February 10, 2023

Ami Hafkemeyer
EFSEC Manager
Washington Energy Facility Site Evaluation Council
PO Box 43172
Olympia, WA 98504 -3172

Re: Application for Site Certification, Carriger Solar, LLC Project

Dear Ms. Hafkemeyer,

Cypress Creek Renewables, LLC, (CCR) is submitting the enclosed streamlined Application for Site Certification (ASC) to the Washington Energy Facility Site Evaluation Council (EFSEC) for the construction and operation of the Carriger Solar, LLC Project (Project), located approximately two miles west of the City of Goldendale in unincorporated Klickitat County, Washington. The Project is a proposed solar photovoltaic (PV) electric generating facility with a capacity of 160 megawatts (MW) of alternating current (AC) solar energy and 63 MW of battery energy storage, as well as associated interconnection and ancillary support infrastructure. The Project is located on privately owned parcels composed primarily of agricultural and rural residential land and the southern portion of the Project Site Control Boundary is located in the Klickitat County Energy Overlay Zone (EOZ).

This Project would support the State of Washington's goal of 100% clean electricity supply as set forth in the Clean Energy Transformation Act, passed by the Washington State legislature in 2019. Klickitat County was chosen for the location of the project based on the available solar resources in the area, the suitable terrain, and access to existing transmission lines and substations. This streamlined solar ASC has been prepared in compliance with applicable rules and standards from the Revised Code of Washington (RCW) and Washington Administrative Code (WAC). This letter includes a request for an expedited process for review and approval of the Project in accordance with both RCW80.50.075 and Ch. 463-43 WAC.

The streamlined ASC has been uploaded to the following OneDrive folder for your download: Carriger Solar_ASC Submittal_EFSEC_02-10-2023. If there are any issues with access to OneDrive or the download, please contact Leslie McClain at Leslie.mcclain@tetratech.com. Per your request, 15 redacted thumb drives, 1 redacted hard copy, 1 unredacted thumb drives, and 2 unredacted hard copies will be delivered to the EFSEC office next week.

The OneDrive folder has two sub-folders, one containing a redacted version of the ASC for public review and one containing a redacted version for EFSEC review. The redacted materials include four attachments with confidential and sensitive information. These include:

- Attachment C - Habitat and General Wildlife Survey Report
    - Figure 2. WDFW Priority Habitats and Species Records
    - Figure 3. Habitat Types and Special Status Species Wildlife Observed within the Survey Area

- Attachment D - Raptor Nest Survey Report
    - Figure 1. 2022 Raptor Nest Survey Results with Aerial Background
    - Figure 2. 2022 Raptor Nest Survey Results With Public and Protected Lands
    - Figure 3. 2022 Raptor Nest Survey Results with Topographical Background
    - Appendix B. Raptor Nest Photos
- Attachment F – Botanical Survey Report
    - Figure 4. Rare Plant Species Observed within the Project Survey Area
- Attachment I – Cultural Resources Survey Report and Unanticipated Discovery Plan
    - Entire report is confidential

Attachment I, Cultural Resources Survey Report, was provided to Washington State Department of Archaeology and Historic Preservation (DAHP) and was made available to the Yakama Nation cultural resources group on February 9, 2023. The DAHP project number is # 2022-04-02736.

The Applicant requests that the redacted materials be retained in a confidential manner and not distributed publicly.

Additional addenda will be provided in March 2023. These include:

- Addendum 1: Visual Impact Assessment Report
- Addendum 2: Draft Habitat Restoration and Mitigation Plan
- Addendum 3: FAA Determination of No Hazard

An electronic transfer of fifty thousand dollars ($50,000) was submitted to EFSEC's Financial Services in accordance with RCW 80.50.071 on Thursday, February 9, 2023. Confirmation of receipt was provided on February 9, 2023.

We look forward to working with you during the review process. If you have any questions or require further information, please contact me at: Lauren Altick at lauren.altick@ccrenew.com.

Sincerely,

Lauren Altick
Project Developer

Cc:

Tai Wallace (CCR Senior Development Director)
Julie Alpert (CCR Senior Environmental Manager – Western Region)
Linda Atkins (Davis Wright Tremaine LLP)
Leslie McClain (Tetra Tech)
Linnea Fossum (Tetra Tech)

Carriger Solar Project

Application for Site Certification

Submitted by:

Cypress Creek Renewables, LLC

3402 Pico BLVD.

Santa Monica, CA 90405

February 2023

Table of Contents

List of Attachments

Acronyms and Abbreviations

AC	Alternating current
Applicant	Carriger Solar, LLC
ASC	Application for Site Certification
BESS	battery energy storage system
BMP	Best Management Practices
BPA	Bonneville Power Administration
CAO	Critical Areas Ordinance
CETA	Clean Energy Transformation Act
DAHP	Washington State Department of Archaeology and Historic Preservation
DC	Direct current
EA	Extensive Agriculture
Ecology	Washington Department of Ecology
EFSEC	State of Washington Energy Facility Siting Evaluation Council
EOZ	Energy Overlay Zone
ESCP	Erosion and Sediment Control Plan
FEMA	Federal Emergency Management Agency
GR	General Rural
HPA	Hydraulic Project Approval
kV	Kilovolt
LFP	lithium-ion phosphate
MPE	Maximum Project Extent
NFPA	National Fire Protection Association
NRHP	National Register of Historic Places
O&M	operations and maintenance
PHS	Priority Habitat Species
POI	Point of Interconnection
Project	Carriger Solar Project
PV	Photovoltaic

ROW	right-of-way
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
WDFW	Washington Department of Fish and Wildlife

Part 1 – Overview/Summary

A. Basic Information

A.1. Applicant

Name/Contact:

Carriger Solar, LLC c/o Lauren Altick

Mailing address:

3402 Pico Boulevard

Santa Monica, CA 90405

Phone: (424) 228-1672

Email: lauren.altick@ccrenew.com

A.2. Preparer

The Applicant prepared this Application for Site Certification in conjunction with Tetra Tech, Inc.

Name/Contact:

Tetra Tech, Inc. c/o Leslie McClain

Mailing address:

1750 S Harbor Way, Suite 400

Portland, OR 97201

Phone: (503) 290-9580

Email: Leslie.mcclain@tetratech.com

A.3. Property Owner

(if different from applicant; attach a list of owners if applicable; identify if the property is under lease, and identify any nonprivate owners)

Name/Contact: See the Applicant's response to Part 1, Section A.4 below.

Mailing address: See the Applicant's response to Part 1, Section A.4 below.

Phone: N/A

Email: N/A

The tables provided in the Applicant's response to Part 1, Section A.4, identifies the 25 privately owned assessor parcels encompassed by the Project Site Control Boundary (see Part 1 Section B and Part 2 Section A.2 for definition of terms used in this Application for Site Certification [ASC]). The privately owned assessor parcels are under option to purchase or lease by the

Applicant. The Applicant is also pursuing an encroachment agreement with the Bonneville Power Administration (BPA) for Project access roads and collection line crossings of existing BPA right-of-way (ROW), as well as a Large Generator Interconnection Agreement. The Applicant is also pursuing a Franchise Agreement from Klickitat County for constructing and operating an overhead collection line within the existing Klickitat County ROW for Knight Road.

A.4. Location of Proposed Site

(attach a list of additional properties, if applicable)

Street address: N/A

County: Klickitat County

County Assessor's number(s): See below

Township/Range/Section Number: See below

Legal description: See below

Carriger Solar, LLC (Applicant), a wholly owned subsidiary of Cypress Creek Renewables, LLC, proposes to construct and operate the Carriger Solar Project (Project) located in unincorporated Klickitat County, Washington, approximately 2 miles northwest of the City of Goldendale (Attachment A-1, Figure 1).

Table A.4-1 below lists and describes the assessor parcels encompassed by the Project Site Control boundary and Table A.4-2 lists the rights-of-way that would include portions of the Project collector lines and/or access roads. The location of these parcels and rights-of-way are shown on Figure 2 in Attachment A-1.

Table A.4-1. Assessor Parcels Encompassed by the Project Site Control Boundary.

Assessor Parcel Number[1/]	Property Owner	Address					PLSS	Legal Description
		Street	City	State	Zip	County		
04150100000100	Karl Amidon	202 KNIGHT RD	Goldendale	WA	98620	Klickitat	T4N R15E S1	N2NE FRAC'L; 1-4-15
04150100000300	Karl Amidon	202 KNIGHT RD	Goldendale	WA	98620	Klickitat	T4N R15E S1	S2NE; N2SE; 1-4-15
04150100000500	Ken and Melody Hill LLC	569 SPRING CREEK RD	Goldendale	WA	98620	Klickitat	T4N R15E S1	S2SW; 1-4-15
04151100000100	Ken and Melody Hill LLC	569 SPRING CREEK RD	Goldendale	WA	98620	Klickitat	T4N R15E S11	N2NENE 11-4-15

Assessor Parcel Number[1/]	Property Owner	Address					PLSS	Legal Description
		Street	City	State	Zip	County		
04151100000500	Ken and Melody Hill LLC	569 SPRING CREEK RD	Goldendale	WA	98620	Klickitat	T4N R15E S11	SENE; S2NENE; 11-4-15
04151100000600	Flying H Ranch INC	3115 HWY 142	Goldendale	WA	98620	Klickitat	T4N R15E S11	SE LESS TL3 & N2NWSE LESS W 66' N2NESE; NWSWSE; 11-4-15
04151200000200	Ken and Melody Hill LLC	569 SPRING CREEK RD	Goldendale	WA	98620	Klickitat	T4N R15E S11	NW; 12-4-15
04151200000300	Hillsview LLC	PO BOX C	Chelan	WA	98816	Klickitat	T4N R15E S12	SW; 12-4-15
04151300000100	Hillsview LLC	PO BOX C	Chelan	WA	98816	Klickitat	T4N R15E S13	N2; 13-4-15
04151400000100	Hillsview LLC	PO BOX C	Chelan	WA	98816	Klickitat	T4N R15E S14	TLS 1,2 IN NE; 14-4-15
04151400000300	Jim Hill Trustee	65 HILL RD	Goldendale	WA	98620	Klickitat	T4N R15E S14	S2NW LESS PTN W OF RD; 14-4-15
04151400000600	Flying H Ranch INC	3115 HWY 142	Goldendale	WA	98620	Klickitat	T4N R15E S14	E2SW; SE LESS LOT 1 AF191534 & LOT 2 AF1100391; 14-4-15
04160600000400	Karl Amidon	202 KNIGHT RD	Goldendale	WA	98620	Klickitat	T4N R16E S6	NW FRAC'L; 6-4-16
05152520210100	Judith A Lackstrom	275 PINE FOREST RD	Goldendale	WA	98620	Klickitat	T5N R15E S25	Lot 1 SPL 2020-21; 25-5-15
05152514120100	Judith A Lackstrom	275 PINE FOREST RD	Goldendale	WA	98620	Klickitat	T5N R15E S25	LOT 1 SP 2014-12
05152514120200	Judith A Lackstrom	275 PINE FOREST RD	Goldendale	WA	98620	Klickitat	T5N R15E S25	LOT 2 SP 2014-12
05152514120300	Judith A Lackstrom	275 PINE FOREST RD	Goldendale	WA	98620	Klickitat	T5N R15E S25	LOT 3 SP 2014-12
05152514120400	Judith A Lackstrom	275 PINE FOREST RD	Goldendale	WA	98620	Klickitat	T5N R15E S25	LOT 4 SP 2014-12

Assessor Parcel Number[1/]	Property Owner	Address					PLSS	Legal Description
		Street	City	State	Zip	County		
05152600000500	Wesley Smith	630 PINE FOREST RD	Goldendale	WA	98620	Klickitat	T5N R15E S26	S2SE; 26-5-15
05152600000600	James Farrer	1229 N COLUMBUS	Goldendale	WA	98620	Klickitat	T5N R15E S26	S2SESW (AKA PARCEL 4 HILL RD PROPERTY);26-5-15
05153500000200	James Farrer	1229 N COLUMBUS	Goldendale	WA	98620	Klickitat	T5N R15E S35	S2NWNE (AKA PARCEL 10 - HILL RD PROPERTY); 35-5-15
05153500000900	Diane Powers	PO BOX 651	Hana	HI	96713	Maui	T5N R15E S35	N2NWNE (AKA PARCEL 9 HILL RD PROPERTY) 35-5-15
05153500001200	Craig Schimschok	37101 NE 218TH AVE	Yacolt	WA	98675	Clark	T5N R15E S35	PTN SENW & PTN SWNE LYING N OF BPA (AKA PARCEL 12 HILL RD PROPERTY) 35-5-15
05153500001300	James Farrer	1229 N COLUMBUS	Goldendale	WA	98620	Klickitat	T5N R15E S35	PTN SENW; PTN SWNE LY S OF BPA (AKA PARCEL 13 HILL RD PROPERTY); 35-5-15
05153500001500	James Farrer	1229 N COLUMBUS	Goldendale	WA	98620	Klickitat	T5N R15E S35	N2NENW (AKA PARCEL 6 HILL RD PROPERTY); 35-5-15

1. Assessor parcel information is based on Klickitat County assessment records available via Klickitat County's interactive mapping service accessed on January 26, 2023.

Table A.4-2. Rights-of-Way Containing Project Collector Lines/Roads

Right-of-Way	Property Owner	Address					PLSS	Legal Description
		Street	City	State	Zip	County		
BPA ROW[1/]	United States Government (BPA)	-	-	-	-	-	T5N R15E S35 & S36	--
Klickitat County Knight Road ROW[2]	Klickitat County Road Dept.	228 W Main St.	Goldendale	WA	98620	Klickitat	T5N R15E S36; T4N R15E S1, S12, S13	Deeded County RW by AF# 1112700 & 1149863; 25-5-15

1. Applicant is pursuing encroachment agreements with the BPA for Project access roads and collection line crossings of this existing BPA ROW associated with the North Bonneville-Midway No. 1 and Wautoma-Ostrander No. 1 lines.

2. The Applicant is pursuing a Franchise Agreement from Klickitat County for constructing and operating an overhead collection line within the existing Klickitat County ROW for Knight Road.

B. Project Summary

The Project is a proposed solar photovoltaic (PV) electric generating facility with a capacity of 160 megawatts (MW) of alternating current (AC) solar energy and 63 MW of battery energy storage, as well as associated interconnection and ancillary support infrastructure. The Project is located in unincorporated Klickitat County, Washington, on land composed primarily of agricultural and rural residential lands. The southern portion of the Project Site Control Boundary is located in the Klickitat County Energy Overlay Zone (EOZ). More information about the EOZ and the applicable county zoning is discussed below in Part 1, Section C. The following terms are used in this ASC to describe areas associated with Project development: Project Site Control Boundary, Project Study Area, and Maximum Project Extent. Each of these terms is defined below and in Part 2, Section A.2.a of this ASC.

- **Project Site Control Boundary:** Contains 2,108 acres and is comprised of two non-contiguous areas across 25 parcels of private land that are under purchase or lease option for project site control. The Project Site Control Boundary is shown in Attachment A-1, Figure 1.
- **Project Study Area:** This includes an approximately 2,011-acre area that includes the Maximum Project Extent (1,326 acres, defined below), a portion of the Klickitat County Knight Road ROW (approximately 9 acres), and a portion of the BPA transmission line ROW (approximately 3 acres). The Project Study Area is the survey area for all of the resource-specific surveys conducted in preparation of this ASC. The Project Study Area is shown in Attachment A-1, Figure 1.
- **Maximum Project Extent (MPE):** This area is a subset of the Project Study Area defined above and includes the approximately 1,326-acre area that contains the maximum Project footprint as shown in Attachment A-2, Figure 1. The MPE is the proposed permitted area provided in this ASC and includes the 30-foot corridor associated with the Project collector line in the Knight Road ROW, the 30-foot corridor associated with the Project access road and collector line within the BPA ROW, and the areas within the solar array fence lines minus exclusion areas where sensitive resources such as wetlands and streams are being avoided. The final project footprint/impact areas identified in the final Project design will be smaller than the 1,326-acre MPE. The MPE is included in the ASC to allow for final Project siting and design. See Attachment A-2, Figure 1 for a map of the MPE. The Applicant is considering various solar array design layouts and the final footprint of the Project solar array facilities, Project substation, battery energy storage system (BESS) facilities, operations and maintenance (O&M) building and employee parking area, access roads, collector lines, and laydown areas will not exceed this approximately 1,326-acre MPE area. The final facility and panel locations will be provided in an updated site plan prior to construction.

The Project will use solar modules configured in a solar array to convert energy from the sun into electric power. Solar arrays comprised of single axis tracking PV modules, pile driven racking equipment, cabling, power inverters and transformers mounted on concrete pads, and

an electrical collection system of overhead and underground cables. Other Project components include a BESS, a Project substation, interconnection equipment, O&M building and employee parking, laydown area, access roads, and perimeter fencing. Fencing will be installed around the perimeter of the solar arrays, the Project substation, and BESS. The Project will interconnect to the Northwest transmission grid via BPA's existing Knight Substation located adjacent to the Project substation (see Figure 2, Preliminary Site Plan in Attachment A-2). Project components are described in more detail in Part 2, Section A.2.a.

The solar array, Project substation, BESS, O&M building and employee parking, laydown area and fencing will be sited within the approximately 1,326-acre MPE, as shown in Figure 1, Attachment A-2. The Project will use existing roads to the extent practicable but will also construct new Project access roads within the MPE. An overhead collector line will be sited within the existing Klickitat County Knight Road ROW and access roads and collection lines will be sited within a portion of the existing BPA transmission line ROW associated with the existing North Bonneville-Midway No. 1 and Wautoma-Ostrander No. 1 transmission lines.

Construction of the Project is anticipated to take up to 15 months and would begin during the first quarter of 2024.

Community Engagement

The community engagement process for the Carriger Solar, LLC project began in July 2021 when the Applicant became a member of the Goldendale Chamber of Commerce. The first public information meeting was held on August 3, 2021 at the Goldendale Grange to introduce the Project to the Goldendale and surrounding communities, foster a dialogue about community benefits, and answer questions that the community members may have. 105 direct mail post cards were sent out along with an advertisement in the Goldendale Sentinel to advertise the August 3, 2021 meeting. A total of 81 community members signed in at the event, many of whom provided feedback on comment cards after learning about the project which then helped to inform our outreach and educational messaging to the public. A website was developed for the Project and was launched on December 17, 2021 to serve as a repository for information and updates on the Project. The website address is **carrigersolar.com**. Between January and December of 2022 the website had 4,228 unique visitors and 13,730 page views.

On June 21, 2022, the Project coordinated with the Goldendale Observatory State Park, the Goldendale Chamber of Commerce, and the Friends of the Gorge Area Parks to hold the Summer Solstice Celebration at the Observatory. This event was attended by approximately 150 people and funds were raised to purchase needed equipment for the Observatory and for supporting revitalization efforts in downtown Goldendale.

Additional community engagement efforts have included an April 6, 2022 Project presentation to the Goldendale Kiwanis Club, and a donation to the General Fund for the 2022 Klickitat County Fair & Rodeo (August 18 – 21) to assist the public in obtaining free and discounted tickets to attend this event that typically hosts approximately 10,000 people.

Continued community member outreach is ongoing and includes telephone, direct mail postcards, emails and email newsletters, and digital advertising.

C. Site Summary

The Project is generally located north of State Route (SR) 142 and along Knight Road, Fairgrounds Road West, Mesecher Road West, Fish Hatchery Road, Butts Road, and Pine Forest Road approximately 2 miles west/northwest of the city of Goldendale in Klickitat County, Washington (see Attachment A-1, Figure 1). The Project Site Control Boundary contains 2,108 acres and is comprised of two non-contiguous areas across 25 privately owned parcels. The privately owned parcels listed in Part 1, Section A.4 are under option to purchase or lease by the Applicant. The Applicant is also pursuing encroachment agreements with BPA for Project access roads and collection lines, as well as a Franchise Agreement with Klickitat County to site an overhead collection line within a portion of the existing Knight Road ROW.

Within the Project Site Control Boundary, a smaller 2,011-acre Project Study Area was defined for biological, cultural, and physical resource surveys and included the portions of the BPA ROW subject to the encroachment agreement and Knight Road ROW subject to the franchise agreement (Attachment A-1, Figure 1). Within the Project Study Area, a smaller area will be permanently or temporarily disturbed by Project construction and is referred to as the MPE (1,326 acres) which contains the Project footprint associated with the solar array areas, Project substation, BESS facilities, collector lines, interconnection equipment, O&M building and employee parking, laydown area, access roads, and fencing and includes additional construction areas to allow for the shifting of project components, known as micro-siting, based on a final approved project design. See Figure 1 in Attachment A-2 for a map of the MPE and Figure 2 in Attachment A-2 for the Project's Preliminary Site Plan.

Lands in the Project Study Area have historically been utilized for agricultural activities (crop cultivation and livestock grazing). The Project is located primarily within the Klickitat County Extensive Agriculture (EA) District with two assessor parcels (totaling approximately 180 acre) and a portion of the Knight Road ROW being located within the Klickitat County General Rural (GR) District. See Attachment A-1, Figure 3. The southern portion of the Project Study Area is located within the Klickitat County EOZ. Existing land uses in the Project Study Area predominately include crop cultivation (mostly dryland wheat) and pasturelands with some scattered rural residences (owned by Project participant landowners), undeveloped areas, local roads, and electrical infrastructure (e.g., transmission and distribution lines). Adjacent land uses surrounding the Project Study Area are similar and include scattered rural residences owned both by Project participants and non-Project participants, the Goldendale Fish Hatchery and adjacent Washington Department of Fish and Wildlife (WDFW) owned lands, SR 142, and the BPA Knight Substation. Consistency with local land use codes and policies is addressed in Part 4, Section 4.14 and in Attachment B, Land Use Consistency Review.

Six habitat types occur within the Project Study Area which include agriculture, pastures, and mixed environs; dwarf shrub-steppe; urban and mixed environs; eastside (interior) riparian-wetlands; ponderosa pine forest and woodlands (includes eastside oak); and eastside (interior) grasslands. As shown in Part 4, Table 4.8-1, the majority of the Project Study Area is composed of agriculture, pastures, and mixed environs (1,727 acres or 86 percent of the Project Study

Area). See the Wildlife and Habitat Survey Report (Attachment C) for additional details on habitat types observed within the Project Study Area as well as their distribution in the area.

An analysis to identify known wildlife Habitat Concentration Areas (HCAs) and wildlife priority habitat linkages important for wildlife movement and connectivity was completed. No HCAs or wildlife priority habitat linkages were identified within the Project Study Area. However, mule deer use and movement corridors were identified based on the presence of preferred habitat (i.e., shrub-steppe, grasslands, riparian-wetlands, and ponderosa pine forest and woodlands) and observations of mule deer sign (scat, tracks, trails, and bedding areas) during field surveys. The WDFW Priority Habitat Species (PHS) database identified occurrences of three Priority Species: wild turkey, mule deer, and western gray squirrel within or near the Project Study Area. Wild turkey Priority Habitat overlaps the northeast corner of the Project Study Area and western gray squirrel Priority Habitat abuts the northeast portion of the Project Study Area. These species were observed in or near the Project Study Area during surveys. The Lewis's woodpecker, a U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern (BCC) was observed in white oak woodland inside and just outside the Project Study Area to the east and the northwest. See the Wildlife and Habitat Survey Report (Attachment C) for additional details.

Additional surveys for avian species were conducted as part of the Raptor Nest Surveys (see Part 4, Section 4.9 and Attachment D). Species and their nests identified during the Raptor Nest Surveys included Swainson's hawk (*Buteo swainsoni*), red tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), and common raven (*Corvus corax*). No eagles or federally listed threatened or endangered species were documented during the raptor nest surveys. A ferruginous hawk was observed perching on top of a small tree in the southern portion of the Project Site Control Boundary. The ferruginous hawk is state endangered and thus, also a WDFW Priority Species. No breeding behavior was observed and because the Project is outside their breeding range, the ferruginous hawk was likely migrating through the area.

A total of 18 wetlands, five vernal pools, and 14 stream segments (1 perennial, 5 intermittent, and 8 ephemeral) were identified and mapped within the Project Study Area (see Part 4, Section 4.3, and Attachment E). One special-status plant species, the state threatened foxtail mousetail (*Myosurus alopecuroides)*, was documented within three small vernal pools in the central portion of the Project Survey Area. Foxtail mousetail is an obligate vernal pool species found on hard, bare, desiccated clay, in sparsely vegetated areas of shallow pools (WNHP 2021, also see Section 4.8 and Attachment F).

The Applicant has designed the Project layout to avoid impacts to sensitive species as well as on-site and off-site habitats and vegetation communities including areas of eastside (interior) riparian-wetlands; ponderosa pine forest and woodlands (includes eastside oak); and eastside (interior) grasslands. In addition to avoiding these habitat types, the Applicant modified the layout to include several separate fenced solar arrays. These separate solar arrays will allow for the following:

- Wildlife movement corridors through the Project area between the fenced arrays;

- Minimized impacts to dwarf shrub-steppe;
- Fencing setback from the area of western gray squirrel Priority Habitat and Concentration;
- Protection of vernal pools, wetlands, and stream courses by providing fenced setbacks and buffers;
- Incorporation of required Klickitat County Critical Areas Ordinance (CAO) buffers

All wetlands, vernal pools, and their respective buffers will be avoided. It is anticipated that Project impacts for temporary and permanent access road crossings would occur within one ephemeral and two intermittent streams (see Attachment A-1, Figure 7 and Section 4.3 for more details regarding stream crossings and impacts to surface waters). The Applicant will determine the need for U.S. Army Corps of Engineers (USACE), Clean Water Act Section 404 permitting for these road crossings and will consult with the Washington Department of Ecology (Ecology) as well as WDFW for additional permitting analysis and requirements, including the potential need to include a Hydraulic Project Approval (HPA) permit per WAC 20-660-050. No part of the Project Study Area is located within a Federal Emergency Management Agency (FEMA) flood hazard area.

The visual setting of the Project Study Area is agricultural land mostly comprised of dryland agriculture, open pastureland, with some irrigated agriculture and scattered agricultural buildings and rural residential development. Where the Project is visible, the Project components would be consistent with other horizontal and vertical lines and geometric shapes visible throughout the landscape (e.g., fencing, roadways, substations, transmission towers and lines, utility poles and lines, agricultural structures) and would not block views of the surrounding hills. The Project will not introduce a source of light that will significantly impact views in the area. The glare analysis (Attachment G) concluded the Project will not introduce a source of glare that will significantly impact motorists, residents, or views in the area. Additional discussion of light, glare, and aesthetics are addressed in Part 4, Section 4.16b.

Some changes to stormwater drainage may occur as a result of new impervious surfaces developed as part of this proposal (e.g., gravel roads, foundations for solar array posts, battery storage container pads, pads for substation components, etc.). Overall, impervious surfaces are a low percentage of the total Project Study Area (approximately 2 percent of the Project Study Area; see Part 2, Section B.2). The Project will be designed and constructed to comply with Klickitat County and Ecology requirements in retaining stormwater on-site and maintaining natural drainage patterns for conveyance of upland flow, and the Project's Erosion and Sediment Control Plan (ESCP), Construction Stormwater Pollution Prevention Plan (SWPPP), Permanent Stormwater Control Plan, and Vegetation and Weed Management Plan will provide specific measures to minimize erosion and sedimentation during and after construction. Additional discussion of stormwater best management practices (BMPs) and design considerations for stormwater runoff are addressed in Part 4, Section 4.5.

The Project will comply with the 50-decibel nighttime limit at all non-participating noise sensitive receptors (i.e., residences) based on the incorporation of a number of conservative assumptions in the acoustic model used for the Project. WAC 173-60-050 exempts temporary construction noise from the state noise limits; however, best management practices (BMPs) will be implemented to reduce off-site construction noise impacts. Noise associated with Project construction and operation is addressed in Part 4, Section 4.16a (also see Attachment H).

The Project Study Area was surveyed for cultural resources in April of 2022, including subsurface boundary probing of identified archaeological resources. Additionally, an aboveground reconnaissance of historic property sites was conducted in the Project Study Area as well as on adjacent parcels. The survey identified one previously recorded archaeological site, two previously recorded historic properties (transmission lines), and 22 newly documented archaeological sites within the Survey Area. All of the sites found were historic era sites that have been recommended as being not eligible for listing on the National Register of Historic Places (NRHP). Therefore, pending Washington State Department of Archaeology and Historic Preservation (DAHP) concurrence, these sites would not require an archaeological excavation permit under RCW 27.53.060. No precontact era sites were discovered.

It is possible that construction of the Project (including, but not limited to clearing of vegetation, grading, and excavation) could unearth previously undiscovered archaeological resources and result in significant impacts to archaeological resources and/or human remains. If cultural resources (i.e., precontact sites, historic sites, or shell or bone, isolated artifacts, or other features) are discovered during the course of construction, the Unanticipated Discovery Plan will be implemented. In order to comply with RCW 27.53, a DAHP excavation permit will be obtained and mitigation measures will be discussed and implemented if any significant archaeological resources would be impacted by the Project. Archaeological and historic resources and cultural resources are addressed in Part 4, Section 4.18 and Section 4.19, respectively.

The Project will not create any anticipated changes or improvements to the existing transportation systems except for the new access road approaches on SR-142, Knight Road, Mesecher Road, and Butts Road. The new Project access roads would be for private use only and will not create any new travel routes for residents in the vicinity of the Project. The Applicant will obtain County Road Right-of-Way Access Permits and WSDOT Right-of-Way Access Permits for the proposed Project approaches on county and state roads. Traffic impacts associated with Project construction and operation are addressed in Part 4, Section 4.20.

Based on the information provided herein, the State of Washington Energy Facility Siting Evaluation Council (EFSEC) may find that the Project complies with applicable laws under RCW 80.50 for energy facility site locations and with applicable rules under WAC 463-60 for evaluation of this streamlined solar ASC. EFSEC may also find under WAC 197-11 that with mitigating conditions and compliance with applicable County, state, and federal regulations and permit requirements, the Project will not result in significant adverse impacts on the environment.

D. Screening Summary

Note to applicant:

- This is an active, changing list and on-going focus for discussion.
- This information must match with the information in Part 3.
- This information is very important in the pre-application stages.

	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
1. Earth	Yes	Yes	Yes	Yes	Yes
2. Air Quality	Yes	Yes	Yes	Yes	Yes
3. Water Quality – Wetlands and Surface Waters	Yes	Yes	Yes	Yes	Yes
4. Water Quality – Wastewater Discharges	No	Yes	Yes	Yes	N/A
5. Water Quality – Stormwater Runoff	Yes	Yes	Yes	Yes	Yes
6. Water Quantity – Water Use	No	Yes	Yes	Yes	N/A
7. Water Quantity – Runoff, Stormwater, Point Discharge	No	Yes	Yes	Yes	Yes
8. Plants	Yes	Yes	Yes	Yes	Yes
9. Animals	Yes	Yes	Yes	Yes	Yes
10. Energy and Other Natural Resources	No	N/A	Yes	Yes	N/A
11. Waste Management	No	N/A	Yes	Yes	N/A

	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
12. Environmental Health – Existing Site Contamination	No	Yes	Yes	Yes	N/A
13. Environmental Health – Hazardous Materials	Yes	Yes	Yes	Yes	Yes
14. Land Use, Nat. Resource Lands & Shoreline Compatibility	Yes	Yes	Yes	Yes	N/A
15. Housing	No	N/A	Yes	Yes	N/A
16. Noise, Light, Glare, and Aesthetics	Yes	Yes	Yes	Yes	Yes
17. Recreation	Yes	Yes	Yes	Yes	Yes
18. Archaeological and Historical Resources	Yes	Yes	Yes	Yes	Yes
19. Cultural Resources	Yes	Yes	Yes	Yes	Yes
20. Traffic and Transportation	Yes	Yes	Yes	Yes	Yes
21. Public Services and Facilities	No	N/A	Yes	Yes	N/A
22. Utilities	No	N/A	Yes	Yes	N/A

E. List of Studies

Note to applicant:

- This is an active, changing list and on-going focus for discussion.
- This information must match with the information in Part 3.
- This information is critical to the pre-application stage.

Topic	Name of Report and Location for Review	Report No.	Status (e.g., scoping, contracting for, started)	Date of Completion (past or expected)
Land Use	Land Use Consistency Review	Attachment B	Complete	October 2022
Wildlife and Habitat Mapping	Habitat and General Wildlife Survey Report	Attachment C	Complete	October 2022
Wildlife	Raptor Nest Survey Report	Attachment D	Complete	October 2022
Wetlands and Surface Waters	Wetland Delineation Reports and Addendum	Attachment E	Complete	December 2021 January 2022 October 2022
Vegetation	Botanical Survey Report	Attachment F	Complete	October 2022
Glare	Solar Glare Analysis Report	Attachment G	Complete	January 2023
Noise	Acoustic Assessment Report	Attachment H	Complete	January 2023
Archaeological, Historical, and Cultural	Cultural Resources Survey Report and Unanticipated Discovery Plan	Attachment I (Confidential)	Complete	January 2023
Socioeconomic	Socioeconomic Review	Attachment J	Complete	April 2022
Earth	Geotechnical Engineering Report	Attachment K	Complete	March 2022
Hydrology and Hydraulics Analysis	Hydrologic and Hydraulic Assessment	Attachment L	Complete	October 2020 February 2023
Environmental Health	Phase 1 Environmental Site Assessment	Attachment M	Complete	January 2022
Visual and, Aesthetics	Visual Impact Assessment Report	Addendum 1	Started	March 2023
Habitat Restoration and Mitigation Plan	Draft Habitat Restoration and Mitigation Plan	Addendum 2	Started	March 2023
Airspace	FAA Determination of No Hazard	Addendum 3	Pending	March 2023

F. List of Stakeholders

Note to applicant:

- This is an active, changing list and on-going focus for discussion.
- This information is critical to the pre-application stage.

Type	Specific[1/]	Contact (name, program)	Areas of Discussion	Status of Engagement[2/]
State Government	Washington Department of Fish and Wildlife (WDFW)	Mike Ritter and Amber Johnson	Wildlife, surveys, and general biological resources.	Ongoing
State Government	Washington Energy Facility Siting Evaluation Council (EFSEC)	Ami Hafkemeyer	General, permitting, project description, and application process.	Ongoing
State Government	Washington State Department of Ecology (Ecology)	Lori White	Wetland and waters delineation.	Ongoing
State Government	Washington Department of Archaeology and Historic Preservation (DAHP)	Allyson Brooks	Review of Cultural Resource Survey Report.	Anticipated upon report submittal
Tribal Government	Confederated Tribes of the Warm Springs Reservation of Oregon	Christian Nauer	Cultural resources, surveys, and general introduction to the Project.	Ongoing
Tribal Government	Wanapum Tribe	Rex Buck Jr.	Cultural resources, surveys, and general introduction to the Project.	Ongoing
Tribal Government	Confederated Tribes and Bands of the Yakama Nation	Casey Barney Jessica Lally	Cultural resources, surveys, and general introduction to the Project.	Ongoing
Tribal Government	Confederated Tribes of the Grande Ronde	Chris Bailey	Cultural resources, surveys, and general introduction to the Project.	Ongoing
Tribal Government	Confederated Tribes of the Umatilla Indian Reservation	Casey Miller	Cultural resources, surveys, and general introduction to the Project.	Ongoing
Tribal Government	Nez Perce Tribe	Samuel Penney	Cultural resources, surveys, and general introduction to the Project.	Ongoing
Federal Government	Department of Defense	Kim Peacher, Yakima Training Center	Airspace, Glint and Glare.	Intend to contact
Federal Government	United State Army Corp of Engineers	To be determined.	Waters of the U.S.	Intend to contact
Federal Government	Bonneville Power Administration	Dallas Filan, Christopher Lockman, Eric Orth	Interconnection and transmission items related to project.	Ongoing
Local Government	Klickitat County	Mo-Chi Lindblad, Dave McClure	Land use and local permits.	Contacted/ongoing
Local Government	Klickitat County Rural 7 Fire & Rescue	Fire Chief Anthony Browning, Assistant Chief Todd Kindler	Fire prevention, fire protection	Intend to contact

Type	Specific[1/]	Contact (name, program)	Areas of Discussion	Status of Engagement[2/]
Local Government	County Commission	Jacob Anderson; Dan Christopher; Lori Zoller	Land Use, Community Engagement, Local Ordinance, Tax Assessment.	Contacted (via in person meetings and/or emails)
Local Government	City of Goldendale	Loren Meagher; Greg Gallagher; Pat Munyan; Troy Carpenter	Mitigation opportunities/programs, community engagement, glare and airport.	Ongoing
Local Private Entity	Goldendale Chamber of Commerce	Nicole Lundin, Mindy Jackson	Community engagement; educational outreach opportunities.	Ongoing
Local Organization	Friend of the Gorge Area Parks (FOGAP)	James Day, Jonathan Lewis	Community engagement.	Ongoing
Property Owners	Property Owners	See Part 1, Section A.4	The private lands in Project Lease boundary are under option to purchase or lease by the Applicant.	Ongoing
Local Residents	Members of the Public	See Part 1 Community Engagement	Community engagement.	Ongoing

1. Entities typically consulted include Ecology, WDFW, DNR, DAHP, tribal governments, the Department of Defense, neighboring property owners, local government, etc. Not all of these may be required for each project but should serve as a starting point for applicant contacts for coordination.

2. for example: Intend to contact, contacted, ongoing engagement, engagement complete.

Part 2 – Core Information

A. Project Basics

A.1. Project Name

Carriger Solar Project (Project)

A.2. Project Description

A.2.a Describe Proposal

Include all components of land use.

Include activities occurring during project phases.

1.0 INTRODUCTION

Carriger Solar, LLC (Applicant), a wholly owned subsidiary of Cypress Creek Renewables, LLC, proposes to construct and operate the Carriger Solar Project (Project) located in unincorporated Klickitat County, Washington (Attachment A-1, Figure 1). The Project is a proposed solar photovoltaic (PV) electric generating facility that includes 160 megawatts (MW) of solar energy and 63 MW of battery energy storage. The Project is generally located north of SR 142 and along Knight Road, Fairgrounds Road West, Mesecher Road West, Fish Hatchery Road, Butts Road, and Pine Forest Road approximately two miles west/northwest of the City of Goldendale in Klickitat County, Washington. The Project is located ion land composed primarily of agricultural and rural residential lands and the southern portion of the Project Site Control Boundary is located in the Klickitat County EOZ (Chapter 19.39 of Title 19, of the Klickitat County Zoning Ordinance). More information about the EOZ and the applicable county zoning is discussed below.

This streamlined solar ASC uses the following terms to describe areas associated with Project development:

- **Project Site Control Boundary:** Contains 2,108 acres and is comprised of two non-contiguous areas across 25 parcels of private land that are under purchase or lease option for project site control. The Project Site Control Boundary is shown in Attachment A, Figure A-1.
- **Project Study Area:** This includes an approximately 2,011-acre area that includes the Maximum Project Extent (1,326 acres, defined below), a portion of the Klickitat County Knight Road ROW (approximately 9 acres), and a portion of the BPA transmission line ROW (approximately 3 acres). The Project Study Area is the survey area for all of the resource-specific surveys conducted in preparation of this ASC. The Project Study Area is shown in Attachment A-1, Figure 1.

- **Maximum Project Extent (MPE):** This area is a subset of the Project Study Area defined above and includes the approximately 1,326-acre area that contains the maximum Project footprint as shown on in Attachment A-2, Figure 1. The MPE is the proposed permitted area provided in this ASC and includes the 30-foot corridor associated with the Project collector line in the Knight Road ROW, the 30-foot corridor associated with the Project access road and collector line within the BPA ROW, and the areas within the solar array fence lines minus exclusion areas where sensitive resources such as wetlands and streams are being avoided. The final project footprint/impact areas identified in the final Project design will be smaller than the 1,326-acre MPE. The MPE is included in the Preliminary Site Plan and ASC to allow for final Project siting and design. The Applicant is considering various solar array design layouts and the final footprint of the Project solar array facilities, Project substation, battery energy storage system (BESS) facilities, operations and maintenance (O&M) building and employee parking area, access roads, collector lines, and laydown areas will not exceed this approximately 1,326-acre MPE area. The final facility and panel locations will be provided in an updated site plan prior to construction.
- **Collection Line Right-of-Way –** The collection line ROW refers to a 30-foot wide corridor within the Klickitat County Knight Road ROW where the Applicant will install an aboveground medium voltage (34.5-kilovolt [kV]) collection line to electrically connect the southern array areas and parcels with the northern array areas and parcels (Attachment A-2, Figure 2). The collection line ROW is a subset of the Project Study Area and includes the portion of the MPE associated with the collector line. The actual footprint associated with the collector line will be less than this 9-acre Collection Line ROW area; however, the exact location of poles for the collection line and temporary disturbance areas for construction of the collection line will be determined during final design. Therefore, a larger ROW area has been defined to provide for final design flexibility.
- **Project substation** – The Project substation is located within the MPE and is the point of interconnection for the Project with the BPA electric transmission system. The Project substation is located west of and adjacent to the existing BPA Knight Substation parcel (parcel number 05153500000300) in the northwest portion of the Project as shown on the Preliminary Site Plan, Figure 2 in Attachment A-2. See section 3.3 below for more detailed description of the Project substation.
- **Battery Energy Storage System (BESS)** – The BESS is comprised of self-contained battery storage modules of lithium-ion batteries enclosed in prefabricated metal containers constructed on concrete foundations. BESS containers will be used to provide 63MW of electricity for up to four hours of duration. The number of BESS containers will depend on the final selected BESS vendor. However, they are anticipated to be sited within a 2-acre area located adjacent to the Project substation within the MPE as show on the Preliminary Site Plan, Figure 2 in Attachment A-2. See section 3.2 below for more detailed description of the BESS.

As referenced above, the Project includes a medium voltage collection line to be located within a portion of existing Klickitat County ROW along Knight Road that electrically connects the southern array areas and parcels with the northern array areas and parcels. This portion of Knight Road is managed by Klickitat County Public Works pursuant to existing ROW easements which allow the installation of electric transmission lines within the easements. The Applicant is seeking a Franchise Agreement from Klickitat County to authorize the construction and operation of the medium voltage collector line within the Knight Road ROW.

