BUREAU OF RECLAMATION

Scoping Report for a Land Use Authorization Request to Construct and Operate an Electric Power Transmission Line

Columbia Basin Project
Columbia-Pacific Northwest Region

U.S. Department of the Interior

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Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Scoping Report for a Land Use Authorization Request to Construct and Operate an Electric Power Transmission Line

Columbia Basin Project
Columbia-Pacific Northwest Region

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Cover Photo: A high tension powerline. (Reclamation/Dave Walsh)

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List of Acronyms

Acronym or Abbreviation	Definition
AC	alternating current
BLM	Bureau of Land Management
BPA	Bonneville Power Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
D&S	Directives and Standards
EA	Environmental Assessment
EIS	Environmental Impact Statement
E.O.	Executive Order
ESA	Endangered Species Act
kV	kilovolt
MW	megawatt
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
ORV	off-road vehicle
POD	Plan of Development
Project	Royal Slope Solar Power Line Project
Proponent	Royal Slope Solar LLC (also referred to as Royal Slope)
Pub. L.	Public Law
Reclamation	Bureau of Reclamation
RMP	Resource Management Plan
Royal Slope	Royal Slope Solar LLC (also referred to as Proponent)
SCBID	South Columbia Basin Irrigation District

Acronym or Abbreviation	Definition
SHPO	State Historic Preservation Officer
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife

1. Introduction

This scoping report evaluates strategies for National Environmental Policy Act (NEPA) compliance necessary to process a request to occupy Bureau of Reclamation (Reclamation) land with the placement, construction, and use of electric power transmission lines. Reclamation may authorize occupancy of federal land, pursuant to 43 CFR § 429.5.

Background

Royal Slope Solar LLC (the Proponent) requests two land use authorization licenses from Reclamation to construct, operate, and maintain electrical transmission lines on Reclamation lands. The 230-kilovolt (kV) transmission line and the 34.5-kV transmission line (collectively, the Project) would connect a utility-scale solar facility to Bonneville Power Administration's (BPA) Vantage Substation, located east of Wanapum Dam in Grant County, Washington (Appendix A, Figure A-1). The Proponent is planning to locate their solar power facility on private lands. The solar facility would include solar panel arrays and fencing and may include battery storage. The Proponent requests land use authorizations from Reclamation to construct, operate, and maintain the transmission lines necessary to distribute and market the electricity generated at the solar facility. The facility would generate up to 260 megawatts (MW), an amount roughly comparable to the hydroelectric power generated from the John Day Dam powerhouse on the Columbia River.

Purpose and Need

Bureau of Reclamation

The purpose of Reclamation's action is to consider the Proponent's application for transportation and utility systems and facilities on federal lands. Reclamation must consider the Proponent's completed application, pursuant to 43 CFR § 429.14. Reclamation will consider the following criteria during the evaluation:

1. Compatibility with authorized project purposes, project operations, safety, and security;
2. Environmental compliance;
3. Compatibility with public interests;
4. Conflicts with federal policies and initiatives;
5. Public health and safety;
6. Availability of other reasonable alternatives; and
7. Best interest of the United States.

Reclamation may include the conditions under which the use authorization may be renewed, terminated, amended, assigned, or transferred, and/or may use fee adjustments.

Proponent

The Proponent's purpose is to connect a solar power project to the Vantage Substation to bring electricity to market. The Proponent needs to know if, when, and under what conditions Reclamation would issue a license for occupancy of Reclamation land to account for planning, design, and operational costs.

Decision to be Made

Reclamation's responsible regional director, or delegate, will decide whether to grant, grant with conditions, or deny the Proponent's application to occupy Reclamation lands with the placement, construction, and use of a 1.7-mile, 230-kV transmission line and a 0.17-mile, 34.5-kV transmission line. Formal approval would result in issuance of a land use authorization license(s). If issued, Reclamation's license(s) would provide only the least estate, right, or possessory interest needed to accommodate the approved use. Each license would identify an expiration date.

Conformance with Reclamation Land Use Plan

Reclamation's resource management policy is to provide a broad level of stewardship to ensure and encourage resource protection, conservation, and multiple use. The Scattered Tracts Resource Management Plan (RMP) provides management direction for the Reclamation lands subject to the Project (Reclamation 1998). The list presented below identifies programmatic goals and objectives for subject lands. A conformance statement follows each program, providing an interpretation of how the Project either conforms on its face, or how it will be brought into conformance through subsequent processes, resource surveys, Project designs, and license terms and conditions.

- **Access** – Provide appropriate and safe access to Reclamation lands.
    - Provide public access to the scattered tract lands retained in Reclamation jurisdiction.
    - Inform the public of access policies.
    - Prohibit off-road vehicle (ORV) use on the scattered tracts.
    - Ensure that changes in land use or land status on Reclamation tracts do not adversely affect adjacent owners' access.
    - Close tracts to public access if sensitive resource values are jeopardized.
    - Ensure vehicular access for the original Reclamation Project purposes and irrigation district objectives.

      Conformance: The Project conforms because it would not restrict access to Reclamation land. Resource surveys prior to Project authorization would identify sensitive resources for avoidance. Public access and safety considerations during construction and operation must be considered prior to authorization.

- **Biological Resources** – The subject lands support various wildlife and habitat resource values. Together, and in conjunction with Washington Department of Fish and Wildlife (WDFW) managed lands to the south and east, the general area supports critical wildlife and habitat resource values. No further fragmentation or conversion of native shrub steppe or wetland habitats should occur on any of these parcels, and consolidation with existing shrub steppe habitats in the general area should be considered wherever feasible. Objectives include monitoring use and impacts to the tracts and adjusting management as necessary to ensure protection of the wildlife and habitat resource values present.

  Conformance: Site-specific surveys for biological resources will inform Reclamation's decision and conform to the RMP. Initial investigations suggest that the proposed action avoids wetland areas and crosses a mix of grassland and shrub steppe vegetation (Appendix A, Figure A-4). These habitats may support special status plant species or habitats (Appendix A, Figure A-5). Reclamation will continue to consider ways to avoid or minimize impacts to known special status species or habitats.

  Reclamation is considering alternatives that provide connection while avoiding or minimizing fragmentation of native shrub steppe and wetland habitats. Co-location is the term for adding a new transmission line to a pre-existing transmission infrastructure or adding a new transmission line adjacent to an existing transmission line. The existing Wanapum-to-Columbia 230-kV corridor merits consideration for co-location to minimize land use and shrub steppe fragmentation.

