Docket # 210012

Goose Prairie Solar

OER WA Solar 1, LLC

Application for Site Certificate,
Washington Energy Facility Siting Evaluation Council

January 19, 2021

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Table of Contents

Attachment List

A. Land Use Consistency Review
B. Preliminary Site Plan
C. Landowner Support Letters
D. Vegetation and Weed Management Plan
E. Additional Site Maps
F. Wildlife and Habitat Survey Report
G. Review of Rare Plant Occurence and Big Game Movement
H. Cultural Resources Survey Report
I. Acoustic Assessment Report
J. Visual Impact Assessment
K. Solar Glare Reports
L. Geotechnical Site Investigation and Critical Areas/Geohazards Report
M. FAA Determination of No Hazard
N. Department of Defense Consultations
O. Wetland Delineation Report
P. Socioeconomic Review
Q. Water Availability Letter
R. Habitat Mitigation Memo

Acronyms and Abbreviations

AG	Agricultural
Applicant	OER WA Solar 1, LLC
BESS	Battery Energy Storage System
BMP	Best Management Practice
BPA	Bonneville Power Administration
CARA	Critical Aquifer Recharge Area
CFR	Code of Federal Regulations
County	Yakima County
CRP	Conservation Reserve Program
CSWGP	Construction Stormwater General Permit
CUP	Conditional Use Permit
DAHP	Washington Department of Archaeology and Historic Preservation
DOH	Washington State Department of Health
Ecology	Washington State Department of Ecology
EFSEC	Energy Facility Site Evaluation Council
ESLU	Especially Sensitive Land Use
Facility	Goose Prairie Solar
FEMA	Federal Emergency Management Agency
gen-tie line	Interconnection Tie Line
kV	kilovolt
MW	megawatt
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
SR-24	State Route 24
SWOT	Strengths, Weaknesses, Opportunities, and Threats

SWPPP	Stormwater Pollution Prevention Plan
UL	Underwriters Laboratories
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
UWHCA	Upland Wildlife Habitat Conservation Area
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WISAARD	Washington Information System for Architectural and Archaeological Records Data
WSDOT	Washington State Department of Transportation
Yakama Nation	Confederated Tribes and Bands of the Yakama Nation
YCC	Yakima County Code
YCCP	Yakima County Comprehensive Plan
YCWRS	Yakima County Water Resource System

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Part 1 – Overview/Summary

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1.A. Basic Information

1.A.1. Applicant

Name/Contact:
OER WA Solar 1, LLC
c/o Blake Bjornson

Mailing address:
2003 Western Ave, Ste. 225
Seattle, WA 98121

Phone: 206-900-9931
Email: blake@oneenergyrenewables.com

1.A.2. Preparer

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

Name/Contact:
Tetra Tech, Inc.
c/o Linnea Fossum

Mailing address:
19803 North Creek Parkway
Bothell, WA 98011

Phone: 425-482-7600
Email: linnea.fossum@tetratech.com

1.A.3. Property Owner

There are two sets of properties, distinguished by the property owners: 1) the Estate of Willamae G. Meacham and 2) S Martinez Livestock, Inc. The Applicant has executed an Option to Lease with each landowner for the Facility parcels.

Meacham

Name/Contact:
Estate of Willamae G. Meacham
c/o Ann Meacham

Mailing address:
3918 77th Ave Ct. NW
Gig Harbor, WA 98335

Martinez

Name/Contact:
S Martinez Livestock, Inc.
c/o Dan Martinez

Mailing address:
13395 Highway 24
Moxee, WA 98936

1.A.4. Location of Proposed Site

Meacham Property:

County: Yakima
County Assessor's number(s): 211218-11003, 211218-43004, 211218-44003

Section: 18 T**ownship:** 12 North **Range:** 21 E.W.M.

Legal description:

211218-11003
That portion of the following described tract lying Northerly of State Route 24:
Section 18, Township 12 North, Range 21, E.W.M., records of Yakima County, Washington;
EXCEPT the South 1/2 of the Southeast 1/4;
EXCEPT those portions deeded to the State of Washington by instruments recorded in Volume 371 of Deeds, under Auditor's File Number 1018033, and in Volume 377 of Deeds, under Auditor's File Number 1037489, and in Volume 843 of Official Records, under Auditor's File Number 2286850;
AND EXCEPT that portion appropriated by the State of Washington in Yakima County Superior Court Cause No. 80-2-02429-8;
ALSO
The South 350 feet of the North 450 feet of the West 450 feet of the Northwest 1/4 of the Northwest 1/4 of Section 18, Township 12 North, Range 21 East, W.M.
Situated in Yakima County, State of Washington.

211218-44003
That portion of the following described tract lying Northerly of State Route 24:
The Southeast 1/4 of the Southeast 1/4 of Section 18, Township 12 North, Range 21, E.W.M., records of Yakima County, Washington;
EXCEPT those portions deeded to the State of Washington by instruments recorded in Volume 370 of Deeds, under Auditor's File Number 1015996, and in Volume 843 of Official Records, under Auditor's File Number 2286858;
AND EXCEPT that portion appropriated by the State of Washington in Yakima County Superior Court Cause No. 80-2-02429-8.
Situated in Yakima County, State of Washington.

211218-44003
That portion of the Southwest 1/4 of the Southeast 1/4 of Section 18, Township 12 North, Range 21, E.W.M., lying Northerly of the right of way of State Highway 24.
Situated in Yakima County, State of Washington.

Martinez Property:

County: Yakima
County Assessor's number(s): 211207-11001, 211207-21001, 211208-32001, 211217-21002, 211208-11001

Section(s): 7, 8, 17 **Township:** 12 North **Range:** 21 E.W.M.

Legal description:

211207-11001
The East ½ of Section 7, Township 12 North, Range 21, E.W.M., records of Yakima County, Washington.
Situated in Yakima County, State of Washington.

211207-21001
The West ½ of Section 7, Township 12 North, Range 21, E.W.M., records of Yakima County, Washington.
Situated in Yakima County, State of Washington.

211208-32001
The West ½ of the Southwest ¼ of Section 8, Township 12 North, Range 21, E.W.M., records of Yakima County, Washington;
EXCEPT a strip 20 feet wide along the West side for road purposes.
Situated in Yakima County, State of Washington.

211217-21002
The North ½ of the Northwest ¼ of Section 17, Township 12 North, Range 21, E.W.M., records of Yakima County, Washington.
Situated in Yakima County, State of Washington.

211208-11001
The East 1/2 of the Northeast 1/4;
AND
The Southwest 1/4 of the Northeast 1/4;
AND
The Southeast 1/4 of the Northwest 1/4;
AND
The Northeast 1/4 of the Northeast 1/4 of the Southwest 1/4;
AND
The West 1/2 of the Northeast 1/4 of the Southwest 1/4;
AND
The West 1/2 of the Southeast 1/4;
All in Section 8, Township 12 North, Range 21, E.W.M.
Situated in Yakima County, State of Washington.

1.B. Project Summary

OER WA Solar 1, LLC (the Applicant) proposes to construct and operate Goose Prairie Solar (the Facility), an 80 megawatt (MW) solar photovoltaic project with an optional battery storage system located in Yakima County, Washington. The Facility will utilize solar photovoltaic (PV) panels to convert energy from the sun into electric power which is then delivered to the electric power grid.

The Facility will consist of PV modules mounted on single-axis trackers supported on stationary piles. Each row of solar panels will be strung together in a north-south orientation and the panels will tilt on a single-axis (facing east in the morning and tilting toward the west, following the sun, through the course of each day to maximize energy output). Each string of panels is arranged in rows with approximately eight to twelve feet of space between the rows. The racking system and panels are supported by steel piles driven to a depth of 5 to 9 feet below grade. The top of the panels will stand no higher than 14 feet.

Throughout the Facility, inverters paired with medium voltage step-up transformers convert the generated electricity from direct current (DC) to alternating current (AC) and increase the voltage to distribution class to minimize ohmic losses when collecting power circuits. The output will be conveyed to a central substation near the Point of Interconnection (POI) to the electrical grid. The central substation will house a generator step-up transformer, which will convert the power to 115 kilovolts (kV) and will house the controls for the Facility. An operations and maintenance (O&M) building may be built adjacent to the substation.

The optional battery energy storage system would not exceed the nominal 80 MW capacity of the Facility. As currently designed, optional battery storage system would be connected to the DC side of the transformer. The battery would store power generated by the Facility and dispatch it to the electrical grid at a later time. The Facility is currently designed to utilize lithium ion battery energy technology. However, pending commercial interest, the Facility could be designed to utilize flow battery technology.