As noted above, the Project substation facilities collectively represent the Point of Interconnection (POI) between the Project and the BPA transmission system. A short approximately 500-foot-long overhead 500-kV transmission line would connect the two substations. The point at which the interconnection infrastructure changes control from the Applicant to BPA will be at the Project substation fence line. The Project's interconnection to BPA's system may require electrical and infrastructure upgrades to the existing BPA substation; however, the footprint of BPA's existing substation is not expected to change. Interconnection to a BPA transmission system is subject to review under the National Environmental Policy Act. The Applicant will work with the BPA to obtain necessary interconnection approvals.

The Project parcels are composed primarily of agricultural and rural residential land uses. Land within the Project Site Control Boundary have been heavily disturbed by agricultural crops and livestock grazing. Land in the surrounding area is similarly used and zoned for agricultural and rural residences. The southern portion of the Project Site Control Boundary and Study Area is located within the Klickitat County EOZ (see Figure 3 in Attachment A-1). SR 142 is located at the southern boundary of the Project and the WDFW Goldendale Fish Hatchery is located on an adjacent parcel on the western edge of the Project. More information about current zoning and land uses within the Project Study Area is included in Part 2, Sections B.6 and B.7, Part 4, Section 4.14., and Attachment B of this ASC.

2.0 SITING

The State of Washington adopted a goal of 100% clean electricity supply as set forth in the Clean Energy Transformation Act (CETA), passed by the Washington State legislature in 2019. This made Washington State an attractive site for the Project. Klickitat County was chosen based on the available solar resources in the area, the suitable terrain, and access to existing transmission lines and substations. As part of the conceptual development and siting of the Projects, the following criteria were used to select the site:

- Property size and terrain
- Proximity to the existing transmission facilities and grid capacity
- Proximity to existing customer energy loads
- Site access from existing roadways
- Land use zoning and proximity to Klickitat County Energy Overlay Zone
- Solar insolation

- Previous site disturbance including grazing, previous farming, and existing transmission lines
- Slope and aspect

3.0 PROJECT COMPONENTS

This section identifies the components, structures, and systems incorporated in the Project's design. The Applicant would install and operate a solar PV power generating facility with a nameplate PV rating of up to 160 megawatts of alternating current (AC) and the option for up to 63 MW of battery energy storage. The Project would install arrays of solar PV modules to convert light to electrical energy that will either charge the batteries or be dispatched onto into the electric grid at the POI. The Preliminary Site Plan (Figure 2, Attachment A-3) shows the general arrangement of project components.

Solar modules are connected in series strings into combiner boxes located adjacent to the module arrays. Combiner box output circuits are routed to the inverter locations and terminated on the direct current (DC) side of the inverter. The inverter converts the DC power source of the array to an AC waveform. The low voltage AC output of the inverter is stepped up to a 34.5-kV medium-voltage collection system through an inverter step up transformer located adjacent to each inverter. The medium-voltage collection circuits are routed throughout the array area to connect each inverter to a collection system feeder circuit. The collection system feeders terminate at the project collector substation and each feeder is protected by a 34.5 kV circuit breaker. The 34.5-kV breakers are connected to a medium-voltage bus which in turn connects to the medium voltage side of the substation transformer. The Project substation transformer steps the voltage from the 34.5-kV collector system voltage up to the 230 kV, then up to the 500-kV system interconnection voltage. The high voltage side of the substation features additional protection, control, and metering equipment before the point of change of control to the utility-owned interconnection facilities.

The Project would operate year-round. The PV system would generate electricity during daylight hours that would be stored in the BESS or would be discharged to the BPA electric transmission system. The BESS would be able to dispatch stored electricity night or day up to the interconnection limit set in the interconnection agreement between the Project and BPA. Refer to the Project's Preliminary Site Plan (Attachment A-2) for the preliminary location of the major Project components, including the Project substation, BESS, solar array area, medium voltage collector line easement, access points and preliminary fence line.

3.1 PV Array

3.1.1 PV Modules

The Project would use high-efficiency commercially available Tier I PV modules that are UL listed. The principal materials incorporated into the PV modules include glass, steel, and materials that convert sunlight into electricity. These materials consist of monocrystalline silicon, polycrystalline silicon, amorphous silicon, or thin films of polymers, glass and other materials. While panels are comprised mostly of non-hazardous silicon-based materials, panels may also

include small quantities of toxic materials such as cadmium telluride. These materials are fully contained within the panels and would not be released under normal operations. Modules are designed by the manufacturer to withstand extreme heat and cold and are hermetically sealed. Module strings and plant performance are remotely monitored for performance and faults 24/7 and condition assessed during routine maintenance inspections by on-site operations and maintenance personnel. Any damaged panels will be repaired or replaced as needed with spare modules stored on site.

The final number of modules would be determined prior to submitting building plans for building and electrical permits. The final module count will be a function of the module manufacturer power rating (in watts), the presence of batteries, the inverter loading ratio and final energy production requirements and performance guarantees.

3.1.2 Ground Mount

The PV modules would be mounted on single-axis tracking systems that would be arranged in north-south rows and the modules will rotate east to west tracking the sun throughout the day in order to maximize generation. Module clear row spacing could range from 8 to 25 feet of open space between the rows, with final spacing dependent on design considerations such as grading, physical and geological constraints, racking manufacturer selection, slope and grade, and inter-row shading. The maximum height of the solar panels would be 12 feet above grade at maximum tilt.

The mounting system for the modules would be supported by posts driven into the ground or set into pre-drilled holes where hard weathered or solid bedrock exists at shallow depth below grade. Depending on soil and hydrologic conditions, the posts would be driven directly into the soil; however, other foundation designs may be used depending on final engineering design. The post depths would vary depending on soil conditions, which would be confirmed via a detailed geotechnical investigation prior to construction but are typically driven to a minimum depth of ten feet. Embedment depth is dependent on a number of factors analyzed in hydrologic and hydraulic analysis, geotechnical analyses, and wind loading requirements.

3.1.3 Additional Project Electrical and Communication Equipment

The Project would have a collection system connecting PV modules to the Project substation. The collection system may include underground or aboveground cable trays, overhead DC and AC electrical and communication cables, or a combination of these. DC collection lines would connect the PV modules to the inverter, which converts DC power to AC power. AC lines would connect inverters to the transformers, which increase the AC power to medium voltage (34.5 kV).

The inverters and transformers would be mounted on concrete pads adjacent to each module block (collection of module rows). The inverters and transformers will transform the electricity from the arrays from DC to AC at the collector line voltage level.

Medium-voltage (34.5 kV) AC electrical lines from the transforms would connect to the Project step up transformer located at the Project substation and step the system voltage up from the 34.5kV medium-voltage to the interconnection voltage of 500kV. The southern and northern PV arrays would be connected electrically through an overhead 34.5kV collector line that would be constructed in the medium voltage collection line ROW.

The overhead collection system may contain both electrical circuits and communication lines on the same structures. Overhead collection systems typically consist of wood or steel poles and are approximately 40 feet above grade with a typical span length of 35 feet. The underground collection system is typically buried in trenches to a depth of 36 to 48 inches. The overhead height and underground depth may vary based on voltage, ground elevation, crossing requirements, safety codes, and county codes. Overhead lines would be constructed in compliance with codes and standards, including National Electrical Safety Code (2017 Edition, Grade B Construction), Washington Administrative Code, American National Standards Institute, National Electrical Manufacturers Association, American Society for Testing and Materials, Avian Power Line Interaction Committee, as well as other applicable laws and construction codes.

3.1.4 Meteorological Station

The Project would have at least one 10-foot-tall meteorological station within the solar field. The total number of meteorological stations depends on final Project design. A meteorological station is a device that collects data related to weather and environment using an array of different sensors. The sensors may include a thermometer to take temperature readings, a barometer to measure pressure in the atmosphere, and other sensors to measure rain, wind, and humidity.

3.2 Energy Storage System

The Project would have a BESS footprint of up to approximately two acres located near the Project substation. The primary BESS container components are battery storage modules comprised of lithium-ion phosphate (LFP) cells, placed in racks. LFP is one type of lithium-ion chemistry which has a greater safety margin compared to other common lithium-ion battery chemistries. Lithium-ion cells have a typical lifespan of 15 to 20 years depending on usage. Additional equipment integral to BESS containers are battery management system, thermal management system, incipient gas detection, and fire suppression system, all enclosed in prefabricated metal containers built in accordance with the latest UL and National Fire Protection Association (NFPA) standards.

The BESS containers are mounted on foundations adjacent to power conversion systems, comprising inverters and 34.5kV transformers. The number of BESS containers may change depending on final engineering design, capacity maintenance strategy, and BESS manufacturer selected. The BESS will be designed to provide 4 hours of energy at full rated power of the system. The final number of BESS containers will not exceed the audible limits analyzed in the noise analysis (see Parts 3 and 4).

The final design would include containment features with combustion prevention systems built to the applicable requirements of the National Electric Code and Institute of Electrical and Electronics Engineers Standards.

The BESS would be completely enclosed in a security fence (refer to Section 2.5.3 for fencing specifications).

3.3 Project Substation and Transmission Interconnection System

The Project would construct a new substation in an approximately 3-acre area within the Project Site Control Boundary, west of the BPA Knight Substation. The conceptual substation design for purposes of permitting would include a 500-kV step-up transformer, access roads, stormwater facilities, and electrical infrastructure such as circuit breaker, metering, communications, protection, and control equipment; and supervisory control and data acquisition (SCADA) and metering equipment. The substation will be interconnected to the BPA Knight Substation via a 500-kV overhead line. More detail on this line will be provided when interconnection design is further refined. The Project's end of control is at the Project substation fence line along the property boundary of privately owned parcel 05153500001300 (the parcel where the Project substation is located), where the 500-kv overhead line extends onto the adjacent BPA parcel (parcel 05153500000300), at which point the overhead line is under BPA control and permitting.

The Project's interconnection to BPA's system may require electrical and infrastructure upgrades to the BPA substation; however, the footprint of BPA's existing substation is not expected to change. Interconnection to a BPA transmission system is subject to review under the National Environmental Policy Act. The Applicant will work with the BPA to obtain necessary interconnection approvals.

3.4 Operations and Maintenance Building

The Project may include an O&M building that will consist of a single-story structure with office space, warehousing space, a bathroom, and breakroom facilities. The O&M building could be up to 2,000 square feet in size on an approximately 0.5-acre area including an on-site 10,000-square-foot graveled area for parking for employees and visitors (approximately 10 parking spaces) and an open staging area. The O&M building will be located near the Project's collector substation and surrounded by a security fence. The O&M building will be equipped with fire extinguishers as well as smoke detectors tied to the supervisory control and data acquisition (SCADA) system. In addition to fire extinguishers, the O&M building will have basic firefighting equipment for use on-site during maintenance activities including shovels, beaters, portable water for hand sprayers, and personal protective equipment. In addition, the Project's O&M area may include a 10,000-gallon water cistern to store water for fire suppression needs. Water for operations is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site.

Wastewater will be managed using a permitted onsite septic system or portable restroom (the impact assessment used in this ASC assumes a permitted on-site specific system is used). Local utilities will provide electrical and communications/telephone connections. Relevant building permits will be obtained for the O&M building, including for the well and septic system, from Klickitat County (see Part 3, Section 6 [Water Quantity – Water Use] and the Land Use Consistency Review [Attachment B] for additional permitting details).

3.5 Access Roads, Public Services, and Other Infrastructure

3.5.1 Project Access and Internal Roads

The Project would primarily be accessed from private driveways off of Knight Road, Mesecher Road, Butts Road, and State Route 142. The Project's northern and southern solar array areas would be connected by the Collection Line ROW along Knight Road. Private interior roads would be built on private property for construction and operation. Access roads would have a compacted gravel surface, with a width of approximately 16 feet or 20 feet as well as the required clearance and turning radius needed for emergency response vehicles, in accordance with fire code. Road improvements, including drainage upgrades and grading, may be required as part of the Project.

The Applicant would coordinate with Klickitat County Public Works Department to obtain a county franchise agreement, road access permits, ROW permits, and road-haul agreements, where required.

3.5.2 Temporary Work Areas

Construction staging and laydown areas would be established as needed for parking, construction, storage and use within the Project Study Area (see Figure 1, Preliminary Site Plan in Attachment A-2). Temporary work areas would be located within the Project MPE.

3.5.3 Security and Lighting

Permanent chain-link security fencing would be installed around the Project in order to restrict public access and would have a height of up to 7 feet in accordance with the National Electric Code (NFPA 70) requirements. The typical design standard for a security fencing is a 6 to 8 foot chain link fence with 1 foot (3 strands) of barbed wire along the top. The fence posts would be set in concrete or driven into the dirt.

Lighting may be needed for security and occasional after-hours work. Lighting would be controlled by motion sensors that are directed inwards, shielded, and have reduced lumens as required by Klickitat County Code. Lighting may be installed throughout the Project in locations such as the access points, O&M building, substation, BESS and major equipment locations. Any lighting would be shielded and directed downward to minimize the potential for glare or spillover to adjacent properties, as required in the code. See Part 4, Section 4.16b for additional details on Project lighting.

The Project may have backup diesel-fired power generators at the O&M building as required by code for emergency backup power during Project operations for stowing the trackers or to maintain critical electronic equipment.

3.5.4 Telecommunications

Multiple communication systems may be used during Project construction and operation. These systems will include telephone, fiber optics, and T1 internet or equivalent. The Project may include the construction of microwave or other telecommunications towers on the Project site. In addition, the Project may include the installation of a telephone landline as part of the electrical construction within the Project site.

3.5.5 Solid Waste

Solid waste during construction and operations will be disposed of by private contract with a local commercial hauler or haulers.

3.5.6 Water Facilities

Construction activities for the Project are anticipated to require approximately 50-acre feet (over an up to 15-month construction period). Water for construction is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site.

During the Project's operational period (approximately 40 years), approximately 100 gallons per day (0.1 acre-feet per year) will be needed for the O&M building and up to 0.75 acre-feet per year will be needed for panel washing. Thus, a total of less than 1 acre-foot is anticipated to be required each year during operations. Water for operations is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site.

3.5.7 Stormwater Management

The Applicant would consult with EFSEC and Ecology and follow county and state specifications to control surface water runoff during construction and operations. A Stormwater Pollution Prevention Plan and Erosion and Sediment Control Plan would be developed prior to construction to manage stormwater runoff and reduce potential erosion impacts through BMPs and general construction permitting requirements. Chapter 7 of the 2019 Stormwater Management Manual for Eastern Washington (SWMMEW) will be used to provide guidance for planning, designing, and implementation of stormwater management practices tailored specifically for construction projects.

During operations, stormwater will generally infiltrate across the entire area of the site similar to current conditions as the total new impervious surface area is a small portion (approximately 35 acres, or 2.6 percent) of the MPE. The Project will meet Ecology requirements to maintain natural drainage patterns and reduce runoff rates from impervious surfaces. During operations, the Project will develop and implement site ESCP, SWPPP, and SPCC plans.

3.5.8 Emergency Services

The Project would be remotely monitored 24 hours a day by the Applicant with remote shutoff capabilities and automatic, redundant, continuously operating combustion prevention systems supported by an independent power supply capable of operating without auxiliary or internal BESS power. The Project design accommodates a minimum of 20-foot fire break from the perimeter fence to the closest solar array. The Applicant will solicit input from the Klickitat County Fire Protection District No. 7 (Goldendale Rural) regarding the Project's site plans, fire management, access, and fire response training. Access roads would provide access for fire and emergency vehicles. Gate codes to the Project site would be provided to local emergency personnel, and the Project would be monitored remotely by the Applicant to prevent unauthorized access. The site would also be equipped with fire protection equipment in accordance with applicable federal, state, and county requirements.

The Applicant would consult with the Klickitat County Fire Protection District No. 7 to develop and implement a fire safety plan for use during construction and operations. The fire safety plan would contain notification procedures and emergency fire precautions.

4.0 CONSTRUCTION

Construction of the Project is anticipated to take up to 15 months and is anticipated to begin during the first quarter of 2024.

4.1 Construction Staff

The on-site construction workforce would consist of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel. It is estimated that there would be approximately 350-450 full-time construction workers per day at the construction peak.

4.2 Transport and Delivery

Construction equipment would include, but not be limited to heavy-duty trucks, such as semi-trailer dump trucks and 40-foot container trucks, that would be carrying gravel and other materials required to improve or construct new access roadways. These heavy-duty trucks will also provide concrete for component foundations and materials for the solar modules themselves. In addition to concrete and gravel, single-unit water-tank trucks delivering water to the Project will be required if water is sourced off-site. Semi-trailer flat beds carrying electrical equipment and materials required for solar panel construction and power transmission equipment also will be necessary. Trucks will typically be standard 18-wheel tractor trailers with the exception of the delivery of the substation's 500 kV transformer which will require heavy load delivery equipment.

Construction personnel and truck deliveries would ramp up and down during the construction timeline based on the work being performed. Additionally, the number of personnel on site per day and deliveries per day would vary depending on the total number of construction months.

4.3 Site Preparation and Installation of Project Equipment

Construction activities will be consistent with State of Washington and Klickitat County regulations. Initial construction activities will include clearing and grubbing of vegetation and grading. Grading will be restricted to access roads (as needed), concrete pads, and facility footprints. Vegetation clearing will occur in construction areas, areas that are graded, and access roads. Vegetation clearing will be minimized to extent feasible to minimize surface disturbance and maintain existing vegetation communities. A Klickitat County grading permit will be obtained prior to beginning grading or excavation work. Stream crossings by access roads will be conducted in accordance with permits and approvals obtained from U.S. Army Corps of Engineers, Ecology, and WDFW as required. Once the site is prepped, the piles will be drilled, the panels installed, and the facilities constructed. Once the facilities and panels are in place, the electrical work and interconnection will occur. Upon successful interconnection to the utility, the substation will be energized and the plant will begin testing and eventually production after receiving all approvals from the utility and local authorities.

Clearing and grading will be conducted using equipment such as bulldozers, excavators, compactors, graders, and front-end loaders. Graveling, watering or other fugitive dust-abatement measures will be used as needed to control fugitive dust generated during construction. The construction contractor will use water or environmentally safe water-based or polymer additive dust palliative such as lignin sulfonate for dust control. All products will be acceptable for use by Ecology.

Concrete would be trucked to the site and no temporary concrete batch plant is anticipated.

Use of major excavating and earth-moving machinery would be conducted primarily on weekdays during daylight hours. Certain activities such as high-voltage system modifications may need to occur on weekends or at nighttime and, if so, would be performed with shielded, temporary lighting.

4.4 Revegetation and Post-Construction Site Control

Following construction, temporary disturbance areas (i.e. areas not occupied by permanent facilities) will be reclaimed through soil stabilization and revegetation with plant species appropriate for the operation and maintenance of the Project (i.e., low-growing native vegetation). A revegetation plan and weed management plan will be prepared in coordination with EFSEC, with input from WDFW and the Klickitat County Noxious Weed Control Board.

5.0 OPERATIONS AND MAINTENANCE

The life of the Project is anticipated to be 25 to 40 years. Solar equipment has a lifespan of over 30 years. Operations and maintenance of the Project would require up to three full-time equivalent personnel consisting of plant operators, maintenance technicians, and vegetation control specialists. O&M activities would include, but not be limited to, vegetation management,

equipment monitoring, and equipment repairs. The sites will be continuously monitored with active O&M personnel on-site regularly. The Project would be visited to do scheduled preventive maintenance (typically quarterly for a couple of days each instance) and to respond to outages and complete corrective maintenance. O&M staff typically work during regular business hours Monday through Friday. During periods when non-routine maintenance or major repairs are in progress, the maintenance staff typically work nights when the Project is not generating power to the grid.

Spare equipment may be stored on-site or may be available from a remote warehouse facility.

Vegetation maintenance will be outlined in a Project Vegetation Management Plan that will be prepared prior to site preparation (see Section A.6) and will include mowing and weed management. Culverts will be placed at permanent road crossings of ephemeral channels and would be periodically inspected in compliance with Project SWPPP.

With up to three full-time employees during O&M, traffic volumes during the life of the Project would be minimal. Noise from Project O&M will be limited to occasional employee and maintenance worker vehicle trips to, from, and around the site. Water use during O&M will consist of domestic uses in the O&M trailer and panel washing. Panel washing is expected to occur periodically and would require approximately 0.75 acre-feet per year. Water for operations is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site. Fire suppression protocols and BMPs would be determined in consultation with the Klickitat County Fire Marshal and outlined in the Fire Control Plan which will be prepared 90 days prior to start of construction.

6.0 DECOMISSIONING

The Project expects to sell the renewable energy produced by the Project under the terms of a long-term Power Purchase Agreement (PPA) with a utility or other power purchaser. Upon completion of the PPA term, the Project operator may, at its discretion, choose to enter into a subsequent PPA or decommission and remove the system and its components. Upon decommissioning, the solar site could be converted to other uses in accordance with applicable land use regulations in effect at that time.

It is anticipated that during Project decommissioning, Project structures not needed for subsequent use would be removed from the Project site. Above-ground equipment that may be removed include module posts and support structures, on-site transmission poles that are not shared with third parties and the overhead collection system within the Project site, inverters, transformers, electrical wiring, equipment on the inverter pads, and related equipment and concrete pads. The substation would be removed if it is owned by the Project. However, if a public or private utility assumes ownership of the substation, the substation may remain on-site to be used as part of the utility service to serve other applications.

Equipment would be de-energized prior to removal, salvaged (where possible), and shipped off-site to be recycled or disposed of at an appropriately licensed disposal facility in compliance with all applicable laws, including state requirements under Washington SB 5939 and HB 1393. Once the solar modules are removed, the racks would be disassembled, and the structures supporting the racks would be removed. Site infrastructure would be removed including fences, concrete pads that support the inverters, transformers, and related equipment. Project equipment and foundations would be removed to a depth of 3 feet. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried by standard construction equipment. The fence and gates would be removed, and all materials would be recycled to the extent practical. Project roads would be restored unless they may be used for subsequent land use. The area would be thoroughly cleaned and all debris would be removed and disturbance areas revegetated following a revegetation plan developed in coordination with Klickitat County and each of the specific landowners.

An initial Site Restoration Plan will be developed and submitted to EFSEC at least 90 days prior to the beginning of site preparation. Per Washington State Administrative Code (WAC) 463-72-040, the plan would identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated. The plan would describe the process used to evaluate the options and select measures that would be taken to restore or preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The plan would include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and would address provisions for funding or bonding arrangements to meet the site restoration or management costs. The provision of financial assurances shall include evidence of pollution liability insurance coverage in an amount justified for the project, and a site closure bond, sinking fund, or other financial instrument or security in an amount justified in the Initial Site Restoration plan. The Initial Site Restoration Plan will concur with the decommissioning plan prepared for the site. The Initial Site Restoration Plan shall detail restoration goals for site reclamation which will include mitigation measures to be employed, the Project components to be removed, and restoration of soil and vegetation as applicable. It is anticipated that the site will be able to return to agricultural use following decommissioning of the Project, at the landowners' discretion.

7.0 SOCIOECONOMIC REVIEW

Per WAC 463-60-535 and instruction from EFSEC, the Applicant prepared a Socioeconomic Analysis (Attachment J). The analysis touches upon the socioeconomic study area population, population forecasts, race and ethnicity, local area income and poverty, employment characteristics, and housing characteristics. The temporary nature of construction and the limited number of permanent workers required would not result in negative impacts to the local available labor force from the proposed Project. As the number of non-local hires will be limited and temporary in nature and would not result in negative impacts to local area accommodations.

A.2.b Project Schedule, Employees and Public Access

Phase	Duration	Employee Numbers on Site & Frequency
Site preparation and construction	Up to 15 months	350-450
Operation/use	25 to 40 years	Up to 3 full-time employees
Closure/reclamation	1 year	To be determined upon submission of closure/reclamation plan prior to construction

General public access to the Project Study Area is not anticipated during construction, O&M, and decommissioning. Access to the Project Study Area is described in Part 4 Traffic and Transportation for general contractors, deliveries, and other approved entrants. A detailed Construction Schedule will be submitted to EFSEC at least 90 days prior to start of site preparation.

A.3. Phased and Future Projects

Is this project an addition, continuation, or expansion of a previous proposal or are there other related actions planned?

☒ No ☐ Yes

	The Project will not have other related actions. It will not exceed 160 MW. The Project may be built in phases up to the maximum Project generation capacity. Construction phasing will be determined based on final offtake discussions with energy customers and contractual arrangements.

A.4. Site Maps and Plans

Site maps and figures are included in Attachment A-1 and are listed in the table below. The detailed Preliminary Site Plan and map of the MPE is included in Attachment A-2 and is listed below.

Map #	Map Name	Purpose and Description	Completed?
Attachment A-1: Figures			
Figure 1	Project Location	General location of the Project Site Control Boundary (2,108 acre area), Project Study Area (2,011 acre area)	Yes
Figure 2	Assessor Parcels	Assessor parcels and ownership within the Project Site Control Boundary	Yes
Figure 3	Zoning and EOZ	Applicable Klickitat County Zoning and location of Energy Overlay Zone	Yes

Map #	Map Name	Purpose and Description	Completed?
Figure 4	Soils Mapped Within the Project Study Area	Underlying soils per Natural Resources Conservation Service Soil Conservation Survey	Yes
Figure 5	Slope and Topography	Topography and slopes greater than 15 percent within the Project Study Area and vicinity	Yes
Figure 6	Geologic Hazards	Identify active faults and erosion hazards within Project Study Area and vicinity	Yes
Figure 7	Surface Waters and Wetlands in the Project Study Area	Mapped surface waters and wetlands based on site-specific surface water surveys.	Yes
Figure 8	Habitat Types and Special Status Wildlife Species Observed within Project Study Area	Mapped habitat classifications based on site-specific habitat surveys	Yes
Figure 9	Wildlife Corridor Areas in the Project Study Area	Wildlife corridors based on site-specific habitat surveys	Yes
Figure 10	Ownership and Private Lands Hunting	Recreation analysis showing public lands and private land hunting opportunities	Yes
Figure 11	Transportation Routes	Road network providing access to the Project Area	Yes
Attachment A-2: Site Plans			
Figure 1	Preliminary Site Plan	Preliminary Project layout and design	Yes
Figure 2	MPE	Maximum Project Extent and exclusion areas	Yes

A.5. Mitigation Measures Summary

Mitigation Measure	Description	Expert Agency Participation
Earth		
Building permits and design for potential seismic event.	Applicant will obtain all necessary permits including building, grading, and excavation permits. The design will meet seismic design parameters and will conform to the applicable provisions of WAC 463- 62-020, 2015 International Building Code and ASCE 7-10 and ASCE 7-16 which follow the Washington State Building Codes and contains structural standards and safeguards to reduce risks from seismic activity.	Klickitat County Planning Department and Washington State Building Code Council.
Implementation of Geotechnical Recommendations	The Applicant will follow all of the geotechnical recommendations in the final version of the geotechnical report. The geotechnical report recommends the following:	EFSEC

Mitigation Measure	Description	Expert Agency Participation
	• Shoring up excavated trenches deeper than four feet. • Grading the surface to divert stormwater away from open excavation to the extent possible. • Over excavating the subgrade for shallow concrete foundations by at least 6 inches and placing geotextile fabric. • Considering the soils to be very sensitive to compaction when wet. • Adding at least 10 inches of crushed rock to road surfaces to mitigate for soil softness. • Plan to pre-drill at all proposed post locations. Development of a site-specific report to evaluate corrosion potential and interpret soil corrosivity test results.	
Best Management Practices (BMPs) – Erosion	As further described in Part 4, Section 4.5, the Applicant will implement an ESCP, a Construction Phase SWPPP, and an Operations Phase SWPPP, in compliance with local stormwater regulations. These plans will address stormwater runoff, flooding, and erosion to ensure compliance with state and federal water quality standards. The ESCP will include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. The SWPPP will include BMPs from Ecology's Stormwater Management Manual for Eastern Washington (Ecology 2019). Per RCW 17.10.140, the Applicant will prepare and submit a Vegetation and Weed Management Plan to EFSEC for the control of noxious weeds prior to construction. The plan will be implemented to revegetate temporarily impacted areas and minimize erosion.	Ecology, EFSEC
Air Quality		
Implementation of Best Management Practices (BMPs) and Standard Construction Practices	Washington Administrative Code sections addressing air quality include: • WAC 173-400-040(3) Fallout • WAC 173-400-040(4)(a) Fugitive emissions • WAC 173-400-040(5) Odors • WAC 173-400-040(9)(a) Fugitive Dust Klickitat County Code Section 19.39:9(B) requires the following air quality-related measures for a project within an energy overlay zone: • (c) All applicable air emission permits shall be obtained and all conditions complied with. • (d) Revegetate any disturbed areas that are not permanently occupied by the project features.	EFSEC, Ecology

Mitigation Measure	Description	Expert Agency Participation
	• (e) Provide a minimum of fifteen-cm (six-inch) gravel surface on project roads to reduce wind erosion. • (f) Maintain a water truck on-site during construction for dust-suppression. Although, the EOZ standards to not apply to the Project as it is held to the more restrictive conditional use permit process (see discussion in Part 4.14), the Applicant has evaluated the Project's consistency with the solar specific development standards in KCC 19.39:9. To adhere to these standards regarding air quality, the Applicant would implement BMPs and standard construction practices, including the following: • Vehicles and equipment used during construction would be properly maintained to minimize exhaust emissions. • Operational measures such as limiting engine idling time and shutting down equipment when not in use would be implemented. • Graveling of permanent access roads. • Watering or other fugitive dust-abatement measures would be used as needed to control fugitive dust generated during construction. When applied, the Applicant will use water or a water-based environmentally safe dust palliative such as lignin for dust control. • Construction materials that could be a source of fugitive dust would be covered when stored. • Traffic speeds on unpaved roads would be limited to 25 miles per hour to minimize generation of fugitive dust. • Truck beds would be covered when transporting dirt or soil. • Carpooling among construction workers would be encouraged to minimize construction-related traffic and associated emissions. • Erosion-control measures would be implemented to limit deposition of silt to roadways, to minimize a vector for fugitive dust. Replanting or graveling disturbed areas would be conducted during and after construction to reduce wind-blown dust.	
Water Quality – Wetlands and Surface Waters		
Avoidance	The Project has been designed to avoid impacts to wetlands or wetland buffers and to be consistent with WAC 463-62-050. Streams and stream buffers will be	N/A

Mitigation Measure	Description	Expert Agency Participation
	avoided to the greatest extent feasible as described above.	
Stream crossing construction best management practices	Minimization of temporary water quality impacts during construction (WAC 220-660-120); 2019 Stormwater Management Manual for Eastern Washington (Ecology 2019; Chapter 173-204 WAC); and Construction Stormwater General Permit (Ecology 2020; Chapter 90.48 RCW) will be implemented on site during construction and operations and include the following BMPs: • Staging of materials and equipment to prevent contamination of waters of the state • Development of the Stormwater Pollution Prevention, Erosion and Sediment Control, and Spill Prevention Countermeasures and Control plans • Installation and maintenance of temporary erosion and sediment control measures • Completing work in dry conditions with no water present	Ecology, WDFW
Permits	If a CWA Section 404 permit is required for impacts to federal jurisdictional waters, one will be acquired from the USACE using the JARPA as the permit application. EFSEC would coordinate with Ecology to determine if a Section 401 Water Quality Certification or a state Administrative Order are required. If EFSEC determines in coordination with WDFW that an HPA is required, the Applicant will use the JARPA to obtain an HPA permit per WAC 20-660-050.	EFSEC, Ecology, USACE, WDFW

Mitigation Measure	Description	Expert Agency Participation
Water Quality – Stormwater Runoff		
Construction Stormwater General Permit	In Washington State, Ecology administers the National Pollutant Discharge Elimination System (NPDES) on behalf of EPA. In compliance with WAC 173-200, the Applicant will obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an ESCP and a SWPPP. The 2019 Stormwater Management Manual for Eastern Washington (SWMMEW) will be used to provide guidance for planning, designing, and implementation of stormwater management practices. Sizing of runoff treatment and flow-rate treatment BMPs will be in accordance with the methods prescribed in the SWMMEW. Sizing of runoff treatment and flow-rate treatment BMPs by a professional engineer will be in accordance with the methods prescribed in the SWMMEW. The following requirements will be met for the Project: • Stormwater quantity control will be provided so that proposed conditions of peak runoff rates and volumes must be equal to or less than existing conditions. The 2-year, 10-year, 25-year, and 100-year 24-hour stormwater events must meet these requirements. • Because the Project will utilize the Full Dispersion BMP (BMP F6.42 in the SWMMEW), it therefore qualifies for an exemption from implementing Core Element #5. The aim of Core Element #5 of the SWMMEW is to treat at least 90 percent of runoff from pollution-generating impervious surfaces (PGIS). A surface is considered a PGIS if it is being regularly used by vehicles. Additionally, the access roads on the Project site are primarily for O&M and will be receive a low and intermittent usage, and therefore do not qualify as “high use” or “high average daily traffic” surfaces, as defined in the SWMMEW (Ecology 2019).	Ecology

Mitigation Measure	Description	Expert Agency Participation
Best Management Practices – Stormwater	• ESCPs and SWPPPs will be developed for both construction and operations. These plans will address stormwater runoff, flooding, and erosion to achieve compliance with state and federal water quality standards. • The plans will include BMPs from the SWMMEW, such as the appropriate use of temporary erosion and sediment control measures. These measures may include straw wattles and measures to preserve existing vegetation, cover exposed soils, and to revegetate. Where needed, engineered BMPs such as detention basins, conveyance channels, and check dams will be installed. • Work within existing channels will have additional BMPs to protect aquatic life and prevent the risk of sediment reaching fish-bearing waters. Detailed descriptions of proposed BMPs will be included in the JARPA that will be submitted at a later date, but in general BMPs will be specific to the type of waterway (i.e., ephemeral, intermittent, or perennial) and to the work proposed. • All work within existing channels where flow and aquatic life may be present will be completed during the WDFW-identified work window, compliant with WAC 220-660-110, and with BMPs consistent with those identified in WAC 220-660-120 as well as in the relevant USACE Nationwide Section 404 permit document. Work areas will be isolated from existing or potential flows (e.g., silt curtains, cofferdams, water bladders) and will be promptly restored to pre-project conditions to prevent any potential impacts to downstream fish-bearing waters. • Work within ephemeral channels will be conducted when dry (e.g., at times when no precipitation is forecast and no flows are anticipated to be present). • The Applicant will develop a Project Vegetation Management Plan, which will be used to implement revegetation of impacted areas and minimize erosion.	

Mitigation Measure	Description	Expert Agency Participation
Preventative procedures to avoid spills	• During construction, small amounts of hazardous materials (e.g., petroleum-based fuels, mineral-based transformer oils, and oil-based lubricants) will be transported, stored, or used to operate equipment. Storage and use of these materials will be in accordance with the manufacturer's specifications and applicable hazardous material regulations. These materials will be stored in compliance with a SPCC Plan consistent with requirements of 40 CFR Part 112, and WAC 463-60-205, that provides preventative procedures and rapid response measures to handle hazardous spills if one were to occur and reduce the risk of potential soil or groundwater contamination to negligible. • The amount of petroleum fuels or lubricating oils stored on site or used to operate equipment during O&M will be minimal. The Applicant will also prepare an Operations Phase SPCC Plan in consultation with Ecology and pursuant to the requirements of CFR Part 112, Sections 311 and 402 of the Clean Water Act, Section 402 (a)(1) of the Federal Water Pollution Control Act, and RCW 90.48.080.	
Plants		
Avoidance and Minimization Measures	During siting and design, the Applicant has taken several measures to avoid and minimize impacts to botanical resources. The Applicant has planned the Project to minimize impacts to Priority Habitats to the extent possible. As described above, the Applicant also has sited the Project to avoid the foxtail mousetail documented during surveys.	WDFW
Habitat Management Plan	Per WAC 463-60-332(3), the Applicant will prepare a Draft Habitat Management Plan. This plan will provide details regarding habitat avoidance and minimization measures proposed for the Project, as well as mitigation measures for impacts to habitat types from Project construction and operation including impacts to "habitats and species of local importance" (e.g., shrub-steppe habitat). A Final Habitat Management Plan will be prepared in consultation with WDFW prior to construction.	WDFW
Revegetation and Noxious Weed Control	Per RCW 17.10.140, the Applicant will develop a Vegetation and Weed Management Plan with input from EFSEC, WDFW, and the Klickitat County Noxious Weed Control Board prior to construction. Herbicide and pesticide applications will be conducted by a licensed applicator in accordance with manufacturer instructions	EFSEC, WDFW, Klickitat County Noxious Weed Control Board

Mitigation Measure	Description	Expert Agency Participation
	and all federal, state, and local laws and regulations; herbicides will only be directly applied to localized spots and will not be applied by broadcasting techniques (RCW 17.21).	
BMPs	The Applicant will implement the Project's ESCP, Construction SWPPP, and Permanent Stormwater Control Plan. These plans will help reduce erosion and impacts to vegetation.	Ecology; WDFW
Animals		
Habitat Types	The temporary, permanent, and altered habitat impacts as well as the associated Project mitigation needs will be identified in the Draft Habitat Management Plan. The values may be adjusted in coordination with EFSEC and with input from WDFW. A Final Habitat Management Plan will be prepared in consultation with WDFW prior to construction.	WDFW
Environmental Health – Hazardous Waste		
Emergency Management Plan	The Emergency Management Plan will be developed for construction and operation phases, and will address worker health and safety, as well as fire prevention and control measures for construction and operation. This plan will provide safety guidelines and procedures for potential emergency-related incidents during the Project's construction, operation, and decommissioning phases. This includes coordination with emergency service providers. Applicable laws/codes include: • WAC 463-60-352 (2 through 4), which addresses fire and explosion, hazardous materials release, and safety standards compliance. • WAC 463-60-352(6), which describes emergency plans to ensure public safety and environmental protection. • 49 CFR §173.185, which regulates the transportation of lithium-ion batteries. • 49 CFR §173.159, which regulates the transportation of lead-acid batteries. Fire suppression and detection system in accordance with fire code and NFPA Standards, specifically NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems."	Klickitat County Department of Emergency Management, Klickitat County Sheriff's Office, Klickitat County Fire Protection District No. 7 (Goldendale Rural), and DNR Wildland Fire Management Division
Best Management Practices	To minimize the risk of fire or explosions, the Project will implement Best Management Practices including: • Construction equipment will have spark-arresting mufflers, heat shields, and other protection measures to avoid starting fires.	Klickitat County Sheriff's Office, Klickitat County Fire Protection District No. 7 (Goldendale Rural)

Mitigation Measure	Description	Expert Agency Participation
	• Fire extinguishers will be available in vehicles and on equipment, and work crews would be trained in fire avoidance and response measures. • Fire suppression protocols and BMPs will be determined in consultation with the Klickitat County Fire Protection District No. 7 and outlined in the Fire Management Plan for the Project. • As appropriate, provide training to fire responders and construction staff on the codes, regulations, associated hazards, and mitigation processes related to solar electricity and battery storage system on a recurring basis during the life of the Facility. This training would also include techniques for fire suppression of PV and BESS technology. The BESS will contain a fire suppression system in accordance with fire code and National Fire Protection Association (NFPA) Standards, specifically NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems." The system would include monitoring equipment and alarm systems with remote shut-off capabilities.	
Environmental Health Plan	An Environmental Health Plan will be established, implemented, and maintained for the duration of the proposed Project. The Environmental Health Plan will include the identification, removal, and off-site transportation and disposal of any hazardous material contamination and residuals on the property of the Project.	
Hazardous Materials	Any hazardous materials used during construction activities will be stored and used in accordance with the manufacturer's specifications and applicable hazardous material regulations; Material Safety Data will be available to all personnel at the construction yard. Hazardous material spills will be recorded in the SWPPP and reported to the regulatory authorities as required.	
Public Safety Standards	The Applicant will prepare a Construction and O&M SPCC Plan, consistent with requirements of 40 CFR Part 112, to prevent spills during construction and to identify measures to expedite the response to a release if one were to occur. Preventive procedures and rapid response measures will address/prevent potential water quality issues.	Ecology
Use of approved herbicides	If herbicides are used as part of activities conducted for weed control in compliance with RCW 17.10.140,	Ecology and the Klickitat County Noxious Weed Control Board

Mitigation Measure	Description	Expert Agency Participation
	application will be in compliance with RCWs 15.58 and 17.21.	
Land Use		
Based on the information provided in Section 4.14.C and in the Land Use Consistency Review (see Attachment B, the Project will have no significant adverse effects on land use. Therefore, no land use mitigation or monitoring measures are proposed. Mitigation measures specific to other topics (e.g., wetlands and surface waters, wildlife habitat, or geological hazards) are addressed in their respective resource sections in Part 3 and Part 4 of this application.		
Noise, Light, Glare, and Aesthetics		
BMPs-Noise	WAC 173-60-050 exempts temporary construction noise from the state noise limits; however, BMPs will be implemented to reduce construction noise impacts to off-site receptors. Since construction equipment operates intermittently, and the types of machines in use at the Project change with the phase of construction, noise emitted during construction will be mobile and highly variable, making it challenging to control. Project construction will occur during the daytime, Monday through Friday. Furthermore, reasonable efforts will be made to minimize the impact of noise resulting from construction activities, including implementation of the standard noise reduction measures listed below. Due to the nature of the construction activities at the site, the hours of construction, and the implementation of noise mitigation measures, the temporary increase in noise due to construction is considered to be an insignificant impact. The construction management protocols will include the following noise mitigation measures to minimize noise impacts: • Maintain construction tools and equipment in good operating order according to manufacturers' specifications. • Limit use of major excavating and earth-moving machinery to daytime hours. • To the extent practicable, schedule construction activity during normal working hours on weekdays when higher sound levels are typically present and are found acceptable. Some limited activities, such as concrete pours, will be required to occur continuously until completion. • Equip any internal combustion engine used for any purpose on the job or related to the job with a properly operating muffler that is free from rust, holes, and leaks.	EFSEC

Mitigation Measure	Description	Expert Agency Participation
	• For construction devices that use internal combustion engines, ensure the engine's housing doors are kept closed, and install noise-insulating material mounted on the engine housing consistent with manufacturers' guidelines, if possible. • Limit possible evening shift work to low-noise activities such as welding, wire pulling, and other similar activities, together with appropriate material-handling equipment. Use a complaint resolution procedure to address any noise complaints received from residents.	
Management Practices – Light, Glare and Aesthetics	The Facility will implement BMPs including: • Downward-directed and shielded lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. • Utilizing solar panels with an anti-reflective coating to minimize glare. • Maintenance of revegetated surfaces until the vegetation has been established.	N/A
Recreation		
Site-specific BMPs	The Applicant will obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an ESCP and a SWPPP. The BMPs identified and implemented in compliance with the CSWGP will reduce the risk of impacts to nearby recreational sites and users, including both the direct and indirect effects of construction generated dust and storm water sediments.	Ecology
Noise Mitigation	Although WAC 173-60-050 exempts temporary construction noise from the state noise limits, BMPs will be implemented to reduce off-site construction noise impacts to recreational sites and users. Project construction will occur during daylight hours, Monday through Friday and reasonable efforts will be made to minimize the impact of noise resulting from construction activities to include but not be limited to the implementation of standard noise reduction measures such as sound blankets and other types of screening. The construction management protocols will include the noise mitigation measures identified in Part 4, Section 4.16a of this ASC to minimize noise impacts.	
Site Safety and Coordination	Site safety and emergency management plans, described in more detail in Part 4, Section 4.13, will incorporate potential dangers, and impacts from adjacent recreational	

Mitigation Measure	Description	Expert Agency Participation
	uses, and will include ongoing coordination with WDFW and private landowners. Plans will specifically include consideration of both risks from recreational users (e.g., misdirected bullets or arrows) and risk to recreational users (e.g., installation and maintenance of construction fencing to prevent recreational users from entering the site) along with appropriate BMPs such as signage, public information about construction activities, a project website, and other media.	
Archaeological, Historic, and Cultural Resources		
Unanticipated Discovery Plan	In the event unrecorded archaeological resources are identified during Project construction or operation, work within 30 meters (100 feet) of the find shall be halted and directed away from the discovery until it can be assessed in accordance with steps in the Unanticipated Discovery Plan (provided as Appendix F in Attachment I). This appendix to the Cultural Resources Report does not contain any confidential information and can be shared with Project personnel and contractors.	DAHP
Continued Coordination with Native Americans	Only regulatory agencies can formally consult with tribes. Informal communications are included with this ASC as part of resource identification efforts and as due diligence. Coordination and open communications will continue with interested tribes during Project permitting and design to incorporate tribal input regarding avoidance of potential impacts to cultural resources, including traditional use areas or other areas of significance to tribes. Lines of communication will remain open to better facilitate any response to unanticipated discoveries during construction.	DAHP, the Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Yakama Nation, the Wanapum, and the Nez Perce
Traffic and Transportation		
WSDOT Oversize and Overweight Permit and Klickitat County Overweight-Overwidth Permit	A Permit will be obtained for heavy or oversized loads in accordance with WSDOT and Klickitat County Regulations.	WSDOT
WSDOT Right of Way Access Permit	Per WAC 468-51, the Applicant will obtain a General Permit from WSDOT to upgrade the portion of the approach off SR-142 that is within the WSDOT Right-of-Way.	WSDOT
Klickitat County Right of Way Access Permit	The applicant will obtain access permits from Klickitat County to construct approaches from the County road right-of-way.	Klickitat County Public Works Department
Traffic Control Plan	A Traffic Control Plan, in compliance with the current MUTCD will be developed to meet WSDOT and Klickitat County Transportation Standards for traffic control (KCC	WSDOT, Klickitat County Public Works Department

Mitigation Measure	Description	Expert Agency Participation
	12.30.070) during access improvements and work within rights-of ways.	
General Mitigation Measures	General mitigation measures for road access and transportation include: • Development and implementation of an ESCP and SWPPP to minimize impacts from erosion and sedimentation from construction related soil disturbance to include Project site access locations, on-site dirt access routes, haul routes, etc. • Obtaining applicable building permits and grading and excavation permits as required prior to construction. • Implement the appropriate geotechnical recommendations outlined in the Draft Geotechnical Report.	