- **Cultural Resources –** Manage cultural resources on Reclamation retained lands to protect and preserve significant heritage resources for future generations. Manage cultural resources in a programmatic manner, addressing resources on lands under agency jurisdiction (i.e., Section 110 of the National Historic Preservation Act (NHPA)). Enhance public understanding of cultural resource values and sensitivity through resource interpretation.
  - Proactively manage known cultural resources.
  - Identify unknown cultural resources and evaluate them as determined necessary to address the effects of land use.
  - Avoid impacts to significant cultural resources, wherever possible, when considering new or enhancement actions or implementing ongoing activities.
  - Survey locations where ground-disturbing alterations will occur, unless located in areas the State Historic Preservation Officer (SHPO) agrees do not require survey. Where actions are proposed that have less potential to disturb sites, an archeologist will make a case-by-case determination of whether a survey would be needed.
  - Avoid or reduce impacts to significant archeological sites or resources whenever possible through project redesign or relocation.
  - Where significant resources cannot be avoided, mitigate the damage using a plan approved by the SHPO, following consultation with affected Tribes.

Conformance: Site-specific surveys for cultural resources will inform Reclamation's decision and conform to the RMP.

- **Easements and Rights-of-Way –** Provide public access to and through the scattered tract lands while ensuring the protection of public safety and natural and cultural resources.
    - Respond to public needs for access or utility easements and rights-of-way in a manner consistent with federal law and regulation, Department of the Interior and Reclamation policy, sound multiple use management principals, and the resource protection goals and objectives of the RMP.
    - Avoid proliferation of separate rights-of-way.

    Conformance: Protection of public safety is of primary importance to any land use that Reclamation may authorize. Natural and cultural resources protection will continue to inform the decision process, beginning with site-specific surveys and consultations. Reclamation is considering ways to avoid a proliferation of separate land use authorization by co-locating the new transmission line.

- **Land Disposition** – The RMP identifies all of the Reclamation lands associated with this Project for retention. The Project would occur on Reclamation land reserved for Columbia Basin Project purposes. The primary purposes of Reclamation lands in this case are for Columbia Basin Project facilities and settlement. The secondary use is for open space. Reclamation will consider retention lands for compatible secondary uses.

    Conformance: The land use authorization would occur on Reclamation lands identified for retention.

- **Land Use Compatibility –** Maximize compatibility between the scattered tracts and surrounding land uses. Define the best use(s) for each tract, based on appropriate review of natural resource, cultural, land use, and socioeconomic factors.
    - Minimize user conflicts and impacts on natural and cultural resources.
    - Minimize land use conflicts with adjacent land owners.
    - Coordinate planning efforts for the scattered tracts with other planning entities.

    Conformance: Reclamation's scoping efforts will identify conflicts and opportunities for coordinated planning efforts concerning the proposed action. Cooperating agencies will include WDFW, South Columbia Basin Irrigation District (SCBID), adjacent land owners, Grant County Public Utility District, Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), Tribes, and local governments.

- **Recreation –** The subject lands are generally open to the public for dispersed recreational uses, including hunting, bicycling, and watchable wildflower and wildlife activities. These are lands where site-specific recreation development and agricultural/grazing leases would not occur. Actual availability to the public for dispersed recreation use will be dependent on the presence of adequate legal public access and completion of cultural resources surveys for permitted recreation activities to determine if significant resources are present. Areas where

unacceptable impacts to natural or cultural resources would occur would not be opened for dispersed recreation. Objectives would include providing regulatory and/or interpretive signage and displays for the management of recreational use on the tracts.

Conformance: The proposed action conforms because the area would remain accessible by the public for dispersed recreational uses.

- **Soil –** Minimize soil erosion by avoiding, controlling, or restricting land use activities where soil and/or slope conditions result in high susceptibility to soil erosion and sedimentation problems.

  Conformance: Measures to minimize soil erosion are compatible with the proposed action and would conform to the RMP.

- **Visual Resources –** Preserve, protect, and enhance scenic resources.
  - Minimize development in areas with special scenic characteristics (e.g., Columbia and Snake Rivers, wetlands, coulees).
  - Maintain the rural, agricultural character of the Columbia Basin landscape.
  - Minimize adverse visual impact of facilities, land uses, and management actions.
  - Review on-site conditions prior to lease renewal and issuance of special use permits; incorporate visual quality management guidelines into lease terms.

  Conformance: The proposed action area includes an array of utility development within 0.25 miles of the Vantage Substation, as utility lines converge. Utility lines are less apparent with greater distance from the substation. Reclamation continues to consider how the proposed action would affect visual resources.

- **Water Quality –** Protect and enhance water quality.
  - Support and/or recommend measures to control non-point source pollution.
  - Consider maintenance/enhancement of surface and groundwater quality and adequate drainage in all land use/management decisions.
  - Ensure that land management practices and proposals on the scattered tracts do not adversely affect water quality within the Project area.
  - Prohibit activities that would result in water quality degradation.
  - Identify measures to avoid/reduce water quality degradation.

  Conformance: The proposed action does not prevent application of the water quality objectives. Point source releases are not anticipated. Sedimentation from non-point sources would be manageable.

Relationships to Statutes, Regulations, Plans, or Other Environmental Analyses

The Columbia Basin Project Act (16 USC 835, 835c-835c-2, 835c-4; 57 Stat. 140) as amended and supplemented, known as the Act of March 10, 1943, renamed and reauthorized the Grand Coulee

Dam Project as the Columbia Basin Project. The Columbia Basin Project was originally authorized by the Act of August 30, 1935, (49 Stat. 1028) and amended generally by the Act of May 27, 1937 (50 Stat. 208).

The Act of October 9, 1940 (16 USC 835i, 54 Stat. 1085), supplementing the Columbia Basin Project Act, authorized the Secretary of the Interior to contract with the State of Washington for maintenance and operation of fish hatcheries built as part of the fish protection program required for the Columbia Basin Project. Public Law (Pub. L.) 87-728 (76 Stat. 678) provided that the Columbia Basin Project shall be governed by the Act of June 17, 1902, otherwise known as the Reclamation Act.

Reclamation's authorities for issuing land use authorizations on Reclamation withdrawn land are provided in 43 CFR §§ 429.3 and 429.5. Use authorizations exceeding 25 years would be subject to approval from water user organizations under contract obligation for repayment of the Columbia Basin Project, pursuant to 43 CFR § 429.6. Reclamation, within its discretion, authority, and rules, is responsible for reviewing requests and granting rights-of-way across its withdrawn and acquired land and facilities. Reclamation is required to furnish to the BLM a copy of all grants on withdrawn lands, including maps which it issues, to be recorded on BLM's Master Title Plats. The following listing identifies relevant federal, state, and local, statutes, as well as Reclamation policies that could apply to land use authorizations, if approved.

