Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy

Proposed Action: Longhorn Substation Construction and McNary-Coyote Springs No.1 Line Modifications (Update to Previous CX issued April 26, 2023)

Project No.: P04342, LURR20230043

Project Manager: Matt Joerin, TEPP-TPP-1

Location: Morrow and Umatilla counties, Oregon

Categorical Exclusions Applied (from Subpart D, 10 C.F.R. Part 1021): B1.3 Routine maintenance; B1.24 Property transfers; B4.6 Additions and modifications to transmission facilities; B4.7 Fiber optic cable; B4.11 Electric power substations and interconnection facilities

Description of the Proposed Action: Bonneville Power Administration (BPA) proposes to construct a new 500/230-kilovolt (kV) Longhorn Substation, which would also require some modifications and upgrades (i.e., replacing structures, raising structures to remediate impaired spans, and relocating portions of an existing fiber optic cable onto new wood poles) along the existing 500-kV McNary-Coyote Springs No. 1 transmission line in Morrow and Umatilla counties, Oregon. BPA would acquire temporary construction easements and new access road and transmission line easements, where needed. Prior to construction of Longhorn Substation, a temporary Land Use Agreement would be executed with the Port of Morrow to allow for the removal of an irrigation pivot from BPA's fee-owned property. An additional Land Use Agreement would be executed to allow Umatilla Electric Cooperative to provide temporary construction service and permanent station service on BPA fee-owned land for the new Longhorn Substation. The proposed action is in response to a Umatilla Electric Cooperative (UEC) 230-kV interconnection request (L0482) and would increase local area capacity for future load and generation service.

Construction of Longhorn Substation and the associated transmission line work would include the following activities:

- Replace 12 existing steel lattice structures on McNary-Coyote Springs No. 1 within 1-mile ahead-on-line (AOL) and back-on-line (BOL) of Longhorn Substation to support new overhead groundwire (OHGW).
- Construct two new steel lattice transmission structures and string new conductor to support a line split into the Longhorn Substation yard; thereby creating two new transmission lines: McNary-Longhorn and Longhorn-Coyote Springs.
- Increase the heights of 20 existing steel lattice structures on McNary-Coyote Springs No. 1 to remediate line impairments.
- Install 32 new, single wood pole structures to support relocation of fiber optic cable from structures 16/1 to 19/3 on McNary-Coyote Springs No. 1, and trench new underground fiber from Longhorn Substation to existing vaults near structures 17/5 and 18/1.

- Install electronic relay and communications equipment inside the existing control houses at McNary Substation and Coyote Springs Substation along with two GPS antennas on each control house roof. A pair of fiber jumpers would also be required to support communication system upgrades at Boardman Substation.
- Improve and reconstruct existing access roads along McNary-Coyote Springs No. 1, as necessary, and construct new access roads to Longhorn Substation.

Site preparation for the new, approximately 38 acre Longhorn Substation yard would include blading, grading, and excavating. The new substation yard would have a grounding mat, a concrete duct bank system, conduit, piping for water service, secondary oil containment, stormwater drainage, and concrete footings for the new substation equipment, dead-end structures, and control house. Excavation for grounding would extend approximately 4 feet beyond the fenced substation yard in all directions. Excavated areas would be backfilled using previously-excavated soils, compacted and graded flat, and resurfaced with a minimum 3-inch layer of crushed rock. Substation equipment to be installed inside the yard would include 500/230-kV power transformers, a shunt reactor, power circuit breakers, voltage and current transformers, surge arresters, disconnect switches, bus tubing and pedestals, dead-end structures, static masts, station service transformers, a station service rack, and lighting.

Longhorn Substation would require stormwater infrastructure to convey stormwater to two new infiltration basins, which would completely infiltrate all stormwater runoff from the developed site. A secondary oil containment system would be required for oil-filled equipment (i.e., reactors and transformers). The new substation control house would require potable water and wastewater services, which would be provided via a newly-installed 1 1/2-inch water service line to a local water main and an on-site septic system. Additional development outside of the new substation yard would include a permanent, fenced and graveled laydown yard.