A.6. Project Plans and Submittals

Project Plans and resource documents are listed in the table below.

Submittal Name	Description	Submittal Timing	Expert Agency Participation
Construction Management Plan (CMP)	The CMP governs construction operations on site for the duration of the Construction Phase of the Project. The CMP addresses the primary site preparation and construction phases and is based generally on identified mitigation measures.	At least 90 days prior to site preparation	EFSEC
Construction Schedule	Final construction schedule.	At least 90 days prior to site preparation	EFSEC
Erosion and Sediment Control Plan (ESCP)	The ESCP will be prepared to control erosion and sediment discharges during construction and will include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants.	At least 90 days prior to site preparation	EFSEC with input from Ecology
Vegetation Management Plan	The Vegetation Management Plan will address vegetation management activities related to the Project's construction and operation and specify methods that will be implemented for effective revegetation of temporarily disturbed areas and noxious weed control.	At least 90 days prior to site preparation	EFSEC with input from WDFW and the Klickitat County Noxious Weed Control Board

Submittal Name	Description	Submittal Timing	Expert Agency Participation
Habitat Management Plan (HMP)	The Habitat Management Plan will specify the avoidance, minimization, and mitigation obligations and implementation plans, including those for Project construction, operations, and decommissioning. The plan will address the applicable requirements of WAC 463-60-332 and applicable guidelines such as WDFW's Mitigation (M-5002) Policy.	At least 90 days prior to site preparation. The HMP will be revised in coordination and with input from EFSEC and WDFW and completed prior to site preparation	EFSEC with input from WDFW
Initial Site Restoration Plan	Per WAC 463-72-040, the Applicant will develop an Initial Site Restoration Plan. The plan will address site restoration occurring at the conclusion of the Projects' operating life, or in the event the project is suspended or terminated during construction or before it has completed its useful operating life. The plan shall parallel a decommissioning plan, if such a plan is prepared for the project. The plan will identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated. The plan will describe the process used to evaluate the options and select measures that will be taken to restore or preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The plan will include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and will address provisions for funding or bonding arrangements to meet the restoration or management costs. The objective of the plan will be to restore the site to approximate pre-Project condition or better. The plan will include provisions for removal of the solar panels and racking system, foundations, cables, and other facilities to a depth of four feet below grade, and restoration of any disturbed soils to the preconstruction condition.	At least 90 days prior to site preparation	EFSEC
Unanticipated Discovery Plan	This plan describes protocols to be implemented if, during the course of construction, cultural resources (i.e., precontact sites, historic sites, or shell or	At least 90 days prior to site preparation	EFSEC, DAHP, and Tribes

Submittal Name	Description	Submittal Timing	Expert Agency Participation
	bone, isolated artifacts or other features) are discovered. This plan will include protocols for notification, evaluation, and treatment of any archaeological or human remains that might be discovered during construction.		
Construction Stormwater General Permit (CSWGP) and Notice of Intent (NOI)	In compliance with WAC 173-200 and WAC 463-76, the Applicant will obtain a CSWGP. The Construction Stormwater General Permit requires an ESCP and a SWPPP.	At least 90 days prior to site preparation	EFSEC with input from Ecology
Construction Phase Stormwater Pollution Prevention Plan (SWPPP)	The Construction Phase SWPPP will be based on Ecology's SWPPP template and will address stormwater runoff, flooding, and erosion to ensure compliance with state and federal water quality standards. The SWPPP will include BMPs from Ecology's Stormwater Management Manual for Eastern Washington.	At least 90 days prior to site preparation	EFSEC with input from Ecology
Construction Phase Spill Prevention Control and Countermeasure (SPCC) Plan	The Construction Phase SPCC Plan will be prepared to prevent spills during construction and to identify measures to expedite the response to a release if one were to occur. Preventative procedures and rapid response measures will address/prevent potential water quality issues. The plan will be prepared pursuant to the requirements of CFR Part 112, as well as Sections 311 and 402 of the Clean Water Act, and Section 402(a)(1) of the Federal Water Pollution Control Act.	At least 90 days prior to site preparation	EFSEC with input from Ecology
Emergency Management Plan	The Emergency Management Plan will address worker health and safety, as well as fire prevention and control measures for construction and operation.	At least 90 days prior to site preparation	Klickitat County Department of Emergency Management, Klickitat County Sheriff's Office, Klickitat County Fire Protection District No. 7 (Goldendale Rural), and DNR Wildland Fire Management Division
Traffic Control Plan	A Traffic Control Plan will be prepared in coordination with the Klickitat County Public Works Department for traffic management during construction and for construction of access approaches from County ROW. The plan will be developed consistent with Klickitat	At least 90 prior to site preparation	With input from WSDOT, Klickitat County Public Works Department

Submittal Name	Description	Submittal Timing	Expert Agency Participation
	County Transportation Standards for traffic control (KCC 12.30.070).		
Construction Plans and Specifications	A set of construction plans, specifications, drawings, and design documents that demonstrate the Project is in compliance with applicable conditions of the Site Certificate Agreement.	At least 90 days prior to site preparation	EFSEC
Operations Phase SWPPP	The Operations Phase SWPPP will be based on Ecology's SWPPP template and will address stormwater runoff, flooding, and erosion to ensure compliance with state and federal water quality standards. The SWPPP will include BMPs from Ecology's Stormwater Management Manual for Eastern Washington.	At least 90 days prior to commercial operations	EFSEC with input from Ecology
Operations Phase SPCC Plan	The Operations Phase SPCC Plan will be prepared to prevent spills during operations and to identify measures to expedite the response to a release if one were to occur. Preventative procedures and rapid response measures will address/prevent potential water quality issues. The plan will be prepared pursuant to the requirements of CFR Part 112, Sections 311 and 402 of the Clean Water Act, Section 402(a)(1) of the Federal Water Pollution Control Act, and RCW 90.48.080.	At least 90 days prior to commercial operations	EFSEC with input from Ecology

A.7. Federal and State Requirements

Per WAC 463-60-297, Table A.7-1 below lists the federal and state statutes, rules and permits potentially applicable to the Project, and where compliance is addressed in the ASC. The Applicant's Land Use Consistency Review addresses local statutes and requirements (Attachment B).

Table A.7-1. List of Federal and State Permits and Regulations Potentially Applicable to the Project

Permit or Requirement	Agency Code, Ordinance, Statute, Rule, Regulation, or Permit	ASC Section Reference
Federal		
Record of Decision/ National Environmental Policy Act Compliance	Bonneville Power Administration National Environmental Policy Act, Section 102 (42 U.S.C. § 4332); 40 CFR § 1500 The Option 2 POI and switchyard to the BPA transmission system is subject to review under the National Environmental Policy Act. BPA will lead this process as a separate action from the site certification process. This federal process is not within the jurisdiction of EFSEC and is not addressed in this ASC.	Part 2, Section A.2.a
Threatened or Endangered Species	U.S. Fish and Wildlife Service Endangered Species Act of 1973 (16 U.S.C., Section 1531, et seq.) and implementing regulations. Designates and provides for protection of threatened and endangered plants and animals and their critical habitat. Section 7, 9, and 10 Consultation under the Endangered Species Act and Bald and Golden Eagle Protection Act (BGEPA).	Part 4, Sections 4.8 and 4.9
Migratory Birds	U.S. Fish and Wildlife Service Migratory Bird Treaty Act (16 U.S.C., 703-711)	Part 4, Sections 4.8 and 4.9
Eagles	U.S. Fish and Wildlife Service Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) Eagle permit regulations (50 CFR 22)	Part 4, Sections 4.8 and 4.9
Air Quality	U.S. Environmental Protection Agency (EPA) Clean Air Act (42 USC 85, Section 7401, et seq.; 40 CFR 60)	Part 4, Section 4.2
Waters of the United States	U.S. Army Corps of Engineers, Seattle District Clean Water Act of 1972 (40 CFR 230) Section 404	Part 4, Section 4.3
Aviation	Federal Aviation Administration Construction or alteration requiring notice (14 CFR 77.9), Form 7460-1.	Part 4, Section 4.16b
State		

Permit or Requirement	Agency Code, Ordinance, Statute, Rule, Regulation, or Permit	ASC Section Reference
Electrical Construction Permit	Washington Department of Labor and Industries WAC 296-46B, Washington Department of Labor and Industries Safety Standards—Installing Electrical Wires and Equipment— Administration Rules	Part 2, Section A.7
Noise Control	Washington Department of Ecology RCW 70A.20 Noise Control; WAC 173-58, Sound Level Measurement Procedures WAC 173-60, Maximum Environmental Noise Levels; WAC 463- 62-030, Noise Standards	Part 4, Section 4.16a
Air Quality	Washington Department of Ecology WAC-173-400, General Regulations for Air Pollution Sources WAC 173-441, Reporting of Emissions of Greenhouse Gases WAC 173-476, Ambient Air Quality Standards	Part 4, Section 4.2
Water Quality Storm Water Discharge	Washington Department of Ecology RCW 90.48, Water Pollution Control Act, establishes general stormwater permits for the Washington Department of Ecology National Pollutant Discharge Elimination System (NPDES) Permit Program Construction Stormwater General Permit for NPDES (through EFSEC jurisdiction, WAC 463-76) WAC 173-201A, Washington Department of Ecology Water Quality Standards for Surface Waters of the State of Washington, which regulates water quality of surface waters Federal statute(s) and regulations implemented by the above state statute(s) and regulations include: Federal Clean Water Act, 33 U.S.C. 1251; 15 CFR 923-930	Part 3, Sections 3.3, 3.5; Part 4, Sections 4.3 and 4.5
Water Quality Waters of the State	Washington Department of Ecology Section 401 Water Quality Certificate, Joint Aquatic Resource Permit Application (JARPA)	Part 4, Section 4.3

Permit or Requirement	Agency Code, Ordinance, Statute, Rule, Regulation, or Permit	ASC Section Reference
Shorelines of the State	Washington Department of Ecology WAC 173-18, Shoreline Management Act, Streams and Rivers Constituting Shorelines of the State WAC 173-22, Adoption of Designations of Shorelands and Wetlands Associated with Shorelines of the State JARPA and shoreline conditional use permit (CUP) for fill in wetlands associated with Shorelines of the State	Shoreline Management Act and permitting not applicable to this Project; Part 4, Sections 4.3 and 4.14
Fish and Wildlife	Washington Department of Fish and Wildlife WAC 220-610, defines State species status and protections RCW 77.55, Hydraulic Code for in-water work; Hydraulic Project Approval (HPA)	Part 4, Sections 4.8 and 4.9 (*for WAC 220-610*) Part 4, Section 4.3 (*for RCW 77.55 and HPA*)
SEPA	RCW 43.21C, Washington Environmental Policy Act WAC 197-11, Washington Department of Ecology SEPA Rules, which establish uniform requirements for compliance with SEPA	Parts 3 and 4
Archaeology and Historic Preservation	Washington State Departments of Archaeology and Historic Preservation RCW 27.53, Archaeological Sites and Resources	Part 4, Section 4.18
Energy Site Certification	Energy Facility Site Evaluation Council RCW 80.50 Energy Facilities – Site Locations	Site Certification Agreement, which generally addresses state regulatory requirements and County permits and regulations.
Transportation	Washington State Department of Transportation (WSDOT) Oversize and Overweight Permit, WAC 468-38-075	Part 4, Section 4.20
Authorization to Use State-owned Lands	Washington Department of Natural Resources (DNR) RCW 79.36, Easements Over Public Lands	Part 4, Section 4.14

B. Project and Site Information

B.1. Earth and Ground Disturbance

B.1.a. Soils and Slopes

Soil types

Soils in the Project Study Area are shown on Figure 4 in Attachment A-1 and a list of the soil units and their associated acreage within the Project Study Area is provided in the below table.

Map Unit Symbol	Map Unit Name	Total Acres	Percent of Project Study Area
12D	Lyville bouldery loam, 2 to 20 percent slopes	1.2	0.10%
23	Gunn loam, 2 to 8 percent slopes	102.6	5.10%
23A	Gunn stony loam, 8 to 30 percent slopes	9.9	0.50%
23B	Gunn loam, 8 to 30 percent slopes	4.8	0.20%
25A	Leidl extremely cobbly ashy loam, 2 to 30 percent slopes	128.1	6.40%
30A	Rockly-Lorena complex, 2 to 15 percent slopes	6.4	0.30%
30B	Rockly-Lorena complex, 2 to 15 percent slopes, extremely stony	92.6	4.60%
69	Goldendale silt loam, basalt substratum, 2 to 5 percent slopes	770.7	38.30%
69A	Goldendale silt loam, basalt substratum, 5 to 10 percent slopes	52.9	2.60%
93	Goldendale silt loam, 2 to 5 percent slopes	214.4	10.70%
93A	Goldendale silt loam, 5 to 10 percent slopes	167.5	8.30%
93B	Goldendale silt loam, 10 to 15 percent slopes	73.1	3.60%
93C	Goldendale silt loam, 15 to 30 percent slopes	5.3	0.30%
94	Lorena silt loam, 2 to 5 percent slopes	1.1	0.10%

	95A	Konert silt loam, 0 to 2 percent slopes	10.1	0.50%
	96	Blockhouse silt loam, 0 to 5 percent slopes	101.1	5.00%
	97	Munset stony silt loam, 0 to 5 percent slopes	200.3	10.00%
	97A	Setnum silt loam, 0 to 3 percent slopes	68.2	3.40%
Steepest slope	Within MPE: 14 percent (less than 4 acres of MPE) Within Project Study Area: 20.4 percent (less than 5 acres of study area)			
Range of Slopes	The Project Study Area is mostly flat with an average of 3.2 percent slopes across the site. There are less than 5 acres of land with over 15 percent slopes in the Project Study Area. Also see Figure 5, Attachment A-1.			

B.1.b. Demolition, Grade and Fill

Would any demolition or renovation occur during construction?	
☒ No	**☐ Yes**
	Method: N/A
	Waste Use or Disposal site: N/A

Would any demolition or renovation occur during operation?	
☒ No	**☐ Yes**
	Method: N/A
	Waste Use or Disposal Site: N/A

Would any grade, fill, or excavation in upland areas occur during construction?		
☐ No	**☒ Yes** The extent of grading and fill that will be required as well as the source of fill material is pending final Project design. The values provided below are preliminary and will be revised with final Project design. The Applicant will specify the final quantity and source of fill in the Construction Plans and Specifications which will be provided to EFSEC for review prior to site preparation and once the final engineering design is completed.	
	☒ Grading	Cubic yards proposed: 900,000 CY

	☒ Filling (import material to site)	Cubic yards proposed: N/A
		Source of fill: N/A
	☐ Excavating (Export material off site)	Cubic yards proposed: N/A
		Disposal site or use: N/A

Would any grade, fill, or excavation in upland areas occur during operation?		
☒ No	**☐ Yes**	
	☐ Grading	Cubic yards proposed: N/A
	☐ Filling (import material to site)	Cubic yards proposed: N/A
		Source of fill: N/A
	☐ Excavating (Export material off site)	Cubic yards proposed: N/A
		Disposal site or use: N/A

Is fill or excavation proposed within surface waters, wetlands, or frequently flooded areas?	
☐ No	**☒ Yes** The Project has been designed to avoid wetlands and wetland buffers. There are a total of fourteen stream segments within the survey area and the total area of preliminary jurisdictional waters within the Project Lease Boundary is 91 acres. Of these fourteen stream segments, a minimum of three streams are anticipated to be crossed by Project access roads and collector lines, including crossings of one ephemeral and two intermittent streams. These crossings are described in greater detail in Part 4, Section 4.3; however, the final number of crossings and extent of excavation and fill that will be used is pending final Project design, which will be completed once the construction contractor has been selected. The Applicant will submit a Joint Aquatic Resources Permit Application (JARPA) to the USACE and Ecology to meet both federal and state regulations. The stream crossing fill activities during construction will be in compliance with Clean Water Act regulations and total fill amounts are anticipated to be below the Nationwide Permit thresholds. The Applicant will specify the final quantity of fill in the Construction Plans and Specifications which will be provided to EFSEC for review prior to site preparation and once the final engineering design is completed. As described in Part 4, Section 4.3.C, because streams within the Project Area are connected to fish-bearing streams, the Applicant will engage with the Washington Department of Fish and Wildlife (WDFW) to determine if a Hydraulic Project Approval (HPA) is necessary based on final Project design (i.e., per WAC 220-660-010, the purpose of the HPA is to ensure that construction or performance of work is done in a manner that protects fish life). The entire Project Study Area is outside of the 100-year floodplain.

	☒ Fill	Cubic yards: To be determined at final design.
	☒ Excavation/ Dredging	Cubic yards: To be determined at final design.
	Describe area(s) where this would occur: Crossings of delineated streams are shown on Figure 7 in Attachment A-1 and in the Preliminary Site Plan in Attachment A-2. Crossings are identified at Ephemeral ST-109, Intermittent Stream 4, and Intermittent Stream 6. Additional crossings for collector lines may also be required.	

B.2. Surface Types and Acreage

		Acreage			
Project Site Areas		**Current**	**Disturbed During Construction**	**Permanently Disturbed**	**Altered Habitat**
Roads, buildings, and other impervious surfaces		24.0	TBD	40.1	NA
Wetlands	**Emergent wetland**	44.8	0	0	NA
	Scrub Shrub wetland	6.1	0	0	NA
	Vernal Pools	16.8	0	0	NA
	Forested wetland	0	0	0	NA
	Open Water *(do not include any area already listed in previous categories)*	0	0	0	NA
Vegetated Uplands	**Agriculture**	1,728.0	209.3	39.2	1,020.5
	Agriculture/ Cultivated Cropland	764.0	92.4	22.3	519.5
	Improved Pasture	493.0	51.55	10.6	295.8
	Modified Grasslands	176.0	32.2	2.7	63.4
	Unimproved Pasture	295.0	33.1	3.6	141.8
	Dwarf Shrub-steppe	228.0	21.6	0.9	34.2
	Eastside (Interior) Riparian-Wetlands	21.0	0	0	0

		Acreage			
Project Site Areas		**Current**	**Disturbed During Construction**	**Permanently Disturbed**	**Altered Habitat**
	Ponderosa Pine Forest and Woodlands (includes Eastside Oak)	11.0	0	0	0
	Eastside (interior) Grassland	<1	0.3	0	0
Unvegetated *such as rock, earth, or fill*		NA	NA	NA	NA
Other	**Ephemeral Streams**	27.04	< 0.1	< 0.1	NA
	Intermittent Streams	47.71	< 0.1	< 0.2	NA
	Conservation Reserve Program	NA	NA	NA	NA
	Talus slopes	NA	NA	NA	NA
TOTAL:		**2,011.0**	**231.3**	**40.1**	**1,054.7**

B.3. Plants and Habitats

Are there any plants or habitats present on the site?			
☐ **None**	☒ **Yes** See the 2022 Botanical and Vegetation Communities Survey Report (Attachment F) and 2022 Habitat and General Wildlife Survey Report (Attachment C) for additional datils regarding plants and habitats within the Project area. Appendix C of the 2022 Botanical and Vegetation Communities Survey Report provides a complete list of vascular plants observed during field surveys. Six vegetation communities were mapped within the Project Survey Area: agriculture, pastures, and mixed environs; dwarf shrub-steppe; eastside (interior) grassland; eastside (interior) riparian wetlands; ponderosa pine forest and woodlands (includes eastside oak); and urban and mixed environs.		
	Deciduous trees: *such as alder, maple, aspen*		
	☒ **No**	☐ **Yes**	
		Specify:	
	Evergreen trees: *such as fir, cedar, pine:*		
	☐ **No**	☒ **Yes**	
		Specify: Ponderosa Pine Forest and Woodlands (includes Eastside Oak)	
	Shrubs, grass, pasture		
	☐ **No**	☒ **Yes**	
		Specify: Eastside (Interior) Grasslands	
	Shrub-steppe: *such as sage brush, native grasses*		
	☐ **No**	☒ **Yes**	
		Specify: Dwarf Shrub-steppe	
	Wet soil plants: *such as cattail, buttercup, bulrush, skunk cabbage*		
	☒ **No**	☐ **Yes**	
		Specify:	
	Water plants: *such as water lily, eelgrass, milfoil*		
	☒ **No**	☐ **Yes**	
		Specify:	
	Other vegetation types: Planted grassland; Agricultural lands		

	☐ No	☒ Yes	
		Specify: Agriculture, Pastures, and Mixed Environs	
	Other habitat types:		
	☐ No	☒ Yes	
		Specify: Urban and Mixed Environs, Eastside (Interior) Riparian-Wetlands	
	Do you know of any at-risk plant species on the site*:* • *Threatened or endangered* • *Species of local importance* • *Federal or state listed* • *Federal or state priority* • *Tribal-specific plant resources present on the site where abundance is limited elsewhere*		
	☐ None known	☒ Yes	

	Species Name	Listing Status
	Foxtail mousetail	State threatened

Name the sources that were checked, or work done to identify the at-risk species:

As described in the 2022 Botanical and Vegetation Communities Survey Report (Attachment F), a desktop background review followed by a wildlife field survey were conducted to identify at-risk animal species on or near the site. Sources that were utilized for the preliminary desktop habitat evaluation included:

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IpaC) query for Klickitat County (USFWS 2022a)
- WNHP 2021 Washington Vascular Plant Species of Conservation Concern (WNHP 2021a)
- WNHP Element Occurrence database of rare and imperiled species and plant communities (WNHP 2021b)
- Online Field Guide to the Rare Plants of Washington (WNHP 2021c)
- Critical Areas Report – Carriger Solar, LLC (WSP USA 2022a)
  - Wetland and Other Waters of the United States Delineation Report for the Carriger Solar Project (Ecology and Environment 2020)
  - Wetland and Waterbodies Delineation Report – Carriger Solar, LLC (WSP USA 2022b)
  - Critical Issues Analysis for Carriger Solar, LLC Project (TRC Environmental 2018)
  - Natural Resource Conservation Service Web Soil Survey (NRCS 2022)
  - Aerial imagery of the Project Survey Area (GoogleEarth Pro 2022)

Tetra Tech documented one special-status plant species, the state threatened foxtail mousetail, a tiny annual forb in the buttercup (Ranunculaceae) family, within the Project Survey Area. This population consisted of approximately 700 individuals in three separate, but nearby vernal pools, covering 0.015

	acre. When documented during field surveys, all observed plants were beginning to set seed. Visible threats to observed individuals included the presence of non-native invasive plant species and grazing activity. Associated species included the native forbs needleleaf navarretia (*Navarretia intertexta*), close-flowered knotweed (*Polygonum polygaloides* ssp. *Confertiflorum*), woollyheads (P*silocarphus elatior, P. oregonus*), tiny mousetail (*Myosurus minimus*), Scouler's popcorn flower (*Plagiobothrys scouleri*) and annual burnet (*Poteridium annuum*), as well as the non-native grasses bulbous bluegrass (Poa bulbosa), cheatgrass (*Bromus tectorum*), Mediterranean barley (*Hordeum marinum* ssp. *Gussoneanum*), and vententa (*Ventenata dubia*).

B.4. Forest Harvest

Is a forest practice or timber harvest proposed on any sites associated with the proposal?		
☒ No	**☐ Yes**	
	Acres proposed:	N/A

B.5. Fish and Wildlife

Are there any animals that have been observed or are known to be on or near the site?			
☐ None known	**☒ Yes** See the 2022 Habitat and General Wildlife Survey Report (Attachment C) for additional details regarding wildlife found within the Project area. Appendix B of the 2022 Habitat and General Wildlife Survey Report (Attachment C) provide a list of special status wildlife species with potential to occur within the Project area and wildlife species and sign observed during 2022 field surveys, respectively.		**List species that use the site as a travel corridor.**
	Birds: *such as hawk, heron, eagle, songbirds*		
	☐ No	**☒ Yes**	See Part 4, Section 4.9 for a detailed discussion of migration routes. Also, please see the 2022 Habitat and General Wildlife Survey Report (Attachment C) for additional information regarding species
		Specify: Forty four bird species were observed during wildlife surveys 2022 Habitat and General Wildlife Survey Report (Attachment C): American crow (*Corvus brachyrhynchos*), American goldfinch (*Spinus tristis*), American kestrel (*Falco sparverius*), American robin (*Turdus migratorious*), barn swallow (*Hirundo rustica*), black-billed magpie (*Pica hudsonia*), Brewer's blackbird (*Euphagus cyanocephalus*), California quail (*Callipepla californica*), California scrub jay (*Aphelocoma californica*), Canada goose (*Branta canadensis*), cliff swallow (*Petrochelidon pyrrhonota*), common raven (*Corvus corax*), downy woodpecker (*Picoides pubescens*), European starling (*Sturnus vulgaris*), great blue heron (*Ardea*	

	Herodias), ferruginous hawk (*Buteo regalis*), great horned owl (*Bubo virginianus*), hermit thrush (*Catharus guttatus*), horned lark (*Eremophila alpestris*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), juniper titmouse (*Baeolophus ridgwayi*), killdeer (*Charadrius vociferus*), lark sparrow (*Chondestes grammacus*), Lewis's woodpecker (*Melanerpes lewis*), long-billed curlew (*Numenius americanus*), Mallard (*Anas platyrhynchos*), mountain bluebird (*Sialia currucoides*), mourning dove (*Zenaida macroura*), northern flicker (*Colaptes auratus*), orange-crowned, warbler (*ermivora celata*), red-breasted nuthatch (*Sitta canadensis*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), rough-winged hawk (*Buteo lagopus*), Swainson's hawk (*Buteo swainsoni*), turkey vulture (*Cathartes aura*), western bluebird (*Sialia Mexicana*), western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), western wood-pewee (*Contopus sordidulus*), wild turkey (*Meleagris gallopavo*), yellow-rumped warbler (*Dendroica coronate*), yellow warbler (*Setophaga petechia*).	occurrence in the area.
Mammals: *such as deer, bear, elk, beaver*		
☐ **No**	☒ **Yes**	See Part 4, Section 4.9 for a detailed discussion of migration routes. Also, please see the 2022 Habitat and General Wildlife Survey Report (Attachment C) for additional information regarding species occurrence in the area.
	Specify: Five mammal species: American badger (*Taxidea taxus*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), western gray squirrel (*Sciurus griseus*).	
Fish: *such as bass, salmon, trout, herring, shellfish*		
☒ **No**	☐ **Yes**	N/A
	Specify: N/A	
Other:		
☒ **No**	☐ **Yes**	N/A
	Specify: N/A	
Do you know of any at-risk animal species on or near the site?		

• *Threatened or endangered* • *Species of local importance* • *Federal or state listed*	• *Federal or state priority* • *Tribal-specific fish, plant, or wildlife resources present on the site where abundance is limited elsewhere*

☐ **None known**	☒ **Yes**

Species Name	**Listing Status**
Birds	
Lewis's woodpecker	BCC
Wild turkey	PS
Mammals	
Mule deer	PS
Western gray squirrel	T, PS

Name the sources that were checked, or work done to identify at-risk species:

As described in the 2022 Habitat and General Wildlife Survey Report (Attachment C), a desktop background review followed by a wildlife field survey were conducted to identify at-risk animal species on or near the site. Sources that were utilized for the preliminary desktop habitat evaluation included:

- BirdWeb (BirdWeb 2022)
- Ecological Systems of Washington State, A Guide to Identification (Rocchio and Crawford 2015)
- Google Earth Pro (Google Earth Pro 2022)
- Management recommendations for Washington's priority habitats (Azerrad et al. 2011)
- National Land Cover Database land cover data (Homer et al. 2020)
- PHS Shrub-steppe – Klickitat County (WDFW 2022b)
- TRC Environmental Critical Issues Analysis Report (TRC Environmental 2018)
- USFWS Birds of Conservation Concern (USFWS 2021)
- USFWS Information for Planning and Consultation (IpaC) Resource List for the Project Lease
- Boundary and Klickitat County (USFWS 2022a, USFWS 2022b)
- Washington Large Fires 1973-2020 (DNR 2022)
- WDFW Priority Habitats and Species (PHS) Database (WDFW 2021)
- WDFW PHS Distribution by County (WDFW 2022c)
- WDFW State Listed and Candidate Species (WDFW 2022a)
- WDFW Threatened and Endangered Species Profiles (WDFW 2022d)
- WDFW Wildlife Wind Power Guideline Habitat Types (WDFW 2009)
- Wetlands and Other Waters of the United States Delineation Report (Ecology and Environment 2020).
- Wetland and Waterbodies Delineation Report, Carriger Solar Project (WSP USA 2022).

	• Wildlife-habitat Relationships in Oregon and Washington (Johnson and O'Neil 2001)

B.6. Property/Site Designations

Provide information for these 7 items	
Comprehensive Plan (name, date, pertinent sections):	Klickitat County Comprehensive Plan (Klickitat County 2013) pertinent sections: Section 2: • Environment/General • Environment/Land • Environment/Water • Environment/Air • Natural Resources/General • Natural Resources/Agriculture • Natural Resources/Wildlife • Natural Resources/Fishing • Natural Resources/Energy • Economy/Industry • Transportation • Public Services/General • Public Services/Utilities • Public Services/Police and Fire • Public Services/Open Space • Government Section 3: • Land Use Plans Consistency with the Klickitat County Comprehensive Plan is reviewed in Part 4, Section 4.14 and Attachment B.
Current Zoning:	The Project is located primarily within the Klickitat County Extensive Agriculture (EA) District with approximately 180 acres of private land and a portion of the Knight Road ROW being located within the Klickitat County General Rural (GR) Zone (Attachment A-1, Figure 3). Within the GR District, uses of a "public utility nature" may be permitted as a conditional use as described in the Klickitat County Zoning Ordinance KCC 19.18.030.H. Within the EA District, "utility facilities necessary for public service" may be permitted as a conditional use, as described in KCC 19.16.030.E. The southern portion of the Project (south of the line that divides Range 15 East

	Townships 4 and 5) is located in the Energy Overlay Zone (EOZ) (KCC 19.39) (see Attachment A-1, Figure 3). In the EOZ, solar energy facilities are a permitted use (KCC 19.39.4). However, as a portion of the Project is located outside of the EOZ, the Project would require a Conditional Use Permit pursuant to the underlying zone(s) if it were permitted through the County, and the EOZ ordinance (KCC 19.39) does not apply. Please see the Land Use Consistency Review, Attachment B, for a complete review of the Project's compliance with the Klickitat County Comprehensive Plan and County Code.
Planning Area:	N/A
Shoreline Master Plan:	Klickitat County Shorelines Master Plan (Klickitat County 2007). The Project location avoids all identified Shorelines of State-wide Significance described in the Klickitat County Shoreline Master Plan (Klickitat County 2007), and the Project design has taken measures to avoid or protect the existing streams and wetlands within the Project MPE, including protecting the stream and wetland buffers as discussed in Parts 3.3 and 4.3 below.
Designation:	N/A
Closest Surface Water:	There are a total of fourteen stream segments within the survey area and the total area of preliminary jurisdictional waters within the Project Lease Boundary is 91 acres.
Distance:	See above
WRIA #:	30 – Klickitat

Is the site within a mapped FEMA Flood Zone?	
☒ No	**☐ Yes**
	Zone name: N/A

Is the site a designated Natural Resource Land? *Designated by the county or city*	
☒ No ☐ Yes	**Forest land:** N/A
☐ No ☒ Yes	**Agriculture:** The Klickitat County Comprehensive Plan provides that agricultural lands of long-term commercial significance are parcels within the Extensive Agricultural District. As the southern portion of the Project Study Area is located within the Extensive Agricultural District, a portion of the site is located in a designated natural resource lands under RCW 36.70A.170.
☒ No ☐ Yes	**Mineral:** N/A

Is the site, or land within 300 feet of the site, in a designated Critical Area? *Designated by the county or city*	
☐ No ☒ Yes	**Wetland:** See Attachment B, Section 2.3.3 and Part 4, Section 4.3 for additional details

☒ **No** ☐ **Yes**	**Frequently flooded:** N/A
☐ **No** ☒ **Yes**	**Aquifer recharge:** See Attachment B, Section 2.3.6 and Part 4, Sections 4.1 and 4.3 for additional details
☐ **No** ☒ **Yes**	**Geologic hazard:** See Attachment B, Section 2.3.5 and Part 4, Section 4.1 for additional details
☐ **No** ☒ **Yes**	**Fish/wildlife habitat conservation:** See Attachment B, Section 2.3.4 and Part 4, Section 4.8 for additional details
☒ **No** ☐ **Yes**	**Other**

On a Local, State, or Federal Historic Register?		
☒ **No**	☐ **Yes**	See Part 4, Section 4.19
	☐ **Listed**	☐ **Proposed**

Identified as a Local, State, or Federal Cultural Site?		
☐ **No**	☒ **Yes**	See Part 4, Section 4.18
	☐ **Listed**	☐ **Proposed**

Are there tribes that may have or claim particular rights to all or part of the project area?		
☐ **None known**	☒ **Yes** The Applicant consulted DAHP's online database and is pending concurrence from DAHP on its evaluation.	
	Tribe	**Contact Made or Attempted, Who/When/method of contact** **Outcome of Contact including Right Asserted (*if any*)**
	Yakama Nation	The Project Study Area is within the ceded territory of the Yakama Nation. The Project submitted a letter to the Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Yakama Nation, the Wanapum, and the Nez Perce and requested an opportunity to meet with their staff to discuss the proposed development plans and the coordination on cultural and archaeological field studies. The CTUIR responded back on April 21, 2022 deferring comments to tribes closer to the Project. The Yakama Nation responded back on August 16 and August 17, 2022 requesting more information regarding the Project. The Applicant sent an email response to Yakama Nation on August 24, 2022 answering questions about Project location, land ownership, and DAHP project number. The Applicant sent an email to Yakama Nation on February 9, 2023 with an update on the anticipated timing and process for Project

		permitting and availability of the Archaeological, Historical, and Cultural Resource Survey Report for their review.

Other applicable plans or local/state/federal designations that apply to the site?		
☒ None known	**☐ Yes**	
	Names:	N/A

B.7. Land Uses

Identify the following.

Existing Land Uses	Existing land uses in the Project Study Area predominately include crop cultivation (mostly dryland wheat) and pasturelands with some undeveloped areas, local roads, and electrical infrastructure (e.g., transmission and distribution lines). Adjacent land uses surrounding the Project Study Area are similar and also include scattered rural residences, the Goldendale Fish Hatchery and adjacent WDFW lands, DNR lands, rangelands, state route 142, and the BPA Knight Substation.	
Past Known Land Uses	Lands in the Project Study Area have historically been utilized for agricultural activities (crop cultivation and grazing), although the areas used for these activities have varied over time.	
Existing Adjacent Uses	**North:**	Dryland agriculture, local roads
	South:	Dryland agriculture, electrical infrastructure, BPA Knight Substation, local roads, SR 142
	West:	WDFW Klickitat Wildlife Area Complex, Goldendale Fish Hatchery, DNR State Resource Management Area
	East:	Agriculture, undeveloped areas, DNR State Resource Management Area, local roads

B.8. Utilities

Answer all yes/no options. Check boxes that apply and answer any items associated with the checked box.

B.8.a Stormwater Management – Construction

Would there be stormwater runoff during construction?

☒ No	**☐ Yes**	
	Source of runoff:	See Part 4.5 Water Quality (Stormwater Runoff)

	Quantity of runoff:				
	Method of collection:	Erosion control measures and BMPs will be outlined in the SWPPP and associated ESCP and will be submitted to the EFSEC within 90 days prior to construction. See Part 4.5 Water Quality (Stormwater Runoff) for additional information			
	Drain/ discharge to:	**☒ Onsite**	**☐ Overland flow**		
			☐ Engineered infiltration		
			Describe: To be described in the SWPPP and ESCP		
		☐ Offsite	**☐ Utility**	**Name:**	
			☐ Other		
			Describe:		
	Is a new facility, system, or line required?				
	☒ No	**☐ Yes**			
	Describe and locate on site map*:* N/A				

B.8.b Stormwater Management – Operations

Would there be stormwater runoff during operations?

☒ No	**☐ Yes**	
	Source of runoff	See Part 4.5 Water Quality (Stormwater Runoff)
	Quantity of runoff	New impervious surfaces will be a small portion of the MPE and stormwater will generally infiltrate across the full area of the site similar to current conditions. The Project will meet Ecology requirements to maintain natural drainage patterns and reduce runoff rates from impervious surfaces. The Hydrologic and Hydraulic Assessment (Attachment L) included modeling of post-construction hydraulic conditions. Utilizing conservative estimates of impervious surfaces created, the report predicts minimal (between 0.3 percent and 2.8 percent) increases in runoff volumes. These small changes in runoff volumes from impervious surfaces will easily be accommodated through natural infiltration in vegetated areas, and, if necessary, the design and installation of engineered stormwater features such as detention basins.

	Method of collection	These small changes in runoff volumes from impervious surfaces will easily be accommodated through natural infiltration in vegetated areas, and, if necessary, the design and installation of engineered stormwater features such as detention basins. Erosion control measures and BMPs will be outlined in the SWPPP and associated ESCP and will be submitted to the EFSEC within 90 days prior to construction. See Part 4.5 Water Quality (Stormwater Runoff) for additional information		
	Drain/ discharge to:	**☒ Onsite**	**☒ Overland flow**	
			☐ Engineered infiltration	
			Describe: Natural infiltration and if necessary engineered stormwater features	
		☐ Offsite	**☐ Utility**	**Name:**
			☐ Other	
			Describe:	
	Is a new facility, system, or line required?			
	☒ No	**☐ Yes**		
		Describe and locate on site map:		

B.8.c Energy

Would there be energy consumption?

☐ No	**☒ Yes**	
	☒ Electricity ⇒ Utility name: Electricity will be sourced from local provider through coordination with BPA	
	☐ Natural gas ⇒ Utility name:	
	☐ Fuel ⇒ type:	
	Is a new facility, generator, line, or connection required?	
	☐ No	**☒ Yes**
	Describe and locate on site map: Discussions for power delivery are ongoing	
Would there be energy production?		

☐ **No**	☒ **Yes**	
	☒ **Electricity ⇒ Receiving utility name:** Commercial discussions for delivery of the power from the Project is in process with BPA	
	Is a new facility, generator, line, or connection required?	
	☐ **No**	☒ **Yes**
		Describe and locate on site map: Length of new line: to be provided prior to construction Height of poles: to be provided prior to construction

B.8.d Water Use – Construction

Would there be water use during construction?

☐ **No**	☒ **Yes**	
	Gallons per day proposed: Construction activities for the Project are anticipated to require approximately 50 acre-feet during the up to 15 month construction period.	
	Water source: Water for construction is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site.	
	☒ **Utility**	**Name:** Unknown
	☒ **Surface water**	**Name:**
	☒ **Private well**	
	☐ **Private water system**	**Name:**
	Is a new well, diversion, line, or connection required?	
	☒ **No**	☐ **Yes**
		Describe and locate on site map: The Applicant or the Applicant's construction contractor will verify the well location and availability of water from a permitted source prior to construction.