Cultural Resources

- National Historic Preservation Act (NHPA), October 15, 1966 (Pub. L. 89-665; 16 USC 470)
- Native American Graves Protection and Repatriation Act (NAGPRA), November 16, 1990, (Pub. L. 101-601; 25 USC 3001)
- Executive Order (E.O.) 13007, May 24, 1996, 61 FR 26771, Indian Sacred Sites
- Reclamation Policy, Cultural Resources Management (LND P01)
- Reclamation Directives and Standards (D&S), Cultural Resources Management (LND 02-01)

Environmental Policy

- NEPA, January 1, 1969 (Pub. L. 91-190; 42 USC 4321)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), December 11, 1980 (Pub. L. 96-510; 42 USC 9601)

Other Relevant Statutes

- Telecommunications Act of 1996, Pub. L. 104-194 (47 USC Section § 332 note)
- Energy Policy Act, August 8, 2005 (Pub. L. 109-58; 42 USC 13201)
- Energy Independence and Security Act, December 19, 2007 (Pub. L. 110-140; 152 USC 17001)
- Omnibus Public Land Management Act, March 30, 2009 (Pub. L. 111-11; 123 USC 991)

- Section 4, Subsection I of the Second Deficiency Appropriation Act for 1924, December 5, 1924 (43 Stat 703;43 USC § 501)
- 43 CFR 423, Public Conduct on Bureau of Reclamation Land, Facilities, and Waterbodies
- E.O. 13821, January 8, 2018, 83 FR 1507, Streamlining and Expediting Requests to Locate Broadband Facilities in Rural America
- E.O. 13693, March 19, 2015, Planning for Federal Sustainability in the Next Decade
- Secretarial Order 3285, March 11, 2009, Renewable Energy Development by the Department of the Interior
- Office of Management and Budget Circular A-25, Transmittal Memorandum #1, User Charges (July 8, 1993)
- General Services Administration Bulletin FMR 2007-B2, Placement of Commercial Antennas on Federal Property
- Department of the Interior Accounting Handbook Chapter 6.4, Cost Recovery/User Charges (provides basic Departmental cost recovery policy governing charges for services provided under specific legislative authority)
- Reclamation D&S, Radio Communications Program (IRM 04-01)
- Reclamation D&S, Use of the Collection Information Form for Incidental Revenues (PEC 03-02)
- Reclamation D&S, Information Management (RCD 05-01)
- Washington Clean Energy Transformation Act – commits Washington to aggressively transform its electricity system and to transition to 100 percent clean electricity over the next 25 years

Recreation

- Section 4, Subsection I of the Second Deficiency Appropriation Act for 1924, December 5, 1924 (43 Stat 703;43 USC § 501)
- Reclamation Recreation Management Act of 1992, Pub. L. 102-575, Title XXVIII, Sections 2801 to 2806, October 30, 1992 (106 Stat. 4692; 16 USC § 460l-33).
- Federal Lands Recreation Enhancement Act (FLREA) Pub. L. 108-447
- E.O. 11200, February 25, 1965, 30 FR 2645, Establishment of Recreation User Fees

Socioeconomics and Environmental Justice

- E.O. 12898 (59 CFR 7629; February 16, 1994)

Treaty Rights

- E.O. 13175, November 6, 2000, FR 65 FR 67249, Consultation and Coordination with Indian Tribal Governments
- Secretarial Order 3317, December 1, 2011, Department of the Interior Policy on Consultation with Indian Tribes

Vantage to Pomona EIS

Environmental analyses in the Vantage to Pomona Heights Environmental Impact Statement (EIS) relates to this Project because they share similar types and locations. Both consider authorizing land use corridors for construction, operation, and maintenance of 240 kV transmission lines that connect to the Vantage Substation. The EIS and related documents are available on the BLM National NEPA Register (BLM 2017).

Vegetation & Wildlife

- Endangered Species Act (ESA), December 28, 1973 (Pub. L. 93-205; 16 USC 1531) – - Establishes legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend
- Fish and Wildlife Coordination Act of 1946 (Pub. L. 79-732; 16 USC 661-666; 60 Stat. 1080)
- Migratory Bird Treaty Act (Pub. L. 86-732 as amended; 16 USC 703 et seq.; 40 Stat.755 as amended) (MBTA) - Prohibits take of any migratory bird, including eggs or active nests, except as permitted by regulation
- E.O. 11990, May 24, 1977, 42 FR 26961, Protection of Wetlands
- E.O. 11988, May 24, 1977, 42 FR 26951, Floodplain management
- Reclamation Policy, Wetlands Mitigation and Enhancement (LND P03)
- Reclamation D&S, Floodplain Management (CMP 01-01)
- Washington Department of Fish and Wildlife, State Wildlife Action Plan – Identifies species of greatest conservation need and opportunities for species' recovery

Water Quality

- Clean Water Act, as amended (33 USC § 1251, et seq.) – Requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface waters

2. Proposed Action and Alternatives

Reclamation's alternative actions are to either approve, deny, or approve with conditions the Proponent's SF-299 application for transportation and utility systems and facilities on federal land. The Proponent would use the land to construct, operate, and maintain a 230-kV electric transmission line and a 34.5-kV electric transmission line. These two utility lines comprise the Project and require land use authorizations on Reclamation lands in Grant County, Washington. The Project would connect a 260-megawatt (MW) utility-scale solar energy facility to the BPA's Vantage Substation. The solar energy facility would be located on private lands. Appendix A, Figure A-1 shows the proposed locations of the Project's solar facility, substation, and associated facilities.

Proposed Action

Reclamation would issue two land use authorization licenses to the Proponent for construction, operation, and maintenance of electrical transmission lines (Appendix A, Figure A-1). Reclamation would approve each license for a 25-year term with options for renewal. The transmission lines would be removed and Reclamation lands would be restored upon expiration of the authorizations.

Reclamation would authorize the Proponent to use a corridor of Reclamation land measuring approximately 1.7 miles long and 150 feet wide. The land use authorization corridor would be located in Sections 10 and 15, T.16N, R.23E and Section 33, T.16N, R23E (Appendix A, Figure A-1). The authorization would enable the Proponent to construct, operate, and maintain a 230-kV electrical transmission line. The 230-kV transmission line would be attached to steel or wood structures to suspend the line above the ground. Approximately 10 structures would be necessary to span the route across Reclamation land (Appendix A, Figure A-1). Typical structures would consist of single steel or wood poles. H-frame structures would be necessary in areas that require long spans such as canyons or rugged terrain (Appendix A, Figure A-2). Three-pole steel or wooden angle transmission structures would support the line in areas where the line changes direction. Steel or wooden transmission structures may be guyed to provide additional structure support. The structures that suspend the 230-kV line would range in height from 65 to 90 feet, depending on terrain.

The structures that support the 230-kV transmission line would embed directly into the ground and be backfilled with tamped earth. Drilled pier concrete foundations would be necessary to provide stability where structures support greater line tension, such as H-frames, corner braces, and dead-ends. The diameter of transmission structures would generally be approximately 1.5 to 3 feet but may be up to 4 feet in diameter for some framing configurations. Table 1 highlights design features of the 230-kV transmission line. Fiber-optic ground wire cable for substation-to-substation control would be installed on top of each transmission structure. The outer strands would consist of aluminum wire and the diameter of the entire cable would be approximately 0.55 inches.