On either side of the new substation, existing transmission structures from structures 16/4 to 19/1 on McNary-Coyote Springs No.1 would be replaced in approximately the same locations with structures designed to withstand the weight and tension of new OHGW. In addition, two new steel lattice transmission structures would be constructed to support a line split into the Longhorn Substation yard. All new or replacement structures would be between 80 feet and 150 feet tall with new conductor hardware, ground wire, signage, and fall protection. Existing structures would be removed by cutting off each leg no less than 3 feet below grade and backfilling with excavated soil. To string the new conductor, pulling and tensioning sites would be located within the existing ROW corridor BOL from structure 16/4 and AOL from structure 19/1. See Table 1 for a summary of temporary and permanent ground disturbance associated with these activities.

The existing fiber optic cable from structures 16/1 to 19/3 on McNary-Coyote Springs No.1 would be re-strung on 32 new single-pole wood structures installed within the existing ROW. BPA would excavate new holes, install the structures, and backfill with excavated soil. To string the new fiber optic cable, pulling and tensioning sites would be established within existing ROW, BOL from structure 16/1 and AOL from structure 19/3. Existing fiber vaults would be reused, and four new 4-foot by 4-foot precast concrete vaults would be installed: three outside of the new substation yard and one at the base of a new structure 3/5A on the new bypass line. New conduit would route from these new fiber vaults into the substation. See Table 1 for a summary of temporary and permanent ground disturbance associated with these activities.

The McNary-Coyote Springs No.1 conductor is impaired in 30 spans, requiring 20 existing steel lattice transmission structures to be raised between 10 and 25 feet. The structure heights would be increased using the AmpJack system, which allows for the addition of new steel extensions in the middle of the existing structures to increase the overall height. Equipment at each structure

site would include the modular AmpJack system transported on a flat-deck trailer, a tracked forklift, new steel extensions, and work crew vehicles.

For temporary and permanent electrical service during construction and for the new substation, a trench would be dug for an underground 12.4-kV distribution line. The new line would be contained within a 24-inch-wide by 4-foot-deep trench. One 4-inch conduit containing the 3-phase conductor would be installed along with another identical conduit 10 inches away. The second conduit would be used as a spare. A 4-foot-wide temporary disturbance area on each side of the trench is assumed for excavated material that would be temporarily piled along the edges of the trench. The trench would be backfilled and compacted. Two areas along the trench would be needed for an imbedded vault and an above-ground vault with a distribution transformer placed on a 3-foot by 3-foot concrete pad. The above-ground equipment would ultimately be within the proposed substation yard.

See Table 1 for a summary of temporary and permanent ground disturbance associated with these activities.The project includes an estimated 5,400 feet of new or reconstructed access roads, including construction of new gravel roads around the fenced substation yard and paved extensions from the existing Rupe Kennedy Road and Lewis and Clark Drive. The project also includes up to approximately 48,000 feet of access road improvements along McNary-Coyote Springs No. 1, as necessary. Temporary laydown areas and material yards to store and stockpile materials, trucks, and other equipment during construction would be located within the proposed disturbance areas on the BPA fee-owned substation parcel and within the existing transmission line ROW, including staging around each 500-kV steel lattice structure proposed for modification or replacement. Laydown and staging areas may require vegetation removal.

Table 1: Disturbance Type and Approximate Acreage per Project Component

Project Component	Quantity	Temporary Disturbance	Permanent Disturbance
Longhorn Substation construction	1	80 acres	38 acres
New 500-kV steel lattice structures	2	200 feet x 150 feet = 0.7 acre (1.4 acres total)	80 feet x 80 feet = 0.15 acre (0.3 acres total)
Replacement 500-kV steel lattice structures	12	200 feet x 150 feet = 0.7 acre (8.3 acres total)	Structures replaced in-kind (No new permanent disturbance)
Modified 500-kV structures to remediate impairment	20	100 feet x 100 feet = 0.2 acre (4.6 acres total)	Structures raised in place (No new permanent disturbance)
New fiber optic wood poles	32	100 feet x 100 feet = 0.2 acre (7.3 acres total)	26 inch dia. = 0.01 acre (0.3 acres total)
Pulling and tensioning sites	5	300 feet x 150 feet = 1.0 acre (5.2 acres total)	Sites returned to pre-existing (No new permanent disturbance)
Access road improvements	48,000 linear feet	4 feet x 48,000 feet = 4.4 acres*	Improvement of existing roads (No new permanent disturbance)
New access road construction+	600 linear feet	30 feet x 600 feet = 0.4 acres	16 feet x 600 feet = 0.2 acres
Station service underground cables and vaults	1,700 linear feet	10 feet x 1,700 feet = 0.4 acres	0 acres
Total acres (approximate)		112 acres	39 acres

* Temporary disturbance would extend 2 feet on either side of the existing road prism.

