

Exhibit Q

Threatened and Endangered Plant and Animal Species

Umatilla-Morrow County Connect Project



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Application for Site Certificate

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ACRONYMS AND ABBREVIATIONS

ASC	Application for Site Certificate
DPS	Distinct Population Segment
EFSC	Energy Facility Siting Council
ESA	Endangered Species Act
IRHN	Intermountain Regional Herbarium Network
OAR	Oregon Administrative Rule
ODA	Oregon Department of Agriculture
ODOE	Oregon Department of Energy
ODFW	Oregon Department of Fish and Wildlife
ONHP	Oregon Natural Heritage Program
ORBIC	Oregon Biodiversity Information Center
POWER	POWER Engineers, Inc.
Project	Umatilla-Morrow County Connect Project
Project Order	Administrative Rules, and Other Requirements Applicable to the Proposed Umatilla-Morrow County Connect Project (First Amended Project Order; April 04, 2024)
UEC	Umatilla Electric Cooperative
USFWS	United States Fish and Wildlife Service

1.0 INTRODUCTION

Exhibit Q provides an analysis of the potential impacts of the Umatilla-Morrow County Connect Project (Project) on state and federally listed threatened and endangered plant and animal species, as required by Oregon Administrative Rule (OAR) 345-021-0010(1)(q). Exhibit Q demonstrates the design, construction, and operation of the Project, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of any Threatened and Endangered species.

1.1 Site Certificate Application Requirements

OAR 345-021-0010(1)(q) requirements are referenced in the sections below.

1.2 Project Order Provisions

The Project Order states that all requirements of OAR 345-021-0010(1)(q) apply. The Project Order includes the following requirements:

Under OAR 345-021-0010(1)(q)(A) through (G), Exhibit Q must include a list of all threatened and endangered species listed in OAR 635-100-0125 or 603-073-0070 that have the potential to occur in the analysis area. For the application, the analysis area must include the area within the site boundary, except that the desktop analysis shall extend 5 miles from the site boundary.

The applicant shall identify these species based on a review of literature, consultation with ODFW, and reference to the list of species maintained by the Oregon Biodiversity Information Center. For each species identified, Exhibit Q must describe the nature, extent, locations, and timing of its occurrence in the analysis area; how the facility might adversely affect the species; what measures the applicant proposes to avoid or reduce any adverse impact; and the applicant's proposed monitoring program for impacts. Field surveys for any threatened and endangered species that may occur within the analysis area are required within or near suitable habitat that will be disturbed during construction and operation of the proposed facility.

For each threatened and endangered plant species, Exhibit Q must describe how the proposed facility, including any mitigation measures, complies with the protection and conservation program adopted by ODA, or if there is no protection and conservation program in place for an identified threatened or endangered plant species, describe any significant potential impacts the proposed facility may have on the continued existence of the species and on the critical habitat of such species, and must provide evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival recovery of the species.

Field surveys for any threatened and endangered species that may occur within the analysis area are required within or near suitable habitat that will be disturbed during construction and operation of the proposed facility. The applicant must consult with ODFW and ODA's Native Plant Conservation Program regarding appropriate field survey methods, survey areas, survey seasons, qualifications of field survey personnel, and the information to be included in a field survey report. Exhibit Q must include maps showing appropriate habitats for all identified species and a map showing the locations of the different species and habitats with respect to the proposed activities. If special status species surveys are required by other jurisdictions, applicant is encouraged to provide a single survey report that identifies occurrences of all listed species.

2.0 METHODS

2.1 Analysis Area

The analysis area for Exhibit Q is the area within the Project site boundary and 5.0 miles from the Project site boundary (Umatilla-Morrow County Connect- Amended Project Order April 4, 2024), as shown in Figure Q-1 at the end of this report. The Project features are fully described in Exhibit B, and the Project site boundary for each Project feature is described in Exhibit C. The location of the Project features and the Project site boundary are provided in Exhibit C.

2.2 Desktop Analysis

POWER Engineers, Inc. (POWER) biologists conducted a desktop analysis to identify the federal endangered, threatened, and candidate species and state endangered and threatened species that may be present in the analysis area. The following data sources were reviewed:

- » United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation tool (USFWS 2024a)
- » USFWS Designated Critical Habitat (USFWS 2024b)
- » Threatened, Endangered, and Candidate Fish and Wildlife Species in Oregon (ODFW 2021a)
- » Oregon Listed Plants for Morrow and Umatilla counties (ODA 2023a)
- » Rare, Threatened and Endangered Species of Oregon (ORBIC 2019)
- » Biotics Rare Species Database (ORBIC 2024)
- » Oregon Department of Fish and Wildlife (ODFW) Oregon Fish Habitat and Distribution (ODFW 2023a)
- » Land Cover (ONHP 2010)
- » Intermountain Regional Herbarium Network herbarium records (IRHN 2024)
- » Pacific Northwest Herbarium Specimen Records (Consortium of Pacific Northwest Herbaria 2024)
- » Esri World imagery (Esri 2023)

An initial list of threatened and endangered species potentially occurring in the analysis area was identified by reviewing the USFWS Information for Planning and Consultation list (2024a), the state-listed threatened and endangered plant species list for Morrow and Umatilla counties (ODA 2023), and the list of Threatened, Endangered, and Candidate Fish and Wildlife Species in Oregon (ODFW 2021). POWER biologists refined the list of threatened and endangered species with potential to occur by reviewing species-specific habitat requirements, species distributions, and known occurrences in the analysis area.