Table 1. Design characteristics of the 230-kV overhead electric transmission line components

Project Feature	Design Characteristic
Line length	Approximately 1.7 miles
Tower structures	H-frame wood 3-pole line-angle wood Single steel poles
Structure height	H-frame structures – 65 to 120 feet Single poles – 70 to 100 feet
Average span length	H-frame structures – 650 to 1,000 feet Single poles – 400 to 700 feet
Structures per mile	H-frame structures – 5 to 7 Single poles – 8 to 13
Structure base	H-frame – 20 inch diameter each pole 3-pole – 30 inch diameter each pole Single pole – 24 inch diameter.
Voltage	230,000 volts alternating current
Circuit configuration	Single-circuit with three phases per structure
Overhead conductor	Stranded aluminum steel reinforced (1.1-inch diameter)
Fiber-optic cable	24 fiber minimum (0.55-inch diameter)
Ground clearance of conductor	24.9 feet minimum
Land use authorization corridor width	150 feet

Reclamation would also authorize the Proponent to use a second corridor on Reclamation land measuring approximately 0.17 miles long and 50 feet wide located along the boundary of Section 4, T.16N, R.23E and Section 33, T.17N, R23E (Appendix A, Figure A-1). Reclamation would authorize the Proponent to install, maintain, and operate an underground electric transmission line within the corridor. The 34.5-kV transmission line would be contained within conduit and buried underground. Reclamation would also authorize the Proponent to construct, operate, and maintain an access road within the same 0.17-mile corridor. The access road would be surfaced with gravel.

Construction vehicles and equipment would access the Project by a combination of existing and new routes. Approximately 3.5 miles of existing routes may require improvements that would include a combination of grading, widening, drainage, stabilization, and aggregate additions. New routes would be constructed using techniques similar to those employed for improvement. New routes would be approximately 24 feet wide and would remain generally intact for Project operation and maintenance. The Proponent would rehabilitate and actively restore all new access routes not required for Project operation and maintenance. Active restoration methods may include loosening

of the soil surface, reseeding, installing erosion controls, and placement of topsoil or native soils in rutted areas. New road construction and existing road improvement areas have not yet been identified. New road construction and existing improvements may be necessary on Reclamation lands outside of the land use authorization application area.

Temporary use areas would include construction parking areas, equipment staging sites, overburden pile areas, structure work areas, wire tensioning sites, wire-splicing sites, and guard structures. The work areas would be used during construction to lay down the poles and frame them to the full length (65 to 110 feet). The temporary use area may be cleared of vegetation only if necessary to allow for equipment to maneuver safely. Temporary use areas would be actively restored to pre-Project conditions.

Modified Action

The land use authorization corridor areas would be identical to those described under the proposed action for both the 230-kV and the 34.5-kV electrical transmission lines, but the configurations, structures, and locations within each corridor would differ under this alternative. A portion of the 230-kV transmission line would be buried underground and the 34.5-kV transmission line would be suspended above ground by a series of pole structures. Reclamation would issue two land use authorization licenses to the Proponent for construction, operation, and maintenance of electrical transmission lines (Appendix A, Figure A-1). Reclamation would approve each license for a 25-year term with options for renewal. The transmission lines would be removed and Reclamation lands would be restored upon expiration of the authorizations.

The land use authorization area for the Proponent's 230-kV transmission line would be identical to that described under the proposed action. However, approximately 0.3 miles of the 230-kV transmission line would be buried underground, passing beneath existing transmission lines near the connection with the Vantage Substation (Appendix A, Figure A-1). The 230-kV transmission line route would be slightly more direct than the proposed action because fewer corners would be necessary. The remaining 1.25 miles of the 230-kV transmission line would be suspended above the ground by attachments to steel or wood tower structures (Appendix A, Figure A-2). The 230-kV transmission line would be approximately 1.5 miles long.

The route and structures associated with the 230-kV transmission line would be similar to those described for the proposed action along the 1.25-mile portion suspended above ground. The route and structures would be different from the proposed action for the remaining 0.3 miles of the 230-kV line. An underground duct bank would contain the remaining 0.3 miles of the 230-kV transmission line. A single steel riser pole would submerge and daylight the 230-kV line at either end of the duct bank (Appendix A, Figure A-3). Each steel riser pole would range in height from 70-100 feet.

The land use authorization area associated for the 34.5-kV electrical transmission line would be identical to the proposed action, but in this alternative the line itself would be suspended above ground by attachments to a series of pole structures located along the corridor. Each pole structure would consist of single-pole wooden structures with post insulators or cross-arm configurations.

Structure height would vary from 35 to 45 feet, dependent on terrain and structure type (Appendix A, Figure A-4). The poles would be embedded directly into the ground and would measure approximately 12 inches in diameter at the base. Wire conductors would typically hang with post insulators or cross-arms attached to the pole approximately 20 feet above the ground. The 34.5-kV electrical transmission line would cross approximately 0.17 miles of Reclamation land. Reclamation would also authorize the Proponent to construct, operate, and maintain an access road within the same 0.17-mile corridor. The access road would be surfaced with gravel. Table 2 highlights design features of the 34.5-kV transmission line aboveground alternative.

Table 2. Design characteristics of the 34.5-kV electric transmission line aboveground alternative

Project Feature	Design Characteristic
Line length	Approximately 0.17 miles
Tower structures	Single wood poles, single circuit
Structure height	35 to 45 feet
Average span length	300 feet
Structures per mile	15
Land use authorization corridor width	50 feet

All access roads and construction work areas under this alternative would be identical to those described under the proposed action.

No Action Alternative

Under the no action alternative, Reclamation would not approve the Proponent's application for transportation and utility systems and facilities on federal land.

3. Preliminary Issues and Environmental Effects

Reclamation staff identified issues for further analysis in an Environmental Assessment (EA). The list of issues below is not comprehensive but presents the key concerns of the Reclamation project team.

Access

- What is the access for construction and operation?
- What is the potential for increased public access on current access roads and future access roads constructed for the Project?

Survey vehicles and construction equipment would access the proposed Project area by a mix of existing and constructed routes. Existing routes would be improved and employed when practical. Temporary routes would be built where existing routes are absent and site conditions prevent access overland. In construction areas where recontouring is not required, disturbance would be limited to overland driving, where feasible, to minimize changes in the original contours. Large rocks would be moved where necessary for vehicle access. A staging area would be established to receive material, store material, host worker parking, and place a temporary construction trailer/field office. The location of the staging area is not yet determined but would be located on land adjacent to the Project.

Vegetation

- What would be the effect on vegetation from construction and maintenance of the proposed Project?
- How much disturbance would occur in sagebrush and native grassland communities and what would be the effects?
- How would the use authorization affect special status plant species?
- Would noxious weeds be introduced or spread into the right-of-way and how would they be controlled?
- What would the effect to Ute Ladies'-tresses be and how would access to the habitat area be limited?
- What would be the objectives for rehabilitation of disturbed areas?
- How would unsuccessful rehabilitation, restoration, and revegetation efforts affect existing vegetation?