The Facility will interconnect with a new POI to Bonneville Power Administration’s (BPA) Midway to Moxee 115-kV transmission line, which bisects the Facility. BPA will build, own and operate the structures which constitute the POI.

The Facility will be accessed by an existing approach from Washington Highway 24. The Facility will be secured with a fence up to eight feet in height with access gates for authorized personnel. Internal gravel roads built to the applicable fire code will be used to maintain the Facility. During construction, a temporary lay-down area will be utilized for delivery of major equipment. This area will convert to parking during operations.

The Applicant intends for the Facility to have a Commercial Operations Date (COD) as early as November 30, 2022. In order to meet this schedule, it is expected that construction would begin in Q3 2021.

1.C. Site Summary

The Facility area is approximately eight miles east of the City of Moxee on parcels located just north of Washington Highway 24, between its intersections with Morris Lane and Desmarais Cutoff. The coordinates for the center point of the Facility are 46°32'07.08" north latitude and 120°13'52.64" west longitude.

The Facility will be located across a portion of eight parcels which together constitute the “Facility Parcels.” Three of the parcels are owned by the Estate of Willamae G Meacham and together are known herein as the “Meacham Property” and the other five parcels are owned by S. Martinez Livestock, Inc. and together are known herein as the “Martinez Property”. The Applicant has entered into long-term land leases with the landowners for adequate acreage to accommodate the Facility. All the parcels in the Facility area are zoned agricultural (AG). In Yakima County, “power generating facilities” are a Type 3 use in the AG zoning district and may be authorized subject to the approval of a conditional use permit.

The Meacham Property is currently in the Conservation Reserve Program (CRP) which is set to expire on 9/30/2022. The habitat type within the portion that will be utilized for the Facility is mainly CRP with a small component of Pasture Mixed Environs and the vegetation consists primarily of non-native species such as downy brome, crested wheat, Russian thistle, mustard species and others. There is no current agricultural use, though a portion of the area was previously used for row crops. No existing buildings are present on the Meacham Property.

The Martinez Property has two distinct areas: four of the parcels may be used for solar facilities and one parcel may be utilized for an aerial easement for the interconnection tie-line depending on the final design of the interconnection with BPA. The area that may be utilized for solar facilities has a historic and current use of grazing and has habitat types categorized as a mix of Eastside Grasslands, Shrub-steppe and Pasture Mixed Environs with predominantly native vegetation including sagebrush and wheatgrass; much of the shrub-steppe area is degraded in its quality due to heavy grazing. The area which may be utilized for an aerial easement is currently planted with an orchard. BPA’s Midway-to-Moxee 115 kV transmission line, which the Facility directly relies on, crosses the Martinez Property. A few agricultural buildings exist on the Martinez Property, but none are within the Facility Area.

The Facility area is wholly outside of the 100-year FEMA floodplain and the only water features present are ephemeral streams, from which the Facility will maintain a minimum 50-foot buffer on both sides. A crossing of the ephemeral stream may be constructed. The Facility area generally has a south-facing slope, ideal for solar PV proejcts, and is mostly under 10% grade, ideal for constructibility. A few small areas with grades above 10% may require grading, though none of this will occur in surface waters, wetlands or frequently flooded areas.

1.D. Screening 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?
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	Yes
5. Water Quality – Stormwater Runoff	Yes	Yes	Yes	Yes	Yes
6. Water Quantity – Water Use	No	Yes	Yes	Yes	Yes
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
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

	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?
17. Recreation	No	N/A	Yes	Yes	N/A
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	Yes	Yes	Yes	Yes	Yes

1.E. List of Study Reports

Topic	**Name of Report and Location for Review**	**Status** (e.g., scoping, contracting for, started)	**Date of Completion** (past or expected)
Land Use	Land Use Consistency Review, Attachment A	Complete	Dec 2020
Habitat/Wildlife	Habitat and Wildlife Survey Report, Attachment F	Complete	Sep 2020
Plants/Wildlife	Review of Rare Plant Occurrence and Big Game Movement, Attachment G	Complete	Oct 2020
Cultural Resources	Cultural Resources Survey Report, Attachment H	Complete	Sep 2020
Noise	Acoustic Assessment Report, Attachment I	Complete	Jan 2021
Visual	Visual Impact Assessment Report, Attachment J	Complete	Dec 2020
Glare	Solar Glare Reports, Attachment K	Complete	Jan 2020
Earth	Geotechnical Site Investigation and Critical Areas/Geohazards Report, Attachment L	Complete	Dec 2020
Airspace	FAA Determination of No Hazard Letters, Attachment M	Complete	Jul 2020
Wetlands	Wetland Delineation Report, Attachment O	Complete	July 2020

1.F. List of Stakeholders

Type	Specific	Contact (name, program)	Areas of discussion	Status of engagement
Local Government	Yakima County	Thomas Carroll and Dinah Reed, Planning Department	Land Use, Permitting	Ongoing
State Government	WDFW	Eric Bartrand and Scott Downes	Wildlife	Ongoing
Local Government	Ecology	Lori White	Wetlands	Contacted
State Government	DAHP	Gretchen Kaehler	Cultural Resources	Contacted
Tribal Government	Yakama Nation	Jessica Lally	Cultural Resources	Ongoing
Federal Government	Department of Defense	Kim Peacher	Airspace	Complete
Federal Government	FAA	Daniel Shoemaker	Airspace	Ongoing
Federal Government	BPA	Christopher Lockman	Interconnection	Ongoing
Landowner	Neighbors	All neighbors within one mile of Facility Parcels	General	Best efforts to contact by phone during Nov/Dec 2020
State Government	WSDOT	Jacob Prilucik	Access	Ongoing
Local Government	YakCo Fire Marshal	Andrea Ely	Fire Roads, etc	Ongoing
Local Government	YakCo Noxious Weed Control Board	Susan Bird	Weed Management	Ongoing

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Part 2 – Core Information

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2.A. Project Basics

2.A.1. Project Name

Goose Prairie Solar (the Facility)

2.A.2. Project Description

2.A.2.a. Introduction

Goose Prairie Solar is an 80 megawatt (MW) alternating current (AC) solar photovoltaic project with an optional battery storage system capable of storing up to 80 MW of energy located in Yakima County, Washington. Honoring former Supreme Court Justice William O. Douglas, the Facility takes its name from the Yakima-native's summer home located in northwestern Yakima County.

The Facility would be located approximately eight miles east of the City of Moxee along Washington State Route 24 (SR-24), between its intersections with Morris Lane and Desmarais Cutoff (see Figure 2-3). The Facility would interconnect to Bonneville Power Administration's (BPA) Midway-to-Moxee 115 kilovolt (kV) transmission line, which traverses the site.

The Facility would be sited on parcels zoned Agricultural (AG) under the Yakima County Code (YCC). The Facility meets the criteria of a "power generating facility" which is classified as a "Type 3" use in the YCC's Title 19, Unified Land Development Code, Allowable Land Use Table (YCC Table 19.14-010). Per YCC 19.14-010(2), a Type 3 use is subject to a Conditional Use Permit (CUP) as set forth in YCC 19.30.030. Therefore, the Facility is consistent with and in compliance with the county zoning ordinances. Please see the Land Use Consistency Review, Attachment A, for a complete review of the Facility's compliance with the Yakima County Comprehensive Plan and the Yakima County Code.

The Facility would have a number of benefits to the local community and Washington state. Construction of the Facility would support up to 300 jobs during peak construction. The Applicant estimates that up to 80% of the construction jobs can be hired locally and would advertise open positions at local job fairs and through other local advertising to enable as much local hiring as possible.

The Facility would provide Yakima County with additional property tax revenue and provide the local landowners with stable revenue to supplement their agricultural operations which are subject to market volatility. Finally, construction of this renewable energy resource would help Washington meet its goal of 100% clean electricity supply as set forth in the Clean Energy Transformation Act (CETA), passed by the Washington legislature in 2019.

2.A.2.b. Facility Siting Characteristics

The Applicant chose this location in Yakima County in consideration of many suitability characteristics, including but not limited to: the high solar energy resource, the underlying topography and land traits, access to electrical infrastructure, compatible zoning criteria, and low impacts to land use and habitat.

As shown in Figure 2-1, Yakima County has some of the highest solar energy resource areas in the State of Washington. This higher resource means that each solar panel can produce more electricity on an annual basis than one sited in a lower resource area. While the solar resource is superior east of the Cascade Mountains, there is limited existing electrical infrastructure with the available interconnection capacity to connect a project of this size. This electrical constraint creates a limiting factor for locations where solar energy projects are economically feasible in Washington.