2.3 Field Surveys

Six types of wildlife and botanical surveys were completed concurrently on properties where rights-of-entry were obtained: 1) Washington ground squirrel (WGS), 2) western burrowing owl, 3) other wildlife species and raptor nests, 4) Oregon threatened and endangered plants, 5) wildlife habitats, and 6) noxious weeds. The analysis area and survey dates for each survey are summarized in Table Q-1.

TABLE Q-1. SURVEYS COMPLETED

SURVEY TYPE	ANALYSIS AREA	SURVEY DATE
Washington Ground Squirrel	1,000-foot buffer of the Project site boundary	March 19 to March 22, 2024 April 16, 2024 May 14 to May 16, 2024
Western Burrowing Owl	1,000-foot buffer of the Project site boundary	March 19 to March 22, 2024 April 16, 2024 May 14 to May 16, 2024
Other Wildlife Species and Raptor Nests	1,000-foot buffer of the Project site boundary	March 19 to March 22, 2024 April 16, 2024 May 14 to May 16, 2024
Oregon threatened and endangered plants	1,000-foot buffer of the Project site boundary	March 19 to March 22, 2024 April 16, 2024 May 14 to May 16, 2024
Wildlife Habitats	Project site boundary	March 19 to March 22, 2024 April 16, 2024 May 14 to May 16, 2024
Noxious Weeds	Project site boundary	March 19 to March 22, 2024 April 16, 2024 May 14 to May 16, 2024

2.3.1 Washington Ground Squirrel

Washington ground squirrel surveys were conducted in accordance with the survey methods described in Washington Ground Squirrel Protections and Survey Requirements (ODFW 2019) and Status and Habitat Use of the Washington Ground Squirrel on State of Oregon Lands (Morgan and Nugent 1999). Consistent with ODFW (2019), the Washington ground squirrel analysis area consisted of the portions of a 1,000-foot buffer of Project disturbance areas located in suitable Washington ground squirrel habitat. ODFW defines suitable Washington

ground squirrel habitat as any terrestrial habitat within the range of the Washington ground squirrel that has not been developed (i.e., active agricultural lands).

Prior to initiating the surveys, POWER biologists coordinated with ODFW about survey requirements and completed a field training session with ODFW biologists on March 19, 2024, at The Nature Conservancy's Lindsay Prairie Preserve to review the survey protocol and identification of Washington ground squirrel individuals, alarm calls, holes, scat, and trails.

Surveys consisted of three biologists walking meandering transects approximately 60 meters apart, listening for Washington ground squirrel alarm calls and searching for potential Washington ground squirrel signs (i.e., holes, scat, or trails). The analysis area was surveyed twice, once in March (March 20 to March 22, 2024) and April (April 16, 2024) and once in May (May 14 to May 16, 2024, and May 23, 2024), to correspond with the highest Washington ground squirrel activity period when juveniles have emerged and alarm calls are most frequent. During the first survey, all areas of undeveloped land in the analysis area where access permission was granted was surveyed. During the second survey, based on coordination with ODFW (L. Sommers, personal communication, May 9, 2024), the following areas were determined to be unsuitable for Washington ground squirrel and excluded from surveys:

- » Untilled areas between crop circles surrounded by paved 2-lane roads and railroads
- » Reclaimed paved lands (e.g., railroads and roads)
- » Wetlands
- » Fallow or active poplar plantations
- » Areas with cobbley soils

All other areas surveyed during the first survey were re-surveyed during the second survey. During the second survey, transects were walked perpendicularly to the first survey transects to maximize coverage of the habitat.

2.3.2 Special Status Plants

Special status plant surveys were completed concurrently with the Washington ground squirrel surveys, and within the same analysis area. The survey consisted of searching for the presence of the Oregon listed plant species with potential to occur in the analysis area (i.e., Lawrence's milkvetch [*Astragalus collinus* var. *laurentii*]).

2.3.3 Other Surveys

Survey methods for western burrowing owl, other wildlife species and raptor nests, wildlife habitat, and noxious weeds are described in Exhibit P.

3.0 RESULTS

3.1 General Standards

The Threatened and Endangered Species Standard at Oregon Administrative Rule (OAR) 345-022-0070 provides:

To issue a site certificate, the Council, after consultation with appropriate state agencies, must find that:

- 1) *For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under [Oregon Revised Statute (ORS)] 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:*
 - a) *Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or*
 - b) *If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and*
- 2) *For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.*

3.2 Species Occurrence and Potential Adverse Effects

OAR 345-021-0010(1)(q): (A) Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2), ORS 564.105(2) that may be affected by the proposed facility;

Table Q-2 lists the threatened and endangered species with potential to occur in the analysis area and Project site boundary, based on the results of the desktop analysis, field surveys, and agency coordination.