Road improvement and construction would involve clearing vegetation and re-grading. Vegetation would not recover on long-term access routes during project operation. Revegetation would occur

on some areas, except for long-term access roads. Some recovery could occur on temporary routes depending on rehabilitation of roadbed topsoil and seed. The success of revegetation efforts is widely variable, depending on objectives, plant materials, seedbed preparation, and precipitation timing and amount. Traffic and bare soil areas would increase the risk of noxious weed establishment in the proposed Project area.

Public Safety

- Would authorization of the transmission lines promote human health hazards?

Blasting may be required during Project construction. The use of explosives elevates public safety risk. The presence of fuels, oils, and other potentially hazardous substances in the proposed Project area would increase during construction and, to a lesser extent, operation. Appropriate storage, use, and handling of hazardous materials would partially mitigate the risk of accidental releases. The residual risk of an accidental release of hazardous material would slightly increase public safety risk. Hazardous materials would not be drained onto the ground or into streams or drainage areas. All construction waste including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials would be removed to an authorized disposal facility authorized on a weekly basis.

Fire

- Would the proposed Project increase the risk of fire?
- How would the transmission lines affect fire management activities?
- Would the proposed transmission lines affect fire suppression tactics in the event of future ignitions?

Construction and operation activity would increase the risk of accidental ignition slightly because equipment with internal combustion engines would operate near dry vegetation—a potential fuel source. The project would reduce the potential for fire to spread through the project area because new and existing road construction would remove vegetation, decreasing fuel continuity in localized areas. Overhead electrical transmission lines represent hazards to firefighters. Indirect firefighting tactics would be required in the event of future suppression operations near the Project.

Wildlife

- How would the Project affect continuity of sagebrush steppe habitats?
- How would the addition of tall structures affect predator/prey relationships in the surrounding areas?
- How would the Project affect sage-grouse populations and habitat?
- How would the Project affect sage grouse recovery efforts in Washington?

- How would the proposed Project affect migratory birds?
- What would be the potential for avian collision during operation?
- How would the Project affect pygmy rabbits?

Project construction activity and noise would cause wildlife to leave and/or avoid the Project area. Wildlife that could be injured during project construction includes individuals unable able to leave the Project area, such as burrowing mammals, young, and eggs, depending on the time of year. In localized areas, wildlife could be injured during construction where heavy equipment grading, excavation, and explosions occur. Avoidance behaviors would likely be less pronounced for most wildlife species during project operation because less activity and noise would occur in the Project area. However, some species would continue to avoid the area. Greater sage grouse are known to avoid areas with tall structures. Direct effects to avian species may occur during Project operation and maintenance if individuals collide with Project structures and equipment.

Cultural Resources

- What would the potential direct impacts be on cultural resources, including pre-contact and historic sites?
- What would the potential indirect effects be to cultural resources, including visual, audible, and atmospheric effects?
- How would the Project affect cultural resources of traditional religious and cultural importance to Native American Tribes?
- How would the Project affect Tribal member access to the area for traditional subsistence practices and plant gathering?

Reclamation, in consultation with the Tribes and Washington State Historic Preservation Officer (SHPO), determined that the Project components on both Reclamation and private lands are one undertaking under Section 106 of the National Historic Preservation Act (NHPA). The Project has a potential to adversely affect historic properties and Tribal values. A file search shows that 20 previously recorded archaeological sites are located within the project area and additional cultural resources are likely to be identified during field inventories and Tribal consultation. Potential impacts include physical disturbance of sites during construction and indirect effects such as visual, audible, and atmospheric effects. Site-specific avoidance and minimization measures would reduce, but not eliminate, potential impacts to cultural resources. Tribal members continue to use the vicinity for traditional subsistence practices and plant gathering, which would be interrupted on a short-term basis by Project construction activities. Available resources in the vicinity would be slightly reduced by vegetation clearing, spread of noxious weeds, and wildlife avoidance behaviors.

Socioeconomics and Environmental Justice

- What would be the effect on private property values?
- Would there be effects on low-income and minority populations or communities?

Direct effects to private property from the Project are a function of distance and zoning. Properties that are zoned for residential, commercial, or mixed uses for example, are more sensitive to decreases in market value from powerline visibility than those zoned for agriculture, or industrial uses. Powerline visibility is generally a function of distance from and topography between the subjects. Topography in the region is relatively flat, so property values close to the proposed project could be adversely affected if they are zoned for residential or mixed uses.

Prime or Unique Farmland

- How would authorization of the Project affect the availability of prime farmland for agricultural use?

Preliminary investigations suggest that the majority of the land use authorization would occur on soils not rated as prime farmland. Soils rated as farmland of unique importance could be affected to the extent that the Project occupies Ekrub and Quincy fine sands associated with soil map units 36 and 98, respectively (NRCS 2021). Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the Federal Register, Vol. 43, No. 21, January 31, 1978.

Recreation

- How would the land use authorization affect opportunities for dispersed recreation?
- Would there be any effects on recreational areas and opportunities?
- How would current and future recreation use in the area be affected by the Project?

Opportunities for dispersed recreation would likely be reduced over the short term in the land use authorization corridors during Project construction because access may be restricted to protect public safety. Dispersed recreation could resume during project operation. New routes and structures on the landscape would affect the types of recreation experiences available.

4. Cumulative Effects

Cumulative effects result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes the actions. The following list of past, present, and reasonably foreseeable future actions may merit consideration during the cumulative effects analysis for the Project.

Table 3. Projects considered for cumulative effects

Project Name	Brief Description
Reasonably Foreseeable Projects	
Royal Slope Solar Project	The utility-scale project would use solar energy technology to generate electricity. The solar facility would be located on private lands, approximately 1.5 miles north of BPA's Vantage Substation. At capacity, the project would generate up to 260 megawatts.
NextEra Battery Energy Storage System	The project includes a 230-kV transmission line connecting a proposed battery energy storage system, located on private land, to the Vantage Substation in Grant County, Washington. NextEra has requested a land use authorization license from Reclamation to construct, operate, and maintain the 230-kV transmission line along a corridor 1 mile long and 100 feet wide. The transmission line length would total approximately 1.2 miles.
Past Projects	
Vantage to Pomona Powerline 230 kV	Pacific Power is constructing a 230-kV transmission line from the Pomona Heights substation located east of Selah in Yakima County, Washington to the Vantage Substation located east of the Wanapum Dam in Grant County, Washington. The existing Pacific Power Pomona Heights substation and BPA's Vantage Substation will interconnect the new 230-kV transmission line to the regional electric grid. Construction activities began in 2019 and were completed in 2020.

5. List of Preparers

Table 4 identifies individuals involved with the preparation of this scoping document.

Table 4. List of preparers

Name	Title
Nate Krohn	Project Manager
Kavi Koleini	NEPA Lead
Shannon Archuleta	Biologist
Karina Bryan	Archaeologist

References

Bureau of Land Management (BLM). 2017. *Vantage to Pomona Heights 230 kV Transmission Line Project*. January 13, 2017. Available online at: https://eplanning.blm.gov/eplanning-ui/project/61031/510 (last accessed November 22, 2021).