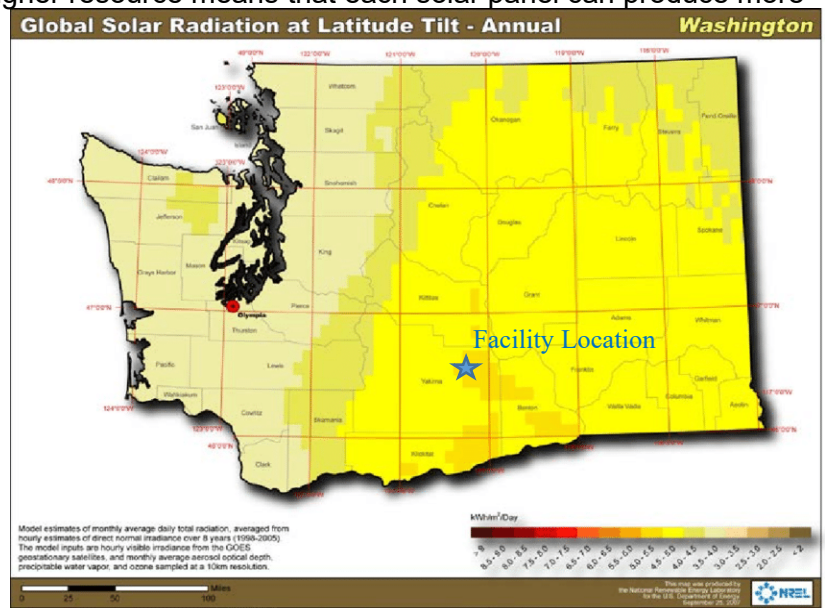

Figure 2-1: Solar Resource Map, National Renewable Energy Lab

BPA's existing Midway-to-Moxee 115 kV transmission line crosses Yakima County and has sufficient electrical capacity to support the addition of 80 MW of generation without significant or cost-prohibitive upgrades to the grid (more information on interconnection is provided below). This combination of a good solar resource and direct access to low-cost interconnection constitutes a unique resource upon which the Facility is dependent.

In selecting a location along the Midway-to-Moxee 115 kV line in Yakima County, the Applicant considered multiple locations and ultimately selected this site for several reasons. It has direct access to the existing electrical infrastructure that bisects the property. It is predominately located on disturbed habitat due to past farming, heavy grazing and the bisection of the area by the existing transmission line. The Applicant engaged in early-stage site selection consultation with Washington Department of Fish and Wildlife (WDFW) which led to this site being preferred over sites further east due to it having less ecologically-sensitive habitat. The site has robust access routes already built. The topography is flat to south facing which is ideal for solar photovoltaic projects. The landowners desire to develop their property for a higher and better use. And finally, the zoning criteria at the location allows a "power generating facility" as a conditional use in Yakima County.

2.A.2.c. Facility Location

The Facility would be located in Township 12 North, Range 21 East (see Figures 2-2 and 2-3 for a context map and a site map, respectively) just north of State Route 24, between its intersections with Morris Lane and Desmarais Cutoff. The coordinates for the center point of the Facility are 46°32'07.08" north latitude and 120°13'52.64" west longitude.

The Facility would be located across a portion of eight parcels which together constitute the "Facility Parcels"; the total acreage of the Facility Parcels is 1,568 acres. Three of the parcels are owned by the Estate of Willamae G Meacham and together are known herein as the "Meacham Property"; the Meacham Property consists of tax parcels 211218-11003, 211218-43004, and 211218-44003. The other five parcels are owned by S. Martinez Livestock, Inc. and together are known herein as the "Martinez Property"; the Martinez Property consists of tax parcels 211207-11001, 211207-21001, 211208-11001, 211208-32001, and 211217-21002. The Applicant has entered into long-term land lease agreements with the landowners for adequate acreage to accommodate the Facility. Both landowners have provided letters of support for the Facility, which are enclosed as Attachment C.

The majority of the Meacham Property parcels are currently enrolled in the Conservation Reserve Program (CRP) which is set to expire on September 30, 2022. The CRP area consists predominantly of non-native plant species such as downy brome, crested wheat, Russian thistle, mustard species and others. The remainder of the Meacham Property consists of a draw running east-west across the northern end of the property. This area is considered intact shrub-steppe habitat and would be avoided by the Facility. There is no current agricultural use, though a portion of the area was previously used for row crops. There are no existing buildings on the Meacham Property. The property is immediately adjacent to State Route 24.

The Martinez Property has two distinct areas: four of the parcels may be used for solar facilities and one parcel may be utilized for an aerial easement for the interconnection tie-line depending on BPA's final design of the interconnection facilities. The four parcels of the Martinez Property that may be utilized for solar facilities have a historic and current use of grazing and consist mainly of eastside grassland and shrub-steppe habitat with predominantly native vegetation. The shrub-steppe draw described above continues across the Martinez Property and would be avoided by the Facility to allow for terrestrial Outside of the Facility Area Extent (further described below), there is an agricultural building and two abandoned buildings previously used as residences on the property that are no longer in use. BPA's Midway-to-Moxee 115 kV transmission line, which the Facility directly relies on, crosses the Martinez Property.

The portion of the Martinez Property that would be used for the transmission easement is herein known as the "Aerial Transmission Easement Area," as shown in Figure 2-3 below. The interconnection design would be determined before the execution of an Interconnection Agreement; if the final design from BPA does not utilize this parcel, then the Aerial Transmission Easement Area would not be a part of the Facility. The parcel which may be utilized for an Aerial Transmission Easement Area is currently planted with an orchard and has a residence which is owner-occupied.

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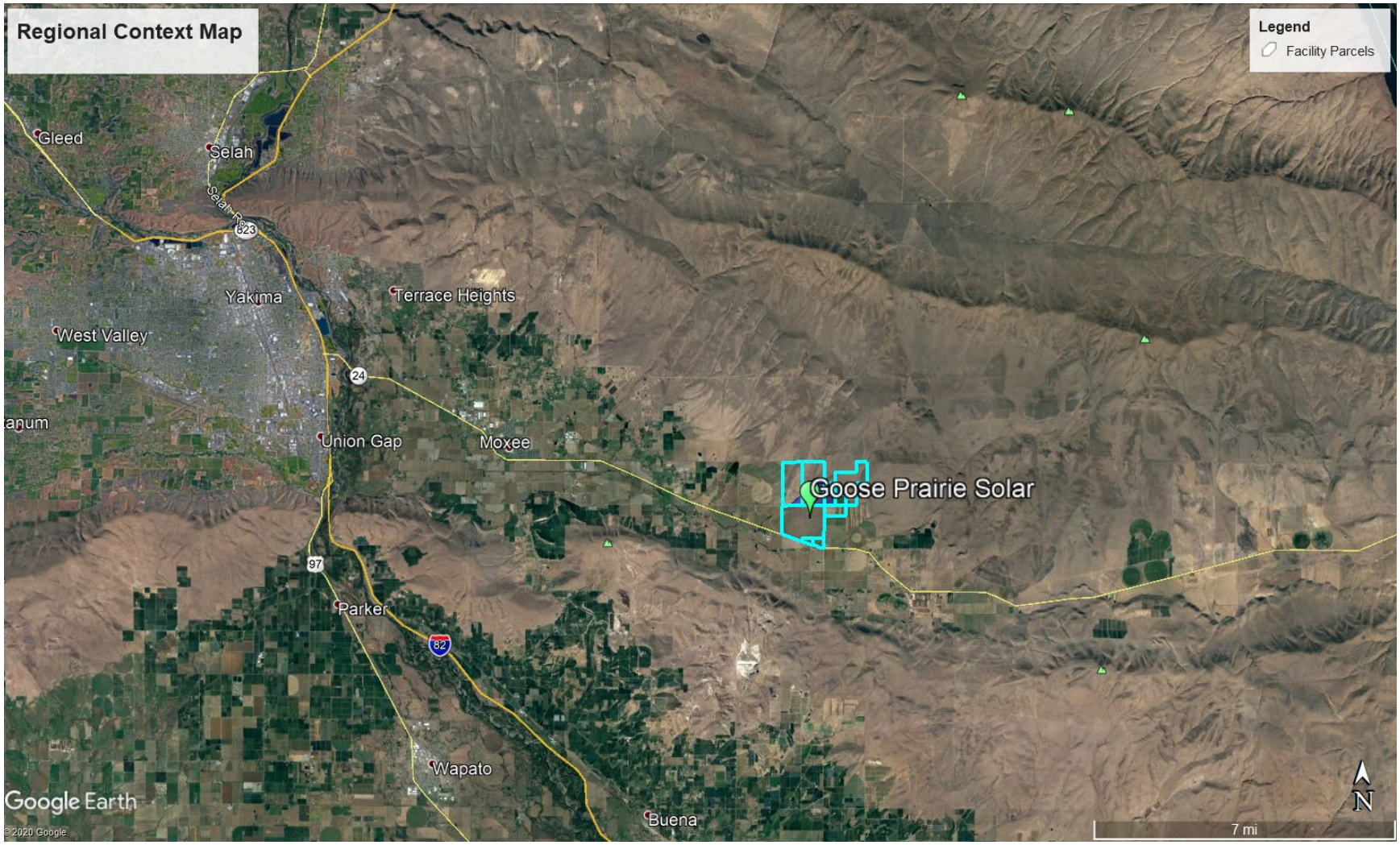