TABLE Q-2. THREATENED AND ENDANGERED SPECIES WITH POTENTIAL TO OCCUR IN THE ANALYSIS AREA AND PROJECT SITE BOUNDARY

SPECIES	REGULATORY STATUS ¹	HABITAT DESCRIPTION	POTENTIAL TO OCCUR IN ANALYSIS AREA ^{2,3}	POTENTIAL TO OCCUR IN PROJECT SITE BOUNDARY ²
PLANTS				
Lawrence's milkvetch (<i>Astragalus collinus</i> var. <i>laurentii</i>)	ST	Sandy or rocky soils overlaying basalt on dry slopes in bunchgrass-dominated plant communities, mostly from 2,000 to 3,400 feet.	Yes- Suitable habitat present.	Yes- Suitable habitat present. Not found during 2024 field surveys.
Northern wormwood (<i>Artemisia campestris</i> var. <i>wormskieldii</i>)	SE	Basalt, compacted cobble, and sand on the banks of the Columbia River.	Yes- Suitable habitat may be present on the banks of the Columbia River; but species thought to be extirpated in Oregon.	No- No suitable habitat present.
BIRDS				
Yellow-billed cuckoo (Western DPS) (<i>Coccyzus americanus</i>)	FT	Large continuous riparian forest. Breed in riparian woodlands within wide floodplains that have relatively dense overstory and understory components, typically with native cottonwoods (<i>Populus</i> spp.) and willows (<i>Salix</i> spp).	Yes- Potential marginally suitable breeding habitat is present along the Umatilla River approximately 1.5 miles east of the Project, within the Umatilla National Wildlife Refuge approximately 2.0 miles northwest of the Project, and at Lost Lake approximately 3.5 miles south of the Project.	No- No suitable habitat.
FISH				
Bull trout (<i>Salvelinus confluentus</i>)	SC; FT	Need cold, clean water to survive. Typically found in the headwaters of Oregon rivers.	Yes- Occurs year-round in the Umatilla River; USFWS-designated critical habitat and migration habitat present in the Columbia River (ODFW 2023a).	No- No perennial streams or other waterbodies are present that could potentially support bull trout.
Steelhead - Summer / Columbia Basin rainbow trout (<i>Oncorhynchus mykiss</i> / <i>gairdneri</i>)	SC; FT	Spawn and rear in freshwater streams, then migrate as juveniles to the ocean before returning as adults to freshwater streams to spawn.	Yes- Spawning and rearing habitat present in Butter Creek, rearing and migration habitat present in the Umatilla River, and migration habitat present in the Columbia River, all of which are within the 5.0-mile analysis area for	No- No perennial streams or other waterbodies are present that could potentially support steelhead.

SPECIES	REGULATORY STATUS ¹	HABITAT DESCRIPTION	POTENTIAL TO OCCUR IN ANALYSIS AREA ^{2,3}	POTENTIAL TO OCCUR IN PROJECT SITE BOUNDARY ²
			T&E species (ODFW 2023a).	
INVERTEBRATES				
Monarch butterfly (<i>Danaus plexippus</i>)	FC	Larval stage obligate to host plant—milkweeds (<i>Asclepias spp.</i>), growing in a variety of open habitats including agricultural areas, disturbed areas, grasslands, and meadows.	Yes- Suitable habitat present if milkweed is present.	Unlikely- No milkweed observed during field surveys and few other nectar plants present.
MAMMALS				
Gray wolf (<i>Canis lupis</i>)	FE	Habitat generalists; historically were distributed state-wide.	Unlikely- No Areas of Known Wolf Activity occur in or near the analysis area (ODFW 2023b).	Unlikely- No Areas of Known Wolf Activity occur in or near the Project site boundary (ODFW 2023b).
Washington ground squirrel (<i>Urocitellus washingtoni</i>)	SE	Shrub-steppe or grasslands with deep, loose, sandy loam soil suitable for burrows and with abundant forbs. Require sufficient patch size to maintain a colony and corridors that provide connectivity between colonies.	Yes- Known to occur on the Naval Weapons Systems Training Facility Boardman and private lands south of the Project site boundary (ORBIC 2024).	Yes- Suitable habitat present on the Columbia Basin Development Authority and other undeveloped lands in the Project site boundary. No signs of WGS were detected during field surveys.
NOTES:				
¹ Regulatory status is defined as Federal Endangered Species Act endangered, threatened, candidate (FE, FT, FC); Oregon Endangered Species Act endangered or threatened (SE, ST).				
² Potential to occurs determination is based on a POWER biologist's professional opinion following the desktop review of the species' habitat specifications and field surveys.				
³ The analysis area extends 5.0 miles from the Project site boundary for federal endangered, threatened, candidate species and state endangered and threatened species.				

No federal or state threatened and endangered species were found during the 2024 field surveys. Survey results are detailed in the Biological Resources Survey Report (POWER 2024), included as Attachment P-1 in Exhibit P. Maps showing the location of habitats with respect to the proposed Project activities are included as Attachment P-2 in Exhibit P.