Bureau of Reclamation (Reclamation). 1998. *Columbia Basin Scattered Tracts Resource Management Plan*. Ephrata Field Office. U.S. Department of the Interior, Bureau of Reclamation.

Bureau of Reclamation. 2003. *Resource Management Plan Guidebook*. Department of the Interior. Available online at: https://www.usbr.gov/recreation/publications/RMPG.pdf (last accessed November 22, 2021).

Bureau of Reclamation. 2012. *Site-Specific Supplemental Resource Management Planning Handbook*. U.S. Department of the Interior, Bureau of Reclamation. Denver, Colorado.

Natural Resources Conservation Service (NRCS). 2021. *Custom Soil Resource Report for Grant County Washington, Royal Slopes Soil Report*. U.S. Department of Agriculture.

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Appendix A – Figures

Figure A-1. Royal Slope Project overview

Figure A-2. Typical 230 kilovolt structure

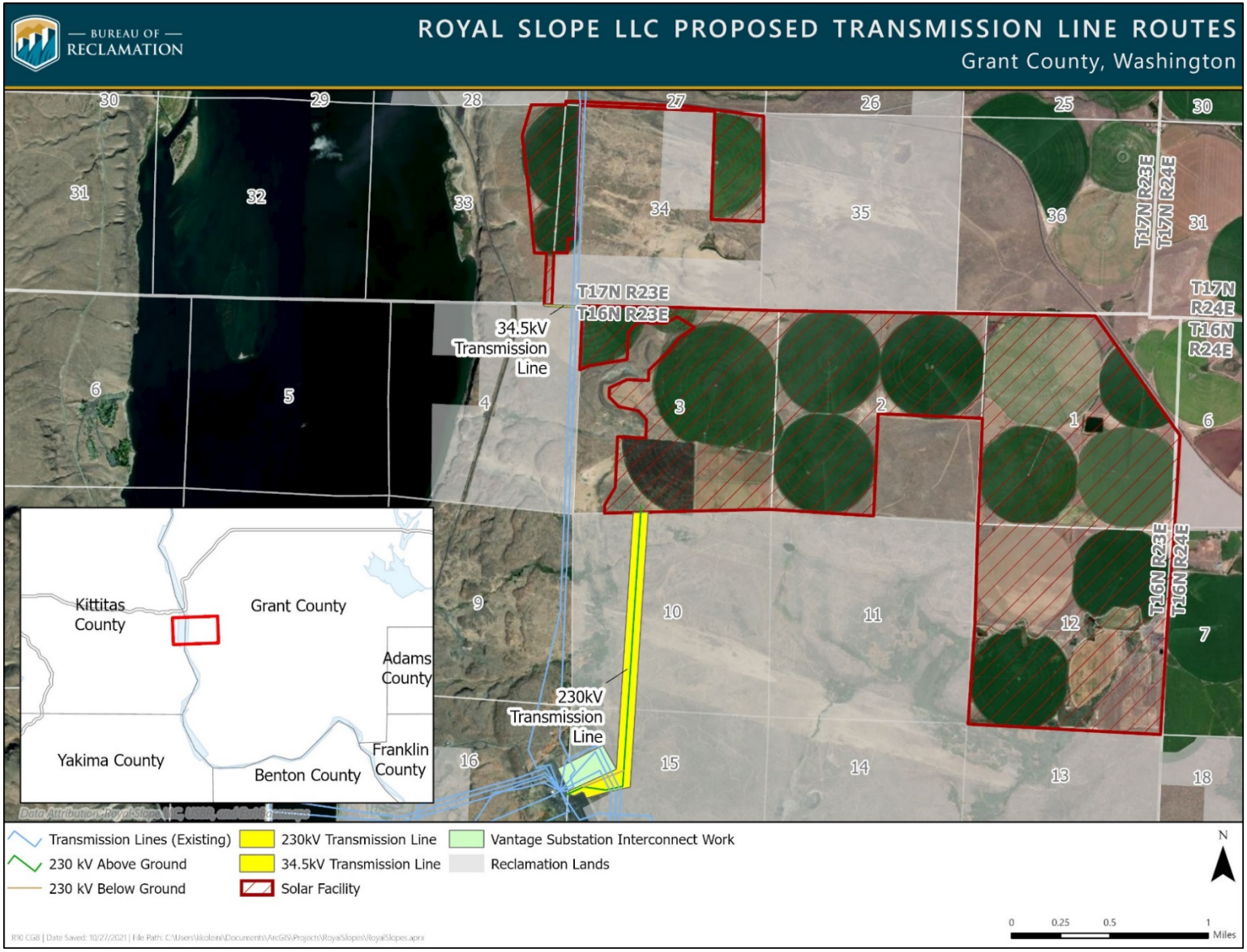
Figure A-3.Typical underground transition structure and duct bank