Figure 2-2: Regional Context Map

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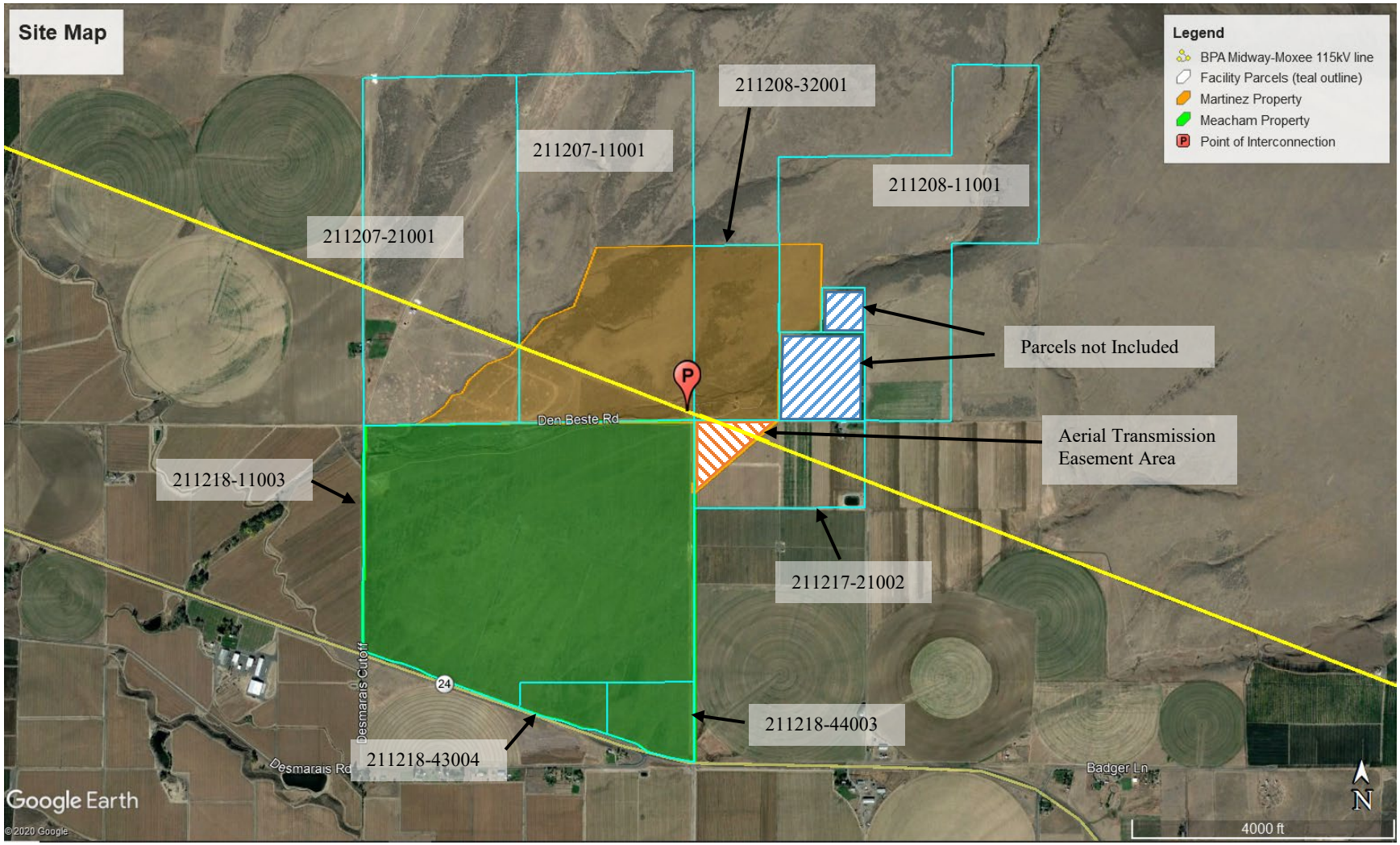

Figure 2-3: Site Map

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2.A.2.d. Facility Area Definitions

The Facility's footprint would not exceed 625 acres, defined as the Facility Area. The Facility Area would be located wholly within a broader micrositing boundary of 789 acres, defined as the Facility Area Extent. The Survey Area is the extent of the acreage that was surveyed for the wildlife, cultural and wetland surveys, which totals 808 acres and wholly encompasses the Facility Area Extent.

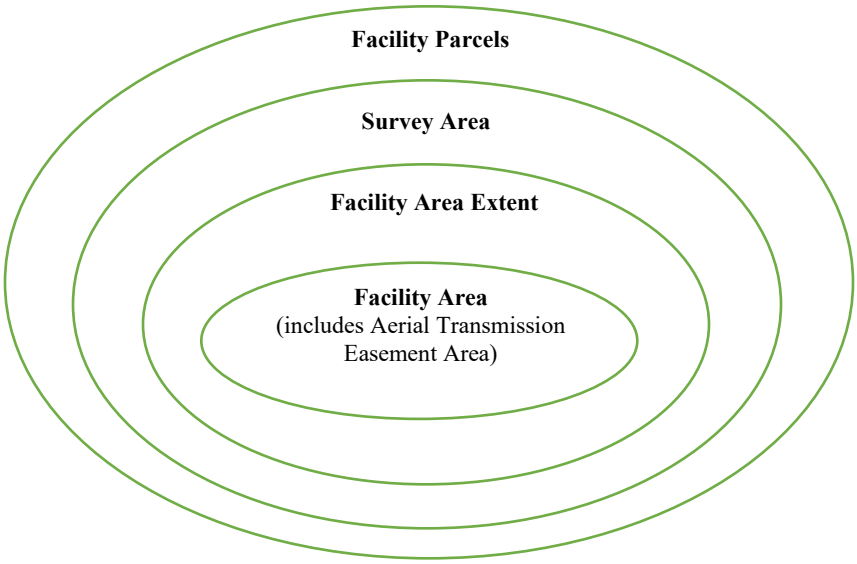

Figure 2-4: Area Definitions

The Facility Area Extent includes 517 acres of the Meacham Property and up to 272 acres of the Martinez Property. The 272 acres of the Martinez Property includes the Transmission Easement Area which is approximately 17.0 acres.

The Applicant requests that EFSEC allow the Applicant flexibility to microsite the precise location of Facility components within the Facility Area Extent and provide an updated site plan prior to construction. This gives the Applicant the ability to refine the spacing of solar modules, associated access roads, collector lines, staging areas and above-ground facilities within the Facility Area Extent as design is finalized. The requested flexibility to microsite the final Facility layout within the Facility Area Extent also allows the Applicant to minimize potential impacts and deliver the most effective and efficient Facility consistent with the landowners' needs. The maximum footprint of the Facility Area would not exceed 625 acres, located wholly within the Facility Area Extent.

2.A.2.e. Facility Components

As shown in the Preliminary Site Plan (see Attachment B), the Facility would consist of PV panels, inverters, mounting infrastructure, an electrical collection system, operation and maintenance building, access roads, interior roads, security fencing, a new collector substation and electrical interconnection infrastructure. The Applicant anticipates that the Facility would utilize a single-axis tracking system designed to optimize system output by slowly rotating the solar PV panels to follow the path of the sun. The Applicant proposes an optional battery storage system that would support the solar generation by balancing the resource and injecting energy onto the power grid during lower solar resource conditions.