3.2.1 Plants

Lawrence's Milkvetch

Lawrence's milkvetch (*Astragalus collinus* var. *laurentii*) is state-listed as threatened. It is a perennial forb that is often found on dry slopes with sandy or rocky soils overlying basalt, mostly at elevations ranging from 2,000 to 3,400 feet (ODA 2024a). The species is endemic to the Columbia Plateau of northern Oregon and primarily occurs in grasslands dominated by

bluebunch wheatgrass (*Pseudoroegneria spicata*) and Idaho fescue (*Festuca idahoensis*) (ODA 2024a).

Occurrence in the Analysis Area

No Lawrence's milkvetch Oregon Biodiversity Information Center (ORBIC) occurrences were mapped in the analysis area (ORBIC 2024), and the closest herbarium specimens were collected 10.0 to 30.0 miles southeast of the Project (exact locations obscured; Consortium of Pacific Northwest Herbaria 2024). Additionally, the species has been surveyed extensively in the portions of the Project on the Columbia Development Authority property (former Umatilla Chemical Depot) and has not been found (USFWS 2007).

Survey Results

Lawrence's milkvetch was not found in the Project site boundary during 2024 field surveys.

Potential Adverse Effects

As Lawrence's milkvetch was not found during 2024 field surveys or in previous surveys in the vicinity of the Project (USFWS 2007), and there are no known occurrences in the analysis area, the species is unlikely to be present in the Project site boundary. Therefore, there would be no adverse effects of the Project on Lawrence's milkvetch.

Northern Wormwood

Northern wormwood (*Artemisia campestris* var. *wormskiolii*) is state-listed as endangered. It is a biennial or perennial forb whose historic range extends along the Columbia River from the mouth of the John Day River in Sherman County, Oregon westward to Bingen, Washington, with a disjunct historic population known from northwestern Umatilla County, Oregon (ODA 2024b). An additional disjunct population was discovered in 1983 near Priest Rapids Dam in Washington. The species is now assumed to be extirpated in Oregon, with only two known extant populations occurring in Washington; one in Grant County and one in Klickitat County (ODA 2024b). Northern wormwood is restricted to basalt, compacted cobble, and sand on the banks of the Columbia River (ODA 2024b).

Occurrence in the Analysis Area

No northern wormwood ORBIC occurrences were mapped in the desktop analysis area (ORBIC 2024). One herbarium specimen was collected near or in the analysis area (exact location obscured) in 1882, but all other herbarium specimens were collected a minimum of 44.0 miles west of the Project (Consortium of Pacific Northwest Herbaria 2024). There is no suitable habitat for northern wormwood in the Project site boundary. Northern wormwood has potential to occur in the portion of the analysis area adjacent to the Columbia River.

Potential Adverse Effects

There would be no adverse effects of the Project on northern wormwood, as the only suitable habitat for the species is 3.0 miles northwest of the Project, along the Columbia River.

3.2.2 Birds

Yellow-billed cuckoo

The western Distinct Population Segment (DPS) of yellow-billed cuckoo (*Coccyzus americanus*) is federally listed as threatened. Yellow-billed cuckoos inhabit large continuous riparian forest. Within most of the range of the western DPS (including Oregon), the yellow-billed cuckoo is a riparian-obligate species, most often breeding in low to moderate elevation riparian woodlands within wide floodplains that have relatively dense overstory and understory components, typically with native cottonwoods (*Populus* spp.) and willows (*Salix* spp.); Halterman et al. 2015; USFWS 2021). Western DPS yellow-billed cuckoos sometimes nest or forage within non-native shrubs, such as tamarisk (*Tamarix* spp.), but occupied habitat usually has a native component as well (USFWS 2021). Habitat is typically greater than 100 meters wide (USFWS 2021), and suitable patches are at least 15 hectares in size, and usually greater than 80 hectares in size (Halterman et al. 2015; USFWS 2021).

Occurrence in the Analysis Area

No yellow-billed cuckoo ORBIC occurrences are mapped in the desktop analysis area (ORBIC 2024). There is low to medium potential for yellow-billed cuckoo to occur within 5.0 miles of the Project, and very low potential for the species to breed within 5.0 miles of the Project. Potential marginally suitable breeding habitat is present within 5.0 miles of the Project in three areas: along the Umatilla River approximately 1.5 miles east of the Project, within the Umatilla National Wildlife Refuge approximately 2.0 miles northwest of the Project, and at Lost Lake approximately 3.5 miles south of the Project. The species was once fairly common in Oregon and Washington, west of the Cascades, but rarely recorded east of the Cascades. Currently, the species is rarely observed within Oregon and Washington (Cornell Lab of Ornithology 2024, iNaturalist 2024) and has not been confirmed breeding in Oregon since the 1940s (USFWS 2014). There is a non-breeding record of yellow-billed cuckoo (with confirmable photographs), observed in September 2019 in a 12-acre patch of riparian habitat along the Columbia River in Boardman (Cornell Lab of Ornithology 2024).