\+ Approximately 4,800 feet of additional new access roads would be constructed around Longhorn Substation. The disturbance associated with those new substation access roads are accounted for in the overall substation construction disturbance estimate.

Construction is anticipated to require one year beginning in spring-summer 2023. Construction equipment at the substation site would include line trucks, cranes, graders, excavators, bulldozers, augers, forklifts, and light duty vehicles. Following completion of construction, temporarily disturbed areas would be stabilized and re-seeded, as appropriate.

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, Jul. 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/ Nancy A. Wittpenn
Nancy A. Wittpenn ECT-4
Environmental Protection Specialist

Concur:

KATEY GRANGE
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Katey C. Grange
NEPA Compliance Officer

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: Longhorn Substation Construction and McNary-Coyote Springs No.1 Modifications

Project Site Description

The project site includes the BPA fee-owned property where Longhorn Substation would be constructed, BPA's existing McNary-Coyote Springs No. 1 transmission line ROW, and access roads. BPA would also mobilize to McNary Substation, Coyote Springs Substation, and Boardman Substation to complete work within the substation yards and control houses. Longhorn Substation, Boardman Substation, Coyote Springs Substation, and the majority of the ROW is in Morrow County, Oregon. McNary Substation and three impairment spans are located in Umatilla County, Oregon. The majority of the proposed action, including material laydown, equipment staging, pulling and tensioning sites, and station service equipment would occur within the existing, previously-disturbed ROW and on the BPA property. Access road improvements and reconstruction would occur in various locations along the existing access road network. Work would occur on private property and on public lands owned or managed by the Bureau of Reclamation, Port of Morrow, and the Oregon Department of Fish and Wildlife (ODFW) (Coyote Springs Wildlife Area) in areas where BPA has existing easements.

The majority of the project site consists of irrigated agricultural fields or heavily disturbed lands at the margins of these fields. These areas contain little, if any, native vegetation, are dominated by row crops or non-native species (e.g., fiddleneck [*Amsinckia intermedia*], knapweed [*Centaurea diffusa]*, and cheat grass [*Bromus tectorum]*) and lack a large sagebrush (*Atemisia spp.*) component. The presence and dominance of weedy plant species likely limits the overall use of the area by wildlife, and the general industrial nature of the land use in the area may have resulted in an outmigration of wildlife from the area. Very few signs of wildlife, such as coyote scat, deer sign, or other animal tracks were observed. McNary-Coyote Springs No. 1 crosses West Extension Irrigation District canals and the Umatilla River; although no in-water work is required. No wetlands were identified within the project site. The surrounding area is primarily characterized by rural residential, agricultural, and industrial land use, interspersed with warehouses, aggregate mining, industrial areas, military operations areas, and multiple transmission line corridors. The project site includes a portion of the Coyote Springs Wildlife Area, which is owned by the Bureau of Reclamation and managed by ODFW for public recreation, primarily bird watching and hunting.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No with conditions

Explanation: On August 25, 2022, BPA initiated National Historic Preservation Act, Section 106 consultation with the following parties:

- Bureau of Land Management
- Bureau of Reclamation
- City of Boardman
- Confederated Tribes and Bands of the Yakama Nation

- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Morrow County
- Nez Perce Tribe
- Oregon Department of Transportation
- Oregon Heritage: State Historic Preservation Office (SHPO)
- Port of Morrow
- Umatilla County
- West Extension Irrigation District

On December 20, 2022, BPA determined that the proposed undertaking would cause no adverse effect to historic properties (BPA CR Project No.: OR 2021 096; OR SHPO Case No.: 21-1600). After additional information was provided, concurrence with BPA's determination was received from the Confederated Tribes of the Umatilla Indian Reservation on March 9, 2023. No other comments were received.