B.8.e Water Use – Operation

Would there be water use during operation?

☐ **No**	☒ **Yes**	
	Gallons per day: During the Project's operational period (approximately 40 years), approximately 100 gallons per day (0.1 acre-feet per year) will be needed for the O&M building and up to 0.75 acre-feet/year will be needed for panel washing. Thus a total of less than 1 acre-foot is anticipated to be required each year during operations.	
	Water source: Water for operations is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site.	
	☒ **Utility**	**Name:** Unknown
	☐ **Surface water**	**Name:**
	☒ **Private well**	
	☐ **Private water system**	**Name:**
	Is a new well, diversion, line, or connection required?	
	☒ **No**	☐ **Yes**
	Describe and locate on site map: The Applicant or the Applicant's construction contractor will verify the well location and availability of water from a permitted source prior to operations	

B.8.f. Sanitary Waste Management

Would there be a need for sanitary waste management?

☐ **No**	☒ **Yes**
	Gallons per day: Sanitary waste systems during construction will consist of portable chemical toilets that are periodically pumped out and will not connect to an onsite septic system. To provide adequate sanitary waste collection systems/facilities during construction, temporary portable sanitary waste facilities (i.e., portable chemical toilets and handwashing facilities) will be installed at various locations around the construction sites to accommodate the workforce. These temporary portable sanitary waste facilities can be delivered, managed, and removed by a licensed contractor. During operations, the Project will include an O&M building that may include a bathroom, breakroom, and sink(s) that will drain into a new on-site septic system. The on-site septic system will be permitted, installed by a licensed professional, and maintained in compliance with applicable regulations including WAC 246-272A and Klickitat County Environmental Health Services rules and regulations for on-site septic systems.

	The on-site septic system will be designed to accommodate the anticipated needs of the O&M building and up to three full-time equivalent operations employees (sized to approximately 500 gallons per day). No wastewater will be discharged to on-site or off-site surface waters, wetlands, or the ground outside of the constructed septic system.
	Discharge to: N/A
	☐ **Utility** — **Name:** N/A
	☒ **Septic system:** The on-site septic system will be consistent with the Klickitat County Environmental Health Services On Site Septic Program. Because the septic system will manage wastewater flows of less than 3,500 gallons per day, it is not considered a large on-site sewage system and will not require a permit from the WA Department of Health (WAC 246-272B). The required permit for the on-site septic system will ensure that septic wastewater will not adversely impact area groundwater or surface water quality.
	☐ **Other**
	Is a new system, line, or connection required?
	☒ **No** — ☐ **Yes**
	Describe and locate on a site map: N/A

B.9. Emergency Service Providers

Identify the providers for the following services for the project site:

Police Services:	Klickitat County Sheriff's Office
Fire Services:	Klickitat County Fire Protection District No. 7 (Goldendale Rural)
Other Emergency Services:	Klickitat County Department of Emergency Management

B.10. Transportation

Will transportation methods other than roads/motorized vehicles be used to access the site? (air, water, rail, pedestrians, bicycles, etc.)	
☒ **No**	☐ **Yes**
	Describe: N/A

What are the arterial roads serving the area of the project site?	Most construction traffic (worker vehicles and delivery trucks) will arrive to the project area via State Route 142 (via Hwy 97). The solar arrays will have several proposed driveways (list is organized from south end of project to north end of project): • One directly off of SR 142 to access the SW most array areas. • Three off of Knight Road (two on west side just north of Knight Rd intersection with Fairgrounds Rd, and one on east side of Knight Rd just south of intersection with Fairgrounds Rd) to access array areas in central portion of project. • One driveway off of Butts Rd • One driveway off of Mesecher Rd W. • One driveway off of Knight Rd (apprx 0.7 mile north of Mesecher Rd intersection) • Two driveways (across from each other) off of Knight Road to access the northernmost array areas (driveways are approx. 0.5 mile south of intersection with Pine Forest Rd. Private perimeter and interior roads would be built on private property for construction and operation.

Vehicular traffic generated by project:

Round trips per day			**Peak hour trips/day**	**Timing of peak hours**
During:	**Vehicles**	**Heavy equipment/material deliveries**		
Construction	Conservative estimate at 200 during non-peak months, 450 during peak months	Up to 20 at max	200 round trips per day in non-peak months, 450 round trips per day during peak months	6am-7am and 5pm-6pm
Operation/use	1-3	0	1-3 round trips per day	8am-5pm

Are new public roads proposed?	
☒No	**☐ Yes**

Are any public road improvements proposed?	
☐ No	**☒ Yes**

	Location/description: The approaches off of SR-142, Knight Road, Mesecher Road, and Butts Road onto the Project site will be improved for Project safety and access. Based on consultation with Klickitat County and WSDOT, the Projects will be required to obtain County Road Right-of-Way Access Permits and WSDOT Right-of-Way Access Permits to perform the access upgrade work. The Projects will continue to consult with WSDOT and the county to ensure the approach meets all applicable federal and state codes and standards. As required a Traffic Control Plan will be prepared and submitted to WSDOT in the General Permit application as well as to EFSEC at least 90 days prior to site preparation. The Projects will also adhere to the Klickitat County public road entrance requirements per Klickitat County Building Codes, Fire Codes, and other county requirements as part of the Building Permit.
Parking	**Existing spaces:** N/A
	Spaces after project: The O&M building would be located near the Project substation and would include a graveled area for employee parking (one plant manager and two to three technicians during operations).

B.11. References

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Part 3 – Screening Questions

1. Earth

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the pro-posed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

1.a. Screening Question – Earth

Will the project occur in an area that contains steep slopes, unstable soils, surface indications or history of unstable soils; or other geologic hazard with the potential of landslide, mass wasting erosion, faulting, subsidence, or liquefaction, or identified in local ordinance as a designated geologic hazard critical area?	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Explain below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Areas within the Project Study Area contain geological hazards as defined in the Klickitat County CAO. A small area (approximately 5 acres) of the Project Study Area contains slopes in excess of 15 percent. Additionally, the majority of soils mapped in the Project Study Area are classified by the NRCS as moderately (85.1 percent of the Project Study Area) to severely (11.0 percent of the Project Study Area) prone to water erosion. Therefore, a Part 4 analysis was prepared, which details the geological and soil conditions within the Project, including any geologically hazardous area designated by Klickitat County as critical areas, as well as the mitigation strategies that will be implemented to minimize the risks associated with potential geological hazards.

As you complete the Detailed Analysis in Part 4 - 1. Earth, make sure you consider and address:

How the project could/would:

- Disturb the area(s)
- Be at risk from the area(s) in their current condition
- Be at risk from the area(s) if it degrades further
- Increase water flow over or through the area(s)

And considering other relevant factors addressed in:

- WAC 463-60-265: describe the means to be employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural descriptive occurrences.
- WAC 463-60-302, (1) and (2)
- WAC 463-62-020 regarding seismicity standards

2. Air Quality

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the pro-posed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

⇒

2.a. Screening Question – Air Quality

Will the project have:		
• Indoor or outdoor air pollution emissions including dust, during operation, other than those related to vehicle emissions • The potential to produce an odor nuisance • Dust during construction	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Project will use heavy construction equipment, which will result in air pollution emissions related to vehicle emissions as well as generate dust within construction areas and along Project roads. Dust will be mitigated using standard dust control practices, including but not limited to spraying water or a binding agent, and/or applying gravel as necessary.

The analysis in Part 4 addresses the potential air quality impacts generated during construction and operations, as well as the measures that would be implemented to avoid or minimize these impacts. Pursuant to WAC 463-60-225(1), any emissions subject to regulation by local, state, or federal agencies are quantified in Part 4.

As you complete the Detailed Analysis in Part 4 - 2. Air Quality, make sure you consider and address:

- Health hazards
- Area's existing/potential air quality issues (failure to meet standards, haze, aesthetics, etc.)
- Proximity to populated areas, recreational areas, or other areas of sensitivity

See guidance regarding information required by WAC 463-60-312.

And considering other relevant factors addressed in:

- WAC 463-62-070 regarding air quality laws and regulations
- WAC 463-60-225 (1) through (3)

3. Water Quality – Wetlands and Surface Waters (Buffers, Fill, Dredging, & Sedimentation)

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the pro-posed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

3.a. Screening Question – Water Quality (Wetlands and Surface Waters)

Will the proposal involve any activities on a steep slope, area of unstable soils, or within a surface water body, wetland, or within 300 feet of those areas, within a floodplain, or an area known to flood?	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Wetland and surface water delineations were conducted within the Project Study Area over several survey periods in 2020, 2021, and 2022. WSP prepared delineation reports in 2020 and 2022 (provided in Attachment E). After reviewing the WSP 2020 and 2022 Delineation Reports, Tetra Tech identified that additional information on fish use and hydroperiods for the delineated streams was needed. On April 5, 2022, Tetra Tech completed field work and prepared an addendum to the 2020 and 2022 Delineation Reports with additional information on fish use and hydroperiods for the previously delineated streams. During the May 2022 botanical surveys, additional potential wetland and stream features were identified in the southern portion of the Project Study Area that were not mapped by WSP in the 2020 and 2022 Delineation Reports. The Applicant directed Tetra Tech to conduct additional delineation

work in June 2022 at the Project site necessary to supplement the WSP 2020 and 2021 Delineation Reports and ensure the final reports are comprehensive. The information from the June 2022 field work was incorporated into the Tetra Tech Amendment. A copy of this Amendment (dated October 28, 2022) along with the 2020 and 2022 WSP Delineation Reports for the Project are included in Attachment E.

There are a total of 18 wetlands and 5 vernal pools within the Study Area and the total area of preliminary jurisdictional wetlands reported within the Study Area is 67.28 acres. There are a total of 14 stream segments within the Study Area and the total area of preliminary jurisdictional waters within the Study Area is 90.71 acres.

Streams and stream buffers are avoided by the Project design to the greatest extent practicable. There are a minimum of three proposed locations where Project internal access roads will cross existing stream channels. Some streams may also need to be crossed by the collector line network and could include overhead and/or directionally bored lines. Overhead lines would be designed to span crossings. These crossings would be designed to comply with state HPA criteria, sized to maintain adequate hydraulic and sediment transport capacity, and would be installed using appropriate BMPs to avoid impacts to water quality or aquatic life.

The analysis in Part 4 details potential issues related to water quality, potential impacts, and potential mitigation, if required.

As you complete the Detailed Analysis in Part 4 – 3. Water Quality (Wetlands and Surface Waters), make sure you consider and address:

- Erosion/erosion control
- Existing/potential water quality issues (temperature, turbidity, sedimentation, etc.)
- Loss of wetland/surface water functions and values (flood control, groundwater recharge, water quality, fish and wildlife habitat, aesthetics, recreation, etc.)
- Existing/potential flood risks

And considering other relevant factors addressed in:

- WAC 463-62-050 starts for wetland impact mitigation
- WAC 463-62-060 regarding water quality standards
- WAC 463-60-255, 463-60-322 (1-5), and 463-60-333

4. Water Quality – Wastewater Discharges

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the pro-posed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	Yes	Yes	Yes	N/A

4.a. Screening Question – Water Quality (Wastewater Discharges)

Will the proposal discharge wastewater (septic systems, process waters, washing of solar panels, etc.) to onsite or offsite surface waters, wetlands, or the ground? (do not include discharges to utilities, and county approved septic systems)	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Project is not expected to discharge wastewater as described in the screening question.

To provide adequate sanitary waste collection systems/facilities during construction, temporary portable sanitary waste facilities (i.e., portable chemical toilets and handwashing facilities) will be installed at various locations around the construction sites to accommodate the workforce. These temporary portable sanitary waste facilities can be delivered, managed, and removed by a licensed contractor. The temporary portable sanitary waste facilities are not expected to discharge wastewater onsite with the implementation and maintenance of best management practices.

During operations, the Project will include an O&M building that may include a bathroom, breakroom, and sink(s) that will drain into a new on-site septic system. The on-site septic system will be permitted, installed by a licensed professional, and maintained in compliance with applicable regulations including WAC 246-272A and Klickitat County Environmental

Health Services rules and regulations for on-site septic systems. The on-site septic system will be designed to accommodate the anticipated needs of the O&M building and up to three full-time equivalent operations employees (sized to approximately 500 gallons per day). No wastewater will be discharged to on-site or off-site surface waters, wetlands, or the ground outside of the constructed septic system.

The on-site septic system will be consistent with the Klickitat County Environmental Health Services On Site Septic Program. Because the septic system will manage wastewater flows of less than 3,500 gallons per day, it is not considered a large on-site sewage system and will not require a permit from the WA Department of Health (WAC 246-272B). The required permit for the on-site septic system will ensure that septic wastewater will not adversely impact area groundwater or surface water quality. Because the septic system will be county-approved, this does not qualify as a discharge of wastewater as described in the screening question.

Washing of solar panels, when required, would be done with water only, and no surfactants or other chemicals would be added. Because the panel wash water would not contain added chemicals and the water is expected to evaporate with only minimal amounts potentially reaching the ground, no adverse impacts to surface water or groundwater quality would occur, and therefore no mitigation would be required.

No potentially significant effects on either ground or surface waters are anticipated from the Project, nor is the Project anticipated to affect any local or regional water purveyor's resources or capacity to supply water. No effects on public services or utilities are expected. Therefore, no Part 4 analysis is required.

As you complete the Detailed Analysis in Part 4 – 4. Water Quality (Wastewater Discharges), make sure you consider and address:

- Existing/potential water quality issues (nutrients, bacteria, metals, turbidity, temperature, etc.)
- Loss of wetland/surface water functions and values
- Discharge type, volume, potential contaminants, location, and method of discharge.
- Sole source aquifers

And considering other relevant factors addressed in:

- WAC 463-62-060 regarding water quality standards
- WAC 463-60-322 and 463-60-333.

5. Water Quality - Stormwater Runoff

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

5.a. Screening Question – Water Quality (Stormwater Runoff)

Does the proposal involve any potential sources of stormwater contamination from:		
☒ Drainage from impervious surfaces ☒ Erosion from disturbed soils, lost vegetation, etc. ☐ Animal wastes ☐ Fertilizers or decomposing organic material ☐ Pesticides or other chemical usage Other _____	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

In general, the Project site will require minimal grading and existing drainage patterns and natural infiltration will be maintained during and after construction.

During construction, the Project will use several measures to reduce the risk of impacts to surface water quality from stormwater runoff. These measures will include preparing an ESCP, Construction Stormwater Pollution Prevention Plan (SWPPP), SPCC, and Project Vegetation Management Plan. As described in more detail in Part 4, Section 4.5, the Project

will implement stormwater BMPs tailored specifically for construction projects in this region, such as the appropriate use of temporary erosion and sediment control measures such as straw wattles and check dams, as well as measures such as preserving existing vegetation, covering exposed soils, and revegetation. Where needed, engineered BMPs such as detention basins, conveyance channels, and check dams will be installed.

During operations, the Project may result in some stormwater drainage as a result of new impervious surfaces developed and identified in Part 2, Section B.2 (e.g., gravel roads, solar array posts, concrete pads, O&M building, employee parking area, substation components, etc.). Because solar panels are spaced apart from each other and the full area including the surface under the single-axis tracking panels would be revegetated, allowing natural infiltration of rainwater, the panels themselves are not considered impervious surfaces and are not included in the impervious surface calculation. The total new impervious surface area is a small portion (approximately 40.1 acres, or 3 percent) of the MPE, and stormwater will generally infiltrate across the full area of the site, similar to current conditions. The Project will meet Ecology requirements to maintain natural drainage patterns and reduce runoff rates from impervious surfaces. During operations, the Project will develop and implement site ESCP, SWPPP, and SPCC plans.

A Part 4 analysis was prepared to provide more detailed information on surface-water runoff and infiltration for both construction and operation impacts. See Part 4.5 Detailed Analysis – Water Quality (Stormwater Runoff).

As you complete the Detailed Analysis in Part 4 - 5. Water Quality (Stormwater Runoff), make sure you consider and address:

- Existing/potential water quality issues (oil and grease, turbidity, sedimentation, nutrients, metals, and other pollutants)
- Loss of wetland/surface water functions and values

And considering other relevant factors addressed in:

- WAC 463-62-060 regarding water quality standards
- WAC 463-60-215 and 463-60-322

6. Water Quantity – Water Use

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	Yes	Yes	Yes	N/A

6.a. Screening Question – Water Quantity (Water Use)

Will the proposal involve a new withdrawal, diversion, retention, or use for water not received from a utility?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Project will not require a new withdrawal, diversion, retention, or use of non-utility water, as described in this screening question.

Water will be required for the following Project purposes: construction activities (including dust control and soil compaction) and operations activities (including panel washing and O&M building water needs).

Construction activities for the Project are anticipated to require approximately 50 acre-feet over the up to 15-month construction period. Construction water use would primarily include dust control. Concrete would be trucked to the site; therefore water would not be needed for a concrete batch plant. The water trucks on site for dust control would also be available for fire suppression in the event of a fire during construction.

During the Project's operational period (approximately 40 years), approximately 100 gallons per day (0.1 acre-feet per year) will be needed for the O&M building and up to 0.75 acre-feet/year may be needed for panel washing. Thus, a total of less than 1 acre-foot is anticipated to be required each year during operations.

Water for construction and operations is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site. The Applicant or the Applicant's construction contractor will verify the source and availability of water prior to Project construction and operations.

No Part 4 analysis is required because the proposal does not involve a new withdrawal, diversion, retention, or use, and instead plans to use existing on-site water rights with existing permitted withdrawal/diversion. Water use associated with the Project will be fully offset (i.e., mitigated) by existing water rights. No net increase in either total or consumptive water use will occur as a result of the Project construction or operation.

The Applicant anticipates no potentially significant effects on either ground or surface waters from the Project, nor is the Project anticipated to affect any local or regional water purveyor's resources or capacity to supply water. No effects on public services or utilities are expected.

As you complete the Detailed Analysis in Part 4 – 6. Water Quantity (Water Use), make sure you consider and address:

- Changes in flow or volume
- Existing/potential water quantity/ availability issues (water right controversy, endangered aquatic species, high ground water table, etc.)

And considering other relevant factors addressed in:

- WAC 463-60-165 (1) and (3), 463-60-322 and 463-60-333

7. Water Quantity – Runoff, Stormwater & Point Discharges

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	Yes	Yes	Yes	Yes

7.a. Screening Question – Water Quantity (Runoff, Stormwater & Point Discharges

Is the project likely to result in changes in flow or volume in any water body or aquifer? Consider changes in vegetation, blocking of recharge by new impervious surfaces, grading, filling, discharges, water use, etc.	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

No significant changes to the flow or volume in any water body or aquifer are anticipated as a result of the Project.

During construction, the Project will implement stormwater BMPs (described in more detail in Part 4, Section 4.5), and existing drainage patterns will be maintained. The Project will be designed and constructed to comply with Ecology requirements in retaining stormwater on-site and maintaining natural drainage patterns for conveyance of upland flow. The Project will develop and implement an ESCP, Construction SWPPP, SPCC, and Project Vegetation Management Plan. In addition to the typical temporary erosion and sediment control BMPs, where needed, engineered BMPs such as detention basins, conveyance channels, and check dams will be installed. As a result, during construction the Project should not result in changes

in flow or volume in any water body or aquifer, and water should continue to infiltrate similar to existing conditions.

During operations, the Project may result in some stormwater drainage as a result of new impervious surfaces developed and identified in Part 2, Section B.2 (e.g., gravel roads, solar array posts, concrete pads, O&M building, employee parking area, substation components, etc.). The total new impervious surface area is a small portion (approximately 40.1 acres, or 3 percent) of the MPE, and stormwater will generally infiltrate across the full area of the site similar to current conditions. The Project will meet Ecology requirements to maintain natural drainage patterns and reduce runoff rates from impervious surfaces. During operations, the Project will develop and implement site ESCP, SWPPP, and SPCC plans. The Hydrologic and Hydraulic Assessment (Attachment L) modeled pre-construction hydrologic and hydraulic conditions and assesses preliminary post-construction conditions. Utilizing conservative estimates of impervious surfaces created, the report predicts minimal (between 0.3 percent and 2.8 percent) increases in runoff volumes. These small changes in runoff volumes from impervious surfaces can be accommodated through natural infiltration in vegetated areas and with the design and installation of detention basins. Therefore, no significant changes to the flow or volume of any water body or aquifer would occur as a result of Project operations.

The only proposed direct impacts to surface water bodies would be at locations where temporary and permanent access roads will cross existing drainages. These crossings would be designed to comply with state HPA criteria, sized to maintain adequate hydraulic and sediment transport capacity, and would be installed using appropriate BMPs to avoid impacts to water quality or aquatic life. The final location and design of these crossings will be verified during final engineering design. No impact to the flow or volume in the streams would occur as a result of these crossings.

Because construction and operations of the Project would not change the flow or volume in any waterbody or aquifer, a detailed analysis of water quantity under Part 4 is not warranted. Mitigation actions and best management practices will be implemented during construction, such as revegetating disturbed soils to minimize erosion/runoff, and implementing an ESCP, SWPPP, and Vegetation and Weed Management Plan. Permits would be obtained for any impacts to jurisdictional waters, including Section 404 nationwide permitting through the USACE, Section 401 water quality review through Ecology, and if necessary, Hydraulic Project Approval review through WDFW.

As you complete the Detailed Analysis in Part 4 – 7. Water Quantity (Runoff, Stormwater & Point Discharges), make sure you consider and address:

- Potential loss of groundwater recharge
- Change in seasonal stream flow
- Existing/potential flood risks
- Existing/potential water quantity/ availability issues

And considering other relevant factors addressed in:

- WAC 463-60-215, 463-60-322 and 463-60-333

8. Plants

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

8.a Screening Question – Plants

Will the project occur in or near an area with special status plants, (e.g. DNR natural heritage program or WDFW Priority Habitats and Species (PHS))?	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Botanical surveys within the Project Study Area were conducted April 5-7, May 11-13, and June 22-24, 2022. The survey periods were chosen to coincide with the identification periods for the rare plant species having potential to occur within the Project Study Area. The Applicant conducted habitat surveys within the Project Study Area concurrently with the botanical surveys. The survey periods were timed to capture early blooming as well as later blooming plant species to aid in habitat mapping and characterization.

No federally listed or candidate plant species are known to or have the potential to occur in Klickitat County; therefore, federally listed plant species will not be affected by the Project. One population of the state threatened foxtail mousetail (*Myosurus alopecuroides*), was identified during the botanical survey (Attachment F). This population consisted of approximately 700 individuals in three separate, but nearby vernal pools, covering 0.015 acre.

Twelve state and/or county-listed noxious weeds were documented during field surveys, many of which were common or abundant within the Project Study Area. As described in more detail in Part 4, Section 4.8, the Applicant will develop a Vegetation and Weed Management Plan per RCW 17.10.140 with input from EFSEC and the Klickitat County Noxious Weed Control Board prior to construction.

Six habitat types were mapped within the Project Study Area. The majority (comprising 1,727 acres, or approximately 86 percent) of the Project Study Area consists of the agriculture, pastures, and mixed environs habitat type. The second most common habitat type (comprising 228 acres, or 11 percent of the Project Study Area) is dwarf shrub-steppe. The other four habitat types comprise the remaining 56 acres, or approximately 3 percent of the Project Study Area.

Four of the six habitat types mapped within the Project Study Area are considered Priority Habitats by the WDFW, including dwarf shrub-steppe (i.e., shrub steppe), eastside (interior) riparian-wetlands (i.e., riparian), ponderosa pine forest and woodlands (includes eastside oak [i.e., Oregon white oak woodlands]), and eastside (interior) grasslands (i.e., eastside steppe) (WDFW 2008).

The Applicant met with WDFW via video meeting on March 30, 2022, to introduce the Project and discuss completed and planned biological surveys. At the meeting, WDFW concurred with the botanical, habitat, and wildlife survey timing and survey approach. Additional details regarding this meeting are provided in the Habitat and General Wildlife Survey Report (Attachment C). The Part 4 analysis is based on the information obtained during the habitat and rare plant surveys as well as site-specific feedback from the WDFW. The Part 4 analysis also outlines applicable mitigation measures, where necessary, based on the survey results.

As you complete the Detailed Analysis in Part 4 – 8. Plants, make sure you consider and address:

- Alteration/loss of fish/wildlife habitat
- Endangered or other at-risk plant species
- Changes to critical areas identified in part C.1.

And considering other relevant factors addressed in:

- WAC 463-60-332

9. Animals

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

9.a. Screening Question – Animals

Will the project occur in or near an area with migration areas, special status wildlife or habitats (e.g. WDFW Priority Habitats and Species (PHS)?	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Applicant conducted two rounds of ground-based raptor nest surveys within the Project Study Area and a 0.5-mile buffer to the Study Area. The first round of raptor nest surveys was conducted March 29-30, 2022, during the early nesting period for most raptors in the region (when most breeding pairs exhibit courtship, nest-building, and/or incubation behaviors), and prior to the emergence of foliage on broadleaf trees. The second survey was conducted May 4 and 9-10, 2022, when most raptors in the region are engaged in mid- to late-breeding season reproductive activities (e.g., brooding, feeding nestlings). Eighteen nests were detected during the surveys, including one in-use Swainson's hawk (*Buteo swainsoni*) nest, two in-use red tailed hawk (*Buteo jamaicensis*) nests, two in-use great horned owl (*Bubo virginianus*) nests, two in-use common raven (*Corvus corax*) nests, and 11 small inactive nests with unknown species determinations. No eagles or federally listed threatened or endangered species were documented during the raptor nest surveys. A ferruginous hawk

was observed perching on top of a small tree in the southern portion of the Project Site Control Boundary during the initial survey but did not display any breeding behavior.

Concurrent botanical and habitat surveys were conducted April 4-7, May 11-13, and June 22-24, 2022. The wildlife surveys were conducted May 9-10, 2022, which overlaps with activity and/or breeding periods of the special status wildlife species identified as having the potential to occur in the Project Study Area. The wildlife survey recorded observations of 44 bird species and 5 mammal species (Attachment C). Of these 49 species, 2 bird species and 2 mammal species are special status species: Lewis's woodpecker (bird of conservation concern), mule deer (Priority Species), wild turkey (Priority Species), and western gray squirrel (state threatened, Priority Species). No federally endangered, threatened, or candidate species were observed. Wildlife use in general was concentrated in the eastside (interior) riparian-wetlands and the ponderosa pine and oak woodland habitat types.

The Applicant met with WDFW via video meeting on March 30, 2022, to introduce the Project and discuss completed and planned biological surveys. At the meeting, WDFW concurred with the habitat and wildlife survey timing and survey approach. WDFW's primary concerns were potential impacts to mule deer, especially migration corridors, impacts to groundwater quantity and quality because the nearby Goldendale Hatchery Unit relies on the aquifer for its operations, and potential impacts to recreational hunting opportunities. A summary of this meeting is provided in Appendix A of the Habitat and General Wildlife Survey Report (Attachment C). The input from WDFW provided during this meeting was used to inform the habitat and wildlife background review and field surveys.

A second meeting with WDFW occurred on January 10, 2023. In this meeting, the Applicant presented findings from the Project survey reports and presented the updated site plan, which was refined after the completion of the habitat and wildlife surveys. The intention of the updated site plan was to demonstrate avoidance of impacts to sensitive habitats to the extent practicable and to provide for wildlife corridors.

The Part 4 analysis is based on the information obtained during surveys as well as site-specific feedback from the WDFW. The Part 4 analysis also outlines applicable mitigation measures, where necessary, based on the survey results.

As you complete the Detailed Analysis in Part 4 – 9. Animals, make sure you consider and address:

- Alteration/loss of fish/wildlife habitat
- Endangered or other at-risk animal species
- Obstructions/barriers to the movement of fish and wildlife
- Noise, light, or glare

And considering other relevant factors addressed in:

- WAC 463-62-040 regarding fish and wildlife mitigation
- WAC 463-60-332

- Changes to critical areas identified in part C.1.

10. Energy and Other Natural Resources

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	N/A	Yes	Yes	N/A

10.a. Screening Question – Energy and Other Natural Resources

Will the project, because of type, size, or design, require the consumption or removal of substantial quantities of natural resources including energy (electricity, petroleum, etc.), rock minerals, trees/wood, peat, etc. during either construction or operation?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

As a solar generation facility coupled with battery storage, the Project will provide a new source of clean, renewable electricity. The Project design minimizes impacts to adjacent properties and will not limit or otherwise affect the potential use of solar energy by adjacent properties.

The Project will not require consumption or removal of substantial quantities of natural resources during construction or operations; however, some natural resources will be consumed in the form of non-renewable construction materials such as gravel (see Part 2). Non-renewable fossil fuels will also be required to fuel construction vehicles, equipment, and operational vehicles. Fossil fuel and construction materials quantities consumed will be typical or less than commercial construction projects of a similar size. Local service providers are expected to be able to accommodate the materials, electricity, and fuel needs of the Project.

No detailed Part 4 analysis is warranted because the Project will not require the consumption or removal of substantial quantities of energy or natural resources during construction or operations. Furthermore, no mitigation is anticipated to be required for this resource.

As you complete the Detailed Analysis in Part 4 - 10. Energy and Other Natural Resources, make sure you consider and address:

- Existing/potential of resource supply not meeting demand
- Conservation methods
- Use of renewable vs. non-renewable resources

And considering other relevant factors addressed in:

- WAC 463-60-342(1)-(4)

11. Waste Management

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	N/A	Yes	Yes	N/A

11.a. Screening Question – Waste Management

Will the project generate large quantities of waste during either construction or operation other than those listed as a discharge under D.3.WATER QUALITY or D.2.AIR QUALITY?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Waste generated during construction would be similar to commercial construction projects of a similar size and could include both hazardous and non-hazardous wastes. These would include, but not be limited to, discarded construction materials, packaging materials, damaged erosion control materials, wood forms for cast-in-place foundations, scrap metal, or unused wiring. Roosevelt Regional Landfill in Klickitat County has ample capacity for the anticipated Project waste stream during construction and operations (Klickitat County 2021). Waste generated during O&M could also include hazardous and non-hazardous waste such as paper, food packaging, food scraps, residuals from repair and replacement of solar arrays and associated equipment, and battery replacement. Batteries would need to be replaced every 15 to 20 years. Replacement of the solar array panels would be rare to infrequent as solar panel life is typically more than 30 years without significant loss of function. Component replacement is infrequent. However, occasionally hail, rock-throw during mowing, or other damage may occur to solar array panels, requiring their replacement.

All recyclable materials (e.g., cardboard, paper, and metal) would be recycled to the extent practicable. Battery disposal would follow specific protocols for battery components at an approved facility for disposal or recycling. Temporary BMPs/control measures (i.e., channel crossing materials, sediment logs, etc.)will be removed and disposed of properly or recycled at the end of construction as part of the construction waste disposal process. Waste generated during both construction and operations would be hauled away by an appropriate and permitted contractor, in accordance with federal, state, and local regulations. Disposal of solar array components will be conducted in compliance with Washington State law (RCW 70A.510.010), which requires manufacturers of PV modules to provide a convenient and environmentally sound way to recycle all modules purchased after July 1, 2017.

As described in Part 2, Section A.2 of this ASC, an Initial Site Restoration Plan will be developed and submitted to EFSEC at least 90 days prior to the beginning of site preparation. Per Washington State Administrative Code (WAC) 463-72-040, the plan would identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated. The Initial Site Restoration Plan will establish protocols for disassembly and removal of the facility, and financially guarantee funding of the decommissioning process to assure that the site can be restored to a condition as close to a pre-construction state as possible. Also considered in the development of the Initial Site Restoration Plan will be any relevant provisions of landowner agreements to ensure that the site is restored to the agreed-upon condition for the landowners.

As the Project would not generate large quantities of waste during construction or O&M, a detailed analysis of waste management under Part 4 is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

As you complete the Detailed Analysis in Part 4 - 11. Waste Management, make sure you consider and address:

- Landfill capacity
- Loss of resources
- Opportunities to reduce, reuse, or recycle waste

12. Environmental Health – Existing Site Contamination

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	Yes	Yes	Yes	N/A

12.a. Screening Question – Environmental Health (Existing Site Contamination)

Is there any evidence that the project site(s) contain(s) potentially hazardous materials including toxic chemicals, volatile gases or other poisonous or hazardous substances?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

There is no evidence that the Project MPE contains potentially hazardous materials, as described in this screening question.

A Phase I Environmental Site Assessment was completed for the Project (Attachment M). The Phase I ESA was conducted in accordance with the U.S. Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries as required under Section 101(35)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act and referenced in Title 40 Code of Federal Regulations, Part 312; and the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13).

The Phase I Environmental Site Assessment includes review of readily available historical information, site inspection, interviews with knowledgeable parties, and a regulatory records search. Recognized environmental conditions (RECs) are documented and defined as “The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property (i) due to release to the environment; (ii) under conditions that are indicative of a release to the environment; or (iii) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.”

One REC in connection with the subject property was identified. A debris pile consisting of tires, empty paint cans, and various scrap metal was identified on parcel 04151200000300 along a stream channel near the central portion of the parcel. No stains or odors were observed, but the report identifies the empty paint cans could have potentially contained lead-based paint.

Although this debris pile is inside the Project Site Control Boundary, it is outside of the proposed MPE and would not be impacted or disturbed by Project construction. Therefore, no impacts to Project soils, groundwater, or other resources are expected. Based on the lack of RECs within the MPE, further detailed analysis of existing site contamination under Part 4 is not required. No adverse impacts to public health and safety, environmental health, or planned land uses are anticipated; therefore, no mitigation is anticipated to be required for this resource.

As you complete the Detailed Analysis in Part 4 - 12. Environmental Health (Existing Site Contamination), make sure you consider and address:

- Public health and safety
- Environmental health (air, soils, ground water, surface waters, plants, and animals)
- Conflict /compatibility with planned land uses
- Include description of hazardous materials and the manner and extent of the contamination.

13. Environmental Health – Hazardous Materials

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

13.a. Screening Question – Environmental Health (Hazardous Materials

Will the project involve the removal, use, or disposal of hazardous materials that involve toxic chemicals, asbestos, risk of fire or explosion, and/or spill or danger to public health and the environment?	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The proposed BESS will consist of self-contained storage modules placed in racks and will include a cooling system. The BESS has the potential to be a flammable source if the lithium-ion system overheats, although the facility will contain a fire suppression system in accordance with fire code and National Fire Protection Association (NFPA) Standards, specifically NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems." The system will include monitoring equipment and alarm systems with remote shut-off capabilities. Additionally, the BESS will be mounted on a cement pad which will be encircled with a gravel buffer. The Project will properly handle, store, and dispose of or recycle spent batteries at an appropriate facility in order to minimize risks to the public.

As noted in Part 3.12, the Phase 1 Environmental Site Assessment identified one REC within the Project Site Control Boundary. However, this REC is outside of the MPE and would not be impacted by the Project.

Risk of fire, including wildfires originating outside of the Project, and fire-related mitigation measures are discussed in Part 3.21 and Part 4, Section 4.13. Fire-related BMPs will be implemented, including developing Emergency Management, Fire Control, and Site Restoration Plans, and providing training to fire responders and construction staff during the life of the Project. This training also will include techniques for fire suppression of PV and high voltage technology. Coordination will occur with the Klickitat County Department of Emergency Management and Klickitat County Fire Protection District 7.

Based on the potential for environmental health (hazardous materials) concerns, a Section 4 analysis was prepared, which details potential issues related to hazardous materials specifically related to the BESS systems, potential impacts, and potential mitigation, if required. See Part 4.13 Detailed Analysis – Environmental Health – Hazardous Materials.

As you complete the Detailed Analysis in Part 4 – 13 Environmental Health (Hazardous Materials), make sure you consider and address:

- Public Safety
- Environmental health (air, soils, ground water, surface waters, plants and animals)
- Hazardous material sources, storage, identification, classification

And considering other relevant factors addressed in:

- WAC 463-60-352 (2) – (4), (6)

14. Land Use, Natural Resource Lands, & Shoreline Compatibility

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

14.a. Screening Question – Land Use, Natural Resource Lands, & Shoreline Compatibility

Will the proposal involve or result in any of the following (include likely future proposals that will occur as a result of this action, such as increased development from newly created lots or extension of services, etc.) • Change in land use • Change in intensity of land use • Provide new or improved service to an area (e.g. transportation, utilities, entertainment, etc.)	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

As noted in Part 2, section B.6, the Project Study Area is located primarily within the Klickitat County Extensive Agriculture (EA) District with approximately 180 acres of private land and a portion of the Knight Road ROW being located within the Klickitat County General Rural (GR) District (Attachment A-1, Figure 3). Per KCC Chapter 19.16, the purpose of the EA District is to encourage the continued practice of farming on lands best suited for agriculture and to prevent or minimize conflicts between common agricultural practices and various nonfarm uses. Per KCC Chapter 19.18, the purpose of the GR District is to maintain openness and the rural character of the countryside, to protect the county's water and other natural resources, and to provide areas which are appropriate for typical rural development of all kinds.

The Project would result in a change in land use by introducing solar power generation facilities to property in unincorporated Klickitat County that is designated for agricultural and rural use. Existing land uses in the Project Study Area includes mostly dryland agriculture (with some irrigated agriculture), rangeland, undeveloped areas, local roads, electrical infrastructure (e.g., transmission and distribution lines, substations), and scattered unoccupied structures (e.g., agricultural storage). Land uses in the general vicinity of the Project Study Area include similar uses as well as scattered rural residential development, the Goldendale Fish Hatchery and adjacent WDFW lands, DNR lands, rangelands, state route 142, and the BPA Knight Substation.

The proposed solar power generating facility will result in a change in the type and intensity of the existing land use in the Project Study Area. As noted above, per KCC, Chapter 19.16, the general purpose of the EA District is to encourage the continued practice of farming on lands best suited for agriculture and to prevent or minimize conflicts between common agricultural practices and various nonfarm uses. However, within the EA District, “utility facilities necessary for public service” may be permitted as a conditional use, as described in KCC 19.16.030.E. Similarly, Chapter 19.18.030 of the KCC permits as a conditional use “buildings and uses of a…public utility nature” in the GA District.

The southern portion of the Project Study Area (south of the line that divides Range 15 East Townships 4 and 5) is located in the EOZ (KCC 19.39). Per KCC 19.39:1, the purpose of the EOZ is “to provide areas suitable for the establishment of energy resource operations based on the availability of energy resources, existing infrastructure, and locations where energy projects can be sensitively sited and mitigated” and “to provide siting criteria for the utilization of wind and solar energy resources.” Per KCC 19.39:2.A, the EOZ is an overlay over existing zones and projects permitted through the EOZ shall comply with the standards of KCC chapter 19.39 rather than the standards of the existing zone. Therefore, per KCC 19.39:2.A and 19.39.4.B, solar energy facilities are a permitted use in areas located in the EOZ.

A portion of the Project is located within the EOZ and a portion is located outside of the EOZ. Within the EOZ, the Project is a permitted use. Outside of the EOZ, the Project is a conditional use. Pursuant to KCC 19.08.070, in the event of conflict between code provisions, the most restrictive requirements shall prevail. Here, the most restrictive process is the conditional use permit process, and thus Project compliance with local zoning for purpose of the land use consistency determination has been evaluated using the conditional use permit process, pursuant to KCC 19.16.030.E (EA District) and 19.18.030.H (General Rural Zone). Under KCC 19.04.160, a conditional use is defined as a use “subject to the imposition of reasonable conditions and/or restrictions which, when imposed, renders the use compatible with the existing and potential uses in the vicinity which are permitted outright.”

Please see the Land Use Consistency Review, Attachment B, for a complete review of the Project’s compliance with the Klickitat County Comprehensive Plan and County Code.

The Part 4 analysis addresses the Project's potential effects from the proposed change to existing land use as well as the Project's compliance with relevant local land use regulations. Outside of complying with landowner lease agreements and EFSEC conditions, no land use mitigation requirements are anticipated for the Project.

As you complete the Detailed Analysis in Part 4 – 14. Land Use, Natural Resource Lands, & Shoreline Compatibility, make sure you consider and address:

- Loss of designated natural resource lands (agriculture, forest, mineral) under RCW 36.70A.030; or other existing land uses
- Viability of existing or planned adjacent or nearby land or water uses
- Compatibility or conflict with intended land or shoreline uses
- Increased transportation, utility, or service demands

15. Housing

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	N/A	Yes	Yes	N/A

15.a. Screening Question – Housing

Will the project be likely to displace or otherwise affect existing or future housing, particularly housing for low and moderate-income households?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Project will not displace or otherwise affect existing or future housing, as described in the screening question.

The Project is located in a rural, unincorporated area of Klickitat County. The existing residential land use pattern within and adjacent to the Project Site Control Boundary is sparse, limited to farm homes and large lot rural residences. Further, local land use planning documents do not identify the area within the Project Site Control Boundary for future residential growth, so this area is expected to remain sparsely populated.

No residences will be displaced, demolished, or moved by the Project. The Project has been designed to avoid impacts to existing adjacent residences through implementation of setbacks (minimum of 500 feet from closest non-participating residence) and meeting environmental noise limits established by the Washington Administrative Code (WAC 173-

60). The proposed setbacks from existing residences will mitigate potential impacts from visual effects and noise. Additional mitigation measures will include installing code-compliant lighting figures that are designed to provide the minimum illumination needed to achieve safety and security and will be downward-facing and shielded to focus illumination in the immediate area and utilizing solar panels with an anti-reflective coating to minimize glare.

The Project will also not have negative impacts on the broader Klickitat County housing market. In compliance with WAC 463-60-535, a Socioeconomic Assessment that provides information regarding population, labor force, and housing impacts has been prepared for the Project (Attachment J). The Socioeconomic Assessment concluded that construction of the Project "is not expected to have a negative impact on the existing housing market [in Klickitat County] as the workers would either be existing local construction workers, workers that would commute to Klickitat County, or stay in local accommodations during the duration of the project. Consequently, there would not be an impact on median housing value nor median gross rents or new housing construction."

Because the Project is not likely to displace or otherwise affect existing or future housing, a Part 4 detailed analysis of housing impacts is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

As you complete the Detailed Analysis in Part 4 – 15. Housing, make sure you consider and address:

- Decreased availability of housing for low to moderate income households
- Impediments to meeting fair housing and/or population growth goals

16. Noise, Light, Glare, and Aesthetics

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

16.a. Screening Question – Noise, Light, Glare, and Aesthetics

Will the project transmit light, glare, or noise onto adjacent areas or alter or obstruct any views in the immediate area?	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Under certain conditions, solar PV arrays can reflect sunlight and produce glint which is defined as a momentary flash of bright light, or glare, or a continuous source of bright light.

