avoid placing any waste material around the boles of standing trees.

Site-specific Project Design Features

<u>Big Creek Road</u>

- The BLM would only allow construction for repairs along Big Creek Road (Site 8) between August 5 and March 1 due to the proximity to northern spotted owl and marbled murrelet habitat—no construction would occur inside critical breeding seasons. Daily timing restrictions between August

6–September 15 (i.e., for marbled murrelet) would limit working hours to 2 hours after sunrise to 2 hours before sunset (**Table 3**).

Table 3. Northern spotted owl and marbled murrelet seasonal and daily timing restrictions summary.

Road Name	Site(s)	NSO Seasonal Restrictions Mar 1–Jul 7	MaMu Seasonal Restrictions Mar 1–Aug 5	MaMu Daily Restrictions Aug 6–Sept 15
Old Blue Road	1	-	-	-
Blue Ridge Road	2	-	-	-
South Blue Ridge	3	-	-	-
Middle Creek Road	4	-	-	-
West Fork Brummit Creek Road	5	-	-	-
West Fork Brummit Creek Road	6A–H	Yes	Yes	Yes
West Fork Brummit Creek Road	6-Bo1	-	-	-
West Fork Brummit Creek Road	6-Bo2	-	-	-
Weaver-Sitkum Road	7A–C	Yes	-	-
Weaver-Sitkum Road	7-Bo	Yes	-	-
Big Creek Road	8	Yes	Yes	Yes
Lower Signal Tree Road	9	-	-	-

Lower Signal Tree Road

- All in-water work would be conducted during the ODFW instream work window July 1–September 15.
- The theoretical 100-year flood would be used as culvert design criteria, including an allowance for bed load and debris. This would provide for stream simulation to pass fish and other aquatic organisms.
- Mechanized equipment would not enter wetted stream channels except where no practicable alternative exists.
- All functional-sized instream or floodplain wood would be retained within the stream channel, or floodplain.
- Asphalt patching would occur during the dry season, generally May 15–October 15, or not within 48 hours of predicted rain.

Middle Creek Road

- Asphalt patching would occur during the dry season, generally May 15–October 15 or not within 48 hours of predicted rain.

Old Blue Road

- Asphalt patching would occur during the dry season, generally May 15–October 15 or not within 48 hours of predicted rain.

Weaver-Sitkum Road

The 28–10–26.1 road is a known Port-Orford-cedar root disease site; therefore, the following project design features from the EA (i.e., for Johns Creek, Weaver, and Slide Creek) would be applied to implement management practices from the 2004 *Final Supplemental Environmental Impact Statement* (FSEIS) *for Management of Port-Orford-cedar in Southwest Oregon* and it's *Record of Decision.*

- All project activities would be limited to the dry season, generally June through October. Operationally, this would be limited to July 7–October due to proximity to spotted owl habitat—no construction would occur inside critical breeding season (**Table 3)**.

- All activities would use surfaced roads (i.e., rocked or asphalted), and would design structures (i.e., waterbars, culverts, and ditches) to divert water from roadways. Operationally, this would allow heavy equipment to operate off the surfaced roads to develop the borrow site and realign the roadway; however, materials from the borrow area and the road realignment area would be required to stay within the repair site area.
- All equipment would be power washed to remove all dirt, mud, and vegetative material prior to accessing BLM lands. In addition, mechanized equipment that leaves the surfaced road and contacts bare soil would be washed after the project is complete or before the equipment is mobilized to a new site on BLM lands.
- Operations would be suspended if any rain saturates soils to the extent that there is a potential for movement of sediment from the road.

West Fork Brummit Creek Road

- The BLM would only allow construction for repairs along the West Fork Brummit Creek Road between August 5–March 1 due to the proximity to northern spotted owl and marbled murrelet habitat—no construction would occur inside critical breeding seasons. Daily timing restrictions between August 6–September 15 (i.e., for marbled murrelet) would limit working hours to 2 hours after sunrise to 2 hours before sunset (**Table 3**).
- All in-water work would be conducted during the ODFW instream work window July 1–September 15 (and would be operationally limited to August 5–September15 due to the NSO and MaMu restrictions above)
- The theoretical 100-year flood would be used as culvert design criteria, including an allowance for bed load and debris. This would provide for stream simulation to pass fish and other aquatic organisms.
- Mechanized equipment would not enter wetted stream channels except where no practicable alternative exists.
- All functional-sized instream or floodplain wood would be retained within the stream channel, or floodplain.
- For the West Fork Brummit Creek Road repair, erosion control materials would be used to prevent sediment and grout from leaving the construction area.
- Asphalt patching would occur during the dry season, generally May 15–October 15 or not within 48 hours of predicted rain

