

Categorical Exclusion Determination

Bonneville Power Administration

Department of Energy



Proposed Action: Alvey-Martin Creek No.1, Mile 23, Structure 6 Martin Creek Bridge Project (023-06-01)

Project No.: 395552

Project Manager: Clint Stanton, Access Road Engineer – TFLF-TPP-3

Location: Lane County, OR

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B1.3 Routine maintenance

Description of the Proposed Action: BPA proposes to perform routine road maintenance, repair, and improvements on the Alvey-Martin access road. The proposed project includes replacing the existing road embankment and three culverts that are partial-to-total barriers to fish passage with a fish-passable, channel-spanning bridge over Martin Creek. The purpose of the proposed project is to provide stable long-term access to the Alvey-Martin Transmission Line over Martin Creek for future maintenance or other work. The proposed project would remove an Oregon Department of Fish and Wildlife (ODFW)-documented fish passage barrier. The new 58-foot long bridge structure would be placed on abutments above the stream ordinary high water (OHW), and would have 3.5 feet clearance above the 100-year flood water surface elevation (WSE). Approximately 114 linear feet of Martin Creek would be restored after removing the existing road embankment. The size of the total project area is approximately 6,300 square feet.

A temporary bypass pipe would route Martin Creek around the in-water work area to allow for the removal of the existing culverts and roadbed material. Following demolition and removal of the existing infrastructure and fill, a 58-foot long steel or concrete bidder-designed bridge would be installed. Bridge installation would include the placement of buried riprap revetment for abutment protection. A layer of soil or streambed material varying in depth from approximately 1.5 to 2 feet would be installed over the riprap revetment to match final grades. Areas below the OHW elevation would be stabilized with streambed gravels, and exposed soil areas above OHW would be stabilized with temporary soil erosion control grass seed mix. Localized roadway grading would be required to match the existing gravel road elevations for the approaches at each end of the bridge.

The above described culvert replacement and fish passage project is proposed to be conducted in 2017 during the ODFW-approved in-water work window between June 1 and October 31.

If prior to, or during, construction activities the proposed action may result in adverse impacts to resources that are not described within this categorical exclusion, coordination with the appropriate agencies and a reevaluation of effects may be warranted.

Findings: In accordance with Section 1021.410(b) of the Department of Energy's (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, July 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

- (1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
- (2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
- (3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ John Wiley
John Wiley
Physical Scientist (Environmental)

Concur:

/s/ Sarah T. Biegel
Sarah T. Biegel
NEPA Compliance Officer

Date: April 19, 2017

Attachment(s): Environmental Checklist

Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

Proposed Action: Alvey – Martin Creek No. 1, Mile 23, Structure 6, Martin Creek Bridge Project (023-06-01)

Project Site Description

The project is located in rural Lane County, OR within the Willamette Valley. Land use within the project vicinity includes the BPA right-of-way clearing, forested hillslopes, rural residences, and a county road (Martin Creek Road). Martin Creek, a perennially flowing, freshwater tributary to the Coast Fork Willamette River, is within the project area. Land use in the immediate vicinity is privately held. The approximate site elevation is 800' above sea level.

- City, County, State: Unincorporated Lane County, OR
- Legal Description: Township: 21S, Range: 4W, Section 13
- Latitude/Longitude: approximately 43.7426 N, 123.1101 W
- Watershed Name: Martin Creek – Coast Fork Willamette River (HUC12 170900020305)
- Waterbody Name(s): Martin Creek
- Land Use: Private, BPA right-of-way

Evaluation of Potential Impacts to Environmental Resources

| Environmental Resource Impacts | No Potential for Significance | No Potential for Significance, with Conditions |
|------------------------------------|-------------------------------------|--|
| 1. Historic and Cultural Resources | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Explanation:

Based on the results of a desktop analysis of the proposed undertaking which considered the nature of the proposed action, its location, and setting, previous archaeological inventories conducted, and archaeological features recorded in that area, as well as on-going consultations with OR SHPO discussing when Section 106 consultation is appropriate; BPA determined that this proposed undertaking has no potential to impact cultural resources.

Letter Report 16-35 (Archeological Survey for the BPA Alvey-Martin Transmission Line Martin Creek Bridge Project Near Cottage Grove, Lane County, Oregon), dated June 24, 2016, and completed by Heritage Research Associates, Inc., was submitted to the Oregon State Historic Preservation Office (OR SHPO). BPA consulted with Native American tribes in April 2016 and informed them of its determination of no historic properties affected on September 2, 2016. No comments were received from the tribes, and on September 22, 2016, OR SHPO concurred with this determination.

In the event that archaeological or historical materials are discovered during project activities, work in the immediate vicinity must stop, the area would be secured, and the SHPO and the environmental project

lead must be notified. Work would not commence again until the SHPO has cleared the area.