Noise can occur from construction activities as well as Project equipment including inverters, transformers, traffic, O&M activities, and the BESS.

Aesthetics of the area will change with the development of the Project.

Based on the potential for light and glare concerns, a Section 4 analysis was prepared, which details potential impacts related to these issues and potential mitigation, if required. See Section 4.16a Noise and 4.16.b Light, Glare, and Aesthetics and Attachment G Solar Glare Analysis Report and Attachment H Acoustic Assessment Report. A Visual Impact Assessment Report is under development and will be provided as a supplemental report to

EFSEC prior to the public informational meeting. See Part 4 for a detailed analysis of noise, light, glare, and aesthetics.

As you complete the Detailed Analysis in Part 4 - 16. Noise, Light, Glare, and Aesthetics, make sure you consider and address:

- Proximity to residential areas, or other areas with sensitivity
- Scenic views that could be blocked, altered, or impaired for existing or planned uses in adjacent areas

And considering other relevant factors addressed in:

- WAC 463-62-030 regarding noise standards
- WAC 463-60-352 (1), 463-60-362 (2) and (3)

17. Recreation

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

17.a. Screening Question – Recreation

Will the project occur in an area or location that includes the following? • Existing designated and informal recreation opportunities in the immediate vicinity • Displace or otherwise affect any existing recreational uses during construction or operation	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Project MPE is located entirely on private lands and does not include designated recreation opportunities known to be open to the public.

For the purposes of this recreational opportunities screening assessment, the Applicant assesses the immediate vicinity as the area within one mile of the Project Site Control Boundary. The Project Site Control Boundary is adjacent to public lands that provide known recreation opportunities. The Goldendale Hatchery, immediately to the west of the Project Site Control Boundary, is a restricted-access facility and does not provide on-site recreation opportunities, but the trout produced at the hatchery are important to recreation opportunities throughout the region, including in Spring Creek, which originates at the hatchery and is a known recreational trout fishing stream. The Goldendale Hatchery Wildlife Area Unit is located immediately to the west of the Goldendale Hatchery. The 234-acre unit is owned and operated by WDFW and is managed for upland bird and rainbow trout habitat. Management

priorities for the unit are identified in the Klickitat Wildlife Area Management Plan (WDFW 2016), and recreation uses include trout fishing and hunting of pheasant, quail, duck, and mule deer.

DNR owns and manages two parcels within one mile of the Project. The two DNR Trust Lands near the Project include a parcel separating the northernmost portion of the MPE from the southern portion of the MPE, and another parcel approximately one mile to the west of the Project, straddling SR 142. Specific information is not available about current recreation use of these DNR parcels.

In addition to the recreational hunting opportunities on public lands, several parcels near and adjacent to the Project offer hunting access through WDFW's Private Lands Program (WDFW 2023c).

The Klickitat County Comprehensive Plan identifies various public recreational lands, but none of the identified recreational lands are within the immediate vicinity of the Project. Additional recreational opportunities on public and private lands near and within Goldendale include the Goldendale Observatory State Park, Klickitat County Fairgrounds, museums, Goldendale Golf and Country Club, and city parks. However, none of these recreational opportunities are within one mile of the Project Site Control Boundary and are not within the immediate vicinity of the Project. The nearest of these recreational opportunities, the Goldendale Golf and Country Club, occurs approximately 1.3 miles east of the Project Site Control Boundary. The Part 4 analysis is based on the information obtained during desktop analyses and in communications with the managing agencies. The Part 4 analysis also outlines applicable mitigation measures, where necessary, based on the analysis results

As you complete the Detailed Analysis in Part 4 - 17. Recreation, make sure you consider and address:

- Existing recreation uses (e.g. hunting) that could be removed

18. Archaeological and Historical Resources

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

18.a. Screening Question – Archaeological and Historical Resources

Will the project occur in an area or location that includes the following? *Note: to answer these questions with a definite "yes" or "no" requires a Desktop Survey that must be conducted by a consultant. See guidance for more information.* • Archaeological Site or Built Environment Property over 50 years in agricultural resource site • Any known landmarks or evidence of historic, archaeological, scientific or cultural importance • Is listed or is eligible to be listed on a local, state, or federal historic register	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Archaeological desktop and field surveys were completed in April 2022. The surveys included two survey areas: the archaeological survey area and the built environment survey area. The archaeological survey area included the 2,011-acre Project Study Area and

included the Knight Road ROW. The built environment survey area included the archaeological survey area and immediately adjacent parcels. The methods and results are presented in the Cultural Resources Survey Report provided as an attachment to the ASC (confidential Attachment I), as well as in the Part 4 analysis.

To the extent practicable, the Applicant intends to avoid disturbances to archeological and historical resources. However, if a resource is unavoidable, the Applicant will obtain the necessary permits prior to any direct impacts. An Unanticipated Discovery Plan has been prepared that set procedures in the event an unidentified archeological or historical resource is encountered during construction or operations of the Project (see Appendix F in confidential Attachment I).

As you complete the Detailed Analysis in Part 4 - 18. Archaeological and Historical Resources, make sure you consider and address:

- Effects on access to the site or to the resource
- Methods to protect/preserve cultural and historic resources
- Enhancement measures (improved public or tribal access, matching the character of the site, etc.)
- Include description of the cultural/historic resource and how it was identified.

And considering other relevant factors addressed in:

- WAC 463-60-362

19. Cultural Resources

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

19.a. Screening Question – Cultural Resources

Will the project occur in an area or location that includes the following?		
• existing tribal hunting or fishing rights • existing tribal plant gathering • tribal cultural sites • a usual and accustomed area • material culture artifacts • activities on the site could impede views of tribal cultural sites	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

As noted above, a cultural resources survey was conducted for the Project in 2022. The surveys included two survey areas: the archaeological survey area and the built environment survey area. The archaeological survey area included the 2,011-acre Project Study Area and included the Knight Road ROW. The built environment survey area included the archaeological survey area and immediately adjacent parcels. The methods and results of the desktop review and field surveys are presented in a Cultural Resources Survey Report (confidential Attachment I), as well as in the Part 4 analysis.

All of the sites that were found were historic era sites that have been recommended not eligible for listing on the NRHP. There are no known Historic Properties of Religious or

Cultural Significance to Indian Tribes (HPRSCIT) in the Project Study Area. The Project Study Area is located within the traditional use area of the Wanapum, Yakama, Chamnapum, Palouse, Umatilla, and Walla Walla, and it is situated within the Ceded Area of the Confederated Tribes and Bands of the Yakama Nation. Communication with the tribes is ongoing.

As discussed above, to the extent practicable, the Applicant intends to avoid disturbances to archeological and historical resources. However, if a resource is unavoidable, the Applicant will obtain the necessary permits prior to any direct impacts. An Unanticipated Discovery Plan has been prepared that set procedures in the event an unidentified archeological or historical resource is encountered during construction or operations of the Project (see Appendix F in confidential Attachment I).

The Part 4 analysis discloses the potential impacts of the Project to cultural resources and proposed mitigation measures, based on the findings presented in the studies described above.

As you complete the Detailed Analysis in Part 4 - 19. Cultural Resources, make sure you consider and address:

- Whether you have talked to any tribal representatives
- Whether you have checked any tribal websites

20. Traffic and Transportation

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

20.a. Screening Question – Traffic and Transportation

Will the project be likely to cause any of the following in relationship to the local and regional transportation system during construction or operation? • Reduce the level of service (LOS) in an area • Restrict vehicular use • Potential to create or increase local safety hazards • Conflicts with local, state or federal requirements related to traffic and transportation	☐ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☒ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

There are no anticipated changes or improvements to the existing transportation systems except for the new access road approaches on SR-142, Knight Road, Mesecher Road, and Butts Road. The new Project access roads would be for private use only and will not create any new travel routes for residents in the vicinity of the Project. The Applicant will obtain County Road Right-of-Way Access Permits and WSDOT Right-of-Way Access Permits for the proposed Project approaches on county and state roads.

Construction traffic increases would include worker commutes and heavy-duty trucks and deliveries providing materials for the Project. It is anticipated that the Project will have minimal

effects on the current conditions of the roads and will not reduce the level of service (LOS) in the area.

Operations traffic is anticipated to be negligible. There will be around 1-3 round trips per day during the operational time period. This will not affect the current surrounding roads' LOS.

To ensure that there are no local safety hazards or conflicts with state or federal requirements, a Traffic Control Plan will be prepared for in coordination with WSDOT and Klickitat County for construction of approaches along Knight Road, Butts Road, and Mesecher Road. The Applicant will obtain oversize and overweight haul permits in compliance with WSDOT and Klickitat County requirements to safely haul equipment on highways and county roads. The Applicant will also obtain applicable permits from WSDOT and Klickitat County for access to public road right-of-way.

The Project would be unlikely to reduce the LOS on area roads. The Project would not restrict vehicular use or create or increase local safety hazards and would not conflict with local, state, or federal requirements related to traffic and transportation.

However, due to potential truck traffic and potential transportation of oversize or overweight loads during construction, a Part 4 detailed analysis has been completed. The Part 4 analysis details potential impacts related to these issues and potential mitigation, if required.

As you complete the Detailed Analysis in Part 4 - 20. Traffic and Transportation, make sure you consider and address:

- Existing/potential safety hazards
- Traffic delays or road closures during construction

And considering other relevant factors addressed in:

- Relevant factors addressed in WAC 463-60-372

21. Public Services and Facilities

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	N/A	Yes	Yes	N/A

21.a. Screening Question – Public Services and Facilities

Will the project be likely to directly or indirectly increase use of public services and facilities such as fire protection, law enforcement, schools, parks and recreation, public open space, social services or general government?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 - Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

Once operational, the Project will be a largely self-sufficient power generation facility and is therefore unlikely to directly or indirectly increase use of public services and facilities. Potential impacts will be minor and will occur primarily during construction, which is estimated to take up to 15 months.

The use of emergency services may occur during construction and operations activities. The Applicant will develop a set of emergency plans including:

• Emergency Management Plan,

• Fire Control Plan,

• Site Restoration Plan (which will identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated).

Additionally, the Applicant will provide training to fire responders and construction staff on a recurring basis during the life of the Project. The intent of the training will be to familiarize both responders and workers with the codes, regulations, associated hazards, and mitigation processes related to solar electricity and battery storage systems. This training also will include techniques for fire suppression of PV and high voltage technology. With appropriate planning and training, any impacts to emergency services will be short-term and minor. As such, it is anticipated that Project activities will not adversely impact local emergency services.

If water is trucked to the site, it will be from a permitted vendor with the capacity to supply the water and will not impact public services. Based on the estimated amount of water required for the Project, it is not anticipated to impact any local or regional water supplier's resources or capacity to supply water.

Waste types and quantities from construction and operations will be typical of any large-scale facility, and likely less than many commercial buildings relative to the total size of the Project. As the Project will not generate large quantities of waste during either construction or operations, it is anticipated that there will be no adverse impact to local waste-hauling services. Roosevelt Regional Landfill in Klickitat County has ample capacity for the anticipated Project waste stream during construction and operations (Klickitat County 2021).

Because the Project is not likely to impact public services and facilities, a Part 4 detailed analysis is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

As you complete the Detailed Analysis in Part 4 – 21. Public Services and Facilities, make sure you consider and address:

- Existing/potential inadequacy of service providers to meet need
- Consumption of disproportionate share of existing or future service capacities
- Options to reduce service demand (onsite security, etc.)

22. Utilities

SUMMARY	1. Does **screening** trigger a Part 4 analysis?	2. Is it clear what **analysis or study** is called for?	3. Is the analysis sufficiently complete for **SEPA determination**?	4. Is the analysis fully complete for **application review**?	5. Is the proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	N/A	Yes	Yes	N/A

22.a. Screening Question – Utilities

Will the project be likely to increase demand for public or privately-owned water, sewer, storm water, solid waste, communication, or energy utilities?	☒ **No**	⇒ *Explain below why you believe "No" is the appropriate answer.*
	☐ **Yes**	⇒ *Explain below what aspect of the question triggered a "Yes" response;* *AND* ⇒ *Complete Part 4 – Detailed Analysis*
	☐ **Maybe**	⇒ *Describe below how you plan to obtain the information needed to move to a definitive "Yes" or "No" prior to the final submission on your application.*

Explanation:

The Project will not significantly increase demand for public or private water, sewer, solid waste, stormwater, communication, or energy utilities, as described in this screening question.

The Project's impacts to public and private utilities will be minimal, largely because the Project is a solar power generating facility that will produce much of its own electricity and is located in an area where few public utilities are available (e.g., public sewer or stormwater).

As described in Part 3, Section 3.6, water for construction and operations is anticipated to be sourced from an existing on-site well or diversion associated with a valid water right (to be verified in coordination with Ecology). If adequate amounts of water are not available from the existing water rights on site, water would be purchased from a permitted off-site source (i.e., municipal water source or vendor with a valid water right) and hauled to the Project site. The

Applicant or the Applicant's construction contractor will verify the source and availability of water prior to Project construction and operations. Stormwater will be managed within the MPE utilizing stormwater engineering and appropriate BMPs (see Part 3, Sections 3.5, and 3.6, as well as Part 4, Section 4.5). The total new impervious surface area is small and stormwater will generally infiltrate across the full area of the site, without impacts to off-site stormwater conveyance.

A licensed hauler will be used to transport and dispose of construction waste in accordance with applicable laws, and recycling will be implemented to the extent practicable (see Part 3.11). Roosevelt Regional Landfill in Klickitat County has ample capacity for the anticipated Project waste stream during construction and operations (Klickitat County 2021). During construction, portable toilets with secondary containment will be provided for employees. During operations, the Project will include an O&M building that may include a bathroom, breakroom, and sink(s) that will drain into a new on-site septic system. The on-site septic system will be permitted, installed by a licensed professional, and maintained in compliance with applicable regulations including WAC 246-272A and Klickitat County Environmental Health Services rules and regulations for on-site septic systems, as described in Part 3.4.

No significant adverse impacts to water, stormwater, sewer, or solid waste facilities are anticipated as a result of the Project. The Project is outside the urban growth boundary service area where public water, stormwater, sewer, and solid waste facilities are available. Therefore, construction and operation of the Project is not anticipated to impact these services and facilities and no Part 4 analysis is required.

As you complete the Detailed Analysis in Part 4 - 22. Utilities, make sure you consider and address:

- Existing/potential inadequacy of utilities to meet need
- Consumption of disproportionate share of existing or future utility capacities
- Potential to reduce service demand (conservation, etc.)
- Identify where utilities have confirmed service availability

References

Klickitat County. 2021. Final Klickitat County Solid Waste Management Plan For Years 2021-2026. June 2021. Available online at: https://www.klickitatcounty.org/DocumentCenter/View/934/2021-Solid-Waste-Management-Plan

WDFW (Washington Department of Fish and Wildlife). 2008. Priority Habitats and Species List. August 2008, Updated March 2022. Available online at: https://wdfw.wa.gov/species-habitats/at-risk/phs/list.

WDFW. 2016. Klickitat Wildlife Area Management Plan. August 2016. Available online at: https://wdfw.wa.gov/sites/default/files/publications/01846/wdfw01846.pdf

WDFW. 2023a. Hunt Planner. Available online at: https://geodataservices.wdfw.wa.gov/hunt-planner/

WDFW. 2023b. Goldendale Hatchery Wildlife Area Unit. Available online at: https://wdfw.wa.gov/places-to-go/wildlife-areas/goldendale-hatchery-wildlife-area-unit

WDFW. 2023c. Private Lands Hunting Access. Available online at: https://privatelands.wdfw.wa.gov/private_lands/search.php

Part 4 – Detailed Analysis

4.1 Earth

4.1.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	**Expected completion date**	**Author / Expert agency participation** **Name, Title, and Involvement**	**Completed** **Y/N**
Geotechnical Report Attachment K	March 2022	Prepared by ANS Geo	Y
Carriger Solar Site Hydrologic & Hydraulic Assessment Attachment L	February 2023	Prepared by Sierra Overhead Analytics	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.1.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	**Existing Condition and Problems**
General description of site	The geotechnical report (Attachment K) describes the geology and soils on the site. Geotechnical field investigations occurred in January 2021 and January 2022. Field survey work to characterize subsurface conditions included pre-drilling of 29 test pile locations, followed by excavation of a test pit immediately adjacent to each test pile. The bedrock consists of basalt and is part of the Columbia River Basalt group. Overlying the basalt is three to five feet of silt with cobbles and boulders, then one to three feet of silt, then one inch of topsoil.
Slopes	The site has an overall slope of 3.2 percent, and the attached topographic map (Attachment A-1, Figure 5) shows the site sloping gradually to the southwest. There is a small area, encompassing approximately 5 acres, in the southwestern part of the Project Study Area where slopes exceed 15 percent, almost entirely outside of the panel arrays (Attachment A-1, Figure 5).

<table>
<tr><td>Groundwater</td><td>USDA NRCS Web Soil Survey classifies the majority of the soils within this site as having groundwater more than 6 feet from the surface. The exception are the Setnum silt loams, which are classified as having groundwater within a foot of the surface. These soils are located on 68 acres of the Project Study Area and located in drainage bottoms.

Seepage was observed in test pit TP-02, located just north of Fish Hatchery Road, at a depth of 5.9 feet, suggesting the possibility of perched groundwater in that location. However, no groundwater or seepage was encountered in the remaining 27 other test pits, all of which were dug to refusal. Seasonal groundwater elevations across the site are not known, and the groundwater encountered at TP-02 was not replicated in other test pits. .</td></tr>
<tr><td>Geologic hazards</td><td>Geologically hazardous areas are identified as critical areas in Klickitat County’s 2013 CAO. Chapter 2 of the CAO defines geologically hazardous areas as “areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, may not be suited to siting commercial, residential, or industrial development consistent with public health or safety concerns.” As described in Section 5.2 of the CAO, these geologically hazardous areas are divided into the following risk categories: erosion, landslide, seismic, volcanic, or mine hazard areas.

Table 4.1-1 provides the CAO’s geological hazard classifications and identifies their applicability to the Project Study Area. The erosivity of the soils within the Project Study Area, based on NRCS classifications, qualifies as a geological hazard under the CAO.

Table 4.1-1. Project Study Area Geological Hazards
<table>
<tr><th>CAO Geological Hazard Classification (CAO Section 5.2)</th><th>Applicability to Project Study Area</th></tr>
<tr><td>Erosion - areas identified as having slopes in excess of fifteen percent or soils rated by the Natural Resource Conservation Service (NRCS) as having moderate to very severe erosion potential.</td><td>As described above, a small area (approximately 5 acres) of the Project Study Area contains slopes in excess of 15 percent.

The majority of soils mapped in the Project Study Area are classified by the NRCS as moderately (85.1 percent of the Project Study Area) to severely (11.0 percent of the Project Study Area) prone to water erosion.</td></tr>
<tr><td>Landslide - areas identified as subject to mass movements due to their geologic, topographic, and/or</td><td>The Project Study Area is not known to contain any areas subject to landsliding. There is one small area</td></tr>
</table>
</td></tr>
</table>

	hydrologic factors. Areas subject to landsliding are the following:
	• areas of historic failure of potentially unstable slopes;
	• areas with any combination of the following:
	  ○ slopes of fifteen percent or greater;
	  ○ permeable soils frequently overlying impermeable surfaces or soils; or
	  ○ springs or groundwater seepage;
	• any slope forty percent or greater and with a vertical relief of ten plus feet, except areas composed of consolidated rock;
	• slopes greater than eighty percent subject to rockfall during seismic shaking;
	• unstable areas resulting from stream incision, erosion, or undercutting;
	• any area located on an alluvial fan; or
	• slopes that are parallel or subparallel to planes of weakness in subsurface materials such as bedding planes, fault planes, etc.
		(approximately 5 acres) with slopes exceeding 15 percent, but depth to impermeable surface is unknown in that area.	

	Seismic - Klickitat County is located within a 2B seismic zone, with no known active faults. All new development shall conform to the applicable provisions of the Uniform Building Code which contain structural standards and safeguards to reduce risks from seismic activity.	No known active faults occur within the Project Study Area. The nearest fault is an undifferentiated Quaternary fault within the Horse Heaven Hills fault zone, which is categorized by the USGS as a Class A fault (Personius et al. 2016; USGS 2023; also see Figure 6 in Attachment A-1).	
	Volcanic - Volcanic risk is low, although ashfall could be expected during a volcanic event.	The risk for this is low within the Project Study Area.	

	Mine - The likelihood of the presence of underground mines within the County is believed to be remote.	There are no known underground mines in the vicinity of the Project Study Area
Soil chemistry and physical conditions	The Geotechnical Report (Attachment K) describes a number of chemical and physical properties of the soils within the Project Study Area. Attributes described in the report include soil index testing, thermal resistivity testing, corrosivity testing, California Bearing Ratio testing, and pile load testing. Frost depths are mapped at approximately 12 inches below grade. Detailed results of the soils' chemical and physical properties for these attributes are provided in the report. The majority of soils on site are classified by the NRCS as moderately (85.1 percent of the Project Study Area) to severely (11.0 percent of the Project Study Area) to water erosion (Attachment A-1, Figure 4). The NRCS soils database indicates that the soils being relatively shallow with bedrock within 6 feet of the surface in some places makes these soils prone to water erosion impacts.	
Soils	Soils within the site are silt loams with varying levels of gravel, cobble, or boulders. The table below characterizes the soils and the total amount of acres of each in the Project Study Area. Table 4.1-2. Project Study Area Soils	

Map Unit Symbol	Map Unit Name	Total Acres	Percent of Project Study Area
12D	Lyville bouldery loam, 2 to 20 percent slopes	1.2	0.10%
23	Gunn loam, 2 to 8 percent slopes	102.9	5.10%
23A	Gunn stony loam, 8 to 30 percent slopes	9.8	0.50%
23B	Gunn loam, 8 to 30 percent slopes	4.8	0.20%
25A	Leidl extremely cobbly ashy loam, 2 to 30 percent slopes	128.2	6.40%

30A	Rockly-Lorena complex, 2 to 15 percent slopes	6.4	0.30%
30B	Rockly-Lorena complex, 2 to 15 percent slopes, extremely stony	92.6	4.60%
69	Goldendale silt loam, basalt substratum, 2 to 5 percent slopes	771.6	38.30%
69A	Goldendale silt loam, basalt substratum, 5 to 10 percent slopes	52.9	2.60%
93	Goldendale silt loam, 2 to 5 percent slopes	215.8	10.70%
93A	Goldendale silt loam, 5 to 10 percent slopes	167.7	8.30%
93B	Goldendale silt loam, 10 to 15 percent slopes	73.4	3.60%
93C	Goldendale silt loam, 15 to 30 percent slopes	5.3	0.30%
94	Lorena silt loam, 2 to 5 percent slopes	1.1	0.10%
95A	Konert silt loam, 0 to 2 percent slopes	10.1	0.50%
96	Blockhouse silt loam, 0 to 5 percent slopes	101.2	5.00%
97	Munset stony silt loam, 0 to 5 percent slopes	203.2	10.00%
97A	Setnum silt loam, 0 to 3 percent slopes	68.3	3.40%

4.1.C Changes to and from Existing Condition

4.1.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Geohazards	The Geotechnical Report (Attachment K) outlined recommended mitigation measures that will be implemented as appropriate to prevent impacts from potential on-site geohazards. Additional mitigation measures will include developing an Erosion and Sediment Control Plan (ESCP), a Construction Phase Stormwater Pollution Prevention Plan (SWPPP), and an Operations Phase SWPPP, and installing and maintaining the necessary BMPs to prevent erosion in compliance with all permit conditions and Ecology's Stormwater Management Manual for Eastern Washington (SWMMEW) (Ecology 2019).
	Topography and Surface Water Flows	The Hydrology and Hydraulic Assessment (Attachment L) concludes that there will be "minimal changes to site flow depth, velocity and scour" post-construction. The modeling completed for the study predicted an approximately 1 percent increase in peak flows, utilizing a very conservative assumption for impervious areas. This increase will be accommodated in additional storage volume (i.e., detention basins) and infiltration in the design. Installation of the Project's PV arrays will generally follow existing contours within the MPE, requiring minimal grading and maintaining the natural slopes on site. Arrays will also be placed in a configuration that will avoid natural drainage channels in the MPE, precluding the need for fill in or removal of potential habitat in these areas.

4.1.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	☐ Yes	
	Topical Area/issue	**Changes**

	Design around potential seismic conditions	The engineering designs and site plan will be developed such that seismic risks are minimized and will incorporate mitigation in the designs to account for a potential seismic event. The Geotechnical Report (Attachment K) provides preliminary seismic site class and ground motion values. Final engineering designs will conform to the applicable provisions of WAC 463- 62-020, 2015 International Building Code and ASCE 7-10 and ASCE 7-16 which follow the Washington State Building Codes and contains structural standards and safeguards to reduce risks from seismic activity.
	Soil chemistry and physical conditions	The Geotechnical Report (Attachment K) utilizes the field data collected to provide considerations and recommendations for foundations and construction. Preliminary considerations are provided for corrosion, and the report recommends that a separate, site-specific corrosion evaluation report be developed. Final engineering designs will incorporate corrosion analysis. Frost depth foundation recommendations are provided and will be incorporated into engineering designs. The report provides recommended soil parameters for pile design and for shallow foundations. Construction recommendations include shoring, sloping, or benching for deeper excavations, shallow bedrock handling, predrilling, dewatering, subgrade preparation, backfilling and soil reuse, access roads, and pile drivability.

4.1.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Building permits and design for potential seismic event.	Applicant will obtain all necessary permits including building, grading, and excavation permits. The design will meet seismic design parameters and will conform to the applicable provisions of WAC 463- 62-020, 2015 International Building Code and ASCE 7-10 and ASCE 7-16 which follow the Washington State Building Codes and contains structural standards and safeguards to reduce risks from seismic activity.	Klickitat County Planning Department and Washington State Building Code Council.
	Implementation of Geotechnical Recommendations	The Applicant will follow all of the geotechnical recommendations in the final version of the geotechnical report. The geotechnical report recommends the following: • Shoring up excavated trenches deeper than four feet. • Grading the surface to divert stormwater away from open excavation to the extent possible. • Over excavating the subgrade for shallow concrete foundations by at least 6 inches and placing geotextile fabric. • Considering the soils to be very sensitive to compaction when wet.	EFSEC

		• Adding at least 10 inches of crushed rock to road surfaces to mitigate for soil softness. • Plan to pre-drill at all proposed post locations. • Development of a site-specific report to evaluate corrosion potential and interpret soil corrosivity test results.	
	Best Management Practices (BMPs) - Erosion	As further described in Part 4, Section 4.5, the Applicant will implement an ESCP, a Construction Phase SWPPP, and an Operations Phase SWPPP, in compliance with local stormwater regulations. These plans will address stormwater runoff, flooding, and erosion to ensure compliance with state and federal water quality standards. The ESCP will include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. The SWPPP will include BMPs from Ecology's Stormwater Management Manual for Eastern Washington (Ecology 2019). Per RCW 17.10.140, the Applicant will prepare and submit a Vegetation and Weed Management Plan to EFSEC for the control of noxious weeds prior to construction. The plan will be implemented to revegetate temporarily impacted areas and minimize erosion.	Ecology, EFSEC

4.1.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ No	☐ Yes	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.1.F References

Personius, S.F., Haller, K.M., Barnett, E.A., and Lidke, D.J., compilers. 2016. Fault number 567, Horse Heaven Hills structures, in Quaternary fault and fold database of the United States: Available online at: https://earthquakes.usgs.gov/hazards/qfaults, accessed 02/03/2023 04:09 PM.

USGS. 2023. U.S. Quaternary Faults. Available online at: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf

4.2 Air Quality

4.2.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
No studies relating to air quality were conducted for the Project; however, an emissions model was developed, and the results of the model are reported in Section 4.2.C below.			

☒ Check this box when all proposed studies for this topic are completed

4.2.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Regulatory	The Clean Air Act (CAA) is the primary federal statute governing air quality. The U.S. Environmental Protection Agency (EPA) has promulgated primary and secondary National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), two size categories of particulate matter (PM_{10} and $PM_{2.5}$), ozone (O_3), sulfur dioxide (SO_2), and lead. The primary standards are concentration levels of pollutants in ambient air, averaged over a specific time interval, designed to protect public health with an adequate margin of safety. The secondary standards are concentration levels judged necessary to protect public welfare and other resources from known or anticipated adverse effects of air pollution. Although states may promulgate more stringent ambient standards, the State of Washington has adopted standards identical to the federal levels (see WAC 173-476, Ambient Air Quality Standards). Local air quality is measured against these national and state standards, and areas that do not meet the standards are designated as “non-attainment” areas. A new emissions source must demonstrate compliance with all applicable federal and state air quality requirements, including emissions standards and ambient air quality standards. The State of Washington has established rules

	through Ecology for permitting new sources in both attainment and non-attainment areas of the state, and additional requirements may be imposed by local air authorities (Ecology 2020a). WAC 463-62-070 requires that energy facilities meet all federal and state air quality laws and regulations mentioned above, and WAC 463-78 establishes adoption of these requirements by EFSEC. EFSEC issues authorizations for air emissions for sources under its jurisdiction. In general, if potential emissions from stationary sources exceed certain thresholds, approval from the applicable permitting authority is required before beginning construction. In an effort to bring an area back into compliance with air quality standards, new sources of air emissions in non-attainment areas must undergo more rigorous permitting than equivalently sized sources in attainment areas. However, the Project is not located within a non-attainment area for any criteria pollutants (EPA 2022). Under the CAA, new industrial sources of air pollution must receive an air quality permit prior to operation. The two most common permits associated with industrial activity emitting regulated air pollutants are Notice of Construction/New Source Review approvals and Prevention of Significant Deterioration (PSD) permits. WAC 463-39 and 173-400 establish the requirements for review and issuance of notice of construction approvals for new sources of air emissions. A Notice of Construction is required for permanent sources of regulated air emissions. Temporary generators used for construction would be considered categorically insignificant if they are on-site for six months or less and would not require a permit. Permanent emergency generators less than 500 brake-horsepower (BHP) would be exempt from New Source Review (NSR) and therefore, a Notice of Construction would not be required. For emergency generators between 500 and 850 BHP, a General Order of Approval may be requested. PSD regulations apply to proposed new or modified sources located in an attainment area that have the potential to emit criteria pollutants in excess of predetermined de minimus values (40 CFR Part 51). For new generation facilities, these values are 100 tons per year of criteria pollutants for 28 specific source categories, or 250 tons per year for sources not included in the 28 categories. A PSD permit would not be required for the Project because the generation of electricity by solar arrays does not produce air emissions. A concrete batch plant will not be required during construction or operation of the Project, and as such, no associated permit will be required. During operations, the Project substation and O&M building will be connected to the local utility (Klickitat PUD). Back-up power generators may be installed at the O&M building as required by code for emergency backup power during Project

operations for stowing the trackers or to maintain critical electronic equipment, and any required associated permits would be acquired.

Construction Emissions:

Although construction emissions are not included in permitting of stationary sources, mobile sources (such as construction equipment and maintenance pickups) are regulated separately under the CAA. Washington State regulates what are known as “fugitive” air emissions, which consist of pollutants that are not emitted through a chimney, smokestack, or similar facility. Blowing dust from construction sites, unpaved roads, and tilled agricultural fields are common sources of fugitive air emissions. Solar energy plants are not included among the facilities for which review and permitting of fugitive emissions are required (WAC 173-400-040). Nevertheless, WAC 173-400-040(9)(a) requires owners and operators of fugitive dust sources to take reasonable measures to prevent dust from becoming airborne and to minimize emissions.

Other Washington State regulations that apply to nuisance emissions, including fugitive dust, and various equipment used during construction include the following:

- WAC 173-400-040(3) Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.
- WAC 173-400-040(4)(a) Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition, or other operation, which is a source of fugitive emissions, if located in an attainment area and not impacting any non-attainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.
- WAC 173-400-040(5) Odors. Any person who shall cause or allow the generation of any odor from any source that may unreasonably interfere with any other property owner’s use and enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.
- WAC 173-400-040(9) Fugitive dust. The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions.

	Power generators that may be used during construction and/or operation may be subject to the following state rules for limiting emissions: • WAC 173-400 General Regulations for Air Pollution Sources, and • WAC 173-460 Diesel Engine Exhaust Particulate. **Greenhouse Gases:** Greenhouse gases (GHG) play a critical role in determining the earth's surface temperature. A GHG is any gas in the atmosphere that absorbs infrared radiation. The infrared radiation is selectively absorbed or "trapped" by GHGs as heat and then reradiated back toward the earth's surface, warming the lower atmosphere and the earth's surface. As the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere gradually increases, thereby increasing the potential for indirect effects such as a decrease in precipitation as snow, a rise in sea level, and changes to plant and animal species and habitat. Climate impacts are not attributable to any single action but are exacerbated by diverse individual sources of emissions that each make relatively small additions to GHG concentrations. GHGs are emitted by both natural processes and human activities. Human activities known to emit GHGs include industrial manufacturing, utilities, transportation, residential, and agricultural activities. The GHGs that enter the atmosphere because of human activities are CO_2, methane, nitrous oxide, and fluorinated carbons (i.e., hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride). In Washington state, GHGs are regulated by RCW Chapter 70A.45, which establishes goals for statewide reduction of GHG emissions. The statute aims to reduce overall GHG emissions to 45 percent below 1990 levels by 2030. By 2050, the state intends to reduce overall emissions to 95 percent below 1990 level. Goals also included fostering a clean energy economy by increasing the number of jobs in the clean energy sector to 25,000 by 2020, from just over 8,000 jobs in 2004 (RCW 43.330.310). WAC 173-441 established an inventory of GHG emissions through a mandatory greenhouse reporting rule for certain operations. Because solar power would not emit GHGs during operations, these regulations would not apply to the Project. In addition, the Project would assist the State in achieving these goals by providing clean renewable energy to the State. Specifically, it will help achieve the purposes of Washington's 2019 Clean Energy Transformation Act (CETA, RCW 19.405), which requires electric utilities to be carbon-neutral by 2030 and carbon-free by 2045, as well as the state's 2021 Climate Commitment Act (CCA, RCW 70A.65), which aims to achieve net-zero GHG emissions on an economy-wide basis by 2050.
Climate	Klickitat County is located within a rain shadow created by the Cascade Mountains, which causes a decrease in precipitation to their east. Most of the

	annual precipitation in Klickitat County occurs between November and March. Average annual precipitation at Goldendale, the town closest to the Project, is 17.2 inches. The average seasonal snowfall at Goldendale is 25.8 inches. During unusually severe winters, snow can remain on the ground from late November until early March, but during normal years, snow remains on the ground for no longer than 2 to 4 weeks at a time. In winter, temperatures in Goldendale average a high of 39.9 degrees Fahrenheit (°F) and a low of 25.3 °F, with historical extreme lows of -29°F. In summer, temperatures average a high of 82.1°F and a low of 47.9°F, with historical extreme highs above 100°F (Western Regional Climate Center 2023). Wind conditions near the Project can be characterized by Automated Surface Observing Systems (ASOS), which serves as the nation's primary surface weather observing network. The closest ASOS station to the Project is located at the Columbia Gorge Regional/The Dalles Municipal Airport in Dallesport, Washington (airport code KDLS). Based on data collected over the period from December 31, 1972 to December 23, 2022, the prevailing winds most frequently blew from the northwest (approximately 32 percent of the time), from the west (approximately 16 percent of the time), from the east (approximately 9 percent of the time), with calm conditions (less than 2.0 miles per hour) occurring approximately 27 percent of the time. The average wind speed for the period was approximately 8.0 miles per hour (IEM 2023).
Regional Air Quality	The nearest air quality monitors to the site are located in Sunnyside, Washington (54 miles to the northeast of the Project) and Toppenish, Washington (45 miles to the northeast of the Project). Particulate matter with an aerodynamic diameter of 2.5 microns or less (i.e., $PM_{2.5}$) is measured at these locations; however, the nearest air quality monitors that measure particulate matter with an aerodynamic diameter of 10 microns or less (i.e., PM_{10}) are located in Yakima, Washington (55 miles to the north of the Project) and Kennewick, Washington (91 miles to the east of the Project). The nearest ozone monitors are located to the east approximately 78 miles away in Hermiston, Oregon, and 91 miles away in Kennewick, Washington. The closest nitrogen dioxide (NO_2) and carbon monoxide (CO) monitors are located approximately 88 miles to the west in Portland, Oregon. The nearest sulfur dioxide (SO_2) monitor is located approximately 111 miles to the north in Wenatchee, Washington. Although generally air quality in Klickitat County meets standards, the two most prevalent existing sources of air pollution in Klickitat County are fugitive dust and vehicle emissions. However, in recent years extended smoke events from regional wildfires have been experienced, causing extended exceedances of air quality standards. Because of the exceptional nature of these events, the EPA issued waivers for unmet air quality monitoring requirements. The waivers

	and a description of the waiver process are included in the 2022 Ambient Air Monitoring Network Plan (Ecology 2022).

4.2.C Changes to and from Existing Condition

4.2.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Construction	Construction of the Project will result in two primary sources of air pollution, vehicle exhaust emissions and fugitive dust particles from disturbed soils that become airborne. Sources of vehicle exhaust emissions would include heavy construction equipment operating on the site, trucks delivering construction materials and Project components to the site, and vehicles used by construction workers to commute to the site. Pollutant emissions from these sources would be relatively small in comparison to total emissions in the county (see Table 4.2-1) given the limited size of the construction workforce and equipment fleet, and similar to emissions from other equipment commonly used for agriculture, transportation, and general construction in Klickitat County. Heavy construction equipment and supporting vehicles (e.g., pickup trucks, water trucks) will be used on site during the estimated 15 months of construction (see Part 2). Construction activities that could create fugitive dust include transportation of materials; clearing and grading for roads, crane pads, solar array pads, and other Project infrastructure; and trenching for underground utility cables. A concrete batch plant will not be required during construction. Fugitive dust will be mitigated using standard dust control practices, including but not limited to spraying water or a binding agent, and/or applying gravel as necessary. During construction, the combustion of fuels in construction equipment, vehicles, and backup generators, as well as off-site emissions from ancillary activities, will generate small amounts of GHGs. These emissions will be temporary in nature and the low

		levels of emissions will not be expected to have an impact on GHG emissions in the region. Emissions associated with construction are expected to be low, localized, and short-term. Construction emissions have been estimated using EPA's Motor Vehicle Emissions Simulator (MOVES3) and NONROAD emission factor models for 2024. These emissions are associated with exhaust from heavy equipment, worker vehicle commutes, delivery and haul trucks, as well as fugitive dust from earth-moving and material handling activities. Construction scheduling and equipment have not been finalized, and therefore, reasonable and conservative assumptions have been made for the purpose of estimating construction emissions. Transport and traffic assumptions used in this analysis include the assumptions listed in Part 4, Section 4.20 of this ASC, such as numbers of workers and access routes. These assumptions are typical of a project of this size in the region and may be further refined during final engineering design. A summary of total estimated emissions from construction of the Project is shown in Table 4.2-1. Maximum annual construction emissions are also presented and, when compared to the most recent published emissions inventory (2017) for Klickitat County, would represent a very minor fraction of total emissions for the county (Ecology 2020b). The following assumptions were used to develop the calculations presented in Table 4.2-2: • Construction equipment emissions were based on estimated construction activity schedule, types of vehicles/equipment, number of vehicles/equipment, fuel type, equipment load factors, and equipment size (horsepower). Equipment operating times for the equipment were based on a 5-day work week and an 8-hour workday. • Fugitive dust sources were estimated using South Coast Air Quality Management District's (SCAQMD) recommended methodology. An uncontrolled PM_{10} emission factor of 20 pounds per acre per day was used, consistent with California Air Resource Board's URBEMIS2007 model. The Project would implement BMPs to minimize fugitive dust during construction, including but not limited to graveling, watering, and limiting traffic speeds on unpaved roads. For

the purposes of estimating fugitive dust emissions, it was assumed that disturbed areas would be watered at least twice a day, reducing fugitive dust by at least 50 percent. Based on the equipment mix, an estimated average disturbed area of 3 acres per day was used in the calculations. $PM_{2.5}$ emissions were assumed to be 21 percent of PM_{10} emissions, using the fraction recommended by SCAQMD (SCAQMD 1993).

Table 4.2-1. Summary of Total Estimated Construction Emissions (tons)

Source	VOC	NOx	CO	PM_{10}	$PM_{2.5}$	SO_2
Off-road Construction Equipment	2.4	17.8	7.9	1.6	1.5	0.02
Worker Commuting	5.1	6.2	96.5	0.20	0.17	0.06
Material Delivery and Hauling	0.4	2.4	1.6	0.054	0.05	0.005
Fugitive Dust from Construction	--	--	--	4.9	1.0	--
Project Construction Total (tons)	7.9	26.3	106.0	6.7	2.8	0.08
Project Construction Max. Annual (tons/year)	6.6	22.5	86.6	5.4	2.3	0.07
Klickitat County 2017 Total Emissions[a]	**19,628**	**3,285**	**10,172**	**3,247**	**926**	**28**
Project Total as a Percent of Klickitat County Total Emissions	***< 0.1%***	***0.7%***	***0.9%***	***0.2%***	***0.2%***	***0.2%***

		[a] Ecology 2020b
	Operation	O&M impacts on air quality from the Project will be minimal. Emissions will be generated by operation of internal combustion engines in vehicles used for maintenance, water hauling, and deliveries and hauling of supplies. Vehicles operating on Project access roads could generate fugitive dust emissions, though speeds on site will be limited and permanent access roads will be graveled. The number of vehicles used for operations and maintenance activities will be low, therefore, quantities of emissions generated by these vehicles will be low, intermittent, and localized. If needed, operation of backup generators would create emissions. However, a local utility connection to the Klickitat PUD will be provided at the Project substation and O&M building, so generator use is anticipated to be infrequent, so generator emissions will be minimal. As discussed in Part 3.21, the Project is not anticipated to produce any significant impacts on public services and facilities and is not expected to induce regional growth that would result in substantial increases in off-site emissions. Implementation of any weed control measures at the Project (e.g., herbicide spraying) will be conducted in compliance with federal, state, and local regulations to ensure that adverse impacts to air quality do not occur (see Part 4 Section 4.8). The solar power that will be generated by the Project will offset power that is generated from fossil fuels. As a result, there will be an overall reduction in GHG emissions in Washington, which will support the State's GHG reduction goals. Specifically, it will help achieve the purposes of Washington's 2019 Clean Energy Transformation Act (CETA, RCW 19.405), which requires electric utilities to be carbon-neutral by 2030 and carbon-free by 2045, as well as the state's 2021 Climate Commitment Act (CCA, RCW 70A.65), which aims to achieve net-zero GHG emissions on an economy-wide basis by 2050.
	Odors	No site-specific sources of odor are expected during construction or full operation. During construction, there may be some odor from exhaust from diesel-powered equipment. These odors are not expected to be noticeable beyond the Project boundary and will not interfere with other property owner's use and enjoyment of their

		property. Therefore, no long-term odor impacts related to odors will occur with operation of the Project.