B. Land Use Plan (LUP) Conformance

The BLM reviewed the proposed road repairs and determined it is consistent with the 1995 Coos Bay District Record of Decision and Resource Management Plant (1995 ROD/RMP). The analysis supporting this decision tiers to the 1994 Final Coos Bay District Proposed Resource Management Plan/Environmental Impact Statement. The 1995 Record of Decision is also supported by, and consistent with, the 1994 Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late Successional and Old Growth Forest Related Species within the Range of the Northern Spotted Owl and its associated Record of Decision.

The proposed action is in conformance with the Coos Bay District RMP because it is specifically provided for in the following decisions.

- Develop and maintain a transportation system that serves the needs of users in an environmentally sound manner (RMP p. 69) by:
    - Locating, designing, constructing, and maintaining roads to standards that meet management objectives in accordance with the district road management plan (RMP p. 70); and
    - Follow Best Management Practices for water quality and soil productivity to mitigate adverse

effects on soils, water quality, fish, and riparian habitat during road construction and maintenance (RMP p. 70).

- Provide and maintain a cost-effective transportation system (TMP p. 11) by:
  - Reducing maintenance costs by maintaining [roads] to the appropriately assigned Maintenance Intensity (TMP p. 11);
  - Ensuring that the infrastructure is maintained in a suitable fashion that supports the BLM's mission effectively and efficiently (TMP p. 10).
- Prevent watershed degradation—rather than using mitigation or planned restoration—to correct foreseeable problems caused by management activities (RMP p. 25).

C. Identify applicable NEPA documents(s) and other related documents that cover the proposed action.

- District ERFO Road Repair Environmental Assessment – DOI-BLM-ORWA-C000-2014-0001-EA, April 2014
- U.S. Fish and Wildlife Service Biological Opinion, 01EOFW00-2014-F-0163, June 30, 2014
- Final Supplemental Environmental Impact Statement (FSEIS) for Management of Port-Orford-cedar in Southwest Oregon and it's Record of Decision, 2004
- Western Oregon Districts Transportation Management Plan (TMP) (2010 Update)

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes. The current proposed actions include soil nailing and the application of shotcrete at sites on Old Blue Road, Blue Ridge Road, South Blue Ridge Road, and Big Creek Road. The soil nailing and shotcrete application operations are essentially the same actions as those described and analyzed within the 2014 District ERFO Road Repair EA (DOI-BLM-ORWA-C000-2014-0001-EA, pp. 14–15) for Weaver Road 28–08–18 and John's Creek Road 29–11–07. The proposed 2' realignment of a portion of Weaver-Sitkum Road is essentially similar to the 12' realignment analyzed for Endicott Creek in the ERFO EA. The other general road repair actions proposed (aggregate replacement, creation of ½-acre borrow sites, culvert replacement, debris removal, excavation, fill slope and ditch repair, rip rap placement, paving, and waste sites) are all essentially the same as previously analyzed in the ERFO EA (pp. 21–38). The current proposed actions would create the same magnitude of effects, or fewer effects than what the BLM analyzed in the ERFO EA.

All but two of the proposed road repairs sites are located within the subbasins of the Coquille River, the same watersheds analyzed in the ERFO EA. The remaining two sites (Old Blue and Blue Ridge Road) are within the same District boundaries and are hydrologically similar to those analyzed in the ERFO EA.

The road damage from the December 2014 storm event was similar to road damage from the January 2012 storm event that initiated the ERFO EA. **Table 4** provides the 72-hour precipitation totals recorded at nearby weather stations for the December 2014 storm event. **Table 5** provides the recorded high streamflow at nearby U.S. Geological Service gaging stations shortly after the December 2014 storm events.

Table 4. 72-hour recorded precipitation for December 19–21, 2014, from remote automated weather stations (RAWS) located within the Coos Bay District.

RAWS Weather Station	Elevation (Feet)	Precipitation (Inches)
Burnt Ridge	2,955	7.6
Charlotte Ridge	1,220	7.6
Devil's Graveyard	1,550	6.4
Seven Mile Creek	438	4.7
Signal Tree	3,294	4.8

Table 5. Recorded mean daily high streamflow from USGS gaging stations within the Coos Bay District.