2. **Geology and Soils**



Explanation:

The project would require ground-disturbing activities for the removal of the existing road embankment and three culverts and the installation of a fish passable, channel-spanning bridge over Martin Creek. The overall project would reduce soil erosion, scour, and sedimentation in Martin Creek that currently results from backwatering effects from the existing undersized culverts. During construction, BMPs to reduce erosion and sedimentation into the waterway would be employed prior to commencing ground-disturbing activities, and would be removed after construction has been completed. No prime or unique farmlands would be affected. Therefore, the proposed action would have limited impacts to geology and soils.

3. **Plants** (including federal/state special-status species)



Explanation:

A site evaluation was conducted by Otak biologists on February 18, 2016. Approximately 1,500 square feet of vegetation would be cleared to restore the stream channel and install the new bridge, including four deciduous trees. Most of the cleared area currently includes a mix of native and non-native herbaceous and shrub vegetation under the overhead utility lines. All other trees within the project area would be protected during construction, and all exposed soils would be replanted and stabilized with a native grass seed mix. No federal or state special-status plant species or their habitats were documented to occur within the vicinity or were observed during the field survey due to lack of suitable habitat. Therefore, the proposed action would have no effect on special-status plant species and limited impacts to other native and non-native vegetation.

4. **Wildlife** (including federal/state special-status species and habitats)



Explanation:

Biologists from Otak, Inc. conducted a site visit on February 18, 2016, to verify habitat conditions for listed species and to evaluate the potential impacts of the proposed project within the action area. No suitable habitat for special-status wildlife species was found to occur within the project area. An official federally-listed species list was requested from the U.S. Fish and Wildlife Service Information, Planning and Conservation database (IPaC) on February 28, 2016, and re-confirmed on March 22, 2017. No federally-listed or proposed listed species or their designated critical habitats under jurisdiction of the USFWS have been documented to occur within 1 mile of the proposed project limits. Critical habitat for spotted owl is located approximately 1.2 miles west of the project area, but no effects are anticipated due to the nature of the proposed project, distance of suitable habitat from the project area, and existing land uses nearby. The majority of the project actions would occur within the existing road prism and approximately 50 linear feet upstream and downstream of the existing road embankment. An Endangered Species Act (ESA) Letter of No Effect for this project has been completed and provides further details. Therefore, the project would have no impact to special-status wildlife species.

5. **Water Bodies, Floodplains, and Fish**
(including federal/state special-status
species and ESUs)



Explanation:

Martin Creek is a perennially flowing, freshwater tributary to the Coast Fork Willamette River. Active channel width varies within the project area due to the scour pool that has developed upstream of the road crossing, and the plunge pool that has developed downstream of the road crossing. Away from the road, the active channel width averages approximately 10.5 feet upstream of the crossing and 12.1 feet downstream of the crossing. Martin Creek is moderately incised upstream of the crossing, and flows within a steep-sided ravine downstream of the crossing. The three culverts in the road embankment are at varying elevations, which is indicative of the periodic high flows in the creek. Streambanks showed signs of erosion and scour that have likely developed from the hydrological effects caused by the road embankment and undersized culverts.

The proposed project includes replacing the existing road embankment and three culverts with a fish-passable, channel spanning bridge over Martin Creek. A temporary bypass pipe and stream diversion would route Martin Creek around the in-water work area to allow for the removal of existing culverts and roadbed material. The new 58-foot long bridge structure would be placed on abutments above the 100-year water surface elevation (WSE). The bottom of the bridge structure has been designed to have a minimum 3.5 feet clearance above the 100-year WSE. Impacts to the floodplain have been evaluated using a hydraulic (RAS) model, which is used to determine the effects of the project on surface water elevation. The primary design was driven by the following criteria:

1. Length = 1.5xActive Channel Width (minimum)
2. Low Chord = higher than the 100-year flood elevation (base flood elevation)
3. Abutment = Protected from scour via deep embedment or protection measure such as riprap revetment

The project would not create a rise of the base flood elevation, and would reduce the 100-year WSE upstream of the bridge.

Approximately 114 linear feet of Martin Creek would be restored to fill in the scour pool downstream of the crossing and remove aggradation upstream of the crossing caused by the existing road embankment and undersized culverts. Approximately 30 linear feet (510 square feet) of Martin Creek would be daylighted by removing the existing road embankment and three culverts. The plunge pool downstream of the crossing would be partially filled in with suitable streambed materials during grading to tie the restored stream channel to the existing channel bed elevations downstream. A total 2,367 square feet of regrading (filling and excavation) would occur within the OHW of Martin Creek, including the placement of streambed gravels.

Bridge installation would include the placement of riprap revetment installed below grade for abutment protection. A layer of soil or streambed material varying in depth from approximately 1.5 to 2 feet would be installed over the riprap revetment to match final grades. Areas below the OHW elevation would be stabilized with streambed gravels, and exposed soil areas above OHW would be stabilized with temporary soil erosion control grass seed mix.