The Facility would interconnect to the electrical grid at BPA's Midway-to-Moxee 115 kV transmission line via a line-tap to the existing line. A generation tie line (gen-tie line) from the Facility's substation to the transmission line line-tap would be constructed, estimated to be approximately 250 feet in length. The Midway-to-Moxee line bisects the Facility Area Extent and would require minimal new transmission lines to interconnect. As identified and confirmed through the BPA interconnection study process, the interconnection requires minimal new facilities at this location. The interconnection line-tap would be constructed, owned and operated by BPA.

The Applicant anticipates limited ground disturbance for the installation of the solar array, battery storage pad and electrical facilities. The Applicant would work with EFSEC and Yakima County officials to ensure all grading meets standard code for stormwater and sediment erosion control.

The Preliminary Site Plan (Attachment B) is based upon technical studies completed to-date and is subject to changes within the Facility Area Extent, but the Facility size would not exceed 80MW AC in size. The final locations of Facility components would depend upon results from outstanding technical studies and design (e.g. civil design and interconnection studies) and ongoing stakeholder consultations which may require changes to the Facility configuration to either minimize potential impacts to natural resources or to optimize Facility economics. Changes would be driven by Applicant's best management practices (BMPs), which are to site with the least disturbance necessary for the lowest impact feasible. A set of Construction Plans and Specifications would be provided to EFSEC for approval at least 60 days prior to the beginning of construction.

2.A.2.f. Major Equipment

Solar Modules. The photovoltaic solar modules, commonly known as solar panels, are the basic building blocks of the Facility. Each module is an assembly of photovoltaic cells, an electrical device that converts the energy of light directly into electricity by the photovoltaic effect. The Facility is currently designed to use a bifacial PV module, in which both sides of the module collect energy. This increases the output of each module by capturing additional energy from sunlight reflected off the ground to the back of the module.

Tracking System. The panels are mounted together into solar arrays on a steel racking system. The Facility would utilize a single-axis tracking system which turns slowly from east to west, tracking the sun throughout the day which increases electricity production. At maximum tilt, the panels may be up to thirteen feet above the ground.

Posts. The tracking system is secured to steel posts, also known as piles, which serve as the foundation. The piles are driven or screwed into the ground to a depth of approximately five to nine feet depending on soil conditions. The spacing of the piles can range dramatically depending on the system design and foundation installment methods. Generally, piles are expected to be placed between 10 and 30 feet apart. The final layout and number of posts would be greatly influenced by the geotechnical conditions and the choice of racking manufacturer.

Cabling. Throughout the Facility, electric cables transmit the electric current produced by the solar arrays to pad-mounted inverters and transformers. Depending on site conditions, the cables may be buried at a depth of at least three feet or strung above-ground along the tracking system in cable trays.

Inverters and Transformers. The electricity produced by the panels is in direct current (DC) form and is converted by inverters into alternating current (AC). Each inverter is coupled with a medium voltage step-up transformer to increase the voltage of the power to a medium voltage of 34.5 kV which minimizes losses for collection of the power to the Facility Substation. The inverters and step-up transformers are mounted on concrete pads throughout the Facility.

Collector Lines. The transformers would be linked throughout the Facility via 34.5 kV collector lines which transmit the power to the Facility Substation. The collector lines would be strung overhead or buried at a depth of approximately three feet, pending final design.

Facility Substation. The Facility Substation is the final stop for the power on its way to the electrical grid. The Facility Substation consists of the main step-up transformer to increase the voltage to 115 kV for interconnection to the grid and the control house which houses protective equipment including communications equipment, circuit breakers, disconnect switches and relays. As currently designed, the Facility Substation would be situated on approximately 0.5 acres.

Operations and Maintenance Building. The Facility may include an Operations and Maintenance (O&M) building which would consist of a single-story structure with office space, warehousing space, a bathroom and breakroom facilities. Water would be provided by a new well or stored in aboveground water tanks brought in from offsite. Wastewater would drain into an onsite septic system. Electric service would be provided by the Benton Rural Electric Association, the local service provider. A graveled parking area with at least three spaces for employees and visitors would be located adjacent to the building. Relevant building permits would be obtained for the O&M building, including for the well and septic system. This includes a Yakima County Water Resource System (YCWRS) domestic well permit, Yakima County Health District permit for an onsite septic system, and general County building permit for the O&M building structure (see Section 3.6 (Water Quantity – Water Use) and the Land Use Consistency Review (Attachment A) for additional permitting details).

Access and Service Roads. The Facility would be accessed via a private road off State Route 24. The private road heads north from SR-24 directly across from Morris Lane at approximately 46°31'13.37" N, 120°13'48.66" W. This access road would lead to the main point of entry to the Facility which is approximately 300 feet to the north of SR-24, as currently designed. From the entrance to the Facility, internal service roads would be built to provide access to the inverters and transformers and around the perimeter of the Facility.

All roads including the access road would be built to fire code standards as set by the Yakima County Fire Marshal's Office. Roads would be constructed of an all-weather road surface, have a minimum width of 20 feet and approved turning radii and turnarounds. The final layout would be provided to the Yakima County Fire Marshal's Office. The Applicant has consulted with the Yakima County Fire Marshal's Office, providing them with the Preliminary Site Layout and the commitments made in this ASC related to fire planning.

The existing approach off SR-24 would be upgraded to accommodate the Facility. The Applicant has consulted with the Washington Department of Transportation (WSDOT) regarding the preferred approach and the necessary permits required for upgrading it. The Applicant would obtain a General Permit from WSDOT prior to upgrading the approach.

Fences, Gates and Security Lighting. The Facility would be enclosed by a perimeter chain-link fence up to eight feet in height and raised four inches above grade, per WDFW

recommendations. Access to the Facility would be gated and locked with gates 20 feet in width with accessible hardware per fire department requirements.

Lighting is needed for security and occasional after-hours work, however the Applicant would limit the amount of lighting and would shield lighting as needed.

Battery Energy Storage System. The Facility includes an optional battery energy storage system (BESS). The BESS would not exceed the nominal capacity of the Facility, which is 80 megawatts AC. BESS systems installed with generation facilities can be designed as an AC-coupled system or a direct current (DC)-coupled system for front-of-the-meter applications such as this Project. As currently designed, the BESS is DC-coupled, meaning it is located downstream of the solar inverters and the power output of the storage system would be limited by the individual inverters that the batteries are connected to, charging solely off power produced by the solar Facility.

While a BESS system offers a wide spectrum of critical grid services from energy power generation to energy capacity to accessory power functions to resiliency benefits, the benefit of a BESS system at Goose Prairie would be to store and smooth the renewable generation. Storing excess solar-generated electricity and supplying it back to the grid or to local loads when needed would offer a wide array of benefits, such as reducing renewable curtailments, avoiding negative wholesale power prices coincident with wind and solar over-generation, and limiting price spikes related to evening peak ramping needs. Co-locating batteries with solar allows system owners to more predictably manage the power supplied to the grid.

The Facility may use one of two options for battery technology: lithium-ion or flow batteries. The BESS system would hold power in a series of modular, self-contained containers (typically steel). The flow battery technology uses an electrolyte solution circulated through two tanks. While not considered a hazardous material, the electrolyte solution would be contained within the encased steel container in the unlikely case of a leak. The lithium-ion battery technology is composed of individual cells that are hermetically sealed and would not be opened onsite for any installation or maintenance purposes and do not have any wastewater discharges. Lithium-ion batteries contain flammable liquids that can become heated during operation. Accordingly, each lithium-ion BESS would 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 BESS would include monitoring equipment and alarm systems with remote shut-off capabilities. Installation, maintenance, and decommissioning of BESS components would be done in compliance with 49 CFR §173.185, which regulates the transportation of lithium-ion batteries. The Facility would use thoroughly proven, financeable batteries, inverters, and related equipment, including battery products that are listed or certified by Underwriters Laboratory (UL), the industry’s foremost safety and sustainability third-party standard. See Section 4.13 (Environmental Health) for further discussion of emergency safety measures for the Facility.

The key driver for whether the BESS system would be included in the Facility final design is contingent upon pending commercial discussions with the Facility’s long-term energy off-taker.

2.A.2.g. Construction

Facility construction is estimated to take nine to twelve months. At peak construction the Facility would employ up to 300 workers. All features would be designed in accordance with Washington State and Yakima County regulations, including those for erosion, sediment control

and stormwater. Additionally, the Applicant will obtain an Electrical Construction Permit from the Washington Department of Labor and Industries.