Figure A-4. Typical northern transmission line 34.5 kilovolt structure

Figure A-5. Prime farmland and vegetation

Figure A-6. Sensitive vegetation

Figure A-7. Known existing and proposed utilities



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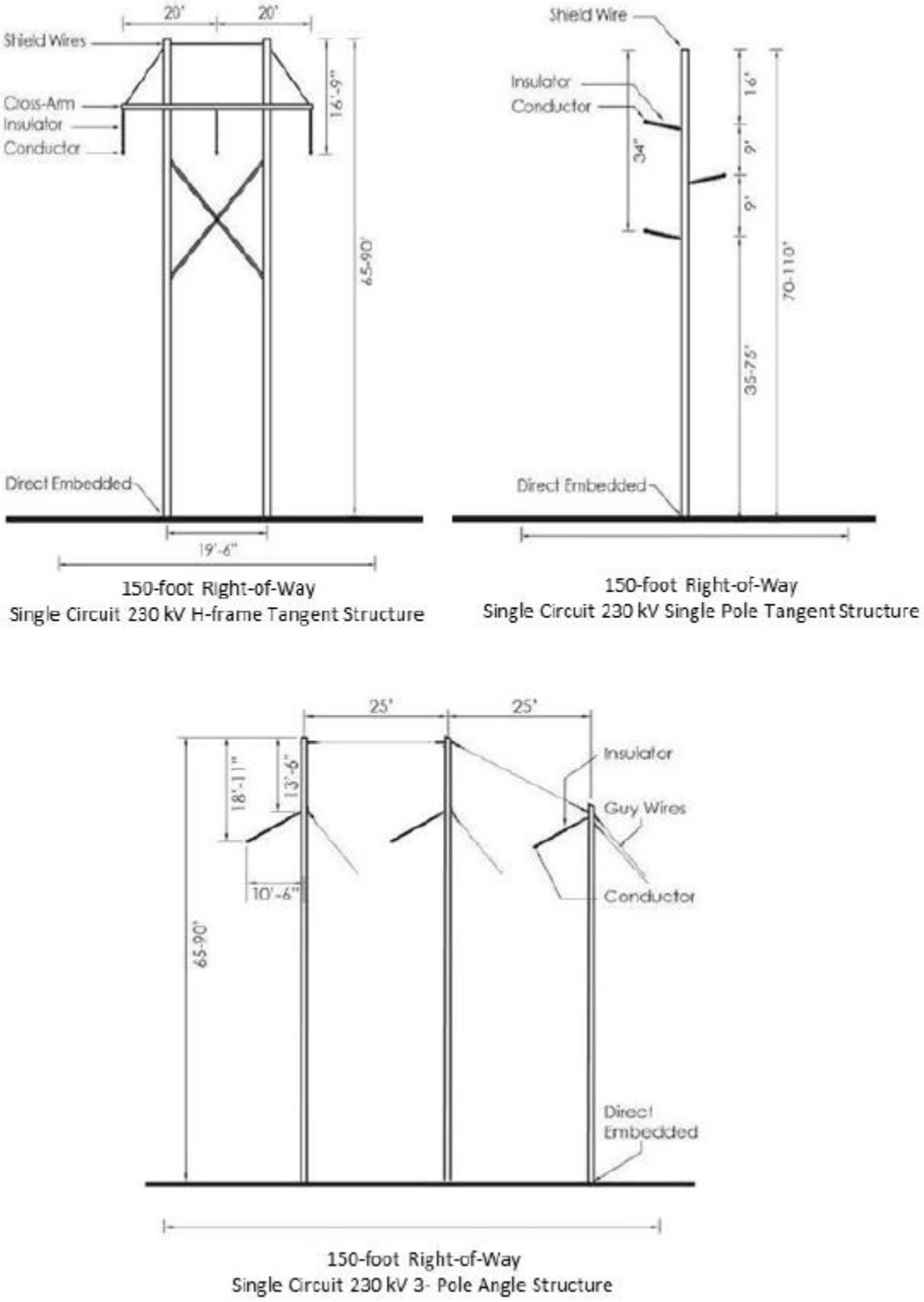

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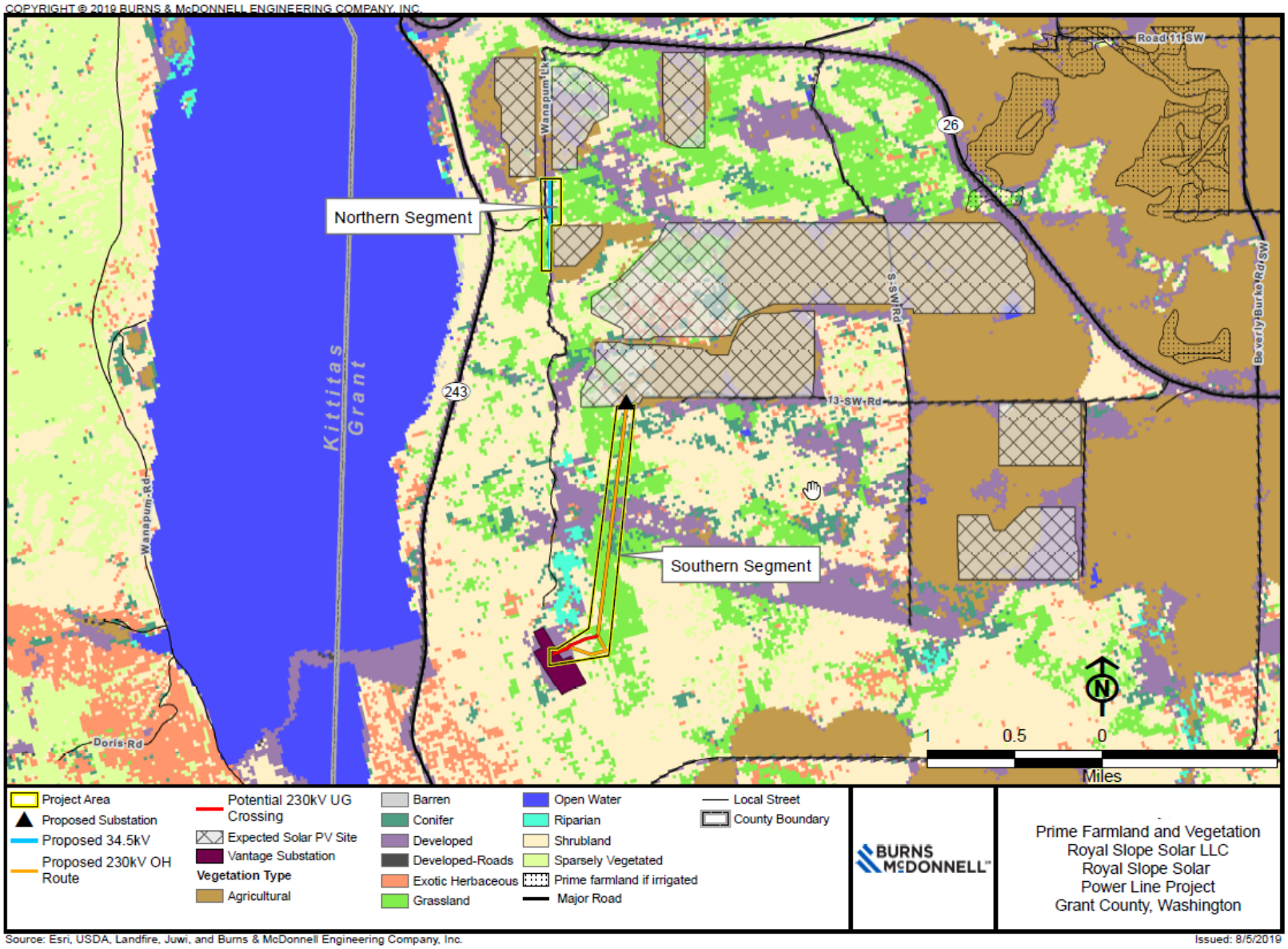