Notes:

- Implement an Inadvertent Discovery Plan (IDP) in the unlikely event that cultural material is encountered during the implementation of the proposed project. BPA would require that work be halted in the vicinity of the finds to ensure integrity of site and materials until they can be inspected and assessed by BPA in consultation with the appropriate consulting parties. Contact one of the BPA environmental leads and/or the BPA archaeologist for further instruction.
- Five existing access road segments along McNary-Coyote Springs No. 1 are designated as route of travel only. No road improvements or ground disturbance (i.e., blading, grading, or adding new surface rock) is allowed in these areas.

2. Geology and Soils

Potential for Significance: No

Explanation: The proposed action could cause up to approximately 112 acres of temporary soil disturbance in areas where vehicle and equipment use would result in minor soil rutting and compaction, trenching, and vegetation removal. Approximately 39 acres of permanent soil impacts would occur where new structures are installed and where soils are covered in gravel or pavement. Temporarily disturbed soils would stabilize as vegetation is reestablished and would eventually return to pre-existing conditions following completion of the project. Any excess soil remaining after construction would be disposed of according to local, state, and federal regulations. Standard construction best management practices (BMPs) would minimize erosion, sedimentation, and fugitive dust.

3. Plants (including Federal/state special-status species and habitats)

Potential for Significance: No

Explanation: The proposed action would temporarily crush, strip, or clear up to approximately 112 acres of vegetation and would permanently remove 39 acres of vegetation to construct the new structures, substation yard, and access roads. The majority of vegetation impacts would occur within actively cultivated areas or areas at the margins of agricultural fields that have been previously disturbed, largely lack a large woody component, and contain a greater abundance of exotic species than native grasses. Temporarily disturbed areas would be stablilized and returned to similar conditions following completion of the proposed action. Standard construction BMPs would minimize the spread of noxious weeds. The proposed action would have no effect on special-status plant species or habitats.

Notes:

- Revegetate temporarily disturbed areas on the Coyote Springs Wildlife Area with a seed mix approved or developed in coordination with land managers (i.e., ODFW) following completion of construction. On private land, BPA may revegetate with a native seed mix or a ground cover seed mix, depending on landowner preference.

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

Potential for Significance: No

Explanation: Wildlife surveys were conducted in May 2022 to identify potential special-status wildlife species and habitats, including Washington ground squirrel (*Urocitellus washingtoni)* and burrowing owl (*Athene cunicularia*). A single long-billed curlew (*Numenius americanus*), which is listed by the Oregon Department of Fish and Wildlife as a state-sensitive species, was observed near the proposed Longhorn Substation site. Long-billed curlew nest on the ground and may use the area for foraging and dispersal, but the degraded nature of the habitat makes it unlikely that a bird would nest in this area. In addition, a red-tailed hawk (*Buteo jamaicensis*) was observed on an existing transmission structure near the proposed substation. No work is proposed on the particular transmission structure, and construction noise is unlikely to disturb the nest given the high level of agricultural, industrial, and commercial activity that is typical of the area. No other special-status species were observed during field surveys. The proposed action would have no effect on special-status wildlife species or habitats.

The proposed action could impact wildlife through temporary and permanent habitat loss or modification, construction noise, spread of noxious weeds, and increased risk of bird collisions with the conductor due to increased structure height. While most wildlife species would likely be able to avoid construction areas and would only be temporarily disturbed by construction activities, some wildlife (primarily small burrowing mammals) could experience incidental mortality from ground disturbance. Incidental mortality would be low given the lack of suitable habitat and intensive land uses that characterize the project site.

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

Potential for Significance: No

Explanation: McNary-Coyote Springs No. 1 crosses West Extension Irrigation District canals and the Umatilla River. The Umatilla River supports fish species protected under the Federal Endangered Species Act, including bull trout (*Salvelinus confluentus*) and steelhead trout (*Oncorhynchus mykiss*). The Umatilla River is designated critical habitat for the Middle Columbia River DPS of steelhead trout. However, no riparian habitat, water bodies, floodplains or fish-bearing streams would be directly affected by the proposed action, and standard construction BMPs would prevent indirect impacts to water bodies, floodplains, and special-status fish. Therefore, the proposed action would not impact water bodies and floodplains and would have no effect on special-status fish species or habitats.