During the first 30 days there would be clearing and grubbing activities and grading of access roads. Construction personnel would be limited to less than approximately 20 workers during this period. Once the facility construction begins, the onsite head count would begin to increase and peak at approximately 300 workers. During the final 30-day period, the electrical work would be completed, and the headcount would begin dropping back to approximately 30 workers. After construction there would be some additional onsite work for plant start-up and testing and would involve utility company personnel.

Vehicle traffic for onsite personnel is expected to be at a ratio of 0.5 vehicles per worker with arrival times being spread across a two-hour window in the mornings. The delivery of materials should not exceed twenty deliveries per day at peak and would taper off significantly once all the panels and trackers are onsite.

Fugitive dust emissions from the site would typically be generated only from the vehicular traffic on the access roads during the construction period. The Applicant would minimize fugitive dust emissions as described in Section 4.2 (Air Quality).

The Facility would require the typical equipment used in many construction projects. Because solar farms are low to the ground, there is very minimal work performed at great heights. The installation work would be performed utilizing the following equipment: skid steers, light dozers, excavators, pile drivers, reach fork lifts, light duty utility vehicles, heavy duty utility vehicles and delivery trucks.

The Applicant will develop a detailed Construction Management Plan addressing the primary site preparation and construction phases and based generally on mitigation measures as summarized in Section 2.A.5. The plan will be submitted to EFSEC at least 60 days prior to site preparation. The Applicant will also provide EFSEC with an overall construction schedule at least 30 days prior to site preparation. Finally, at least 60 days prior to construction, the Applicant will provide EFSEC with a set of construction plans, specifications, drawings and design documents that demonstrate the Facility is in compliance with conditions of the Site Certificate Agreement.

2.A.2.h. Operations and Maintenance

The expected life of the Facility is assumed to be 35 years. However, depending on the commercial market for renewable energy, the Facility could be updated with more efficient components over time which could extend its useful life. Minimal on-site maintenance would be required over the life of the Facility. Routine maintenance checks on the equipment would occur quarterly. Routine mowing and spot treatment for invasive grasses would occur in the spring and the fall and would follow the plan outlined in the Vegetation and Weed Management Plan (Attachment D). Additional maintenance would occur as needed, but it is not anticipated that any full-time staff would be employed by the Facility.

2.A.2.i. Site Restoration

Per WAC 463-72-040, the Applicant would develop an Initial Site Restoration Plan and submit this plan to EFSEC at least 90 days prior to the beginning of site preparation. 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 restoration or management costs. The objective of the plan would be to restore the site to approximate pre-Facility condition or better. The plan would 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 pre-construction condition.

Due to the limited ground disturbance and anticipated benefits to local soil quality, the Facility Area would be returned to agricultural use following decommissioning of the Facility, at the landowner's discretion.

2.A.2.j. Socioeconomic Review

Per WAC 463-60-535 and instruction from EFSEC, the Applicant has prepared a Socioeconomic Review (Attachment P). The document contains information about population and labor force impacts and housing. Even at peak construction, the Facility will not require enough workers to significantly impact the overall unemployed labor force in Yakima County. There are sufficient laborers for Facility construction and operations within a reasonable commuting distance. Any non-local hires may commute from within Yakima County or the Tri-Cities area or they may relocate temporarily. There is sufficient capacity to house any temporary workers in hotels, motels or RV parks.

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

Phase	Proposed Timing	Duration	Employee numbers on site & frequency	Public Access (yes/no)
Site preparation	Mar 2022	30 days	<20	No
Construction	Apr-Dec 2022	270 days	Estimated max of 300	No
Operation/use	Dec 31, 2022	35 years	None full-time	No
Closure/reclamation	End of life	6-8 weeks	TBD	No

A detailed Construction Schedule would be submitted to EFSEC at least 30 days prior to start of site preparation.

2.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

2.A.4. Site Maps

Map #	Map Name	Purpose and Description	Status
Attachment B	Preliminary Site Plan	Shows layout of both existing structures and proposed Facility structures. This plan also includes a vicinity map, existing easements, adjacent land uses, proposed and required setbacks, the location of adjacent roadways and the access road, and the locations of water features.	Prelim
Attachment E, Map 1	Soil Map	Underlying soils per NRCS Soil Conservation Survey.	Yes
Attachment E, Map 2	Topographic Map	Shows the existing grade.	Yes
Attachment E, Map 3	Geological Hazards and Critical Aquifer Recharge Areas Map	County-provided data for geological hazards and Critical Aquifer Recharge Areas (CARA). Note that the data for these areas is not based on ground-truthed surveys. Please see the Geotechnical Site Investigation and Geohazards/Critical Areas Report (Attachment L) and Section 4.1 (Earth) for more information.	Yes
Attachment E, Map 4	Habitat Map	Habitat types identified in the Wildlife and Habitat Study Report (Attachment F).	Yes
N/A	Wildlife Map (Confidential)	Please see the Wildlife and Habitat Survey Report (Attachment F).	Yes
N/A	Cultural Resources (Confidential)	Please see the Cultural Resources Survey Report (Attachment H).	Yes

2.A.5. Mitigation Measure Summary

Mitigation Measure	Description	Expert agency participation
Earth		
Implementation of Geotechnical Recom-mendations	The Applicant would follow all geotechnical recommendations provided by GN Northern in section 14 of the Geotechnical Site Investigation and Critical Areas/Geohazards Report.	GN Northern, Inc.
Best Management Practices - Erosion	The Applicant would implement an Erosion and Sediment Control Plan (ESCP) and a Construction Phase SWPPP and Operations Phase SWPPP. These plans would address stormwater runoff, flooding, and erosion to assure compliance with state and federal water quality standards. The ESCP would include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. The SWPPP would include BMPs from the Department of Ecology's Stormwater Management Manual for Eastern Washington. The Vegetation and Weed Management Plan would be implemented to revegetate temporarily impacted areas and minimize erosion.	Ecology
Building Permits	The Applicant would obtain all necessary permits including a Building Permit and a Grading and Excavation Permit. The seismic design parameters to be considered are in the 2015 International Building Code (IBC) and American Society of Civil Engineers (ASCE) 7-10 and ASCE 7-16; these are in compliance with the Washington State Building Codes. The Facility would comply with the current codes at the time of construction, demonstrating compliance with WAC 463-62-020.	Yakima Planning Department and Washington State Building Code Council

Mitigation Measure	Description	Expert agency participation
Air Quality		
Best Management Practices - Air Quality	Washington Administrative Codes (WAC) addressing air quality include: • WAC 173-400-040(3) Fallout. • WAC 173-400-040(4–4a) Fugitive emissions. • WAC 173-400-040(5) Odors. • WAC 173-400-040(9)(a) Fugitive Dust. To adhere to these codes, the Facility would implement BMPs and standard construction practices, including the following: • Graveling, watering or other fugitive dust-abatement measures would be used as needed to control fugitive dust generated during construction. When applied, Applicant would use water or a water-based environmentally safe dust palliative such as lignin for dust control. • 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. • 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.	N/A
Water Quality – Wetlands and Surface Waters		
Avoidance	No wetland features exist within the Facility Area Extent. The stream features that are present are Type 5 streams which do not require a buffer per Yakima County Code. The Facility has been designed to maintain a 50-foot buffer from these streams in order to avoid, reduce or eliminate impacts to the delineated streams. The Facility has no impacts to wetlands and is consistent with WAC 463-62-050.	N/A

Mitigation Measure	Description	Expert agency participation
Stream Crossing Design	The stream crossing will be designed to minimize permanent impacts per YCC 16C.06.13, YCC 16C.06.17 and WAC 220-660-190, including: • Location and alignment of the proposed road crossing to minimize impacts to the stream corridor. • Excavated material not used to achieve the design grade shall be removed from the stream corridor. • Stream crossing structure (i.e., bridge or culvert) will be sized to accommodate ordinary high water or other design flow, sediment, and woody debris. • Site restoration and revegetation.	Ecology, WDFW
Best Management Practices - Stream Crossing Construction	The Applicant will implement BMPs during construction of the bridge or culvert as described at WAC 220-660-120 and in the Stormwater Management Manual for Eastern Washington. These measures include: • Stage materials and equipment to prevent contamination of Waters of the State • Develop and implement a Construction Phase Stormwater Pollution Prevention Plan (SWPPP), an Erosion and Sediment Control Plan (ESCP), and a Construction Phase Spill Prevention, Countermeasures, and Control (SPCC) Plan • Installation and maintenance of temporary erosion and sediment control measures including the appropriate use of silt fencing • Complete all work when no water is present	Ecology, WDFW
Hydraulic Project Approval	If deemed necessary following discussions with WDFW, the Applicant would obtain an HPA permit for the bridge or culvert from WDFW per WAC 20-660-050.	WDFW
Water Quality—Stormwater Runoff		
Construction Stormwater General Permit	In compliance with WAC 173-200, the Applicant would obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an Erosion and Sediment Control Plan (ESCP) and a SWPPP. Additionally, the Applicant would provide Yakima County with a Stormwater Plan in compliance with YCC 12.10.210.	Ecology