Potential Adverse Effects

There would be no adverse effects of the Project on yellow-billed cuckoo because there is no potentially suitable habitat within approximately 1.5 miles of the Project. The nearest potential habitat, along the Umatilla River, is surrounded by other human disturbances, including agricultural lands, roads, highways, and residential areas. From the location of potential habitat along the Umatilla River, it is unlikely that any noise or visual disturbance produced by the Project would be detectable over the presence of existing anthropogenic noises and visual disturbances.

3.2.3 Fish

Bull Trout

Bull trout (*Salvelinus confluentus*) is federally listed as threatened and is also a state sensitive-critical species. Bull trout in the analysis are within the Umatilla Core Area of the Lower Mid-Columbia geographic region of the Mid-Columbia Recovery Unit. Primary habitat threats to bull

trout within the Umatilla Core Area include upland/riparian land management, instream impacts, and water quality (USFWS 2015). Primary demographic threats to bull trout within the Umatilla Core Area include connectivity impairment and small population size (USFWS 2015).

Occurrence in the Analysis Area

Bull trout occur year-round in the Umatilla River, approximately 0.25 mile east of the Project; and USFWS-designated critical habitat and migration habitat is present in the Columbia River, approximately 3.0 miles northwest of the Project (ODFW 2023a).

There are no streams crossed by the Project or in the Project site boundary that could potentially support bull trout (ODFW 2023a).

Potential Adverse Effects

There would be no adverse effects of the Project on bull trout, as no streams or tributaries of streams that support bull trout would be crossed by the Project. Additionally, the Project would not require any in-water work. The Project would implement standard best management practices to avoid and minimize erosion and sedimentation, per the Erosion and Sediment Control Plan that will be developed in accordance with the Project's National Pollutant Discharge Elimination System permit. The closest stream that supports bull trout is the Umatilla River, approximately 0.25 mile east of the Project.

Steelhead – Summer/Columbia Basin Rainbow Trout

Steelhead - Summer / Columbia Basin rainbow trout (*Oncorhynchus mykiss / gairdneri*) is federally listed as threatened and is also a state sensitive-critical species. Steelhead in the analysis area are part of the Umatilla River population and the Middle Columbia River Distinct Population Segment, which spawn and rear in the Fifteenmile Creek, Deschutes, John Day, Umatilla, and Walla Walla River basins (ODFW 2010). Primary threats to the Umatilla River population include hatchery production that results in high proportions of stray hatchery fish in natural spawning areas; current land use practices that reduce habitat quality, quantity, and disrupt ecosystem functions; and the Columbia River mainstem hydrosystem (ODFW 2010).

Occurrence in the Analysis Area

Steelhead spawning and rearing habitat is present in Butter Creek, approximately 2.5 miles southeast of the Project; rearing and migration habitat is present in the Umatilla River, approximately 0.25 miles east of the Project; and migration habitat is present in the Columbia River, approximately 3.0 miles northwest of the Project (ODFW 2023a).

There are no streams crossed by the Project or in the Project site boundary that could potentially support steelhead (ODFW 2023a).

Potential Adverse Effects

There would be no adverse effects of the Project on steelhead, as no streams or tributaries of streams that support steelhead would be crossed by the Project. Additionally, the Project would not require any in-water work. The Project would implement standard best management

practices to avoid and minimize erosion and sedimentation, per the Erosion and Sediment Control Plan that will be developed in accordance with the Project's National Pollutant Discharge Elimination System permit. The closest stream that supports steelhead is the Umatilla River, approximately 0.25 mile east of the Project.

3.2.4 Invertebrates

Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) is a candidate for listing under the federal Endangered Species Act (ESA). Monarch butterflies are found across North America wherever suitable feeding, breeding, and overwintering habitat exists. Monarchs in the migratory populations (including in Oregon) congregate in overwintering sites in Mexico and California, and each spring undergo a northward migration lasting multiple generations to breeding areas up to 2,000 miles away. Then, a final generation migrates southward again in late summer or autumn. The number of generations produced in a given year can vary between three and five. As caterpillars, monarchs feed exclusively on the leaves of milkweed (*Asclepias* ssp.). As adults, monarchs feed on nectar from a wide range of blooming native plants. Breeding habitat consists of milkweed, as well as other flowers for foraging/nectar, and trees or shrubs for shade and perching. Migration habitat includes flowers, which provide nectar for adults during the spring and/or fall migration period, as well as roosting habitat (Western Monarch and Milkweed Occurrence Database 2018). While milkweed and other nectar plants used by monarchs can be found in a variety of habitat types, nectar and milkweed resources in western North America are often associated with riparian corridors (USFWS 2020).

Occurrence in the Analysis Area

No monarch ORBIC occurrences are mapped in the desktop analysis area (ORBIC 2024). However, Western Monarch Milkweed Mapper identified eight monarch sightings in the analysis area (Western Monarch and Milkweed Occurrence Database 2018). No monarch butterflies or milkweed plants were observed during the 2024 field surveys.

Potential Adverse Effects

Vegetation clearing for construction and maintenance of the transmission line may result in the loss of milkweed, if present, and loss of other nectar plants. Dust created during construction could reduce the quantity or quality of milkweed and other nectar plants. However, these effects are expected to be minor as milkweed is not known to occur in the Project site boundary, and few other nectar plants are present.