6. Wetlands

Potential for Significance: No

Explanation: A wetland survey was completed in June 2022, and no wetlands or waters were identified within or near the project site or structure work areas. No new structures are located within 50-feet of a wetland or waterway. Standard construction BMPs would prevent indirect impacts to off-site wetlands, if present. Therefore, the proposed action would not impact wetlands.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: Ground disturbance is unlikely to reach depths to groundwater, and no new wells or other uses of groundwater or aquifers are proposed. The proposed action includes installation of an oil containment system that would capture oil in the event of equipment failure or spill and would minimize any potential for impact to groundwater. The proposed septic system would be constructed according to all applicable regulations. Standard construction BMPs would reduce the potential for inadvertent spills of hazardous materials that could contaminate groundwater or aquifers. Therefore, the proposed action would not impact groundwater or aquifers.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: The proposed action could temporarily impact nearby residential, recreational, commercial, and industrial land uses due to construction noise, access restrictions, increased construction traffic, and ground disturbance. Recreational activities (primarily bird watching and hunting) could be temporarily restricted (up to 10 days) on the ROW within the Coyote Springs Wildlife Area to maintain public safety. Recreational users would have access to portions of the Wildlife Area outside of the ROW, and no other public lands are managed for public use. Permanent changes in land use would occur on BPA fee-owned property where Longhorn Substation would be constructed in an area that is currently an agricultural field. The proposed action is consistent with current surrounding land uses, and the project site is not located in a specially-designated area.

Notes:

- Deploy flaggers and/or signage around construction sites within the Coyote Springs Wildlife Area to reduce conflicts with recreational users.
- Coordinate with ODFW to schedule construction within the Coyote Springs Wildlife Area to minimize impacts to recreational users.
- Implement restoration or stabilization actions to restore temporarily disturbed areas within the Coyote Springs Wildlife Management Area as soon as is reasonably possible after ground disturbing activities and revegetate with a seed mix recommended by ODFW.

9. Visual Quality

Potential for Significance: No

Explanation: The proposed action would cause a perceptible change in the appearance of the project site and surrounding area. A viewshed analysis was prepared and provided to consulting parties as part of the Section 106 consultation process. During construction, the presence of construction equipment and general construction activities, including vegetation disturbance, would cause temporary visual impacts. Constructing a new substation and associated actions are permanent changes, but would be minor relative to the scale of the existing structures and equipment. The facilities would be consistent with other industrial and electric facilities in the area.

10. Air Quality

Potential for Significance: No

Explanation: The proposed action would cause a minor and temporary increase in dust and emissions in the local area from general construction activities. Standard construction BMPs would

suppress dust. There would be no long-term change in air quality following completion of the proposed action.

11. Noise

Potential for Significance: No

Explanation: During construction, use of vehicles and equipment and general construction activities could produce noise at levels higher than current ambient conditions. The proposed project site is in a rural area primarily surrounded by active agricultural fields and electric transmission infrastructure, with a few residential, recreational, commercial, and industrial properties. Construction-related noise could be audible from properties located near the transmission line. Noise impacts would be temporary and intermittent and would only occur during typical working hours (approximately 7 AM to 7 PM). There would be no long-term change in ambient noise following completion of the project.

12. Human Health and Safety

Potential for Significance: No

Explanation: All standard safety protocols would be followed throughout project construction, and standard construction BMPs would minimize risk to human health and safety. Therefore, the proposed action would not be expected to impact human health and safety.

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: N/A

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

Explanation: N/A

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: N/A

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: N/A

Landowner Notification, Involvement, or Coordination

Description: The proposed action would occur on BPA fee-owned property and on property were BPA has, or would acquire, an easement from the underlying landowner. All proposed actions on public lands would occur within BPA's existing easement areas. BPA would notify and coordinate with underlying landowners prior to the start of construction. No additional landowner notification, involvement, or coordination would be required.

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

Signed: */s/ Nancy A. Wittpenn* *May 31, 2023*
Nancy A. Wittpenn Date
Environmental Protection Specialist