Mitigation Measure	Description	Expert agency participation
Best Management Practices - Stormwater	The ESCP and SWPPPs would address stormwater runoff, flooding, and erosion to assure compliance with state and federal water quality standards. The ESCP would include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. The SWPPPs would include BMPs from the Department of Ecology's Stormwater Management Manual for Eastern Washington. The Vegetation and Weed Management Plan would be implemented to revegetate temporarily impacted areas and minimize erosion.	Ecology
Preventative procedures to avoid spills	Substantial quantities of oils, fuels, and other potential contaminants are not expected to be stored on-site during construction or operation. The Applicant would prepare a Construction Phase Spill Prevention, Control, and Countermeasures (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. Preventative procedures and rapid response measures would address/prevent potential water quality issues. The Applicant would 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.	N/A
Plants		
Habitat Restoration and Mitigation Plan	The Applicant would develop and implement a Habitat Restoration and Mitigation Plan in consultation with WDFW and EFSEC. The Plan would detail the implementation of mitigation measures for impacts to the shrub-steppe habitat, including identification of the seed mixes that will be used for revegetation.	WDFW

Mitigation Measure	Description	Expert agency participation
Best Management Practices - Special Status Plant	During construction, existing trees, vegetation, and wildlife habitat would be protected and preserved to the extent practical. The Applicant would implement the Vegetation and Weed Management Plan (Attachment D). Noxious weeds would be controlled in compliance with RCW 17.10.140. All herbicide and pesticide applications would be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations; herbicides and pesticides would only be directly applied to localized spots and would not be applied by broadcasting techniques (RCW 17.21). Additionally, gravel for the Facility would be procured from a certified weed-free source. The Applicant would implement the Construction Stormwater Pollution Prevention Plan (SWPPP) and Operations SWPPP to reduce erosion.	WDFW

Mitigation Measure	Description	Expert agency participation
Wildlife		
Avoidance Measures	During siting and design, the Applicant took several measures to avoid and minimize impacts to wildlife and habitat. The Applicant has been in consultation with WDFW on this Facility since September 2017. Section 1b of the Habitat Mitigation Memo (Attachment R) includes a detailed history of this consultation. Avoidance measures include site selection screening focused on previously developed, or degraded sites such as the high-intensity agricultural region of the Moxee Valley, where the Facility is located. Based on WDFW feedback, the Applicant moved the site from one with greater potential impacts to Priority Habitat and Species to the current site. Siting the Facility immediately adjacent to the interconnecting transmission line avoids the construction of additional high-voltage transmission lines and accompanying habitat disturbance. Additionally, the Facility will avoid – and leave unfenced – the shrub-steppe sage draw located in between the northern and southern portions of the Facility (see Figure 4.9-3). The only Facility components in this area will be the collector electrical infrastructure and civil road infrastructure necessary to connect the Facility. Avoidance PV and fencing componentry in this approximately 62-acre area maintains higher-value habitat and leaves the corridor open for terrestrial movement and wildlife connectivity function.	WDFW
Minimization Measures	To minimize impacts to meso-carnivores and small mammals, the Facility has committed to raising the bottom of the fence by four inches above grade. To minimize impacts to birds and animals that attempt to jump the fence, razor wire will not be used with the fence. These fence specifications are in direct response to WDFW request. To minimize impacts to intact shrub-steppe, the proposed facilities north of the sage draw are intentionally located on areas of lower quality shrub-steppe habitat while avoiding other areas of intact shrub-steppe habitat to the extent practical. During construction, existing trees, vegetation, and wildlife habitat would be protected and preserved to the extent practical.	WDFW

Mitigation Measure	Description	Expert agency participation
Best Management Practices - Wildlife and Habitat	Unnecessary lighting would be turned off at night to limit attraction of migratory birds. This includes downward-directed lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. Where applicable, the Project's above-ground power lines are designed and constructed to minimize avian electrocution, according to guidelines outlined in Avian Power Line Interaction Committee standards (APLIC, 2012). Noxious weeds would be controlled in compliance with RCW 17.10.140 and the Vegetation and Weed Management Plan (Attachment D). All herbicide and pesticide applications would be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations; herbicides and pesticides would only be directly applied to localized spots and would not be applied by broadcasting techniques (RCW 17.21). Construction activities would only occur between the hours of 7 am and 10 pm in accordance with WAC 173-60-050 which would limit the impacts of construction noise to wildlife. Prior to construction, all supervisory construction personnel would be instructed on wildlife resource protection measures, including: 1) applicable federal and state laws (e.g., those that prohibit animal collection or removal); and 2) the importance of these resources and the purpose and necessity of protecting the resources, and ensuring this information is disseminated to applicable contractor personnel, including the correct reporting procedures. Construction personnel would be trained in the following areas when appropriate: awareness of sensitive habitats and bird species, potential bird nesting areas, potential bat roosting/breeding habitat, and general wildlife issues. Appropriate stormwater management practices in accordance with the SWPPPs that do not create attractions for birds and bats would be implemented. The Applicant would prepare an Erosion and Sediment Control Plan (ESCP) which would include BMPs to minimize surface water runoff and soil erosion.	WDFW

Mitigation Measure	Description	Expert agency participation
	The Applicant would prepare Spill Prevention, Control and Countermeasures (SPCC) Plans to be implemented during construction and operation to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release. Vehicle speeds would be limited to 25 mph to avoid wildlife collisions. Fire hazards from vehicles and human activities would be reduced (e.g., use of spark arrestors on power equipment, avoiding driving vehicles off roads, allowing smoking in designated areas only; WAC 463-60-352). The Applicant would prepare Fire Control Plans in consultation with the Yakima County Fire Marshal and the East Valley Fire Department. Following decommissioning, reclamation of the Facility Area shall begin as quickly as possible to reduce the likelihood of ecological resource impacts in disturbed areas.	
Compensatory Mitigation	In order to achieve “no net loss of habitat functions and values” as required by WAC 463-62-040, the Applicant proposes to coordinate with WDFW and EFSEC to determine an appropriate compensatory mitigation payment. The Applicant has prepared a Habitat Mitigation Memo (Attachment R), which provides context for determining the additional mitigation required to achieve “no net loss.” The Applicant proposes to begin meeting with WDFW and EFSEC within 15 business days of the submission of this ASC, aimed at conclusion of the discussion within 60 days of the first meeting and prior to completion of SEPA review. Once determined, the agreed-upon mitigation will be provided as supplemental information to this Section 4.9 to inform the SEPA determination and the EFSEC recommendation.	WDFW
Habitat Restoration and Mitigation Plan	The Applicant would prepare a Habitat Restoration and Mitigation Plan in consultation with EFSEC and WDFW. The plan would specify the mitigation obligations and implementation plans, including those for construction, operations and decommissioning. Additionally, the plan would include details for revegetation of temporarily disturbed areas, including identification of an appropriate native plant seed mixture for revegetation, the timing for restoration and a plan for monitoring the success of revegetation. The plan would address the requirements of	WDFW

Mitigation Measure	Description	Expert agency participation
	YCC 16C.11.070 and WAC 463-60-332(3). The plan would be finalized following issuance of the SCA and submitted to EFSEC for approval at least sixty days prior to site preparation.	
Environmental Health—Hazardous Materials		
Emergency Plans	The Applicant would develop a set of emergency plans including 1) a Construction Phase Emergency Plan, 2) a Construction Phase Fire Control Plan, 3) a Construction Phase Health and Safety Plan, 4) an Operations Phase Emergency Plan, 5) an Operations Phase Fire Control Plan, and 6) an Operations Phase Health and Safety Plan. More information on what each plan would contain and the submittal timeline is provided in Section 2.A.6. A copy of the plans would be maintained onsite in the operations and maintenance building and provided to local emergency services.	Yakima County Sheriff's Office East Valley Fire Department - Yakima County Fire District #4. Yakima County Fire Marshal's Office
Best Management Practices - Fire Prevention	To minimize the risk of fire or explosions, the Facility would implement Best Management Practices including: • Construction equipment would have spark-arresting mufflers, heat shields, and other protection measures to avoid starting fires. • Fire extinguishers would be available in vehicles and on equipment and work crews would be trained in fire avoidance and response measures. • During construction, water would be trucked on site and would be available for fire suppression should a fire occur. During operation, the Facility's proposed domestic water well would be accessible by standard firefighting equipment and provide adequate water for the potential need of the Facility. Additionally, the Applicant would provide training to fire responders and construction staff on a recurring basis during the life of the Facility. The intent of the training would 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 would include techniques for fire suppression of photovoltaic (PV) and BESS technology.	East Valley Fire Department