3.2.5 Mammals

Gray Wolf

The Project is located in the portion of the East Wolf Management Zone, where gray wolves (*Canis lupus*) are federally listed as endangered (ODFW 2023b). ODFW designates Areas of Known Wolf Activity, which represent areas where resident wolves and/or packs have become established. There are two Areas of Known Wolf Activity in Morrow County (Fivemile and

Madison Butte) and five Areas of Known Wolf Activity in Umatilla County (Horseshoe, North Emily, Ruckel Ridge, Touchet, and Ukiah). The Madison Butte and Fivemile Areas of Known Wolf Activity are the closest to the Project and located approximately 38.0 miles to the south. Wolves are habitat generalists and can establish territories anywhere there is a sufficient food source.

Occurrence in the Analysis Area

No gray wolf ORBIC occurrences are mapped in the analysis area (ORBIC 2024). Gray wolves have low potential to occur in the analysis area as no Areas of Known Wolf Activity occur in or near the analysis area (ODFW 2023).

Potential Adverse Effects

While there are no known wolf packs in the analysis area, gray wolves have potential to occasionally disperse through the analysis area. If gray wolves disperse through the analysis area, human presence, noise, and vehicle use associated with Project construction and maintenance activities could increase the potential for disturbance and vehicle mortality. Visual and noise disturbance during construction could cause a slight shift in movement patterns or behaviors if wolves are present in the area during construction activities. However, these effects are expected to be minor as the Project is located along highways, railroads, and other roads with existing noise and visual disturbance already present on the landscape.

Washington Ground Squirrel

The Washington ground squirrel was a candidate for listing under the federal ESA (59 Federal Register 58982) until 2016, when the USFWS announced that protection for Washington ground squirrel under the ESA was not warranted (81 Federal Register 64854). Washington ground squirrel is currently listed as endangered under the Oregon ESA.

Washington ground squirrel are endemic to the Columbia Plateau, south and east of the Columbia River and east of the John Day River. They occur in shrub-steppe and grassland habitats and occupy sites with sandy or silt-loam texture soils that are deep and supportive enough to accommodate its burrow structures (USFWS 2012). Approximately two-thirds of the Washington ground squirrel historic range has been converted to agricultural and residential uses (75 Federal Register 69239).

Occurrence in the Analysis Area

There are four ORBIC occurrence records for Washington ground squirrel in the analysis area: two are southwest of the Project within the northern portion of the Naval Weapons Systems Training Facility Boardman and adjacent private agricultural land, and two are southeast of the Project on private agricultural land (ORBIC 2024). The most densely occupied Washington ground squirrel territories in Oregon occur on the Naval Weapons Systems Training Facility Boardman and the adjacent Boardman Conservation Area (Audubon Society 2013).

Survey Results

Washington ground squirrel surveys were completed on 1,294 acres, which included all portions of the Washington ground squirrel analysis area where right-of-entry was granted. Permission to survey was not granted on 821 acres (39%) of the 2,115-acre analysis area. No Washington ground squirrel detections (visual or auditory) were made during the 2024 field surveys, and no Washington ground squirrel sign (holes, scat, or trails) was observed in the analysis area (POWER 2024; included as Attachment P-1 in Exhibit P). Similarly, Washington ground squirrel surveys completed in 1999 and 2000 on the Columbia Development Authority property, which is located within the Project site boundary, also failed to detect the presence of Washington ground squirrel (USFWS 2007).

Potential Adverse Effects

ODFW classifies Washington ground squirrel occupied habitat as Category 1 and Category 2 habitat, as defined in their Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0025). Category 1 Washington ground squirrel habitat includes the single hole or cluster of holes of an active colony, as well as the required habitat for Washington ground squirrel survival, which is a 785-foot buffer around the active holes. Category 2 Washington ground squirrel habitat is the area of potential Washington ground squirrel use that extends 4,921 feet beyond the colony in similar habitat type and quality. As no Washington ground squirrel holes or colonies were detected during the 2024 field surveys, the Project is not anticipated to adversely affect Category 1 or 2 habitats.

The Project will result in temporary and permanent loss of Washington ground squirrel suitable habitat. Suitable habitat in the Project site boundary includes annual grasslands, mixed annual/perennial grasslands, bitterbrush shrubland, and sagebrush steppe. A description of each habitat type is provided in Exhibit P. Table P-2 in Exhibit P includes a summary of acres of temporary and permanent disturbance to each habitat type. Locations of temporary and permanent disturbance areas are shown in Attachment P-2 in Exhibit P.

4.0 AVOIDANCE AND MITIGATION

OAR 345-021-0010(1)(q): (C) For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact;

No adverse effects that would warrant avoidance or mitigation were identified for threatened and endangered plant or wildlife species known or with potential to occur in the analysis area. Therefore, no species-specific avoidance measures are currently proposed for threatened and endangered species. Mitigation for impacts to habitat is described in the Draft Habitat Mitigation Plan (Exhibit P, Attachment P-4). All areas of temporary habitat disturbance will be restored as described in the Revegetation and Noxious Weed Plan (Exhibit P, Attachment P-3).