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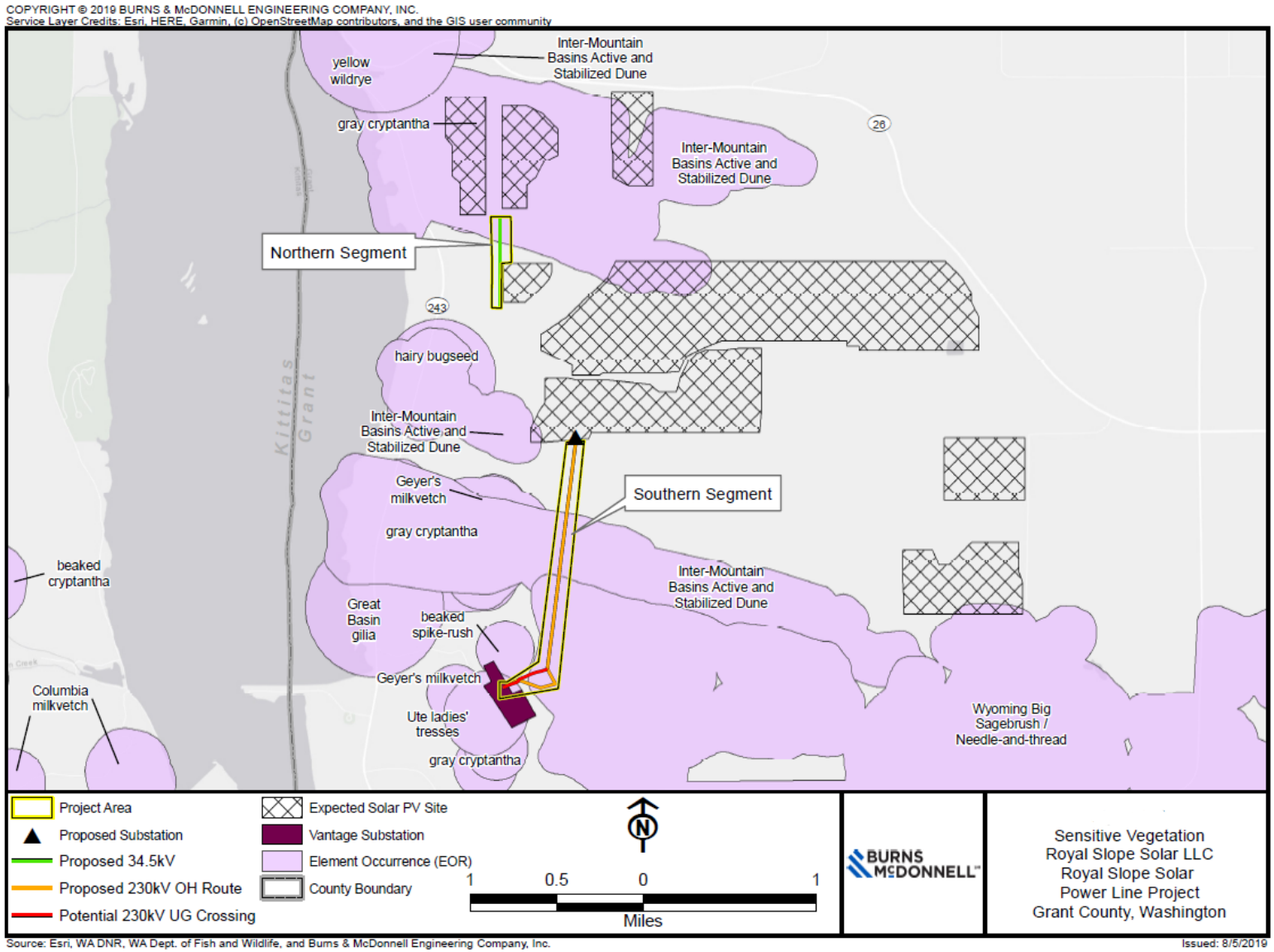
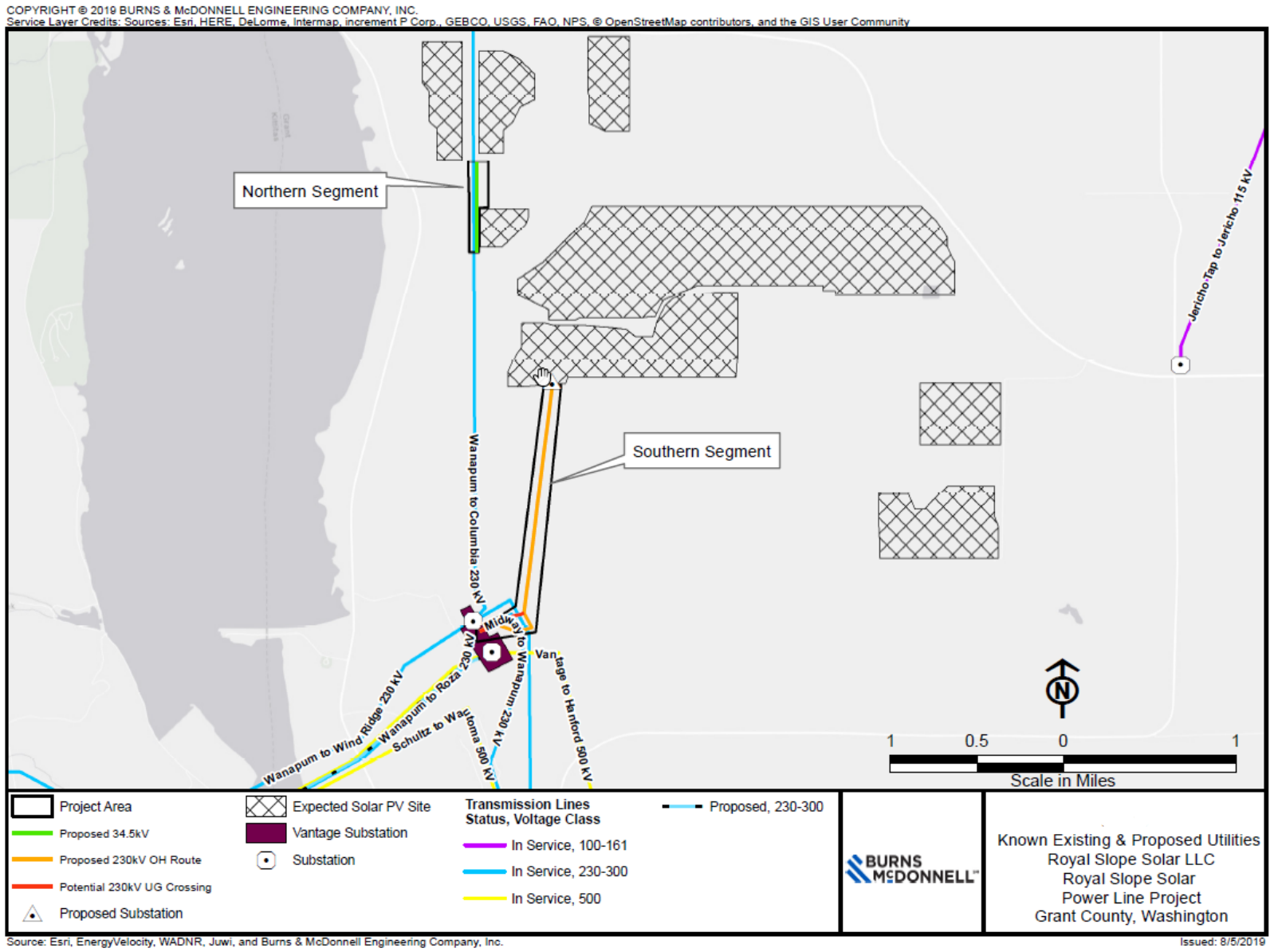


Figure A-6. Sensitive vegetation



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