Stream Gaging Station	Location	Date	Mean Daily High Streamflow (cu. ft./sec.)
Umpqua River	Near Elkton, OR	December 21, 2014	111,000
S. Fork Coquille River	Near Powers, OR	December 22, 2014	9,360

The BLM's proposed repair sites are not adjacent to any ODEQ 303d-listed streams; therefore, the current proposed actions do not change the scope of the proposed action previously analyzed, nor does it require further hydrologic analysis.

The geographic and resource conditions for the proposed repair sites are also sufficiently similar to those analyzed in the 2014 ERFO EA with respect to northern spotted owl and marbled murrelet. Proposed repair activities within the existing road prisms would not remove or downgrade northern spotted owl Nesting Roosting Foraging (NRF) habitat or marbled murrelet occupied habitat. Proposed repair activities outside of the existing road prisms (i.e., borrow sites and road realignment) would not remove or downgrade northern spotted owl Nesting Roosting Foraging (NRF) habitat or marbled murrelet occupied habitat. The removal of ½ acre of dispersal habitat at each of the borrow sites for the West Fork Brummit Creek Road repair would not interfere with NSO movement through the area, and is similar in nature to the borrow sites analyzed in the 2014 EA. The proposed Weaver-Sitkum Road borrow site and road realignment would remove ~½ acre (~25 trees) plus approximately 150 sq. ft. (~6–12 trees), respectively, of NSO habitat; however, the areas are outside of critical habitat, lack nesting trees, and are outside of any known NSO home ranges. The proposed activities for these repair sites are also essentially the same as those already analyzed. Furthermore, the BLM's application of seasonal and daily timing restrictions to mitigate noise disturbance during the critical breeding seasons, as described in the 2014 ERFO EA, for the proposed actions at West Fork Brummit Creek Road, Weaver-Sitkum Road, and Big Creek Road would make the effects of the proposed actions essentially the same as, or similar to, the previous actions.

As in the 2014 ERFO EA, there are no known Survey and Manage or special status wildlife species present in any of the proposed project locations.

As in the 2014 ERFO EA, all of the roads proposed for repairs have previous or planned logging operations associated with them. Functional roads are vital to haul routes, administrative access, and post-harvest treatments.

While the Big Creek and Middle Creek repair sites are within close proximity to Coho critical habitat, the effects of the proposed actions are essentially the same as those already analyzed. Repair work at these sites would not involve any work within the active stream channel and would not result in a reduction of shade or potential wood recruitment trees. Repairing these sites would result in long-term slope and road stability and greatly reduce, if not eliminate, future sediment input to the stream channels.

There is no habitat for any Threatened or Endangered plant species in any of the project areas. There is habitat for several species of Survey and Manage and special status lichens, bryophytes, and vascular plant species. The 2014 ERFO environmental assessment did not analyze botany resources in detail (p. 36). The BLM, however, did conduct botany surveys for the original project sites. The BLM conducted (and completed) botany surveys in August 2015 on all new proposed repair sites on BLM-controlled roads, waste sites, and borrow areas. The BLM's surveys did not locate any Survey and Manage or special status species; therefore, the BLM does not expect the proposed actions to affect any Survey and Manage or special status lichen, bryophyte, or vascular plant species.

The Weaver-Sitkum Road (28–10–26.1) is a known Port-Orford-cedar (POC) root disease site. The 2014 ERFO EA analyzed similar proposed road repair actions at other known Port-Orford-cedar root disease sites including Johns Creek Road, Weaver Road, and Slide Creek Road. The 2014 ERFO EA's POC project design features, such as limiting road construction to the dry season, would apply to the current proposed actions at the Weaver-Sitkum repair site.

All road repair sites in the current proposal have a low to medium risk for spreading weeds. This is within the scope of the analysis for the 2014 ERFO EA, which included a site with a high risk of spreading weeds. Therefore, the current proposal is sufficiently similar to the existing analysis with respect to the spread of noxious weeds and further NEPA is not required.

The BLM's District Archaeologist reviewed the proposed action. He noted that the waste and borrow site placement would occur on previously disturbed ground, and the roadway repairs themselves would largely involve previously disturbed road prisms. The 2' realignment of the Weaver-Sitkum Road at Site 7B, although outside of the road prism and not steeply sloped, is not a high-probability zone as it was previously disturbed by timber harvest. Therefore, the BLM does not expect the proposed actions to affect intact cultural material. However, if during the project any objects with potential cultural significance are located, work in the vicinity would stop and the District Archaeologist would be notified immediately. Work would proceed upon written authorization from the District Archaeologist or Field Manager.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, interests, and resource values?