4.2.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	☐ Yes	
	Topical Area/issue	**Changes**
	N/A	Existing conditions at the site have been analyzed and incorporated as described in above.

4.2.D Proposed Mitigation and Monitoring

☐ **Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.**

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Implementation of Best Management Practices (BMPs) and Standard Construction Practices	Washington Administrative Code sections addressing air quality include: • WAC 173-400-040(3) Fallout • WAC 173-400-040(4)(a) Fugitive emissions • WAC 173-400-040(5) Odors • WAC 173-400-040(9)(a) Fugitive Dust Klickitat County Code Section 19.39:9(B) requires the following air quality-related measures for a project within an energy overlay zone: • (c) All applicable air emission permits shall be obtained and all conditions complied with.	EFSEC, Ecology

		• (d) Revegetate any disturbed areas that are not permanently occupied by the project features. • (e) Provide a minimum of fifteen-cm (six-inch) gravel surface on project roads to reduce wind erosion. • (f) Maintain a water truck on-site during construction for dust-suppression. Although, the EOZ standards do not apply to the Project as it is held to the more restrictive conditional use permit process (see discussion in Part 4.14), the Applicant has evaluated the Project's consistency with the solar specific development standards in KCC 19.39:9. To adhere to these standards regarding air quality, the Applicant would implement BMPs and standard construction practices, including the following: • Vehicles and equipment used during construction would be properly maintained to minimize exhaust emissions. • Operational measures such as limiting engine idling time and shutting down equipment when not in use would be implemented. • Graveling of permanent access roads. • Watering or other fugitive dust-abatement measures would be used as needed to control fugitive dust generated during construction. When applied, the Applicant will use water or a water-based environmentally safe dust palliative such as lignin for dust control. • Construction materials that could be a source of fugitive dust would be covered when stored. • Traffic speeds on unpaved roads would be limited to 25 miles per hour to minimize generation of fugitive dust.	

		• Truck beds would be covered when transporting dirt or soil. • Carpooling among construction workers would be encouraged to minimize construction-related traffic and associated emissions. • Erosion-control measures would be implemented to limit deposition of silt to roadways, to minimize a vector for fugitive dust. • Replanting or graveling disturbed areas would be conducted during and after construction to reduce wind-blown dust.	

4.2.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.2.F References

Ecology (Washington State Department of Ecology). 2020a. 2020 Ambient Air Monitoring Plan (Publication 20-02-017). https://apps.ecology.wa.gov/publications/summarypages/2002017.html. Accessed January 9, 2023.

Ecology. 2020b. 2017 Washington Comprehensive Emissions Inventory Technical Support Document, data, and methods. Date Published: May 2020. https://apps.ecology.wa.gov/publications/SummaryPages/2002012.html. Accessed January 12, 2023.

Ecology. 2022. 2022 Ambient Air Monitoring Network Plan. June 2022. Publication 22-02-013. Available online at: https://apps.ecology.wa.gov/publications/documents/2202013.pdf

EPA (U.S. Environmental Protection Agency). 2022. Green Book, Washington Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. https://www3.epa.gov/airquality/greenbook/anayo_wa.html. Accessed January 28, 2023.

IEM (Iowa Environmental Mesonet). 2023. The Dalles Muni (DLS) ASOS Station Windrose Plot. 2021. Available online at: https://mesonet.agron.iastate.edu/sites/site.php?network=WA_ASOS&station=DLS. Accessed January 9, 2023.

SCAQMD (South Coast Air Quality Management District). 1993. CEQA Air Quality Handbook. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.

Western Regional Climate Center. 2023. Goldendale, Washington Climate Summaries, Period of Record Climate Summary. Available online at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa3222 . Accessed January 9, 2023.

4.3 Water Quality – Wetlands and Surface Waters (Buffers, Fill, Dredging, & Sedimentation)

4.3.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
2020 Wetlands and Other Waters of the United States Delineation Report for the Carriger Solar Project (Survey and report included northern portion of the current Project Study Area) Attachment E	Completed (November 2020)	Prepared by WSP (formerly Ecology and Environment) Ecology, Lori White, lead wetland permitting specialist. Review. Site visit was made by Ms. White in October, 2020.	Y
2022 Wetland and Waterbodies Delineation Report (Survey and report included the southern portion of the current Project Study Area) Attachment E	Completed (January 2022)	Prepared by WSP (formerly Ecology and Environment) Ecology, Lori White, lead wetland permitting specialist. Review.	Y
Addendum to the 2020 and 2022 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Report (Survey and report included additional field work within the current Project Study Area,	Completed (October 2022)	Prepared by Tetra Tech, environmental consultant for the Applicant. Ecology, Lori White, lead wetland permitting specialist. Review.	Y

including fish use and hydroperiods.) Attachment E			
Carriger Solar Site Hydrologic & Hydraulic Assessment Attachment L	February 2023	Prepared by Sierra Overhead Analytics	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.3.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Wetlands and Vernal Pools	Three separate wetland delineations occurred within the Project Area (collectively incorporated as Attachment E). The first, in 2020, covered the southern parcels, followed by the northern parcels being delineated in 2021 (report submitted in 2022). A follow up delineation was made to characterize the waterways using the Stream Duration Assessment Method and to delineate some vernal pools and wetlands that were not delineated in the first two field studies, and this addendum contains a summary of all wetlands and water features (Attachment E). A total of 18 wetlands and 5 vernal pools were found within the Project Study Area. The wetlands have varying levels of disturbance, likely because of previous agricultural uses throughout the Project Study Area. The majority of the wetlands were found in drainages and are classified as riverine wetlands. The remaining wetlands were palustrine emergent and vernal pools. Table 3 in the attached "Amendment to the 2020 and 2022 Carriger Solar, LLC Project Wetland and Waterbodies Delineation Report" in Attachment E details the wetland characteristics.
Waterways	The wetland delineations found that there are 14 stream segments within the Project Study Area. The majority of the streams start out as ephemeral, and some of these streams become intermittent and/or perennial further downstream. Table 3 in the attached "Amendment to the 2020 and 2022 Carriger Solar, LLC Project Wetland and

	Waterbodies Delineation Report" in Attachment E details the waterway characteristics. Potential fish use of the waterways is discussed in Attachment E. There is one section of Stream 1 with perennial flow and one intermittent stream (Stream 4) which have the potential for fish use based on their physical characteristics and, in the case of Stream 1, presence of macroinvertebrates (see Attachment E, Appendix B of the 2022 Amendment). Both streams are connected downstream to known fish-bearing streams. However, actual fish use is currently unknown, and no fish were observed during wetlands or wildlife site surveys. No data is available on water quality issues in the unnamed waterways within the Project Study Area. However, downstream Spring Creek has listed impairments for temperature, pH, and dissolved oxygen (Ecology 2023).
Flood Risk	The hydrology and hydraulic assessment (Attachment L) shows that the entire Project Study Area is outside of the 100-year floodplain.
Regulatory	As of December 30, 2022, the EPA and USACE have finalized the definition of WOTUS and water protection rules. This ruling restores the protections in place prior to 2015 where all traditional navigable waters as well as upstream water resources that affect those waters are under federal jurisdiction. The State of Washington considers all water bodies to be waters of the state and therefore has jurisdiction over all streams, including ephemeral drainages, found within the Project Area. Crossings or other work within the ordinary high-water marks of streams will likely require a Hydraulic Project Approval (HPA) permit from the WDFW. The Applicant is designing the Project to avoid and minimize impacts to streams to the extent practicable. Per WAC 220-660-010, the purpose of the HPA is to ensure that construction or performance of work is done in a manner that protects fish. The Applicant understands that WDFW will make a determination on whether an HPA is required on the basis of a review of a Joint Aquatic Resources Permit. Application (JARPA) that will be submitted by the Applicant. Klickitat County's Critical Area Ordinance requires mitigation for any impacts inside of the specified buffers on wetlands and all waters of the state. Buffers are as follows in the current CAO (2013): **Wetlands** Category I - 150 feet

	Category II – 100 feet Category III – 50 feet Category IV – 37.5 feet **Waters** Ephemeral, non-fish bearing – 25 feet Intermittent, non-fish bearing – 50 feet Intermittent or perennial, fish bearing – 150 feet

4.3.C Changes to and from Existing Condition

4.3.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Wetlands and Vernal pools	All wetlands, vernal pools, and their respective buffers will be avoided. See Attachment A-1, Figure 7.
	Waterways	Streams and stream buffers will be avoided by the Project design to the greatest extent practicable. There will be a minimum of three road crossings of delineated streams on the site (see Attachment A-1, Figure 7), including Ephemeral ST-109, Intermittent Stream 4, and Intermittent Stream 6. Some streams may also need to be crossed by the collector line network and could include overhead and/or directionally bored lines. Overhead lines would be designed to span crossings. Additional road and collector line crossings may be required once the design is finalized. Details of the engineering design of those crossings will be included in the JARPA that will be submitted at a later date, but overall would be designed to comply with state HPA criteria, sized to maintain adequate hydraulic and

		sediment transport capacity, and would be installed using appropriate BMPs to avoid impacts to water quality or aquatic life. The JARPA will include details on proposed impacts to the delineated streams and associated buffers. The waterways are shown in the figures in the wetland reports, and the addendum dated October 2022 has a comprehensive map of wetlands and waterways for ease of reference (Attachment E). The relations between streams and stream buffers and Project facilities are shown in Figure 7, Attachment A-1. The Applicant expects to run collector lines overhead throughout the Project Site to minimize impacts to existing site conditions. If directional boring or trenching of collector lines under delineated waters and wetlands is required, these will be identified in the JARPA, including appropriate BMPs. If directional boring is used, entrance and exit locations will be sited outside of the floodplain and outside of buffers. The Applicant has designed the Project layout to avoid crossing streams with fences and has excluded streams from the fenced solar array areas to the extent possible to provide wildlife corridors. However, there are two locations where the Applicant anticipates fences will cross ephemeral streams. Any impacts from fence crossings will be identified in the JARPA and include appropriate BMPs.
	Erosion and Surface Water Quality	Risks of erosion during construction will be addressed through construction BMPs, as described in detail in Part 4, Section 4.1 and Section 4.5. The Project will be designed and constructed to comply with Klickitat County and Ecology requirements for dispersing stormwater on-site and maintaining natural drainage patterns for conveyance of upland flow, and the Project's ESCP, Construction SWPPP, Permanent Stormwater Control Plan, and Vegetation and Weed Management Plan will provide specific

		measures to minimize erosion and sedimentation during and after construction. Stream road and collector line crossings will be constructed to minimize risks of erosion, including spanning streams or wetlands (and associated buffers where possible) if crossed with overhead collector lines or locating directional boring entrance and exit locations outside of the floodplain and outside of buffers if direction boring is employed; installing adequately sized and designed culverts where required; installing adequately sized stormwater basins; and restoring areas of temporary impacts to the natural, pre-project channel dimensions and vegetation.

4.3.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ **No**	☐ **Yes**	
	Topical Area/issue	**Changes**
	N/A	N/A

4.3.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ **No**	☒ **Yes**		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Avoidance	The Project has been designed to avoid impacts to wetlands or wetland buffers and to be consistent with WAC 463-62-	N/A

		050. Streams and stream buffers will be avoided to the greatest extent feasible as described above.	
	Stream crossing construction best management practices	Minimization of temporary water quality impacts during construction (WAC 220-660-120); 2019 Stormwater Management Manual for Eastern Washington (Ecology 2019; Chapter 173-204 WAC); and Construction Stormwater General Permit (Ecology 2020; Chapter 90.48 RCW) will be implemented on site during construction and operations and include the following BMPs: • Staging of materials and equipment to prevent contamination of waters of the state • Development of the Stormwater Pollution Prevention, Erosion and Sediment Control, and Spill Prevention Countermeasures and Control plans • Installation and maintenance of temporary erosion and sediment control measures • Completing work in dry conditions with no flowing water present or with the implementation of BMPs such as silt curtains or silt fence.	Ecology, WDFW
	Permits	If a CWA Section 404 permit is required for impacts to federal jurisdictional waters, one will be acquired from the USACE using	EFSEC, Ecology, USACE, WDFW

		the JARPA as the permit application. EFSEC would coordinate with Ecology to determine if a Section 401 Water Quality Certification or a state Administrative Order are required. If EFSEC reviewing agencies determine that that an HPA is required, the Applicant will use the JARPA to obtain an HPA permit per WAC 20-660-050 from WDFW.	

4.3.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☐ No	☒ Yes	
	Environmental Element	**Additional changes or effects**
	Aquatic species	As described above, fish use in the streams within the Project Study Area is currently unknown. Confirmation of fish presence and consultation with WDFW would occur prior to final engineering design to determine if additional BMPs to protect aquatic life would be required at the proposed crossings.

4.3.F References

Ecology (Washington Department of Ecology). 2019. Stormwater Management Manual for Eastern Washington. Publication Number 18-10-044. August. Available online at: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Stormwater-manuals

Ecology. 2020. Construction Stormwater General Permit. Issued November 18, 2020. Available online at: https://apps.ecology.wa.gov/paris/DownloadDocument.aspx?Id=348923

Ecology. 2023. Washington State Water Quality Assessment. Available online at:
https://apps.ecology.wa.gov/ApprovedWQA/ApprovedPages/ApprovedSearchResults.aspx

4.4 Water Quality – Wastewater Discharges

Part 4 Analysis is not required for this section.

4.5 Water Quality – Stormwater Runoff

4.5.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Carriger Solar Site Hydrologic & Hydraulic Assessment Attachment L	February 2023	Sierra Overhead Analytics	Y
Geotechnical Report	Completed March 2022	ANS Geo, Inc.	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.5.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Surface Water Runoff	The Project parcels are composed primarily of agricultural and rural residential land uses. Land within the Project Site Control Boundary have been heavily disturbed by agricultural crops and livestock grazing. Detailed description of the habitats and vegetation communities within the Project Study Area are provided in Part 4, Section 4.8 of this ASC. The site has an overall slope of 3.2 percent, sloping gradually to the southwest. A small area where slopes exceed 15 percent exists in the southwestern part of the Project Study Area, encompassing approximately 5 acres (see Part 4, Section 4.1 Earth for additional information on slopes). As described in greater detail in Part 4.3, surface waters in the Project Study Area that encompasses the MPE were delineated using methods recommended in the 1987 USACE Manual and the

	Arid West Supplement. Delineated waters include a total of 18 wetlands, 5 vernal pools, and 14 stream segments (see Attachment E). The majority of the streams begin as ephemeral, and some become intermittent further downstream. One perennial stream segment was delineated. All of the delineated stream segments drain to the south and southwest of the site. The Project Study Area is entirely located outside of the 100-year floodplain. Klickitat County is located in a rain shadow created by the Cascade Mountains, which decreases the amount of precipitation east of the mountains. Most of the annual precipitation in Klickitat County occurs between November and March. Average annual precipitation at Goldendale, the town closest to the Project, is 17.2 inches. The average seasonal snowfall at Goldendale is 25.8 inches. During unusually severe winters, snow can remain on the ground from late November until early March, but during normal years, snow remains on the ground for no longer than 2 to 4 weeks at a time (Western Regional Climate Center 2023). Existing conditions of surface water runoff were assessed in the Hydrologic & Hydraulic Assessment (Attachment L) utilizing hydrologic modeling for the 100-year return period storm, which was modeled as a 4-inch rainfall event across the entire site with an antecedent moisture condition as “average.” Within the area assessed in the Hydrologic & Hydraulic Assessment, NRCS soils mapping and land use shows site soils ranging from A to D, representing well-draining to poorly draining soil and low to high runoff potential when saturated. Two-dimensional hydraulic modeling was used to estimate the maximum depths and velocities that occur pre-construction. Under existing conditions, flow depths in existing stream channels reach just over 6 feet in the deepest channels, with velocities as high at 15 feet per second. Because the area is adequately drained, overland flow is typically negligible and moves at very low velocity. Subsurface geotechnical investigations were completed within the Project site. As discussed in the Geotechnical Report (Attachment K), investigations confirmed that the site is underlain by shallow basalt bedrock. In one of the test pits, seepage was observed at approximately 5.9 feet below ground surface, which likely represented trapped/perched groundwater conditions above the bedrock.

4.5.C Changes to and from Existing Condition

4.5.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Surface water runoff and infiltration	The Project will result in minor changes to existing runoff patterns as a result of new impervious surfaces created by the Project (e.g., gravel roads, foundations for solar array posts, battery storage container pads, pads for substation components, etc.). These new impervious surfaces will be a small portion of the MPE (approximately 40.1 acres, or 3 percent). As a result, the stormwater drainage pattern will be similar to current conditions, thereby meeting Ecology's requirements to maintain natural drainage patterns and reduce runoff rates from impervious surfaces. The Hydrologic and Hydraulic Assessment (Attachment L) included modeling of post-construction hydraulic conditions. Utilizing conservative estimates of impervious surfaces created, the report predicts minimal (between 0.3 percent and 2.8 percent) increases in runoff volumes. These small changes in runoff volumes from impervious surfaces will easily be accommodated through natural infiltration in vegetated areas, and, if necessary, the design and installation of engineered stormwater features such as detention basins. The report notes that the erosion potential within the Project Study Area appears to be low to moderate based on computational modeling. Because solar panels are spaced apart from each other and the full area including the surface under the solar panels would be revegetated, allowing natural infiltration of rainwater, the panels themselves are not considered impervious surfaces and are not included in the impervious surface calculation. The Project design incorporates measures to address stormwater runoff during construction. The Project will prepare an ESCP, SWPPP, Operations SWPPP, and Project Vegetation Management Plan. Ecology's 2019 SWMMEW will be used to provide guidance for planning, designing, and implementation of stormwater management practices tailored specifically for construction projects in this region.

		The Project will develop a Spill Prevention, Control, and Countermeasure (SPCC) plan to address the risk of spills or leaks of petroleum-based products from equipment and supplies that could add pollutants to stormwater runoff. Minimal grading is proposed in the solar array locations and where possible existing vegetation root structure will be left intact to enhance soil stability and infiltration rates. Based on the depth to groundwater observed during geotechnical investigations (Attachment K), the Project is not expected to impact groundwater. The slight increase in impervious surfaces is not expected to impact recharge to groundwater or stream flows with the implementation of proposed mitigation measures.

4.5.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☐ **No**	☒ **Yes**	
	Topical Area/issue	**Changes**
	Design considerations of stormwater runoff and erosion.	The existing stormwater runoff and erosion patterns presented in Attachment L will inform the final design of the Project. The Project's engineer will determine the final appropriate erosion and sediment control and drainage plans based on existing conditions and planned impervious surfaces. The Project will be designed to have as little impact to stormwater drainage patterns and erosion risk as feasible. The Project will be designed and constructed to comply with Ecology requirements in retaining stormwater on-site and maintaining natural drainage patterns for conveyance of upland flow.

4.5.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Construction Stormwater General Permit	In Washington State, Ecology administers the National Pollutant Discharge Elimination System (NPDES) on behalf of EPA. In compliance with WAC 173-200, the Applicant will obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an ESCP and a SWPPP. The 2019 Stormwater Management Manual for Eastern Washington (SWMMEW) will be used to provide guidance for planning, designing, and implementation of stormwater management practices. Sizing of runoff treatment and flow-rate treatment BMPs will be in accordance with the methods prescribed in the SWMMEW. Sizing of runoff treatment and flow-rate treatment BMPs by a professional engineer will be in accordance with the methods prescribed in the SWMMEW. The following requirements will be met for the Project: Stormwater quantity control will be provided so that proposed conditions of peak runoff rates and volumes must be equal to or less than existing conditions. The 2-year, 10-year, 25-year, and 100-year 24-hour stormwater events must meet these requirements.	Ecology

		Because the Project will utilize the Full Dispersion BMP (BMP F6.42 in the SWMMEW), it therefore qualifies for an exemption from implementing Core Element #5. The aim of Core Element #5 of the SWMMEW is to treat at least 90 percent of runoff from pollution-generating impervious surfaces (PGIS). A surface is considered a PGIS if it is being regularly used by vehicles. Additionally, the access roads on the Project site are primarily for O&M and will receive a low to intermittent usage, and therefore do not qualify as "high use" or "high average daily traffic" surfaces, as defined in the SWMMEW (Ecology 2019).	
	Best Management Practices - Stormwater	ESCPs and SWPPPs will be developed for both construction and operations. These plans will address stormwater runoff, flooding, and erosion to achieve compliance with state and federal water quality standards. The plans will include BMPs from the SWMMEW, such as the appropriate use of temporary erosion and sediment control measures. These measures may include straw wattles and measures to preserve existing vegetation, cover exposed soils, and to revegetate. Where needed, engineered BMPs such as detention basins, conveyance channels, and check dams will be installed. Work within existing channels will have additional BMPs to protect aquatic life and prevent the risk of sediment reaching fish-bearing waters. Detailed descriptions of proposed BMPs will be included in the JARPA that will be submitted at a later date, but in general BMPs will be specific to the type of	

		waterway (i.e., ephemeral, intermittent, or perennial) and to the work proposed. All work within existing channels where flow and aquatic life may be present will be completed during the WDFW-identified work window, compliant with WAC 220-660-110, and with BMPs consistent with those identified in WAC 220-660-120 as well as in the relevant USACE Nationwide Section 404 permit document. Work areas will be isolated from existing or potential flows (e.g., silt curtains, cofferdams, water bladders) and will be promptly restored to pre-project conditions to prevent any potential impacts to downstream fish-bearing waters. Work within ephemeral channels will be conducted when dry (e.g. at times when no precipitation is forecast and no flows are anticipated to be present). The Applicant will develop a Project Vegetation Management Plan, which will be used to implement revegetation of impacted areas and minimize erosion.	
	Preventative procedures to avoid spills	During construction, small amounts of hazardous materials (e.g., petroleum-based fuels, mineral-based transformer oils, and oil-based lubricants) will be transported, stored, or used to operate equipment. Storage and use of these materials will be in accordance with the manufacturer's specifications and applicable hazardous material regulations. These materials will be stored in compliance with a SPCC Plan consistent with requirements of 40 CFR Part 112, and WAC 463-60-205, that provides preventative procedures and rapid response measures to handle hazardous spills if one were to occur and	

		reduce the risk of potential soil or groundwater contamination to negligible. The amount of petroleum fuels or lubricating oils stored on site or used to operate equipment during O&M will be minimal. The Applicant will also prepare an Operations Phase SPCC Plan in consultation with Ecology and pursuant to the requirements of CFR Part 112, Sections 311 and 402 of the Clean Water Act, Section 402 (a)(1) of the Federal Water Pollution Control Act, and RCW 90.48.080.	

4.5.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.5.F References

Ecology (Washington State Department of Ecology). 2019. Stormwater Management Manual for Eastern Washington. Publication Number 18-10-044. August. Available online at: https://apps.ecology.wa.gov/publications/documents/1810044.pdf.

Western Regional Climate Center. 2023. Goldendale, Washington Climate Summaries, Period of Record Climate Summary. Available online at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa3222.

4.6 Water Quality – Water Use

Part 4 Analysis is not required for this section.

4.7 Water Quality – Runoff, Stormwater, Point Discharge

Part 4 Analysis is not required for this section.

4.8 Plants

4.8.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	**Expected completion date**	**Expert agency participation** **Name, Title, and Involvement**	**Completed** **Y/N**
Botanical and Vegetation Communities Survey Report (Attachment F)	Completed *October 2022*	Prepared by: Tetra Tech, environmental consultant for the Applicant. Agency involvement: WDFW provided feedback on survey protocols and special status species in the Project vicinity.	Y
Habitat and General Wildlife Survey Report (Attachment C)	Completed *October 2022*	Prepared by: Tetra Tech, environmental consultant for the Applicant. Agency involvement: WDFW provided feedback on survey protocols and special status species in the Project vicinity.	Y
Wetland Delineation Reports and Addendum (Attachment E)	Completed *December 2021, January 2022, August 2022*	Prepared by: December 2021 and January 2022 delineation reports prepared by WSP (formerly Ecology and Environment). August 2022 Addendum prepared by Tetra Tech, environmental consultant for the Applicant. Agency involvement: Ecology site visit October 2020	Y
Wildlife Habitat Management Plan	Planned for spring 2023	To be prepared by: Tetra Tech, environmental consultant for the Applicant.	N

		Agency involvement: The Plan will be prepared in compliance with Klickitat County's CAO and in coordination with Klickitat County and WDFW representatives.	

☐ **Check this box when all proposed studies for this topic are completed**

4.8.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
U.S. Fish and Wildlife Service (USFWS) Federally Listed Plant Species	No federally listed threatened, endangered, or candidate plant species are known to occur within Klickitat County (USFWS 2023).
Washington Natural Heritage Program (WNHP) Special Status Vascular Plants	One special status vascular plant species, the state threatened foxtail mousetail (*Myosurus alopecuroides*), was identified during surveys conducted for the Project (Attachment F). Approximately 700 foxtail mousetail were observed and documented within three small (0.015 acre) vernal pools in the central portion of the Project Study Area. Further details on this population are presented in Attachment F.
Vegetation Types / WDFW Priority Habitats	Habitat/vegetation communities mapping was conducted by Tetra Tech. Six habitat types within the Project Study Area were identified (Attachment A-1, Figure 8; Attachment C): • Agriculture, pasture, and mixed environs • Dwarf shrub-steppe • Eastside (Interior) grasslands • Eastside (interior) riparian-wetlands • Ponderosa pine forest and woodlands (includes eastside oak) • Urban and mixed environs

Table 4.8-1 lists the acres of each habitat type mapped within the Project Study Area. Four of the habitat types that occur (i.e., dwarf shrub-steppe, eastside [interior] grassland[4], eastside (interior) riparian-wetlands[5], and ponderosa pine forest and woodlands [includes eastside oak]), are listed as Priority Habitats by the WDFW (WDFW 2008). See the Habitat and General Wildlife Survey Report (Attachment C) for additional details on habitat types observed within the Project Study Area as well as their distribution within the area.

In addition to the six habitat types listed above, 23 wetlands and 14 stream segments were mapped within the Project Study Area; these features are discussed in Section 4.3 of the ASC, as well as the Wetland Delineation Reports and Addendum (Attachment E), and therefore are not included in habitat data presented in Table 4.8-1.

Table 4.8-1. Habitat Types Mapped within the Project Study Area

Habitat Type	Acres within Project Study Area	Percent of Project Study Area
Agriculture, pasture, and mixed environs	1,727	86
Dwarf shrub-steppe[1/]	228	11
Urban and mixed environs	24	1
Eastside (Interior) Riparian-Wetlands[1/]	21	1
Ponderosa pine forest and woodlands (includes eastside oak) [1/]	11	1
Eastside (interior) grasslands [1/]	<1	<1
Total[2/]	**2,011**	**100**

1/ Listed as Priority Habitat by the WDFW (WDFW 2008).
2/ Totals may not sum exactly due to rounding.

Noxious Weeds and Invasive Plants

Twelve state- and county-listed noxious weeds were observed in the Project Study Area during botanical surveys conducted for the Project:

- Bull thistle (*Cirsium vulgare*)
- Canada thistle (*Cirsium arvense*)

[4] This habitat type is referred to as eastside steppe in the WDFW PHS list (WDFW 2008).
[5] This habitat type is referred to as riparian in the WDFW PHS list (WDFW 2008).

	• Cereal rye (*Secale cereale*) • Evergreen blackberry (*Rubus laciniatus*) • Field bindweed (*Convolvulus arvensis*) • Jointed goatgrass (*Aegilops cylindrica*) • Medusahead (*Taeniatherum caput-medusae*) • Reed canarygrass (*Phalaris arundinacea*) • Rush skeletonweed (*Chondrilla juncea*) • Sulphur cinquefoil (*Potentilla recta*) • Ventenata (*Ventenata dubia*) • Yellow toadflax (*Linaria vulgaris*) The Botanical and Vegetation Communities Survey Report (Attachment F) provides additional details on the noxious weeds observed within the Project Study Area. In addition to the twelve noxious weeds, several other non-native, invasive plant species, including bulbous bachelor's button (*Centaurea cyanus*), bulbous bluegrass (*Poa bulbosa*), cheatgrass (*Bromus tectorum*), common stork's bill (*Erodium cicutarium*), prickly lettuce (*Lactuca serriola*), soft chess (*Bromus hordeaceus*), and yellow salsify (*Tragopogon dubius*) were commonly observed within the Project Study Area. Appendix C of the Botanical and Vegetation Communities Survey Report (Attachment F) provides a list of all vascular plant species observed within the Project Study Area and notes whether each species is native or non-native.

4.8.C Changes to and from Existing Condition

4.8.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ **No**	☒ **Yes**	
	Topical Area/issue	**Changes**
	USFWS Federally Listed Plant Species	As noted in Section 4.8.B, no federally listed or candidate plant species are known to occur in Klickitat

		County; therefore, federally listed plant species will not be affected by the Project.
	WNHP Special Status Vascular Plants	As noted in Section 4.8.B, one special status vascular plant species, the foxtail mousetail, was identified during surveys conducted for the Project (Attachment F). The Project has been sited to provide a 200-foot buffer around the three vernal pools where the foxtail mousetail was observed. Therefore, no direct impacts to these plants are anticipated from construction and operation of the Project. However, indirect impacts may occur during construction from dust and/or stormwater runoff and sedimentation.
	Vegetation Types / WDFW Priority Habitats	Construction of the Project will result in permanent and temporary impacts to vegetation, as well as alterations to vegetation within the solar array's perimeter fence lines during the life of the Project. Temporarily disturbed areas will be revegetated in accordance with a Vegetation and Weed Management Plan that will be developed and submitted to EFSEC in coordination with EFSEC, WDFW, and the County prior to construction. Operation of the Project will result in the alteration and management of vegetation within the perimeter fences protecting the solar arrays. Altered habitat impacts include lands within the perimeter fence lines minus any areas occupied by permanent Project structures. These areas will be revegetated at the conclusion of construction activities with low-growing native species and/or a mix of native and desirable non-native, non-invasive species (i.e., species that would provide more rapid soil stabilization and vegetative cover than slower growing native species), to be identified in coordination with WDFW. The Vegetation Management Plan will describe the revegetation methods for the Project. Table 4.8-2 lists the estimated acres of temporary and permanent impacts to habitat types and the acres of altered habitat from construction and operation of the Project. The vast majority of impacts would occur to agriculture, pasture, and mixed environs habitat types, as this habitat type occurs within 86% of the Project Study

		Area. As shown in this table, up to 0.3 acres of eastside (interior) grassland will be temporarily impacted by Project construction, but no acres of this habitat type are anticipated to be impacted permanently or altered by Project operations. Up to approximately 22 acres of dwarf shrub-steppe habitat will be temporarily impacted by Project construction and up to approximately 34 acres will be altered; approximately 1 acre would be permanently impacted during operation. The estimated acres of impact on each habitat type provided in Table 4.8-2 are based on the current Project design (Attachment A-2, Figure 2). However, as discussed in Part 2, the exact locations of Project components may be revised during final Project design. However, any relocations made to the Project layout will be designed to avoid or minimize impacts to special status species, Priority Habitats, wetlands and streams to the extent practical, and to comply with any conditions imposed in the Site Certification Agreement. The Project has already been designed to avoid eastside (interior) riparian-wetlands and ponderosa pine forest and woodlands (including eastside oak).Therefore, these Priority Habitats will not be affected by the Project, and any subsequent revisions to the Project layout will continue to avoid these habitat types. Part 4, Section 4.9 contains additional information regarding impacts to habitat including those classified as Priority Habitats by the WDFW.

Table 4.8-2. Anticipated Impacts to Habitat Types from the Project

Habitat Type	Temporary Impacts (Acres)[1/]	Altered Habitat Impacts (Acres)[2/]	Permanent Impacts (Acres)[3/]	Total[4/]
Agriculture, pasture, and mixed environs	209.3	1,020.5	39.2	**1,269.0**
Dwarf shrub-steppe	21.6	34.2	0.9	**56.1**
Urban and mixed environs	0	0	0	**0**
Eastside (Interior) Riparian-Wetlands	0	0	0	**0**
Ponderosa pine forest and woodlands (includes eastside oak)	0	0	0	**0**
Eastside (interior) grasslands	0.3	0	0	**0.3**
Total[4/]	**231.2**	**1,054.7**	**40.1**	**1,325.9**

1/ Temporary impacts include areas outside the fence that are disturbed during construction and restored to pre-construction conditions once construction is complete including temporary access roads and laydown areas. .

2/ Altered habitat impacts are defined as impacts within the fence that do not have a permanent structure placed directly on top and would be restored once construction is complete or would not be disturbed by construction activities. Altered impacts would include the areas under the solar panels..

3/ Permanent impacts include permanent infrastructure (e.g. facilities, permanent access roads, support posts, concrete pads, and the employee parking area)..

4/ Totals may not sum exactly due to rounding.

	Noxious Weeds and Invasive Plants	Soil disturbance and the subsequent removal of vegetation during construction will increase the potential for the spread of noxious weeds and invasive species. The movement of construction and operation equipment and personnel also increases the potential for introduction and spread of noxious weed and invasive plant species. However, with the implementation of BMPs such as flagging the limits of construction to minimize vegetation removal and ground disturbance, and implementing measures described in the Vegetation and Weed Management Plan (see Part 4, Section 4.8.D), which will include methods for effective weed control and revegetation, the Project is not expected to result in a significant increase in the introduction and spread of noxious weeds and invasive species. The Project will comply with RCW 17.10.140 in controlling the spread of noxious weeds.

4.8.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	WNHP Special Status Vascular Plants Vegetation Types / WDFW Priority Habitat Types	As noted in Part 2, Section A.2, the Applicant is requesting flexibility to microsite the Project components anywhere within the 1,326-acre MPE. As noted in Section 4.8.C.1, the Applicant has committed to providing a 200-foot buffer around the three vernal pools where foxtail mousetail were observed. The Applicant has also committed to avoiding impacts to the eastside (interior) riparian- wetlands and ponderosa pine forest and woodlands (including eastside oak) Priority Habitat types. Any subsequent revisions to the Project design would continue to avoid impacts to the foxtail mousetail and these two Priority Habitat types. In addition, during final design, the Applicant will minimize the impacts to dwarf shrub-steppe and eastside (interior) grassland Priority Habitats to the extent possible.

4.8.D Proposed Mitigation and Monitoring

☐ **Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.**

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Avoidance and Minimization Measures	During siting and design, the Applicant has taken several measures to avoid and minimize impacts to botanical resources. The Applicant has planned the Project to minimize impacts to Priority Habitats to the extent possible. As described above, the	WDFW

		Applicant also has sited the Project to avoid the foxtail mousetail documented during surveys.	
	Habitat Management Plan	Per WAC 463-60-332(3), the Applicant will prepare a Draft Habitat Management Plan. This plan will provide details regarding habitat avoidance and minimization measures proposed for the Project, as well as mitigation measures for impacts to habitat types from Project construction and operation including impacts to "habitats and species of local importance" (e.g., shrub-steppe habitat). A Final Habitat Management Plan will be prepared in consultation with WDFW prior to construction.	WDFW
	Revegetation and Noxious Weed Control	Per RCW 17.10.140, the Applicant will develop a Vegetation and Weed Management Plan with input from EFSEC, WDFW, and the Klickitat County Noxious Weed Control Board prior to construction. Herbicide and pesticide applications will be conducted by a licensed applicator in accordance with manufacturer instructions and all federal, state, and local laws and regulations; herbicides will only be directly applied to localized spots and will not be applied by broadcasting techniques (RCW 17.21).	EFSEC, WDFW, Klickitat County Noxious Weed Control Board
	BMPs	The Applicant will implement the Project's ESCP, Construction SWPPP, and Permanent Stormwater Control Plan. These plans will help reduce erosion and impacts to vegetation.	Ecology; WDFW

4.8.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ No	☐ Yes	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.8.F References

USFWS. 2023. IPaC – Information for Planning and Consultation: Species list for Klickitat County. Available online at: https://ipac.ecosphere.fws.gov/location/7RLUZ272NBBRZFFEG2URWJIQTA/resources

WDFW (Washington Department of Fish and Wildlife). 2008. Priority Habitats and Species List. August 2008, Updated March 2022. Available online at: https://wdfw.wa.gov/species-habitats/at-risk/phs/list.

4.9 Animals

4.9.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	**Expected completion date**	**Expert agency participation** **Name, Title, and Involvement**	**Completed** **Y/N**
Critical Issues Analysis	Completed *August 2018*	Prepared by: TRC Environmental; environmental consultant for the Applicant.	Y
Raptor Nest Survey Report (Attachment D)	Completed *October 2022*	Prepared by: Tetra Tech; environmental consultant for the Applicant. Agency involvement: WDFW provided feedback on survey protocols and special status species in the Project vicinity.	Y
Habitat and General Wildlife Survey Report (Attachment C)	Completed *October 2022*	Prepared by: Tetra Tech; environmental consultant for the Applicant. Agency involvement: WDFW provided feedback on survey protocols and special status species in the Project vicinity.	Y
Botanical and Vegetation Communities Survey Report (Attachment F)	Completed *October 2022*	Prepared by: Tetra Tech; environmental consultant for the Applicant. Agency involvement: WDFW provided feedback on survey protocols and special status species in the Project vicinity.	Y
Wetland Delineation Reports and Addendum (Attachment E)	Completed *December 2021, January*	Prepared by: December 2021 and January 2022 delineation reports prepared by WSP (formerly Ecology and	Y

	2022, August 2022	Environment), environmental consultant for the Applicant. August 2022 Addendum prepared by Tetra Tech; environmental consultant for the Applicant. Agency involvement: Ecology site visit October 2020	
Wildlife Habitat Management Plan	Planned for spring 2023	To be prepared by: Tetra Tech; environmental consultant for the Applicant. Agency involvement: The Plan will be prepared in compliance with Klickitat County's CAO and in coordination with Klickitat County and WDFW representatives.	N

☐ **Check this box when all proposed studies for this topic are completed**

4.9.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Habitat Types	In consultation with WDFW and in compliance with WAC 463-60-332(1), the Applicant completed a Wildlife and Habitat Survey in 2022 (Attachment C). Six habitat types were mapped within the Project Study Area (Attachment C): (i) agriculture, pastures, and mixed environs; (ii) dwarf shrub-steppe; (iii) eastside (interior) grasslands; (iv) eastside (interior) riparian-wetlands; (v) ponderosa pine forest and woodlands (includes eastside oak); and (vi) urban and mixed environs. Four of the six habitat types mapped within the Project Study Area are considered Priority Habitats or Priority Habitat Features by WDFW, including dwarf shrub-steppe (i.e., shrub steppe), eastside (interior) riparian-wetlands (i.e., riparian), ponderosa pine forest and woodlands (includes eastside oak (i.e., Oregon white oak woodlands), and eastside (interior) grasslands (i.e., eastside steppe) (WDFW 2008). A total of approximately 260 acres (13 percent of the Project Study Area) consisted of Priority Habitats. In addition to these habitat types, 18 wetlands, 5 vernal pools and 14 stream segments were mapped within the Project Study Area (Attachment E). Habitat types were adapted from the habitat descriptions in Wildlife-Habitat Relationships in Oregon and Washington (Johnson and O'Neil 2001), Ecological Systems of Washington State, A Guide to Identification (Rocchio and Crawford 2015), the WDFW PHS List (WDFW 2008), and the WDFW Wind Power Guidelines (WDFW 2009).
Threatened Endangered and Sensitive Species	Six federally listed threatened, endangered, or candidate animal species have the potential to occur within Klickitat County: gray wolf (*Canus Lupis*; federally and state endangered), northern spotted owl (*Strix occidentalis caurina*; federally threatened), yellow-billed cuckoo (*Coccyzus americanus*; federally threatened, state endangered), Oregon spotted frog (*Rana pretiosa*; federally threatened, state endangered), bull trout (*Salvelinus confluentus*; federally threatened) and the monarch butterfly (*Danaus plexippus*; federal candidate species); Attachment C; USFWS 2022). The Project Study Area does not contain USFWS-designated critical habitat for any of these species and none of these species were observed during the surveys within the Study Areas

	(Attachment C). Four of the federally listed species (northern spotted owl, yellow-billed cuckoo, Oregon spotted frog, and bull trout) are not likely to occur in the Project Study Area based upon their range and habitat requirements. The WDFW PHS database identified occurrences of three Priority Species near the Project Study Area: wild turkey (*Meleagris gallopavo; priority species),* mule deer (*Odocoileus hemionus*; priority species), and western gray squirrel (*Sciurus griseus*; state threatened; Attachment C; WDFW 2021). All of the known occurrences were outside but within 0.5 miles of the Project Study Area. A western gray squirrel concentration with many known nest sites is described in the WDFW database as abutting the northeastern Project boundary (WDFW 2021). State-listed threatened, endangered, and sensitive wildlife species observed within Project Study Areas include ferruginous hawk (*Buteo regalis*, state endangered) and mule deer observed within the Project Study Area, and wild turkey and western gray squirrels observed near the Project Study Area. Attachment C includes a list of special-status wildlife with potential to occur in the Project vicinity. As discussed further below in Section 4.9.C.1, the Project has been designed to minimize impacts to state-listed threatened, endangered, and sensitive wildlife species. As a result, impacts from the Project are expected to be minimal.
Big Game Movement Corridors	As described above and in Attachment C, mule deer have been identified within and adjacent to the Project Study Area. Mule deer habitat within the Project Study Area was reviewed to identify potential migration corridors (see Attachment C, Figure 4, and Attachment A-1, Figure 9). Mule deer are common throughout much of eastern Washington State and their year-round range overlaps with the Project Study Area (WDFW 2016). Mule deer habitat use in the Columbia Plateau ecoregion is associated with shrub-steppe and other undisturbed vegetation that provides both year-round and seasonal habitat for fawning and fawn rearing, migration corridors, foraging, and escape cover. The juxtaposition of remaining natural habitats with wheat or hay farmland across parts of the Columbia Plateau provide a matrix of edge, cover, and forage areas beneficial to mule deer (WDFW 2016). WDFW identifies mule deer migration corridors and riparian zones and high moisture bottomlands as key habitat components for mule deer. WDFW considers retention, protection, and enhancement of these limited natural areas to be a high priority. Migration corridors provide opportunities to escape from predators and ensure connectivity between key habitats. Riparian zones and high moisture bottomlands are very

	limited across the Columbia plateau ecoregion and are particularly important to lactating does raising fawns. During the hot, dry summers, these habitats provide lactating does the highest quality forage available, unless they have access to irrigated hay or alfalfa. The riparian zones and high moisture bottomlands tend to shrink in size as the summer growing season progresses, limiting availability of these habitats even further (WDFW 2016). To help address WDFW's concern regarding potential impacts to mule deer, mule deer habitat was evaluated and potential movement corridors were mapped. The nearest Habitat Concentration Areas (HCAs) for mule deer per the Washington Connected Landscapes Project are more than five miles from the Project Study Area (WHCWG 2012). As shown in Attachment C, Figure 4, the majority of mule deer corridors identified in the Project Study Area were mapped in the eastside (interior) riparian-wetlands and adjacent dwarf shrub-steppe habitat types in the southern and central portions of the Project Study Area. Mule deer corridors were also mapped in ephemeral drainages within the Project Study Area that may facilitate mule deer movement within and through agricultural areas. The limited amount of mule deer sign observed in the Project Study Area and the small number of mule deer observed (9 individuals) during the raptor, habitat, sensitive plant, and wildlife surveys, suggests that there may be a low concentration of mule deer using the Project Study Area, at least during the spring months.
General Avian Species and Raptor Nests	The Project Study Area currently supports suitable nesting and foraging habitat for avian species. Use of the Project Study Area by general avian species was documented during the Habitat and General Wildlife Survey (see Attachment C). Forty-three birds species were observed during the survey. The greatest bird diversity was observed in the oak woodlands in the northeast and east central areas in and just outside the Project Study Area. American crows (*Corvus brachyrhynchos*), nesting common ravens (*Corvus corax*), downy woodpeckers (*Picoides pubescens*), Lewis's woodpeckers, nesting European starlings (*Sturnus vulgaris*), hermit thrush (*Catharus guttatus*), juniper titmouse (*Baeolophus ridgwayi*), mountain bluebird (Sialia currucoides), northern flickers (*Colaptes auratus*), orange-crowned warblers (*Ermivora celata*), and nesting Swainson's hawks (*Buteo swainsoni*) were observed in this habitat. In eastside (interior) grasslands and agriculture, pastures, and mixed environs, western kingbirds (*Tyrannus verticalis*), Brewer's blackbirds (*Euphagus cyanocephalus*), horned larks (*Eremophila alpestri*), mourning doves (*Zenaida macroura*), black-billed magpies (*Pica*

	hudsonia), western bluebirds (*Salia Mexicana*), and western meadowlarks (*Sturnella neglecta)* were observed. Killdeer (*Charadrius vociferus*) and long-billed curlews (*Numenius americanus*) flew over a pasture. Red- winged blackbirds (*Agelaius phoeniceus*) and yellow-rumped warblers (*Dendroica coronata)* were detected in riparian areas, and mallards, Canada geese (*Branta canadensis*), and a great blue heron were seen flying from the pond near the WDFW hatchery. American crows *(Corvus brachyrhynchos*), American goldfinches (Spinus tristis), American robins (*Turdus migratorious*), California quail (*Callipepla californica*), house finches *(Haemorhous mexicanus*), house sparrows (*Passer domesticus*), mourning doves (*Zenaida macroura*), and yellow warblers (*Setophaga petechia*), were detected near residential areas. The Applicant conducted ground-based raptor nest surveys during the 2022 breeding season (see Attachment D). Prior to the survey, WDFW concurred with the survey timing and survey approach and acknowledged that sensitive raptor species were not expected to nest in the Project Study Area and no significant raptor issues were anticipated. Eighteen nests were detected during the surveys, including one in-use Swainson's hawk (*Buteo swainsoni)* nest, two in-use red tailed hawk (*Buteo jamaicensis*) nests, two in-use great horned owl (*Bubo virginianus*) nests, two in-use common raven nests, and 11 small inactive nests with unknown species determinations. Suitable nesting habitat within the Project Study Area was primarily limited to conifer forests, riparian shrub and woodlands, and utility structures. Sixteen of the nests were in trees (12 in broadleaf trees, three in conifer trees, and one in a snag) and two were on utility structures. No cliffs or rock outcrops were observed within the Project Study Area. No eagles or federally listed threatened or endangered species were documented during the raptor nest surveys. A ferruginous hawk (state endangered) was observed perching on top of a small tree in the southern portion of the Project Study Area during the initial survey (March 29, 2022). No breeding behavior was observed and because the Project is outside their breeding range, the ferruginous hawk was likely migrating through the area. Ferruginous hawk nesting territories are only known to occur in eastern Klickitat County (Hayes and Watson 2021).