5.0 PROTECTION AND CONSERVATION PROGRAM COMPLIANCE

OAR 345-021-0010(1)(q): (D) For each plant species identified under (A), a description of how the proposed facility, including any mitigation measures, complies with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3);

The Oregon Department of Agriculture (ODA) establishes Protection and Conservation Programs for selected plant species listed as threatened or endangered. Because no such programs apply to any species associated with this Project, no additional information is required under this provision.

6.0 POTENTIAL IMPACTS TO PLANTS, INCLUDING MITIGATION MEASURES

OAR 345-021-0010(1)(q): (E) For each plant species identified under paragraph (A), if the Oregon Department of Agriculture has not adopted a protection and conservation program under ORS 564.105(3), a description of significant potential impacts of the proposed facility on the continued existence of the species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species;

Two plant species listed in Table Q-1 were identified as having potential to occur in the analysis area, and one was listed as having potential to occur in the Project site boundary (Lawrence's milkvetch). No Lawrence's milkvetch or any other threatened and endangered plant species was identified during 2024 field surveys. As Lawrence's milkvetch is not known to occur in the Project site boundary, and the closest known populations of the species are located 30.0 miles south of the Project, occurrence is unlikely. Therefore, the Project is not likely to cause a significant reduction in the likelihood of survival or recovery of any threatened or endangered plant species.

7.0 POTENTIAL IMPACTS TO ANIMALS, INCLUDING MITIGATION MEASURES

OAR 345-021-0010(1)(q): (F) For each animal species identified under (A), a description of significant potential impacts of the proposed facility on the continued existence of such species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

As described in Section 4.0, no threatened or endangered animal species are likely to occur within the Project site boundary, and the Project is not anticipated to adversely affect any threatened or endangered animal species. Therefore, the Project is not likely to cause a significant reduction in the likelihood of survival or recovery of any threatened or endangered animal species.

8.0 MONITORING PLAN

OAR 345-021-0010(1)(q): (G) The applicant's proposed monitoring program, if any, for impacts to threatened and endangered species.

No post-construction monitoring is proposed for threatened and endangered plant or wildlife species, as no threatened or endangered animal species are likely to occur within the Project site boundary, and the Project is not anticipated to adversely affect any threatened or endangered animal species.

9.0 UEC PROPOSED SITE CERTIFICATE CONDITIONS

If access permission is granted, UEC will complete Washington ground squirrel field surveys prior to construction on the 821 acres where permission to survey was not granted in 2024.

10.0 CONCLUSIONS

Exhibit Q provides the information requested in OAR 345-021-0010(1)(q). Further, Exhibit Q shows the design, construction, and operation of the Project, taking into account mitigation, are (1) consistent with the protection and conservation programs that the ODA has adopted under ORS 564.105(3) for state-listed plant species (when applicable); (2) not likely to cause a significant reduction in the likelihood of survival or recovery of the state-listed fish and wildlife species; and (3) not likely to cause a significant reduction in state-listed plant species for which the ODA has not adopted a protection and conservation program, as required by the Threatened and Endangered Species Standard at OAR 345-022-0070.

11.0 COMPLIANCE CROSS-REFERENCES

Table Q-3 identifies the location within the application for site certificate of the information responsive to the application submittal requirements OAR 345-021-0010(1)(q), the Threatened and Endangered Species Standard at OAR 345-022-0070.

TABLE Q-3. COMPLIANCE REQUIREMENTS AND RELEVANT CROSS-REFERENCES

REQUIREMENT	LOCATION
OAR 345-021-0010(1)(q) requires Exhibit Q to include the following:	
(A) Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2), ORS 564.105(2) that may be affected by the proposed facility.	Exhibit Q, Section 3.2
(B) For each species identified under (A), a description of the nature, extent, locations and timing of its occurrence in the analysis area and how the facility might adversely affect it.	Exhibit Q, Section 3.2
(C) For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact.	Exhibit Q, Section 4.0

REQUIREMENT	LOCATION
(D) For each plant species identified under (A), a description of how the proposed facility, including any mitigation measures, complies with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3).	Exhibit Q, Section 5.0
(E) For each plant species identified under paragraph (A), if the Oregon Department of Agriculture has not adopted a protection and conservation program under ORS 564.105(3), a description of significant potential impacts of the proposed facility on the continued existence of the species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species.	Exhibit Q, Section 6.0
(F) For each animal species identified under (A), a description of significant potential impacts of the proposed facility on the continued existence of such species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species.	Exhibit Q, Section 7.0
(G) The applicant's proposed monitoring program, if any, for impacts to threatened and endangered species.	Exhibit Q, Section 8.0