Yes. The EA analyzed a No Action and a Proposed Action alternative. No other reasonable alternatives to achieving the purpose and need were identified by the Coos Bay District's Interdisciplinary Team or the public during development of the District ERFO Road Repair EA. No new environmental concerns, interests, resource values, or circumstances have arisen since the EA was published that would require the development of additional alternatives.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Yes. The existing EA analysis and conclusions are adequate, appropriate, and valid. There is no new significant information or circumstances relative to the analysis in the EA or the current action.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

The EA interdisciplinary team analyzed direct, indirect, and cumulative effects of the proposed action on affected resources (wildlife, timber and stand management, geology and soil resources, water resources, and aquatic species). The current proposed actions do not substantially differ from the proposed actions addressed in the EA analysis. The outcome of the District ERFO EA project demonstrated that the prescribed management practices, management requirements, and mitigation measures in the EA achieved the desired objectives. The BLM would apply the same practices, requirements, and measures to this project.

Based on review by an interdisciplinary team, the anticipated direct and indirect effects of the proposed road repair projects are essentially the same as those identified in the 2014 District ERFO EA.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Public involvement for the 2014 District ERFO EA was adequate. The BLM sent scoping letters on November 8, 2013 to potentially affected and or interested individuals, groups, and agencies. No comments were received during the scoping period (EA pp. 4–5).

The BLM published the EA and signed FONSI for a 15-day public review on April 10, 2014. The BLM received no comments on the EA or FONSI.

E. Persons/Agencies

Wildlife: Consultation for road repair projects covered under this DNA has been completed under the U.S. Fish and Wildlife Service Biological Opinion, 01EOFW00-2014-F-0163, June 30, 2014. The proposed actions would only occur outside of the critical breeding seasons for northern spotted owl and marbled murrelet per the Biological Opinion. No further consultation is warranted.

Aquatics: The potential sediment input to streams that may result from actions associated with this project would not affect special status species or their habitat due to implementation of Project Design Features and the proximity of the proposed actions to SSS habitat. The proposed actions would not increase the likelihood for the need to list the Sensitive species found in the analysis area under the Endangered Species Act. Proposed repairs would not result in a reduction of shade or potential wood recruitment trees. No effects to listed fish species or their critical habitat would occur. Consultation is not warranted.

Note: Refer to the EA for a complete list of the team members participating in the preparation of the original environmental analysis or planning documents.

Conclusion

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of the NEPA.

Signature of Project Lead ***/s/ Greta Krost*** Date: ***February 1, 2016***
Greta Krost

Signature of NEPA Coordinator ***/s/ Heather Partipilo*** Date: ***January 26, 2016***
Heather Partipilo

Signature of the Responsible Official: ***/s/ Patricia Burke*** Date: ***February 1, 2016***
Patricia Burke

Specialist Review of Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA)
District Emergency Relief for Federally Owned Road Repairs
DOI-BLM-ORWA-C000-2016-0001-DNA

In addition to the certification on the attached Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA) form (OR120-1792-01), the following resource specialists have reviewed this new project in light of the analysis made in the original Environmental Assessment:

Botany	Tim Rodenkirk	***/s/ Tim Rodenkirk*** Signature	1/25/2016 Date
Cultural	Stephan Samuels	***/s/ Stephan Samuels*** Signature	1/25/2016 Date
Engineering	Pete Broussard	***/s/ Pete Broussard*** Signature	1/25/2016 Date
Environmental Justice	Stephan Samuels	***/s/ Stephan Samuels*** Signature	1/25/2016 Date
Fish	Stephanie Messerle	***/s/ Stephanie Messerle*** Signature	1/25/2016 Date
Forestry/Silviculture	Liam Browning	***/s/ Liam Browning*** Signature	1/25/2016 Date
Hazardous Materials	Julia Jackson	***/s/ Julia Jackson*** Signature	1/25/2016 Date
Hydrology	Teague Mercer	***/s/ Teague Mercer*** Signature	1/25/2016 Date
Port-Orford-cedar	Jim Kirkpatrick	***/s/ Jim Kirkpatrick*** Signature	1/25/2016 Date
Realty	Joanne Miller	***/s/ Joanne Miller*** Signature	1/25/2016 Date
Right of Way	Brett Jones	***/s/ Brett Jones*** Signature	1/28/2016 Date
Geology	Greta Krost	***/s/ Greta Krost*** Signature	2/1/2016 Date
Weeds	Jim Kirkpatrick	***/s/ James Kirkpatrick*** Signature	1/25/2016 Date
Wildlife	Joyce Sisson	***/s/ Joyce Sisson*** Signature	1/25/2016 Date