4.9.C Changes to and from Existing Condition

4.9.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Habitat Types	Eastside (interior) riparian- wetlands and ponderosa pine forest and woodlands (includes eastside oak) habitat types have been avoided, thus minimizing impacts to mule deer and other special status species associated with these habitat types. Furthermore, impacts to shrub-steppe have been avoided and minimized to the extent feasible (See Table 4.8-2 in Section 4.8 above), thus minimizing impacts to special status species associated with this WDFW Priority Habitat type.
	Threatened Endangered and Sensitive Species	The Project has been designed to avoid or minimize impacts to habitats associated with special status species that were observed during surveys and/or are known to occur in the Project vicinity. The Project footprint was modified to avoid western gray squirrel habitat. Known nesting habitat will be protected by a permanent year-round 50-foot buffer and a seasonal 400-foot buffer from March 1 to August 31 to protect squirrels from disruptive activities during the breeding season, as recommended by WDFW (Linders et al. 2010). Federally threatened and endangered wildlife species are not anticipated to occur within the Project Study Area, and the Project does not contain USFWS-designated critical habitat.
	Big Game Movement Corridors	The Project design allows for wildlife corridors and passages for mule deer and other animals. The solar panels will be enclosed in several smaller fenced areas, rather than one big enclosure, which will allow for wildlife movement through the area. The fence perimeter was also designed to maintain open access to the ephemeral drainages that are used by mule deer (see Attachment C and Attachment A-1, Figure 9) for movement corridors as well as for water sources.

	General Avian Species and Raptor Nests	Direct habitat loss will occur from the development of the Project, and habitat fragmentation may reduce the functionality of this area for birds. However, most of the solar array will be located in disturbed habitat and an abundance of similar agricultural lands in the vicinity of the Project remain available to provide habitat for avian individuals potentially displaced from the Project. The breeding season for most bird species in the vicinity of the Project is from late February to early August. Ground disturbance and removal of vegetation during the breeding season can result in destruction of nests and injury or death to birds or eggs. To avoid construction-related impacts to nesting birds, nest clearance surveys will be conducted prior to ground disturbing activities if construction activities occur during the breeding season. Some level of disturbance of foraging and nesting birds will result from regular human presence at the Project; however, it is unlikely that this level of disturbance would exceed the level of disturbance that is currently ongoing due to agricultural activities. Noise and human activity associated with construction activities may temporarily displace birds from the Project Study Area or cause them to forage less efficiently than in the undisturbed habitat. During operation, human activity within the Project Study Area will primarily consist of employees operating light-duty trucks and other light equipment for maintenance and PV module washing. Heavy equipment will not be used during normal Project operation. Large or heavy equipment may be brought to the facility infrequently for equipment repair or replacement or for vegetation control. Altered habitat under the panels will most likely support recolonizing small animals with the revegetation of the site. Overhead power lines required to connect the Project to the grid will be designed and constructed to minimize avian electrocution, according to guidelines outlined in Avian Power Line Interaction Committee standards (APLIC 2012). new overhead transmission line construction will be limited to an overhead collection line within the existing Klickitat County right-of-way along Knight Road, an approximately 500-foot-long overhead 500-kV transmission line that would connect the Project substation to the existing Knight Substation, and some sections of the Project's collector line network between the solar

		array areas where trenching or directionally drilling the line is not feasible or practical (e.g. stream crossings, existing transmission line crossings, etc.). Therefore, collision risks associated with overhead transmission line structures is not anticipated to be a significant risk. Given the static and highly visible nature of the solar panels and other associated structures, birds are not expected to collide with Project structures during daytime foraging activities when they may be hovering or flying in search for prey. However, some collisions are not well understood. Given the limited peer-reviewed papers available, it is unknown if the pattern of water-associated and water-obligate birds at photovoltaic solar facilities is unique to one facility or widespread among facilities (Kosciuch et al. 2020). There are few open bodies of water in the vicinity of the Project Study Area and, few waterfowl or other water birds were observed during on-site field surveys.

4.9.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☐ **No**	☒ **Yes**	
	Topical Area/issue	**Changes**
	Habitat Types	As described in Part 4, Section 4.8 (Plants), the Project will result in three types of impacts to habitat—temporary, altered, and permanent—where Project construction and operations will occur. Table 4.8-2 in Part 4, Section 4.8 (Plants) lists the estimated acres of temporary, altered, and permanent impacts to the various habitat types that will result from the Project's construction and operation based on the current Project design (Attachment A-2, Figure 1). However, the exact locations of Project components may be shifted or revised during final Project design and thus impacts from the Project potentially could occur anywhere within the MPE. However, any relocations made to the Project layout will be designed to avoid or minimize impacts to special status species, Priority Habitats, wetlands and streams to the extent practical, and to comply with any conditions imposed in the Site Certification Agreement. The Project has already been designed to avoid eastside (interior) riparian-wetlands and

		ponderosa pine forest and woodlands (includes eastside oak) habitat types and therefore, these Priority Habitats will not be affected by the Project, and any subsequent revisions to the Project layout will continue to avoid this habitat type.

4.9.D Proposed Mitigation and Monitoring

☐ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	**☒ Yes**		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Habitat Types	The temporary, permanent, and altered habitat impacts as well as the associated Project mitigation needs will be identified in the Draft Habitat Management Plan. The values may be adjusted in coordination with EFSEC and with input from WDFW. A Final Habitat Management Plan will be prepared in consultation with WDFW prior to construction.	WDFW

4.9.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ No	**☐ Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	

4.9.F References

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4.10 Water Quality – Energy and Other Natural Resources

Part 4 analysis is not required for this section.

4.11 Waste Management

Part 4 analysis is not required for this section.

4.12 Environmental Health – Existing Site Contamination

Part 4 analysis is not required for this section.

4.13 Environmental Health – Hazardous Materials

4.13.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Phase I Environmental Site Assessment	Completed January 2022	WSP	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.13.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Hazardous Materials	As described in Part 3.12.a, a Phase I Environmental Site Assessment was completed for the Project (Attachment M). The Phase I ESA was conducted in accordance with the U.S. Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries as required under Section 101(35)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act and referenced in Title 40 Code of Federal Regulations, Part 312; and the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13). One recognized environmental condition (REC) in connection with the subject property was identified. A debris pile consisting of tires, empty paint cans, and various scrap metal was identified on parcel 04151200000300 along a stream channel near the central portion of the parcel. No stains or odors were observed, but the report identifies the empty paint cans could have potentially contained lead-based paint.

	However, although this debris pile is inside the Project Site Control Boundary, it is outside of the proposed MPE and would not be impacted or disturbed by Project construction. No hazardous materials are known to be stored currently in the MPE. The MPE was historically used for agriculture. Therefore, it is likely that application of fertilizers, pesticides, and herbicides occurred. It is assumed that these applications were consistent with manufacturer guidance and in a manner consistent with typical agricultural practices. Risks to health and the environment associated with ground disturbance are assumed to be low.
Risk of Fire	Although no large fires are recorded as having occurred on the Project site in the past 50 years, there is a history of large fires in the region. The DNR database of large fires from 1973 to 2020 (DNR 2021) identifies multiple fires over 500 acres having occurred within 10 miles of the Project, including the 2011 Monastery Complex, 1992 Snookum, 2015 Davies Pass, 2018 Milepost 90, 2011 Wishram III, and other unnamed fires. However, all of these fires occurred in typically uninhabited forested and open grassland habitats, and the fires are not associated with the habitats and human settlement patterns in the Project vicinity. Risk of wildfire in the vicinity of the Project is low.
Emergency Plans and Services	The Project is located within Klickitat County Fire Protection District 7. Prior to construction, the Project will develop and maintain a site-specific Emergency Management Plan that will include BMPs for fire prevention. The Applicant will coordinate with Klickitat County Department of Emergency Management and Fire Protection District 7, as well as with Klickitat County Sheriff's Office and DNR Wildland Fire Management Division. The Klickitat County Department of Emergency Management has developed a Multi-Hazard Mitigation Plan (Klickitat County 2020) as well as a Community Wildfire Protection Plan (Klickitat County 2018) and emergency management plans.

4.13.C Changes to and from Existing Condition

4.13.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Risk of Fire or Explosion	There is a potential risk of fire from wildfires originating outside of the Project. To minimize that risk, the Applicant will monitor seasonal regional wildfire activity and coordinate as needed with Klickitat County Department of Emergency Management and Fire Protection District No. 7. If necessary, the Project will modify Project construction or operations activities or take other actions requested by emergency service providers. While the Project itself may be damaged in the event of a wildfire spreading across the site, the Project will not significantly change the risk posed by wildfire to the surrounding community. There will be minimal fuels stored on site during operations, and equipment will be designed to reduce the potential for fire damage. The risk of fire originating from the Project will be low. The site layout provides a 20-foot fire break from the fence line to the closest solar array. Project access roads will be sized appropriately for emergency vehicle access, with a width of 16 to 20 feet. BMPs will be implemented during construction and operations, including use of spark arrestors on power equipment, avoiding driving vehicles off roads, and allowing smoking in designated areas only. Specific fire-related BMPs will be outlined in a Fire Control Plan, which will be made available to the Klickitat County Department of Emergency Management and Fire Protection District 7. The O&M building will be equipped with fire extinguishers as well as smoke detectors tied to the supervisory control and data acquisition (SCADA) system. In addition to fire extinguishers, the O&M building will have basic firefighting equipment for use on-site during maintenance activities including shovels, beaters, portable water for hand sprayers, and personal protective equipment. The Project BESS will consist of self-contained storage modules placed in racks and will include a cooling system. The facility will

		contain a fire suppression system in accordance with fire code and National Fire Protection Association (NFPA) Standards, specifically NFPA 855 “Standard for the Installation of Stationary Energy Storage Systems” in order to minimize the potential for the BESS to be a flammable source if the lithium-ion system overheats. The system will include monitoring equipment and alarm systems with remote shut-off capabilities. Additionally, the BESS will be mounted on a cement pad that will be encircled with a gravel buffer. Oil-based materials will be used and stored in accordance with the SPCC Plan, applicable regulations, and best practices during both construction and operation of the Project. The amount of petroleum fuels or lubricating oils stored on site or used to operate equipment during construction and O&M will be minimal, further limiting any risk of fire.
	Hazardous Material Sources	During construction, small amounts of hazardous materials (e.g., petroleum-based fuels, mineral-based transformer oils, and oil-based lubricants) will be transported, stored, or used to operate equipment. Storage and use of these materials will be in accordance with the manufacturer’s specifications and applicable hazardous material regulations. These materials will be stored in compliance with a SPCC Plan consistent with requirements of 40 CFR Part 112, and WAC 463-60-205, that provides preventative procedures and rapid response measures to handle hazardous spills if one were to occur, and reduce the risk of potential soil or groundwater contamination to negligible. The handling and application of herbicides for the management of noxious weeds on site is described in the Vegetation and Weed Management Plan, which will be provided to EFSEC prior to construction. The Projects will only use herbicides approved for use in the State of Washington by the EPA and the Washington State Department of Agriculture. As needed, herbicides will be transported and applied by a licensed applicator to the Project Area but will not be stored in the Project Area.
	Emergency Plans and Services	The Emergency Management Plan (to be developed and submitted to EFSEC prior to construction) will address worker health and safety, as well as fire prevention and control measures for construction and operation. Access roads will have a compacted gravel surface, with a width of approximately 16 to 20 feet as well as the required clearance and turning radius needed for emergency response vehicles, in accordance with fire code.

4.13.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	☐ Yes	
	Topical Area/issue	**Changes**
	N/A	N/A

4.13.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Emergency Management Plan	The Emergency Management Plan will be developed for construction and operation phases, and will address worker health and safety, as well as fire prevention and control measures for construction and operation. This plan will provide safety guidelines and procedures for potential emergency-related incidents during the Project's construction, operation, and decommissioning phases. This includes coordination with emergency service providers. Applicable laws/codes include: • WAC 463-60-352 (2 through 4), which addresses fire and explosion, hazardous materials release, and safety standards compliance.	Klickitat County Department of Emergency Management, Klickitat County Sheriff's Office, Klickitat County Fire Protection District No. 7 (Goldendale Rural), and DNR Wildland Fire Management Division

		• WAC 463-60-352(6), which describes emergency plans to ensure public safety and environmental protection. • 49 CFR §173.185, which regulates the transportation of lithium-ion batteries. • 49 CFR §173.159, which regulates the transportation of lead-acid batteries. • Fire suppression and detection system in accordance with fire code and NFPA Standards, specifically NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems."	
	Best Management Practices	To minimize the risk of fire or explosions, the Project will implement Best Management Practices including: • Construction equipment will have spark-arresting mufflers, heat shields, and other protection measures to avoid starting fires. • Fire extinguishers will be available in vehicles and on equipment, and work crews would be trained in fire avoidance and response measures. • Fire suppression protocols and BMPs will be determined in consultation with the Klickitat County Fire Protection District No. 7 and outlined in the Fire Management Plan for the Project. • As appropriate, provide training to fire responders and construction staff on the codes, regulations, associated hazards, and mitigation processes related to solar electricity and battery storage system on a recurring basis during the life of the Facility. This training would also include techniques for fire suppression of PV and BESS technology. • The BESS will contain a fire suppression system in accordance with fire code and National Fire Protection Association (NFPA) Standards, specifically NFPA 855 "Standard for the Installation of	Klickitat County Sheriff's Office, Klickitat County Fire Protection District No. 7 (Goldendale Rural)

		Stationary Energy Storage Systems." The system would include monitoring equipment and alarm systems with remote shut-off capabilities.	
	Environmental Health Plan	An Environmental Health Plan will be established, implemented, and maintained for the duration of the proposed Project. The Environmental Health Plan will include the identification, removal, and off-site transportation and disposal of any hazardous material contamination and residuals on the property of the Project.	
	Hazardous Materials	Any hazardous materials used during construction activities will be stored and used in accordance with the manufacturer's specifications and applicable hazardous material regulations; Material Safety Data will be available to all personnel at the construction yard. Hazardous material spills will be recorded in the SWPPP and reported to the regulatory authorities as required.	
	Public Safety Standards	The Applicant will prepare a Construction and O&M SPCC Plan, consistent with requirements of 40 CFR Part 112, to prevent spills during construction and to identify measures to expedite the response to a release if one were to occur. Preventive procedures and rapid response measures will address/prevent potential water quality issues.	Ecology
	Use of approved herbicides	If herbicides are used as part of activities conducted for weed control in compliance with RCW 17.10.140, application will be in compliance with RCWs 15.58 and 17.21.	Ecology and the Klickitat County Noxious Weed Control Board

4.13.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ No	☐ Yes	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.13.F References

DNR (Washington Department of Natural Resources). 2021. Washington Large Fires 1973-2020 download link. Washington Department of Natural Resource GIS Open Data Available online at: https://data-wadnr.opendata.arcgis.com/documents/washington-large-fires-1973-2020-download/about. Accessed January 11, 2023.

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4.14 Land Use, Natural Resource Lands, and Shoreline Compatibility

4.14.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Land Use Consistency Review, Attachment B	February 2023	Tetra Tech, consultant to the Applicant	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.14.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

See Attachment B, Land Use Consistency Review which provides an overview of existing conditions and issues for this resource.

4.14.C Changes to and from Existing Condition

4.14.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Changes to land use	The Project would result in a change in land use by introducing solar power generation facilities to private property in unincorporated Klickitat County that is designated for agricultural and rural use. Existing land uses in the Project Study Area include mostly dryland agriculture (with some irrigated agriculture), rangeland, undeveloped areas, local roads, electrical infrastructure (e.g., transmission and distribution lines, and substations), and scattered unoccupied structures (e.g., agricultural storage). Land uses in the general

		vicinity of the Project Study Area include similar uses as well as rural residential development, the Goldendale Fish Hatchery and adjacent WDFW lands, DNR lands, rangelands, State Route 142, and the BPA Knight Substation. The Project has been designed to cluster the Project infrastructure within defined boundaries, leaving other areas outside of the Project MPE open and available for open space, agriculture and other uses permitted by the County. The Project will not affect or be affected by land uses on nearby or adjacent properties, including adjacent working farmland. Potential indirect impacts to surrounding agricultural activities such as dust, traffic, or spread of noxious weeds, will be avoided and minimized through the implementation of best management practices, detailed further in Part 2 Section A.5. Minimal traffic impacts are expected during operation for the up to three maintenance employees.
	Electrical Infrastructure / Electrical Generation Capacity and Service	The Project will be a new source of clean, renewable electricity. The Project is designed to take advantage of the region's solar energy resources and adjacent transmission interconnection with the existing BPA transmission system. The existing BPA transmission system has sufficient capacity to carry the output of the Project. In addition, construction of this renewable energy resource will help Washington meet its clean electricity goals as set forth in the 2019 Clean Energy Transformation Act (CETA, RCW 19.405), and the 2021 Climate Commitment Act (CCA, RCW 70A.65).
	Klickitat County Comprehensive Plan Designation	The Project Study Area is designated as "agricultural/forest" (AF) in the General Land Use Plan in Section 3 of the Klickitat County Comprehensive Plan (KCCP). Both Extensive Agriculture (EA) and General Rural (GR) zoning districts are included within areas designated as AF in the KCCP. As discussed in detail in Section 2.2 of Attachment B, under applicable County zoning, the Project is a conditional use within the Extensive Agriculture (EA) District and General Rural (GR) Zone. As defined in KCC 19.04.160, a conditional use is "permitted when authorized by the board of adjustment and subject to the imposition of reasonable conditions and/or restrictions which, when imposed, renders the use compatible

		with the existing and potential uses in the vicinity which are permitted outright." An analysis of the existing and potential uses in the Project area and vicinity and the Project's compatibility with these uses is provided in Attachment B, Land Use Consistency Review. The Project will impact approximately 70 acres of irrigated farmland, and 1,152 acres of arable land with moderate to low inherent crop productivity (see Section 3.1.7 of Attachment B). Several of the participating landowners currently farm lands adjacent to the Project Study Area and will continue to farm these lands during construction and operation of the Project. The income generated through lease payments to these property owners will supplement their farming incomes and increase the economic viability of continuing their ranching and farming practices in this area. The solar use will not conflict with agricultural activities because operation of a solar energy facility requires minimal on-site activities and staff. Regarding the Project's potential indirect impacts to surrounding agricultural activities, best management practices, detailed further in Part 2, Section A.5 of this ASC, will be implemented and maintained as needed to avoid and minimize these potential impacts. Once commissioned, the Project will be largely self-sufficient except for routine operations and maintenance activities by up to three operations employees. Although the Project will temporarily remove lands within the fenced solar arrays from agricultural production, at the end of the life for the Project, all equipment will be removed, and the land will be restored to substantially the same condition it is at present and be suitable for continued agricultural production. Klickitat County Code (KCC 19.02.030) provides that "it is the objective of the county to provide for the highest and best use of lands consistent with the needs of most people. Changing conditions and requirements dictate that a flexible policy be exercised within the framework of this title". The county code allows agricultural uses and clean energy uses within the Project area, through adoption of an EOZ (where the majority of the Project is located) overlaid on the EA and GR districts, and by allowing utility facilities necessary for public service as

		a conditional use within both zones. The county has determined that these lands are well-suited to both types of use. The Comprehensive Plan also includes goals and policies specific to Natural Resources/Energy which encourages energy development in locations within Klickitat County that take advantage of the County's energy resources, existing infrastructure, and are sited to minimize environmental impacts. The Project implements the Natural Resources/Energy goal and associated policies, as further described in Section 2.1 of the Land Use Consistency Review (Attachment B). Other applicable KCCP goals and policies to the Project are also reviewed for consistency in Section 2.1 of the Land Use Consistency Review (Attachment B). As discussed in detail there, the Project is consistent with the overall approach to goals and policies articulated in the Comprehensive Plan.
	Klickitat County EA and GR Zoning Districts	Section 3.3 of the Land Use Consistency Review (Attachment B) discusses in detail how the proposed Project is consistent with the County's zoning code requirements that are applicable to the Project in the EA and GR zoning districts.
	Natural Resource Lands under RCW 36.70A.030	Agricultural land is defined under RCW 36.70A.030(3) as "land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, finfish in upland hatcheries, or livestock, and that has long-term commercial significance for agricultural production." Per RCW 36.70A.170(1)(a), counties shall designate where appropriate, "Agricultural lands that are not already characterized by urban growth and that have long-term significance for the commercial production of food or other agricultural products." The Project is designed to be compatible with ongoing agricultural activities. Operation of the Project will not conflict with agricultural uses on surrounding lands and represents compatible use in the EA and GR zoning districts. As stated above, the Project will be impacting only 70 acres of irrigated farmland and will impact 1,152 acres of arable land of

		moderate to low inherent crop productivity (see Section 3.1.7 of Attachment B). The Project will obtain water for construction, and operations and maintenance from existing sources. Anticipated water needs are described in Part 3, Section 6. Water Quantity – Water Use and are substantially less than typical farm operations. Section 3.1 of the Land Use Consistency Review (Attachment B) discusses further how the proposed Project is consistent with applicable Comprehensive Plan (Klickitat County 2013) goals and policies specifically related to Natural Resource Lands.
	Klickitat County Critical Areas	The Land Use Consistency Review (see Attachment B) demonstrates that the Project will comply with Klickitat County's applicable critical area regulations. Additional details regarding critical areas are provided in Part 4, Section 4.1, Section 4.3, Section 4.5, and Section 4.9.
	Shoreline Master Program	The Project location avoids all identified Shorelines of State-wide Significance and Shorelines of the State described in the Klickitat County Shoreline Master Plan (Klickitat County 2007) and identified in WAC 173-18-240. Furthermore, the streams and wetlands within the Project Study Area do not meet the definition of "shorelines" in the Klickitat County Shoreline Master Plan or RCW 90.58 as they are "upstream of a point where the mean annual flow is 20 cubic feet per second or less" (see Klickitat County 2007 and RCW 90.58.030(2)(3)(ii)). Most of the streams in the Project Study Area ultimately flow into Spring Creek, which has a mean annual flow of less than 20 cubic feet per second (Ecology 1990) and is not listed in Appendix E of the Klickitat County Shoreline Master Plan or under WAC 173-18-240 (Klickitat County 2007). Therefore, none of the streams and wetlands in the Project Study Area are covered by the Klickitat County Shoreline Master Plan. However, the Project design has taken measures to avoid or protect the existing streams and wetlands within the Project MPE, including protecting the stream and wetland buffers as discussed in Part 4.3.
	Transportation, Utility, or Service Demands	Potential impacts to transportation conditions are discussed in Part 4, Section 4.20. Impacts to public services and utilities are discussed in Part 3, Sections 3.21 and 3.22, respectively.

		Where relevant for assessment of Klickitat County code criteria, aspects of the transportation, public service, and utility impact analyses are also discussed in the Land Use Consistency Review (see Attachment B). The Project is not anticipated to significantly increase demands on transportation, public services, or utilities. Construction traffic is expected to be within the capacity of existing roadways and will not block or obstruct access to surrounding lands. A Traffic Control Plan will be developed with input from the Washington State Department of Transportation and Klickitat County. Operational traffic generated by up to three staff and periodic panel washing will be negligible. The existing capacity of local public services and utilities will accommodate the limited extent of such services needed for the Project, and mitigation is not anticipated.

4.14.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	**☐ Yes**	
	Topical Area/issue	**Changes**
	The current land use of the Project Study Area does not affect the Project. The Project Study Area was selected for its favorable site suitability characteristics, including high solar energy resource, topography, proximity to electrical infrastructure, compatibility with allowed uses on surrounding lands, and low resource conflicts. Further, as a utility facility, the Project is an allowed conditional use in the EA district and GR zone.	

4.14.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☒ No	**☐ Yes**

	Mitigation	Applicable law and how well it addresses the impact	Expert agency participation
	Mitigation measures specific to potential Project impacts (e.g., wetlands and surface waters, wildlife habitat, or geological hazards) are addressed in their respective resource sections in Part 3 and Part 4 of this application and are summarized in Part 2, Section A.5. Land use compliance and compatibility of the Project with the Klickitat County Zoning Code and conditional use permit criteria is evaluated above in Section 4.14.C and in the Land Use Consistency Review (see Attachment B), based upon the overall evaluation of potential Project impacts and mitigation measures as addressed in the resource sections, and it is not anticipated that the Project will require other, additional, measures to avoid significant adverse effects on land use.		

4.14.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ No	☐ Yes	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.14.F References

Ecology (Washington State Department of Ecology). 1990. Little Klickitat River Basin Fish Habitat Analysis Using the Instream Flow Incremental Methodology. IFIM Technical Bulletin. August 1990. Brad Caldwell and Stephen Hirschey.

Klickitat County. 2007. 1996 Klickitat County Shorelines Master Plan Update. Adopted August 7, 1998. Amended 2007. Available online at: https://www.klickitatcounty.org/DocumentCenter/View/359/Klickitat-County-Shorelines-Master-Plan-PDF?bidId=

Klickitat County. 2021. Klickitat County Code. Current through Ordinance No. O033021 passed March 30, 2021. Available online at: https://library.municode.com/wa/klickitat_county.

Klickitat County. 2013. Klickitat County Comprehensive Plan, as amended though October 1, 2013.

4.15 Housing

Part 4 analysis is not required for this section.

4.16a Noise

4.16a.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Acoustic Assessment Report	Completed *February 2023*	Tetra Tech, consultant to the Applicant	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.16a.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Regulatory	There are no noise regulations at the federal level with numerical decibel limits applicable to the Project; however, there are regulations at the state and county level. Environmental noise limits are established by WAC 173-60, which places limits on sounds crossing property boundaries based on the Environmental Designation for Noise Abatement (EDNA) of the sound source and the receiving properties. Daytime (7:00 a.m. – 10:00 p.m.) and nighttime (10:00 p.m. – 7:00 a.m.) limits are prescribed. The WAC regulatory limits are absolute and independent of the existing acoustic environment; therefore, a baseline noise survey is not requisite to determine conformance. The Project site is located on Class C land and also abuts Class C Land and Class C Land containing Class A residential structures. The acoustic assessment completed for this Project (Attachment H) conservatively assumed that all nearby residences, which are considered Noise Sensitive Receptors (NSRs), are Class A receiving properties. For Class A land, limits of 60 dBA and 50 dBA apply to daytime and nighttime hours, respectively, and for Class C land, a daytime and nighttime limit of 70 dBA is applicable. The applicable WAC regulatory limits are further described in the Acoustic

	Assessment Report (Attachment H). Chapter 9.15.050 in the KCC refers to WAC Chapter 173-60 for noise regulations.
Existing Conditions	As described above, a baseline noise survey is not needed to demonstrate compliance with the WAC noise regulations. The existing ambient acoustic environment in the vicinity of the Project was estimated with a method published by the Federal Highway Administration (FHWA) in its Transit Noise and Vibration Impact Assessment (FHWA 2006). This document presents the general assessment of existing noise exposure based on the population density per square mile and proximity to area sound sources such as roadways and rail lines. The proposed Project is approximately two miles northwest of the city of Goldendale, which has a population density of 3,453 per square mile according to the U.S. Census Bureau (2020). Using the FHWA method and Census data for Goldendale, ambient sound levels near the Project area are approximately 55 A-weighted decibel (dBA) equivalent sound level (L_{eq}) during daytime hours, 50 dBA L_{eq} during evening hours, and 45 dBA L_{eq} during nighttime hours.

4.16a.C Changes to and from Existing Condition

4.16a.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ **No**	☒ **Yes**	
	Topical Area/issue	**Changes**
	Construction	Acoustic emission levels for activities associated with Project construction were analyzed in Attachment H based on typical ranges of energy equivalent noise levels at construction sites, as documented by the EPA's (1980) "Construction Noise Control Technology Initiatives." The EPA methodology distinguishes between type of construction and construction stage. Using those energy equivalent noise levels as input to a basic propagation model, construction noise levels were calculated at a series of set reference distances.

		Information on expected construction equipment was provided by the Applicant and is tabulated in Table 6 of the Acoustic Assessment report (Attachment H). Noise prediction calculations were conducted to determine the expected received sound levels at identified noise sensitive receptors (NSRs) during Project construction. Project construction may cause short-term, but unavoidable, noise impacts that could be loud enough at times to temporarily interfere with speech communication outdoors, and indoors with windows open. Noise levels resulting from the construction activities will vary significantly depending on several factors such as the type and age of equipment, specific equipment manufacture and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers.
	Operation	Attachment H presents modeling results for sound levels that are anticipated to be generated by the Project. Operational sound levels were analyzed using Cadna-A (Computer Aided Noise Abatement), an acoustic modeling software program that conforms with the International Organization for Standardization (ISO) 9613, Part 2: “Attenuation of Sound during Propagation Outdoors” (ISO 1989). The method described in this standard calculates sound attenuation under weather conditions that are favorable for sound propagation, such as for downwind propagation or atmospheric inversion, conditions which are typically considered worst-case. The Project’s general arrangement was reviewed and directly imported into the acoustic model so that on-site equipment could be easily identified, buildings and structures could be added, and sound emission data could be assigned to sources as appropriate. The primary noise sources during

		operations are the solar array inverters and their associated step-up transformers, BESS units, and collector substation transformer. The Project layout includes 44 step-up transformers and inverters distributed throughout the solar array areas. BESS units will be positioned as a consolidated BESS area located adjacent to the substation. Sound emissions will be associated with the solar array transformers and inverters. Electronic noise from inverters can be audible but is often reduced by a combination of shielding, noise cancellation, filtering, and noise suppression. Cooling associated with BESS units will also produce noise. Substations have switching, protection, and control equipment, as well as power transformers, which generate the sound generally described as a low humming. The two transformer cores are the principal noise source at the Project substation, and cooling equipment (fans and pumps) are also noise components at this location. In addition, a 500-kV transmission line will be a part of the Project; located between the Project substation and the existing Knight Substation. Details pertaining to the transmission line have not been finalized, but the audible sound level associated with transmission line operation under foul weather conditions was conservatively estimated at 69 dBA at a distance of 50 feet from the transmission line, and this has been incorporated into the acoustic modeling analysis. Reference sound power levels input to CadnaA were provided by equipment manufacturers, based on information contained in reference documents or developed using empirical methods. Broadband (dBA) sound pressure levels were calculated for expected normal Project operations assuming that all components identified above are operating continuously and concurrently at the representative manufacturer-rated sound power level. It is expected that all sound-producing equipment will operate during both daytime and

		nighttime periods. After calculation, the sound energy was then summed to determine the equivalent continuous A-weighted downwind sound pressure level at a point of reception. Attachment H provides modeling results in both visual (i.e., sound contour) and tabular formats, providing received sound levels resulting from operation at NSRs and along adjacent property lines containing participating and non-participating residences during both fair and foul weather conditions. Incorporating a number of conservative assumptions, acoustic modeling results indicate that the Project will comply with the most stringent 50 dBA nighttime limit at all NSRs. In addition, the Project is predicted to comply with all the applicable WAC regulatory limits at the Project Site Control Boundary.

4.16a.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ **No**	☐ **Yes**	
	Topical Area/issue	**Changes**
	N/A	N/A

4.16a.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ **No**	☒ **Yes**		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**

	BMPs-Noise	WAC 173-60-050 exempts temporary construction noise from the state noise limits; however, BMPs will be implemented to reduce construction noise impacts to off-site receptors. Since construction equipment operates intermittently, and the types of machines in use at the Project change with the phase of construction, noise emitted during construction will be mobile and highly variable, making it challenging to control. Project construction will occur during the daytime, Monday through Friday. Furthermore, reasonable efforts will be made to minimize the impact of noise resulting from construction activities, including implementation of the standard noise reduction measures listed below. Due to the nature of the construction activities at the site, the hours of construction, and the implementation of noise mitigation measures, the temporary increase in noise due to construction is considered to be an insignificant impact. The construction management protocols will include the following noise mitigation measures to minimize noise impacts: • Maintain construction tools and equipment in good operating order according to manufacturers' specifications. • Limit use of major excavating and earth-moving machinery to daytime hours. • To the extent practicable, schedule construction activity during normal working hours on weekdays when higher sound levels are typically present and are found acceptable. Some limited activities, such as concrete pours, will be required to occur continuously until completion. • Equip any internal combustion engine used for any purpose on the job or related to the job with a properly operating muffler that is free from rust, holes, and leaks. • For construction devices that use internal combustion engines, ensure the engine's	EFSEC

		housing doors are kept closed, and install noise-insulating material mounted on the engine housing consistent with manufacturers' guidelines, if possible. • Limit possible evening shift work to low-noise activities such as welding, wire pulling, and other similar activities, together with appropriate material-handling equipment. Potential evening work would be limited to final electrical tie-in at the BPA substation. • Use a complaint resolution procedure to address any noise complaints received from residents.	

4.16a.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.16a.F References

EPA (U.S. Environmental Protection Agency). 1980. Construction Noise Control Technology Initiatives. Technical Report No. 1789. Prepared by ORI, Inc. Prepared for USEPA, Office of Noise Abatement and Control. September 1980. Available at: http://www.nonoise.org/epa/Roll5/roll5doc22.pdf.

FHWA (Federal Highway Administration). 2006. FHWA Roadway Construction Noise Model User's Guide, FHWA-HEP-05-054, January.

ISO (International Organization for Standardization). 1989. Standard ISO 9613-2 Acoustics – Attenuation of Sound during Propagation Outdoors. Part 2 General Method of Calculation. Geneva, Switzerland.

U.S. Census Bureau. 2020. Decennial Census of Population and Housing Datasets. Retrieved from https://www.census.gov/data/developers/data-sets/decennial-census.html

4.16b Light, Glare, Aesthetics

4.16b.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Glint and Glare Analysis (Attachment G)	Completed January 2023	Prepared by Tetra Tech, environmental consultant for the Applicant.	Y
Visual Impact Assessment Report	To be completed by March 2023	Prepared by Tetra Tech, environmental consultant for the Applicant.	N
Federal Aviation Administration (FAA) Notice Criteria Tool (Attachment G, Appendix C	Completed January 2023	Prepared by Tetra Tech, environmental consultant for the Applicant.	Y
FAA 7460-1 Determination of No Hazard	To be completed by March 2023	FAA	N

☐ **Check this box when all proposed studies for this topic are completed**

4.16b.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
General Site Description	Lands in the Project Study Area have historically been utilized for agricultural activities (crop cultivation and livestock grazing). The southern portion of the Project Study Area is located within the Klickitat County EOZ. Existing land uses in the Project Study Area predominately include crop cultivation (mostly dryland wheat) and

	pasturelands with some rural residences (owned by Project participant landowners), undeveloped areas, local roads, and electrical infrastructure (e.g., transmission and distribution lines). Adjacent land uses surrounding the Project Study Area are similar and include rural residences owned both by Project participants and non-Project participants, the Goldendale Fish Hatchery and adjacent Washington Department of Fish and Wildlife (WDFW) owned lands, SR 142, and the BPA Knight Substation.
Visual Setting	Viewpoints within the Project Study Area include views of the Knight substation and three BPA transmission line corridors: the 230-kV North Bonneville-Midway No. 1 line, the 500-kV Wautoma-Ostrander No. 1 line, and the 500-kV single-circuit BPA Big Eddy-Knight line. The North Bonneville-Midway line and Wautoma-Ostrander line are located immediately south of the Project's northern array area and the Big Eddy-Knight line extends south from the Knight substation, through the Project Study Area and crosses SR-142. All three of these high-voltage lines include steel towers over 100 feet in height which are visible in the viewshed from multiple points within the Project Study Area. Distant viewsheds from the Project Study Area also include views to the south that include several wind farms in the Columbia Hills, views to the southwest of Mount Hood, and views to the northwest of Mount Adams. Existing sources of artificial light in the Project Study Area include lighting at residential and agricultural buildings. Mobile sources of light and glare originate from automobile traffic on surrounding roadways. Sources of glare in the Project Study Area include windows and reflective building materials such as metal roofs or siding.
Visibility of the Site	The Visual Impact Assessment Report (to be submitted as an addendum in March 2023) will describe in more detail the visibility of the Project and Project components from various viewpoints. A Zone of Visual Influence (ZVI) analysis was conducted to identify the range of locations from which the Project would potentially be visible. Because of the topography in the Project vicinity, the ZVI results show that the Project will be visible from multiple viewpoints around the surrounding area. However, the ZVI is based on a bare-earth topographic model and illustrates the worst-case visibility, as it does not consider visual barriers or screening created by intervening vegetation or structures.

	Key Observation Points (KOPs) were identified based on the publicly accessible locations from which the Project infrastructure would potentially be visible and noticeable to the casual observer. Factors considered in the selection of KOPs included locations with sensitive viewers (e.g., local residences and motorists) and potential for Project components to be visible (e.g., distance and view angle). Visual simulations will be completed for representative KOPs and included in the Visual Impact Assessment Report (to be submitted as an addendum in March 2023). The visual simulations will be prepared using digital photographs collected previously as a base layer, to illustrate views of the fully constructed solar panel arrays.