Documented fish species present in Martin Creek include rainbow trout and unlisted runs of steelhead per the StreamNet database. Fish distribution, or life-stage distribution, may be limited upstream of the existing culverts due to the current fish-passable barriers. No federally-listed fish or their designated critical habitats under jurisdiction of the USFWS or the National Marine Fisheries Service occur within the

project area. The uppermost extent of federally-listed threatened Upper Willamette River (UWR) spring-run Chinook salmon and UWR steelhead is approximately 21 miles and 60 miles, respectively, downstream of the project area. An Endangered Species Act Letter of No Effect for this project has been completed and provides further details.

Temporary impacts to waterbodies and fish may occur during the removal of the existing culverts. Such impacts may include downstream turbidity and isolation of the work area during in-water work. Impacts are expected to be short term in nature and limited to the duration of the in-water work (likely less than one week). BMPs would be employed to ensure that any impacts associated with conducting in-water work are avoided and/or minimized. BMPs may include erosion and sediment control fencing on the banks, fish screens on intake pumps used for dewatering the work area, velocity diffusion implementation at the diversion pipe outfall, implementing fish salvage prior to dewatering or conducting in-water work for any aquatic species that may be present within the in-water work area, employing sediment control screens or equivalent (such as hay bales) to reduce downstream turbidity, the use of pre-cast concrete bridge materials, disposal of all waste in an approved facility, and other BMPs as appropriate.

In-water work would be conducted during the ODFW in-water work window for Martin Creek (June 1-October 31). The proposed in-water work is expected to take place over a very short period of time and any impacts to waterbodies and fish are therefore temporary in nature. No impacts to floodplains are anticipated as the project would occur during the drier months when Martin Creek is low flowing. The proposed action may have short-term and localized impacts to water quality and habitat access for resident fish species. BMPs would be employed to avoid or minimize any impacts. The project would have no long-term adverse impacts to water bodies, floodplains or fish and would have a net benefit to waterbodies, floodplains, and fish species.

6. **Wetlands**



Explanation:

The stream channel restoration would result in impacts to 202 square feet of low-functioning, sparsely vegetated, riverine emergent wetlands within the OHW boundary of Martin Creek upstream of the existing crossing. The wetlands formed in the sediment deposition areas near the culverts and road embankment, and along the channel margins where the stream bank has sloughed into the channel. A goal of the project is to eliminate the sheer erosive forces created by high flows that are restricted by the undersized culverts, and cause scour and deposition upstream of the crossing.

A Nationwide Permit #27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities has been issued by the U.S. Army Corps of Engineers to authorize the project activities. Approximately 30 linear feet (510 square feet) of Martin Creek would be daylighted from removing the existing culvert. Riverine wetlands would have the potential to reform within the stream OHW after the existing undersized culvert and road embankment are removed. Therefore, the proposed project would not have adverse impacts to wetlands.

7. **Groundwater and Aquifers**



Explanation:

Groundwater and aquifers would not be impacted by the proposed project as the project does not include any groundwater withdrawals or changes to aquifer recharge areas. The proposed work is limited to the stream channel and existing roadway. There would be no impacts to groundwater or

aquifers.

8. **Land Use and Specially Designated Areas**



Explanation:

No change in land use is proposed as part of the project. No specially designated areas were identified within the project limits. There would be no impacts to land use or specially designated areas.

9. **Visual Quality**



Explanation:

There is one residence within visual range of the work limits approximately 725 feet southeast of the project area. The proposed project feature is visually consistent with the existing road embankment and stream crossing and is within a forested riparian corridor. There would be no impacts to visual resources.

10. **Air Quality**



Explanation:

Dust and equipment emissions generated during construction activities are expected to be minimal and temporary in nature. The project would not result in an increase in vehicle emissions since the unpaved road and crossing currently exist, and no service or road expansion is proposed.

11. **Noise**



Explanation:

Noise generated from construction is expected to be localized and temporary in nature. Construction is anticipated to last approximately four weeks. The current level of road use is not expected to change, and no operational noise increases are expected.

12. **Human Health and Safety**



Explanation:

Project activities would not adversely impact human health or safety but would provide for safe, stable long-term access to the Alvey-Martin Transmission Line over Martin Creek for future maintenance or other work.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

- Threaten a violation of applicable statutory, regulatory, or permit requirements for environment,

safety, and health, or similar requirements of DOE or Executive Orders.

Explanation, if necessary:

- Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation, if necessary:

- Disturb hazardous substances, pollutants, contaminants, or CERCLA excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.

Explanation, if necessary:

- Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation, if necessary:

Landowner Notification, Involvement, or Coordination

Land ownership within the project limits is privately held. BPA purchased an access road easement from the land owner in 1969 that includes maintenance and road repair activities. The Access Road Engineer would contact adjacent and potentially-affected landowners prior to project construction.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts to any environmentally sensitive resource.

Signed: /s/ John Wiley
John Wiley EP -4
Physical Scientist (Environmental)

Date: April 19, 2017