12.0 REFERENCES

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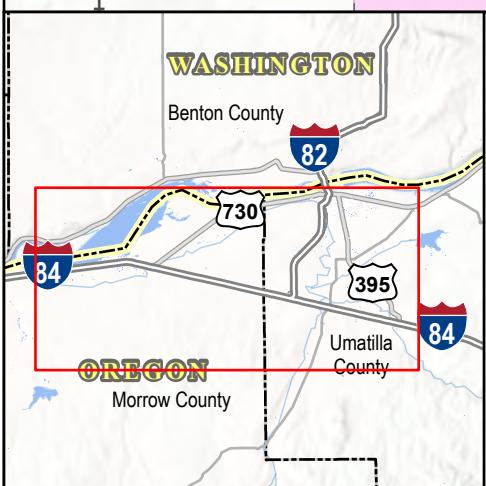
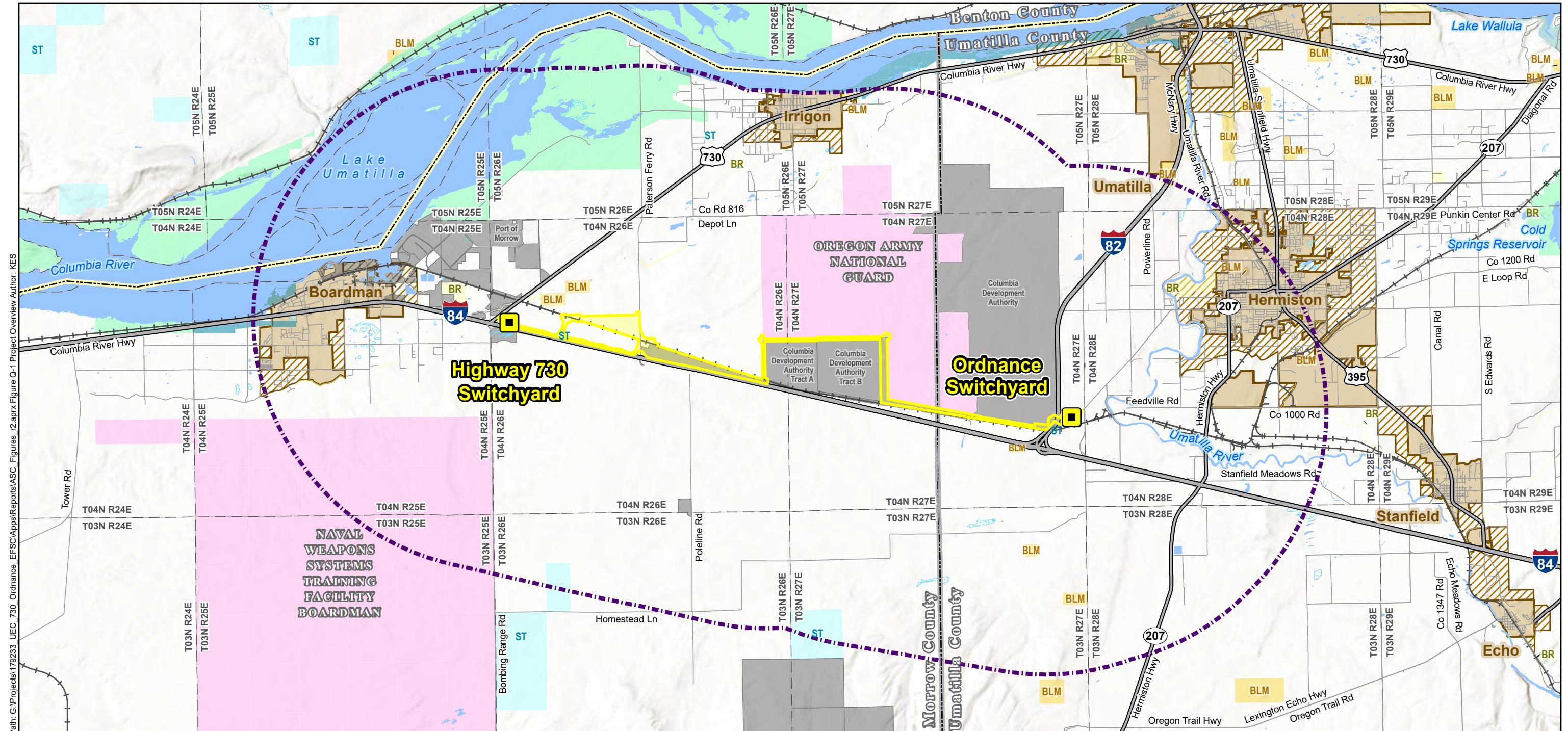
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FIGURE Q-1 PROJECT OVERVIEW



Project Components

- Project Endpoint**
- Project Site Boundary**
- Threatened and Endangered Species Analysis Area (5 miles)**

Transportation

- Highway**

Boundaries

- State**
- County**
- Township**
- Town Boundary**

Urban Growth Boundary

Water Resources (NHD)

River or Waterbody

Ownerhsip

- Bureau of Land Management (BLM)**
- Bureau of Reclamation (BR)**

- Department of Defense**
- Fish and Wildlife Service**
- Local**
- State (ST)**
- State Park**
- US Army Corps of Engineers**

UMATILLA-MORROW COUNTY CONNECT PROJECT
APPLICATION FOR SITE CERTIFICATE

Figure Q-1 Project Overview

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Miles



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