4.16b.C Changes to and from Existing Condition

4.16b.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Views	Depending on the viewpoint and the movement of the viewer, views of the Project Study Area may include existing views of agricultural fields and fences, local roadways, electrical transmission lines, the Knight substation, and scattered residential and agricultural structures as well as solar arrays and supporting components associated with a solar energy generation facility. These views will be experienced primarily by drivers traveling on SR 142 and Knight Road and by some residences located within a mile of the Project Area. The Visual Impact Assessment Report will evaluate potential visual impacts at each KOP using the contrast rating system used by the U.S. Bureau of Land Management (BLM) to objectively measure potential changes to the visual environment (BLM 1986). The BLM's contrast rating system is commonly used by federal agencies to assess potential visual resource impacts from proposed projects. Visual simulations will be developed from KOPs that represent publicly accessible locations that meet

		certain criteria, including being a location with sensitive viewers (e.g., local residences, recreationists, and motorists) and a location with potential for the Project infrastructure to be visible (e.g., distance and view angle). Simulations are under development for KOPs located on SR 142, Knight Road, Fish Hatchery Road, Pine Forest Road, and at the Goldendale Observatory. Visual impacts will be further evaluated in the Visual Impact Assessment Report (to be submitted as an addendum in March 2023). The Applicant anticipates that the Project will result in weak to strong contrast with the surrounding landscape, depending on which of the Project's structural components are visible and how the surrounding landscape appears from that viewpoint. The Project is anticipated to not be visible or have weak visual contrast from viewing locations along Pine Forest Road and from the Goldendale Observatory to the east of the Project Study Area because of distance and the screening of the Project by terrain. Views of the Project from the roads in the immediate vicinity of the Project Study Area (i.e., State Route 142, Knight Road, Fairgrounds Road West, Mesecher Road West, Fish Hatchery Road, Butts Road, and Pine Forest Road) would be mostly limited to the edges of the Project components closest to the road. Several residences in the vicinity of the Project will have views of the Project, however, most of the houses in closest proximity to the Project are owned by Project property owners. Solar panels have been sited a minimum of 500 feet away from non-participating residences. Where the Project is visible, the Project components would be consistent with other horizontal and vertical lines and geometric shapes visible throughout the landscape (e.g., existing fencing, roadway, substation, transmission towers and lines, utility poles and lines, agricultural structures) and because of their limited height would not block views of the surrounding hills or Mount Hood or Mount Adams. Views of the Project could attract attention and co-dominate or dominate the landscape. Depending on the proximity, the Project would result in weak to strong contrasts with the existing landscape.

	Light	The Project is not expected to create a substantial new source of nighttime lighting. The Project will provide external safety lighting for both normal and emergency conditions at the primary access points, Project substation, BESS, and O&M building. However, lighting will be designed to provide the minimum illumination needed to achieve safety and security and will be downward-facing and shielded to focus illumination in the immediate area. Chapter 19.48 of the KCC provides criteria to prevent excessive illumination, glare, and reflection in areas adjacent to astronomical research facilities, such as observatories, where such light intrusion would hinder use of sensitive optical devices. Chapter 19.48 applies to areas within the Illumination Control District. Although a map of the Illumination Control District is not publicly available, based on available information the Project site appears to be within the district, so Chapter 19.48 is assumed to apply. The chapter requires the installation of shielded fixtures with the edge of the shield level with or below the center of the light source, so that any direct light emitted above the horizontal is minimized. The Project will install compliant shielded lighting, and therefore will be consistent with this requirement. Therefore, the Project will not introduce a source of light that will significantly impact views in the area.
	Glare	The glare analysis conducted for the Project (Attachment G) analyzed potential glare hazards to residents, motorists, and aviation in the area. Detailed descriptions of study methodology are provided in Attachment G and involved the use of the Sandia Laboratories Solar Glare Hazard Analysis Tool (SGHAT), a modeling/compliance analysis tool now licensed for public use within the ForgeSolar GlareGauge cloud software application. ForgeSolar defines glint and glare in the following statement: *Glint is typically defined as a momentary flash of bright light, often caused by a reflection off a moving source. A typical example of glint is a momentary solar reflection from a moving car. Glare is defined as a continuous source of bright light. Glare is generally associated with stationary objects, which, due to the slow relative movement of the sun, reflect sunlight for a longer duration (Sandia Laboratories 2016).* The glare analysis predicted yellow glare (potential for after-image) at sections of SR 142 and sections of Knight Road, as well as for the 2-mile final approach path for runway 07. The predicted amounts of glare are considered conservative (i.e., represent a high estimate of glare) because the glare model does

		not account for varying ambient conditions (i.e., cloudy days, precipitation), atmospheric attenuation, screening due to existing topography not located within the defined array layouts, or existing vegetation or structures (including fences or walls), nor does the tool allow proposed landscaping to be included. In the case of this Project, existing topography and intervening structures and vegetation are expected to reduce the potential for glare. Yellow glare predicted at Knight Road would be less than two minutes a day at sunrise in June and yellow glare predicted along SR 142 would be less than 50 minutes a day at sunrise and just before sunset May through August. Less than 100 minutes of yellow glare per day was predicted for the 2-mile final approach path for runway 07 in the morning hours. However, the actual duration of exposure to glare for a pilot is predicted to be much shorter during landing and takeoff. Based on the FAA policy review published May 11, 2021, limitations on predicted glare does not apply to proponents of solar energy systems located off airport property (FAA 2021). Subsequent to the adoption of the May 11, 2021 policy review, the FAA concluded that in most cases, the glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features. The FAA has determined that the scope of agency policy should be focused on the impact of on-airport solar energy systems to federally obligated towered airports, specifically the airport's Air Traffic Control Tower (ATCT) cab (FAA 2021). Based on the FAA airport data website, there is no ATCT located at the Goldendale Municipal Airport. Therefore, under the final policy, there would be no detrimental effects to the airport based on predicted glare. Given the Project's proximity to the Goldendale Airport, it does exceed Notice Criteria and would require filing of FAA Form 7460-1 with the FAA Obstruction Evaluation/Airport Airspace Analysis Group a minimum of 45 days prior to start of construction. See Attachment G for further discussion of the glare analysis and the modeling results. Based on the above evidence and the analysis provided in Attachment G, the Project is not anticipated to introduce a source of glare that will significantly impact motorists, residents, or views in the area.

4.16b.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	☐ Yes	
	Topical Area/issue	**Changes**
	N/A	N/A

4.16b.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Management Practices – Light, Glare and Aesthetics	The Facility will implement BMPs including: • Downward-directed and shielded lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. • Utilizing solar panels with an anti-reflective coating to minimize glare. • Maintenance of revegetated surfaces until the vegetation has been established.	N/A

4.16b.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ No	☐ Yes	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.16b.F References

BLM (Bureau of Land Management). 1986. Visual Resource Inventory. BLM Manual Handbook H-8410-1.

FAA. 2021. FAA Policy: Review of Solar Energy System Projects on Federally-Obligated Airports. 86 FR 25801. May 11, 2021.

4.17 Recreation

4.17.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
No studies have been conducted or are proposed specific to recreation.			

☒ **Check this box when all proposed studies for this topic are completed**

4.17.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Recreational Resources	The Project MPE is located entirely on private lands and does not include designated recreation opportunities open to the public. Public lands that may offer recreation opportunities within the immediate vicinity of the Project include lands owned by WDFW and DNR (see Figure 10 in Attachment A-1). For purposes of this analysis, the Applicant assessed the area within one mile of the Project Site Control Boundary. The Project is located within the Central Klickitat County Recreational District 1 (Klickitat County 2023). Additionally, there are also lands managed by Washington State Parks, Klickitat County, and the City of Goldendale near and within the City of Goldendale boundary. However, none of these recreational opportunities are within one mile of the Project Site Control Boundary and are not within the immediate vicinity of the Project. Recreational opportunities on public and private lands near and within Goldendale include the Goldendale Observatory State Park, Klickitat County Fairgrounds, museums, Goldendale Golf and Country Club, and city parks. As described above, none of these recreational opportunities are within one mile of the Project Site Control Boundary

	and are not within the immediate vicinity of the Project. The Goldendale Golf and Country Club is the nearest of these recreational opportunities and is located approximately 1.3 miles east of the Project Site Control Boundary. Adjacent to the west side of the Project Site Control Boundary is the WDFW-owned and operated Goldendale Fish Hatchery, which is a restricted-access facility and does not provide on-site recreational opportunities. However, the trout produced at the hatchery are important to recreational opportunities throughout the region, including Spring Creek which originates at the hatchery. The 234-acre Goldendale Fish Hatchery Wildlife Area Unit (Hatchery Unit) is a day use area located immediately west of and adjacent to the Goldendale Hatchery and is within WDFW Game Management Unit 388. Game Management Unit 388 includes hunting for elk, bear, and cougar, but hunting for those species is not known to occur within the Hatchery Unit. The Hatchery Unit property also abuts the western portion of the Project Site Control Boundary. Management priorities and recreational uses for the Hatchery Unit are identified in the Klickitat Wildlife Area Management Plan (WDFW 2016) and center on public trout fishing access and pheasant, quail, duck, and mule deer hunting. This is reported to be the only public land in Klickitat County where pheasants are stocked and released (Amber Johnson, WDFW, personal communication January 10, 2023). The reach of Spring Creek within the Hatchery Unit is stocked annually with thousands of catchable (8-12 inches long) rainbow trout (WDFW 2016). In addition to the public fishing access within the Hatchery Unit, additional fishing access is provided through downstream landowner fishing easements, none of which are within the Project MPE. WDFW-regulated fishing seasons in Spring Creek include trout and other game fish (seasons begin the Saturday before Memorial Day and continue until March 15 of the following year) (WDFW 2022). WDFW-regulated hunting seasons for Game Management Unit 388 (WDFW 2023a) include modern firearm deer (October 15-25), archery deer (September 1-23 and November 23-December 8), duck (October 15-23), pheasant (October 22-January 16), and quail (October 1-January 16), in addition to various special seasons for youth, older, veteran, active military, and disabled hunters (WDFW 2023c). The Washington Department of Natural Resources (DNR) owns and manages a 570 acre parcel that separates the northernmost portion of

	the Project Site Control Boundary from the southern portion (see Figure 10 in Attachment A-1) Specific information is not available about current recreation use of these parcels. In addition to the recreational hunting opportunities on public lands, several parcels near and adjacent to the Project offer hunting access through WDFW's Private Lands Program (WDFW 2023d). These parcels are shown in Figure 10 in Attachment A-1 and details are provided in Table 4.17-1 below. In addition to the parcels where hunting access is permitted, there are parcels and portions of parcels demarcated as Private Land Safety Zones where hunting is prohibited, including site #731, which has no mapped associated hunting access. Lands enrolled in the program are done so voluntarily and landowners may elect to discontinue involvement, so continued recreation access to these parcels is not guaranteed.

Table 4.17-1. WDFW Private Lands Hunting Access

Site Name and ID	Contract End Date	Land Access Type	Notes
Western Pacific Timber – Goldendale (site #794)	8/1/23	Feel Free to Hunt	All species
Spring Creek North (site #950)	6/30/23	Hunt By Reservation	Shotgun only; hunting for upland birds, raccoon, and coyote
Spring Creek Central (site #951)	6/30/23	Hunt By Reservation	Shotgun only; hunting for upland birds, raccoon, and coyote
Spring Creek East (site #952)	6/30/23	Hunt By Reservation	Shotgun only; hunting for waterfowl only

Plans and Policies	The Klickitat County Comprehensive Plan, Klickitat County CAO, and the City of Goldendale Comprehensive Plan contain general goals, policies, and objectives applicable to the recreational resources and open space within the general Project vicinity (Klickitat County 2013a; Klickitat County 2013b; City of Goldendale 2014), but none of the plans reference the Project site specifically or identify additional recreational uses with respect to the Project site. Management priorities for the Hatchery Unit and the Soda Springs Wildlife Area Unit are identified in the Klickitat Wildlife Area Management Plan (WDFW 2016).

4.17.C Changes to and from Existing Condition

4.17.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Impacts to Quality of Recreation Opportunities	The quality of recreational opportunities experienced by users in the immediate vicinity of the Project may be impacted by Project construction, operations, and eventual decommissioning. During construction, noise, dust, and other activities could impact the quality of hunting, fishing, and wildlife viewing opportunities on adjacent parcels where public access is currently permitted. During construction, there may be temporary delays on local roads that are also used to access recreational opportunities. These impacts would be temporary in nature, lasting only for the anticipated 15 months of construction. No impacts are anticipated at recreational sites outside of the one-mile Project recreational opportunities assessment area buffer. The Acoustic Assessment Report (Attachment H) did not directly assess sound levels in the hunting access areas. However, the report's assessment of sound levels at three NSRs can be used to approximate sound levels that may be experienced in the hunting access areas. The table below cross references the construction and operations received noise levels at the NSR receptors modeled in Attachment H with the Private Land Safety Zones and recreation areas shown in Figure 10 of Attachment A-1. As noted in Attachment H, baseline sound levels in the vicinity of the Project were estimated at 55 dBA in the daytime. Although the construction noise received in portions of the hunting access areas will exceed this baseline sound level, construction noises will be intermittent and temporary in duration. However, temporary alterations in animal behavior are possible in response to these sounds. Operations noises received in the hunting access areas will be under the limits imposed by WAC 173-60 and will be comparable to existing sound levels experienced by users of these areas.

Table 4.17-2. Hunting Access Area Sound Levels

NSR Receptor (see Figure 2 in Attachment H)	Associated Recreation or Safety Site (see Figure 10 in Attachment A-1)	Distance to Project Site Control Boundary (miles)	Construction Received Noise Level (dBA) (Attachment H)	Operations Received Noise Level (dBA) (Attachment H)	Notes
1	Private Land Safety Zones #951 (southern)	0.83	58	31	NSR #1 is at the southern edge of hunting access area #951 furthest from the Project Site Control Boundary
7	Private Land Safety Zones #952	0.23	73	41	NSR #7 is at the boundary of hunting access areas #951 and #952
8	Private Land Safety Zones #951 (northern)	0.24	58	31	NSR #8 is at the edge of hunting access area #951 closest to the Project Site Control Boundary
21	Goldendale Fish Hatchery Wildlife Area Unit (western boundary)	0.27	69	43	NSR #22 is at near the western boundary of the Hatchery Unit
22	Goldendale Fish Hatchery Wildlife Area Unit	0.05	75	37	NSR #22 is at the Goldendale Fish Hatchery, near the

		<table><tr><td></td><td>(eastern boundary)</td><td></td><td></td><td></td><td>eastern boundary of the Hatchery Unit</td></tr></table> Impacts from other operational activities will be minor since there will be typically minimal vehicle traffic. Periodic panel washing would occur over a few weeks and would be limited to daytime hours. Water for panel washing is anticipated to come from an existing on-site water right, but could be hauled in from an approved off-site water source (e.g., a municipal water source). If this occurs, traffic impacts on nearby roads are expected to be minimal. Potential noise and visual effects resulting from construction, operation, and decommissioning of the Project are addressed in more detail in Part 4, Sections 16a and 16b of this ASC, respectively. Visual impacts will be further evaluated in the Visual Impact Assessment Report (to be submitted as an addendum in March 2023).
	Impacts to Availability of Recreational Opportunities	The construction and operation of the Project will not result in changes to access of public lands near the Project, and these public lands near the Project will remain available for long term access for recreational users. The Project MPE does not overlap with any of the parcels currently available through the WDFW Private Lands Program, and therefore would not directly impact the availability of those opportunities. As mentioned above, construction noise, of an intermittent and temporary nature is anticipated to exceed background noise in portions of the parcels associated with the WDFW Private Lands Program, which may cause temporary alterations in animal behavior, thereby potentially impacting the quality and availability of hunting opportunities in that time.

4.17.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Site Safety for Personnel and Equipment	Because the existing recreation opportunities within the immediate vicinity of the Project include hunting with shotgun, muzzleloader, and archery (and, in hunting access area #794 only, modern firearms), the possibility exists for impacts to the safety of site personnel or equipment. Elements of the Project design and layout could be altered to provide enhanced safety and protection from stray bullets and arrows. If areas of concern are identified, design modifications such as earthen berms, vegetation, and safety zones could be implemented. Site safety and emergency management plans will incorporate potential dangers and impacts from adjacent recreational uses and will include ongoing coordination with WDFW and private landowners.

4.17.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Site-specific BMPs	The Applicant will obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an ESCP and a SWPPP.	Ecology

		The BMPs identified and implemented in compliance with the CSWGP will reduce the risk of impacts to nearby recreational sites and users, including both the direct and indirect effects of construction generated dust and storm water sediments.	
	Noise Mitigation	Although WAC 173-60-050 exempts temporary construction noise from the state noise limits, BMPs will be implemented to reduce off-site construction noise impacts to recreational sites and users. Project construction will occur during daylight hours, Monday through Friday and reasonable efforts will be made to minimize the impact of noise resulting from construction activities to include but not be limited to the implementation of standard noise reduction measures such as sound blankets and other types of screening. The construction management protocols will include the noise mitigation measures identified in Part 4, Section 4.16a of this ASC to minimize noise impacts.	
	Site Safety and Coordination	Site safety and emergency management plans, described in more detail in Part 4, Section 4.13, will incorporate potential dangers and impacts from adjacent recreational uses, and will include ongoing coordination with WDFW and private landowners. Plans will specifically include consideration of both risks from	

		recreational users (e.g., misdirected bullets or arrows) and risk to recreational users (e.g., installation and maintenance of construction fencing to prevent recreational users from entering the site) along with appropriate BMPs such as signage, public information about construction activities, a project website, and other media.	

4.17.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.17.F References

City of Goldendale. 2014. Comprehensive Plan Update. Available online at: https://ci.goldendale.wa.us/images/pdf/City-of-Goldendale-Comprehensive-Plan-Mar2014.pdf

Klickitat County. 2013a. Comprehensive Plan Amended October 1, 2013.

Klickitat County. 2013b. Critical Areas Ordinance, Adopted August 6, 2013. Available online at: https://www.klickitatcounty.org/DocumentCenter/View/9225/Critical-Areas-Ordinance

Klickitat County. 2023. Klickitat County Maps. Available online at: http://imap.klickitatcounty.org/#10/45.8269/-120.9183/19ac22ecdf827df6af49a

WDFW. 2016. Klickitat Wildlife Area Management Plan. August 2016. Available online at: https://wdfw.wa.gov/sites/default/files/publications/01846/wdfw01846.pdf

WDFW. 2023a. Hunt Planner. Available online at: https://geodataservices.wdfw.wa.gov/hunt-planner/

WDFW. 2023b. Goldendale Hatchery Wildlife Area Unit. Available online at: https://wdfw.wa.gov/places-to-go/wildlife-areas/goldendale-hatchery-wildlife-area-unit

WDFW. 2023c. Summary of Hunting Seasons. Available online at: https://wdfw.wa.gov/hunting/regulations/summary-of-seasons

WDFW. 2023d. Private Lands Hunting Access. Available online at: https://privatelands.wdfw.wa.gov/private_lands/search.php

WDFW. 2022. Washington Sport Fishing Rules Effective July 1, 2022 – June 30, 2023. Available online at: https://www.eregulations.com/assets/docs/resources/WA/22WAFW_LR8.pdf

DNR (Washington Department of Natural Resources). 2023. WA DNR Managed Land Parcels. Washington Geospatial Open Data Portal. Available online at: https://geo.wa.gov/datasets/f0419317aee24072846efb73e75b0755/explore?location=46.302317%2C-117.061837%2C11.88.

4.18 Archaeological and Historical Resources

4.18.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Archaeological, Historical, and Cultural Resource Survey for the Carriger Solar, LLC, Project (Attachment I)	November 2022	Prepared by Tetra Tech, environmental consultant for the Applicant. The DAHP, the Confederated Tribes of the Umatilla Reservation (CTUIR), the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), the Yakama Nation, the Wanapum, and the Nez Perce to review.	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.18.B Existing Condition and Issues

See Confidential Attachment I, Cultural Resources Report for the Project which provides detailed information of existing conditions and issues for this resource (Rooke et al. 2022).

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Site Conditions from Cultural Resources Survey	The Project Study Area, which covers approximately 2,011-acres of private land, was surveyed for cultural resources in April of 2022, including subsurface boundary probing of identified archaeological resources. Additionally, an above-ground reconnaissance of historic property sites was conducted in the Project Study Area as well as on

	adjacent parcels. Combined, these survey areas form the Survey Area referenced in this section and in Attachment I. The survey identified a total of 41 cultural resources, including one previously recorded archaeological site, two previously recorded historic properties (transmission lines), and 22 newly recorded archaeological sites documented within the Survey Area and 16 newly recorded historic property sites identified on adjacent tax parcels surrounding the Survey Area. The 16 historic property sites on adjacent parcels included a total of 79 buildings and structures on farms or agricultural properties. All of the sites that were found were historic era sites and no pre-contact era sites were discovered. The 22 newly recorded archaeological sites include 10 historic refuse scatters (45KL02598, 45KL02599, 45KL02600, 45KL02601, 45KL02602, 45KL02603, 45KL02604, 45KL02606, 45KL02613, 45KL02617), six historic-era rock clearing piles (45KL02597, 45KL02607, 45KL02608, 45KL02610, 45KL02611, 45KL02612), four agricultural equipment caches (45KL02605, 45KL02609, 45KL02616, 45KL02619), and two historic farmsteads (45KL02603 and 45KL02620). The one previously recorded archaeological site (45KL01989) is a refuse scatter. The two previously recorded historic property sites include two transmission lines (Knight-Ostrander No. 1 and North Bonneville-Midway No. 1) that cross through the Survey Area. The following provides details regarding National Register of Historic Places (NRHP) recommendations for the identified resources: • Sites 45KL02598, 45KL02597, 45KL02599, 45KL02600, 45KL02601, 45KL02602, 45KL02617, 45KL02603, 45KL02618 45KL02604, 45KL02605, 45KL02619, 45KL02606, 45KL02607, 45KL02608, 45KL02609, 45KL02610, 45KL02611, 45KL02612, 45KL02613, 45KL02616, and 45KL02620, are historic-era archaeological sites that have been recommended not eligible for listing on the NRHP, and therefore, pending DAHP concurrence, would not require an archaeological excavation permit under RCW 27.53.060. • Two BPA transmission lines are located within the Survey Area. The BPA transmission system in the Pacific Northwest is listed in the NRHP. The Knight-Ostrander No. 1 and North Bonneville-Midway No. 1 lines have been evaluated and are eligible for listing on the NRHP within the context of the Multiple Property Documentation form prepared for the BPA Pacific

	Northwest Transmission system. The Project will not impact the qualities that make these resources NRHP-eligible; therefore, pending DAHP concurrence, no further management for these resources is recommended. • Four of the 16 historic property sites recorded on adjacent parcels (729003, 729023, 729041 and 729045) were left unevaluated or found to be eligible for listing on the NRHP. These properties are located outside the Project Study Area on adjacent parcels. The Project will not impact the qualities that make these resources NRHP-eligible; therefore, pending DAHP concurrence, no further management for these resources is recommended. • The remaining 15 historic properties recorded on adjacent parcels were recommended ineligible for listing on the NRHP; therefore, pending DAHP concurrence, no further management for these resources is recommended.

4.18.C Changes to and from Existing Condition

4.18.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Disturbance of Archaeological and Historic Property Sites	The Project has been designed to avoid direct impacts to cultural resources that are eligible or unevaluated/potentially eligible for listing on the NRHP. These resources include the following: CA-KB-03, CA-KB-09, CA-KB-15 and CA-KB-17, Knight-Ostrander No. 1 and North Bonneville-Midway No. 1. The historic buildings are outside the Project Study Area on adjacent parcels so there will be no disturbance to these sites. The two transmission lines that cross through the Project Study Area will not be directly impacted. Twenty-two archaeological sites are not avoided by the current design 45KL02598, 45KL02597, 45KL02599, 45KL02600, 45KL02601, 45KL02602, 45KL02617, 45KL02603, 45KL02604, 45KL02605, 45KL02619,

		45KL02606, 45KL02607, 45KL02608, 45KL02609, 45KL02610, 45KL02611, 45KL02612, 45KL02613, 45KL02616, 45KL02618, and 45KL02620. These sites are historic-era archaeological sites that have been recommended in confidential Attachment I as not eligible for listing on the NRHP. The sites are not considered significant register-eligible resources and, pending concurrence by DAHP, any impacts on them would not be considered significant impacts and would not require a permit under RCW 27.53. It is possible that construction of the Project (including, but not limited to, clearing of vegetation, grading, and excavation) could unearth previously undiscovered archaeological resources and result in significant impacts to archaeological resources and/or human remains. If cultural resources (i.e., precontact sites, historic sites, or shell or bone, isolated artifacts or other features) are discovered during the course of construction, the Unanticipated Discovery Plan will be implemented. A Draft Unanticipated Discovery Plan is included in Appendix F of Attachment I. A Final Unanticipated Discovery Plan will be prepared at least 90 days prior to site preparation (see Section A.6 of Part 2). In order to comply with RCW 27.53, if any significant archaeological resources would be impacted by the Project, a DAHP excavation permit will be obtained and mitigation measures will be discussed and implemented.

4.18.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Avoidance of significant impacts to archaeological and historical resources.	The Project was designed to avoid direct impacts to two NRHP-eligible BPA transmission lines (Knight-Ostrander No. 1 and North Bonneville-Midway No. 1). If any pre-contact-era archaeological resource or an NRHP-eligible historic-era archaeological resource is impacted by the Project's final design, the Applicant would obtain a DAHP excavation permit and perform all necessary archaeological work in order to comply with RCW 27.53.

4.18.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Unanticipated Discovery Plan	In the event unrecorded archaeological resources are identified during Project construction or operation, work within 30 meters (100 feet) of the find shall be halted and directed away from the discovery until it can be assessed in accordance with steps in the Unanticipated Discovery Plan (provided as Appendix F in Attachment I). This appendix to the Cultural Resources Report does not contain any confidential information and can be shared with Project personnel and contractors.	DAHP

	Continued Coordination with Native Americans	Only regulatory agencies can formally consult with tribes. Informal communications are included with this ASC as part of resource identification efforts and as due diligence.	The Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Yakama Nation, the Wanapum, and the Nez Perce

4.18.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.18.F References

Rooke, Lara, Kaley Brown, Brady Berger, and Jessie McCaig. 2022. Cultural Resource Survey Report for the Carriger Solar, LLC, Project. Klickitat County, Washington. Prepared by Tetra Tech, Inc. for Cypress Creek Renewables, LLC, Santa Monica, CA. Report on file at the Department of Archaeology and Historic Preservation, Olympia, WA.

4.19 Cultural Resources

4.19.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
Archaeological, Historical, and Cultural Resource Survey for the Carriger Solar, LLC, Project (Attachment I)	November 2022	Prepared by Tetra Tech, environmental consultant for the Applicant. The DAHP, the Confederated Tribes of the Umatilla Reservation (CTUIR), the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), the Yakama Nation, the Wanapum, and the Nez Perce to review.	Y

☒ **Check this box when all proposed studies for this topic are completed**

4.19.B Existing Condition and Issues

Cypress Creek Renewables sent letters of outreach to the tribes in March 2022. Letters were sent to the Confederated Tribes of the Grande Ronde (CTGR), The Confederated Tribes of the Umatilla Reservation (CTUIR), the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), the Yakama Nation, the Wanapum, and the Nez Perce. The CTUIR responded back on April 21, 2022 deferring comments to tribes closer to the Project. The Yakama Nation responded back on August 16 and August 17, 2022 requesting more information regarding the Project. The Applicant sent an email response to Yakama Nation on August 24, 2022 answering questions about Project location, land ownership, and DAHP project number. The Applicant sent an email to Yakama Nation on February 9, 2023 with an update on the anticipated timing and process for Project permitting and availability of the Archaeological, Historical, and Cultural Resource Survey Report for their review.

There are no known Historic Properties of Religious or Cultural Significance to Indian Tribes (HPRSCIT) in the Project Area. Informal communication with the tribes is ongoing.

4.19.C Changes to and from Existing Condition

4.19.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
	Cultural Resources (HPRCSIT's)	HPRCSIT's may be present in the Project Area or vicinity which potentially could be adversely impacted by the Project. Informal communication with the local tribes is necessary to identify whether cultural resources are present.
	Usual and accustomed area	The Project is within the usual and accustomed area of the Confederated Tribes of the Umatilla Reservation (CTUIR), the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), the Yakama Nation, the Wanapum, and the Nez Perce.
	Activities on the site could impede views of tribal cultural sites	Through Applicant's communications with the tribes to date, no tribal cultural sites, including traditional cultural properties, historic properties of religious and cultural significance to Indian tribes, or sacred sites have been identified in the Project Study Area and therefore no tribal cultural sites are anticipated to have the potential to be impacted by the Project.
	Existing tribal hunting or fishing rights	The Project Site Control Boundary consists of private land owned by non-tribal members. Based on information provided by the Project's property owners, no tribal hunting and fishing is not known to occur within the Project Site Control Boundary area.
	Existing tribal plant gathering	As stated above, the Project Site Control Boundary consists of private land owned by non-tribal members. Based on information provided by the Project's property owners, tribal plant gathering is not known to occur within the Project Site Control Boundary area.

4.19.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	☐ Yes	
	Topical Area/issue	**Changes**
	Avoidance of significant impacts to Cultural Resources	There are no known Historic Properties of Religious or Cultural Significance to Indian Tribes (HPRSCIT) in the Project Study Area. Informal communication with the tribes is ongoing. Information regarding cultural resources needs to be shared with the tribes so that mitigation or avoidance measures can be designed.

4.19.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

☒ No	☐ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	Unanticipated Discovery Plan	In the event unrecorded archaeological resources are identified during Project construction or operation, work within 30 meters (100 feet) of the find should be halted and directed away from the discovery until it can be assessed in accordance with steps in the Unanticipated Discovery Plan (provided as Appendix F in Attachment I). This appendix to the Cultural Resources Report does not contain any confidential information and can be shared with Project personnel and contractors.	DAHP
	Continued Coordination with Native Americans	Only regulatory agencies can formally consult with tribes. Informal communications are included with this ASC as part of resource identification efforts and as due diligence. Coordination and open communications will continue with interested tribes during Project permitting and design to incorporate tribal	DAHP, the Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the

		input regarding avoidance of potential impacts to cultural resources, including traditional use areas or other areas of significance to tribes. Lines of communication will remain open to better facilitate any response to unanticipated discoveries during construction.	Warm Springs Reservation of Oregon, the Yakama Nation, the Wanapum, and the Nez Perce

4.19.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.19.F References

None.

4.20 Traffic and Transportation

4.20.A Studies

Describe any studies that have already been conducted or will be conducted related to this topic and provide the expected timing for the completion of studies to be completed.

Study name	Expected completion date	Expert agency participation Name, Title, and Involvement	Completed Y/N
No studies are proposed for traffic and transportation.			

☒ **Check this box when all proposed studies for this topic are completed**

4.20.B Existing Condition and Issues

Describe the existing condition for this topic, including any existing problems associated with the issue being discussed.

Topical area/issue	Existing Condition and Problems
Transportation Systems	Transportation routes in the Project vicinity are shown in Figure 11 in Attachment A-1. Access to the Project site is primarily via Knight Road and SR-142. Knight Road is a paved county road and classified as a Minor Collector by Washington State Department of Transportation (WSDOT) Functional Classification Map (WSDOT 2023a). Primary access to Knight Road will be via SR-142. WSDOT Functional Classification Map (2023a) classifies SR-142 as a Rural Major Collector Road. Access to SR-142 will primarily come from U.S Highway 97. U.S Highway 97 is located about three miles east of the site. WSDOT Functional Classification Map (2023a) classifies U.S Highway 97 as a Rural Other Principal Arterial. Additional local access to the Project site is provided by Butts Road and Mesecher Road. Butts Road is a gravel county road that would be accessed via Knight Road. Mesecher Road is a gravel county road that would be accessed via Knight Road (Klickitat County 2023). Neither road is classified in available data.

	Existing traffic counts were obtained from the WSDOT Traffic Count Data Base System (TCDS, WSDOT 2023b) and are provided below: • SR-142: 2,101 Annual Average Daily Traffic (AADT) near the intersection with S. Washington St. (west of City of Goldendale). (2022) • U.S Highway 97: 5,236 AADT near intersection with E. Broadway Street in Goldendale. (2022). • Knight Road – No data available • Butts Road – No data available • Mesecher Road – No data available WSDOT also provides a map determining road level of service (LOS) (WSDOT 2023c). According to their standards: • SR-142 LOS – C • U.S Highway 97 LOS – C • Knight Road – No data available • Butts Road – No data available WSDOT states that a LOS grading of "C" means that speed remains near free flow but the freedom to maneuver is restricted.
Waterborne, Air, and Rail Traffic	There are no shipping ports located near the Project. It is anticipated that solar equipment will be received through a port and then transported by truck to the Project site, though barge and rail transport for a portion of the route is possible. It is likely that the equipment will be received at the Port of Portland, 115 miles southwest from the Project site. Air transportation is not anticipated for the Project. Piper Canyon Airport is located 3.75 miles away from the Project Study Area. Goldendale Municipal Airport is located 1.75 miles away from Project Study Area. There are no helipads located within the Project Study Area. Rail transit is not anticipated for the Project. The closest railroad is BNSF Railway and Wishram Station 20 miles south of the location. The Project is unlikely to have any impact on rail transportation.
Public and Pedestrian Traffic	The Project access routes are located near US, state, and county roads, that are not associated with public transportation, although

	school bus routes likely include these roads. The roads in the Project Study Area are not designated for pedestrian traffic.
Parking	The only designated public parking areas in the Project vicinity are those associated with the Goldendale Hatchery Unit and the private lands associated with the WDFW Private Lands Program. The private lands in the WDFW program adjacent to the Project require reservations prior to access. See Part 4, Section 17 for additional details.
Transportation Hazards	The roads located near the Project have winding sections. In addition, inclement weather depending on the season in addition to winding roads may create hazardous driving conditions. Traffic arriving U.S. Highway 97 from the north will cross Status Pass, which is rarely closed by snow during the winter months (WDOT 2018) but can have icy or snowy driving conditions in the winter.

4.20.C Changes to and from Existing Condition

4.20.C.1 Changes to the Existing Condition from the Proposal

Could the activities associated with the proposal result in changes to the existing condition for this topic.

☐ **No**	☒ **Yes**	
	Topical Area/issue	**Changes**
	Transportation Systems	There are no anticipated changes or improvements to the existing transportation systems except for the new Project site access road approaches off of SR-142, Knight Road, Mesecher Road, and Butts Road. The new Project access roads would be for construction and operations use only and will not create new travel routes for residents in the vicinity of the Project. The Applicant will obtain County Road Right-of-Way Access Permits and WSDOT Right-of-Way Access Permits for the proposed Project approaches on county and state roads. **<u>Construction</u>** The anticipated construction schedule for the Project is 15 months. At the peak of construction, it is estimated that approximately 900 one-way vehicle trips, or450 round trips will be made per day. During non-peak hours it is estimated that approximately 200

		round trips will be made per day. The peak of the construction period is assumed to occur over a 4-month timeframe. Construction will ramp up to peak and then slowly taper off until completion. For most of the construction period, the primary contribution to construction traffic is the workers' commute. Peak hour worker commutes are assumed to be from 6am-7am and 5pm-6pm, five days a week. It is assumed that 50% of the workforce will be commuting from U.S 97 North and 50% of the work force will be commuting from U.S 97 South. Once exited from U.S 97, the workers would then take SR-142 west towards the Project location. When workers arrive at or leave from the Project site they will access or egress from one of the proposed access roads off of SR-142, Knight Road, Butts Road, or Mesecher Road. Heavy-duty trucks will be delivering materials for the Project. At the peak of construction it is estimated that there will be 20 deliveries per day. Deliveries would arrive anytime throughout the workday. At non-peak times it is estimated there will be 10 deliveries per day throughout the workday. If water is purchased and hauled to the site instead of accessed from an on-site source, an average of approximately 14 water truck deliveries per day would be anticipated, assuming an average capacity of 4,000 gallons. WSDOT level of service map gives SR-142 and U.S. 97 a grading of "C." The remaining roads around the Project have not been graded by WSDOT. A grading of "C" indicates that speeds are near free flow with restricted freedom to maneuver. It is anticipated that the Project will have minimal effects on the current level of service of the roads. Based on current traffic data from WSDOT, the project would increase the average annual daily traffic (AADT) on SR-142 from 2,101 to 3,001 during peak construction. The project will increase the AADT on U.S 97 from 5,236 to 6,136. The majority of this traffic will be during the worker commute, and during the anticipated 4-month peak construction. This level of temporary increase in traffic counts is not anticipated to create a significant impact on current traffic conditions.

		Operations Operations traffic is anticipated to be negligible. There will be around 1-3 round trips per day during the operational time period. This will not affect the current surrounding LOS. In the event that off-site water is required to be hauled to the project for panel washing, hauling the water would require approximately 61 water truck deliveries per year, occurring during the approximately 2 to 3 weeks per year that panel washing may occur. These deliveries will likely be during off-peak hours.
	Waterborne, Air, and Rail Traffic	No appreciable changes are anticipated to occur to waterborne traffic. While it is anticipated that construction materials may be shipped, normal container traffic would not noticeably increase, either in the shipping lanes or at the delivery port. Although it is unlikely for barge or rail transport to be used for Project shipping, if they were used the Project would represent a small proportion of total shipping on these routes and no changes are anticipated for barge or rail traffic.
	Public and Pedestrian	There are no public transportation or pedestrian changes anticipated to occur given the low level of known pedestrian and public transportation use of these routes.
	Parking	There will be no negative impact on public parking. There are currently no designated public parking spaces in the Project Study Area. During construction, workers will park within designated areas of the construction site and not on public roads. Parking needs during operations would be limited to occasional use by up to three employees at the O&M building. The Project will have a gravel parking area at the O&M building to accommodate these employees. As the O&M building is internal to the Project, no vehicular backing up or maneuvering would occur within a public right-of-way.
	Movement of People or Goods	Construction and use of the Project approach along SR-142 may temporarily increase traffic along that roadway. Therefore, a Traffic Control Plan, in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD) will be prepared for approval by WSDOT. Similarly, a Traffic Control Plan, in compliance with the current MUTCD, will be prepared in coordination with Klickitat County for

		construction of approaches along Knight Road, Butts Road, and Mesecher Road. Post-construction Project operations will not affect the movement of people or goods within or surrounding the Project Area.
	Traffic Hazards	Use of the Project approach onto SR-142 has the potential to cause traffic hazards if not marked and mitigated. Therefore, a Traffic Control Plan, in compliance with the current MUTCD, will be prepared prior to construction site activities. The Applicant will obtain oversize and overweight haul permits in compliance with WSDOT and Klickitat County requirements to safely haul equipment on highways and county roads. The Applicant will also obtain applicable permits from WSDOT and Klickitat County for access to public road right-of-way. A Traffic Control Plan will be prepared in coordination with WSDOT and the Klickitat County Public Works Departments to mitigate transportation hazards during the construction of Project access locations from public right-of way. The Project's BESS components would be delivered by truck to the Project in compliance with 49 CFR §173.185, which regulates the transportation of lithium-ion batteries and provides criteria for battery packaging and transport. For these reasons, the Project will not result in significant transportation hazards or impacts to traffic safety.

4.20.C.2 Changes to the Proposal from the Existing Condition

Would the existing condition for this topic have the potential to affect the proposal now or in the future?

☒ No	**☐ Yes**	
	Topical Area/issue	**Changes**
	N/A	N/A

4.20.D Proposed Mitigation and Monitoring

☒ Check this box when all final proposed mitigation is described here, or the location of the mitigation information is referenced here.

Are you proposing any mitigation, either required in rules or proposed for impacts?

☐ No	☒ Yes		
	Mitigation	**Applicable law and how well it addresses the impact**	**Expert agency participation**
	WSDOT Oversize and Overweight Permit and Klickitat County Overweight-Overwidth Permit	A Permit will be obtained for heavy or oversized loads in accordance with WSDOT and Klickitat County Regulations.	WSDOT
	WSDOT Right of Way Access Permit	Per WAC 468-51, the Applicant will obtain a General Permit from WSDOT to upgrade the portion of the approach off SR-142 that is within the WSDOT Right-of-Way.	WSDOT
	Klickitat County Right of Way Access Permit	The applicant will obtain access permits from Klickitat County to construct approaches from the County road right-of-way.	Klickitat County Public Works Department
	Traffic Control Plan	A Traffic Control Plan, in compliance with the current MUTCD will be developed to meet WSDOT and Klickitat County Transportation Standards for traffic control (KCC 12.30.070) during access improvements and work within rights-of ways.	WSDOT, Klickitat County Public Works Department
	General Mitigation Measures	General mitigation measures for road access and transportation include: • Development and implementation of an ESCP and SWPPP to minimize impacts from erosion and	

		sedimentation from construction related soil disturbance to include Project site access locations, on-site dirt access routes, haul routes, etc. • Obtaining applicable building permits and grading and excavation permits as required prior to construction. • Implement the appropriate geotechnical recommendations outlined in the Draft Geotechnical Report.	

4.20.E Effects on Other Environmental Elements not yet Discussed

Does any information provided for this topic affect other environmental elements (e.g. water, plants, animals, noise), that has not already been considered and discussed in this form?

☒ **No**	☐ **Yes**	
	Environmental Element	**Additional changes or effects**
	N/A	N/A

4.20.F References

Klickitat County. 2023. Interactive Map. Available online at: http://www.klickitatcounty.org/889/GIS-and-Maps

Washington State Department of Transportation (WSDOT). 2018. WSDOT Corridor Sketch Summary. US 97: Oregon State Line to SR 22 Jct (Toppenish). Printed at 11l18 AM 4/2/2018. Available at: US 97: Oregon State Line to SR 22 Jct (Toppenish) Corridor Sketch Summary (wa.gov)

WSDOT. 2023a. Functional Classification Map. Available online at: https://wsdot.wa.gov/about/transportation-data/roadway-data/functional-classification

WSDOT. 2023b. Traffic Data Reporting System. Available online at https://wsdot.public.ms2soft.com/tcds/tsearch.asp?loc=Wsdot&mod=TCDS

WSDOT. 2023c. Level of Service Standard Map. Available online at: WSDOT - Level of Service Standard - Overview (arcgis.com)

WSDOT. 2023. Road Guide Index. Available online at: Road Guide Index to Towns and T/R Maps | Klickitat County, WA

WSDOT. 2023. Corridor Sketch Summary. Available online at: SR 142: SR 14 Jct (Lyle) to US 97 Jct (Goldendale) Corridor Sketch Summary (wa.gov)

4.21 Public Services and Facilities

Part 4 Analysis is not required for this section.

4.22 Utilities

Part 4 Analysis is not required for this section.