Mitigation Measure	Description	Expert agency participation
Use of approved herbicides	In compliance with RCW 17.10.140, the Applicant would only use herbicides that are approved for use in the state of Washington by the EPA and WSDA.	YakCo Noxious Weed Control Board
Battery Energy Storage System design	The proposed BESS option would 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.	NFPA
Noise, Light, Glare and Aesthetics		
Best Management Practices - Noise	WAC 173.60.050 exempts temporary construction noise from the state noise limits; however, some BMPs were considered to reduce off-site construction noise impacts. Since construction equipment operates intermittently, and the types of machines in use at the Facility change with the stage of construction, noise emitted during construction would be mobile and highly variable, making it challenging to control. The construction management protocols would include the following noise mitigation measures to minimize noise impacts: • Maintain all 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, would 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 utilize 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	N/A

Mitigation Measure	Description	Expert agency participation
	similar activities, together with appropriate material handling equipment; and • Utilize a complaint resolution procedure to address any noise complaints received from residents.	
Best Management Practices – Light, Glare and Aesthetics	The Facility will implement BMPs including: • Downward-directed 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
Archaeological and Historical Resources, Cultural Resources		
Avoidance of protected sites and/or DAHP permits	The Facility has been designed to avoid direct impacts to all cultural resources that are eligible for listing on the NRHP or protected by the WHR when feasible. As currently designed, the Facility has no direct impacts to such resources. However, as the design progresses, the Facility layout may be changed such that impacts to the resources that are protected by WHR are created. Site 45YA01808 in particular may be impacted by the Facility. The Applicant would continue to communicate with the Yakama Nation regarding the archaeological sites and the potential impacts of the Facility on these sites. If any WHR-protected site is impacted by the Facility, the Applicant would obtain a DAHP excavation permit and perform all necessary archaeological work in order to comply with RCW 27.53.	DAHP; Yakama Nation
Unanticipated Discovery Plan	In the event unrecorded archaeological resources are identified during Facility construction or operation, work within 30 meters (100 feet) of the find would 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 G of King et al. (2020) (Attachment H). The plan is in accordance with RCW 27.53.060 and RCW 27.44.040 protecting archaeological resources and Indian graves.	DAHP; Yakama Nation
Ongoing Communication with Yakama Nation	The Applicant will continue to communicate with the Yakama Nation regarding tribal resources that may be affected by the Facility. Additionally, the Applicant would continue to coordinate with the Yakama Nation regarding final design in relation to pre-contact archaeological sites. Lines of communication would remain open to better	Yakama Nation

Mitigation Measure	Description	Expert agency participation
	facilitate any response to unanticipated discoveries during construction.	
Traffic and Transportation		
WSDOT Permits	Per WAC 468-51, the Applicant will obtain a General Permit from WSDOT to upgrade the portion of the approach off State Route 24 that is within the WSDOT Right-of-Way. A permit would be obtained for heavy or oversized loads in accordance with WSDOT regulations including RCW 46.44 and WAC 468-38.	WSDOT
Traffic Control Plan	A Traffic Control Plan would be prepared in consultation with WSDOT for traffic management during improvement of highway access. This plan would contain measures to facilitate safe movement of vehicles in the vicinity of the construction zone and would be in accordance with 23 CFR §655 Subpart F provides for the Federal Highway Administration to maintain the Manual on Uniform Traffic Control Devices for Streets and Highways, which defines standards for traffic control	WSDOT

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2.A.6. Project Plans and Submittals

Submittal Name	Description	Submittal Timing	Expert agency participation	ASC Section References
Vegetation and Weed Management Plan	The Vegetation and Weed Management Plan addresses vegetation management activities related to the Facility construction and operation and specifically methods that will be implemented for effective noxious weed control and revegetation.	With ASC	Consultation with Yakima County Noxious Weed Control Board	Sections 2.A.2, 2.B.1.b, 3.7, 4.1, 4.5, 4.8, 4.9 and 4.13
Initial Site Restoration Plan	Per WAC 463-72-040, the Applicant would develop an Initial Site Restoration Plan. 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 restoration or management costs. The objective of the plan would be to restore the site to approximate pre-Facility condition or better. The plan would 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 pre-construction condition.	90 days prior to site prep	EFSEC and Department of Ecology	Sections 2.A.2.i and 3.11

Submittal Name	Description	Submittal Timing	Expert agency participation	ASC Section References
Construction Stormwater General Permit (CSWGP) Notice of Intent (NOI)	In compliance with WAC 173-200, the Applicant would obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an Erosion and Sediment Control Plan (ESCP) and a SWPPP.	60 days prior to site preparation	N/A	Sections 3.7 and 4.5
Erosion and Sediment Control Plan (ESCP)	The ESCP would be prepared to control erosion and sediment discharges during construction and would include BMPs as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants.	60 days prior to site preparation	Comment from Ecology	Sections 3.7, 4.1, 4.3, 4.5 and 4.9
Construction Phase Stormwater Pollution Prevention Plan (SWPPP)	The Construction Phase SWPPP would be based on Ecology's SWPPP template and would address stormwater runoff, flooding, and erosion to assure compliance with state and federal water quality standards. The SWPPP would include BMPs from the Department of Ecology's Stormwater Management Manual for Eastern Washington.	60 days prior to site preparation	Comment from Ecology	Sections 3.7, 4.1, 4.3, 4.5 and 4.9

Submittal Name	Description	Submittal Timing	Expert agency participation	ASC Section References
Construction Phase Spill Prevention, Control and Countermeasures (SPCC) Plan	The Construction Phase SPCC Plan would 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 would 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.	60 days prior to site preparation	Comment from Ecology	Sections 4.3, 4.5, 4.9 and 4.13
Construction Phase Emergency Plan	The Construction Phase Emergency Plan would include consideration of the following, in a level of detail that is commensurate with the nature and probability of risk: a) medical emergencies, b) construction emergencies, c) site evacuation, d) fire protection and prevention, e) flooding, f) extreme weather abnormalities, g) earthquakes, h) volcanic eruption, i) Facility blackout, j) Hazardous materials spills, k) terrorism, sabotage, or vandalism; and l) bomb threats.	60 days prior to site preparation	Consultation with Yakima County Sheriff's Office, the Yakima County Fire Marshal and the East Valley Fire Department	Sections 3.21 and 4.13
Construction Phase Fire Control Plan	The Construction Phase Fire Control Plan would help minimize the risk of accidental fire during construction and ensure an effective response to any fire that does occur.	60 days prior to site preparation	Consultation with Yakima County Sheriff's Office, the Yakima County Fire Marshal and the East Valley Fire Department	Sections 3.21 and 4.13

Submittal Name	Description	Submittal Timing	Expert agency participation	ASC Section References
Construction Phase Health and Safety Plan	The Construction Phase Health and Safety Plan would describe the health and safety hazards at the Facility during construction, preventative measures and procedures to take when accidents occur.	60 days prior to site preparation	Consultation with Yakima County Sheriff's Office, the Yakima County Fire Marshal and the East Valley Fire Department	Sections 3.21 and 4.13
Habitat Restoration and Mitigation Plan	The Habitat Restoration and Mitigation Plan would specify the mitigation obligations and implementation plans, including those for construction, operations and decommissioning. Additionally, the plan would include details for revegetation of temporarily disturbed areas, including identification of an appropriate native plant seed mixture for revegetation, the timing for restoration and a plan for monitoring the success of revegetation. The plan would address the requirements of YCC 16C.11.070 and WAC 463-60-332(3).	60 days prior to site preparation	Consultation with EFSEC staff and WDFW	Sections 4.8 and 4.9
Traffic Control Plan	A Traffic Control Plan would be prepared for traffic management during improvement of highway access. This plan would contain measures to facilitate safe movement of vehicles in the vicinity of the construction zone and would be in accordance with 23 CFR §655 Subpart F provides for the Federal Highway Administration to maintain the Manual on Uniform Traffic Control Devices for Streets and Highways, which defines standards for traffic control	60 days prior to site preparation	Consultation with WSDOT	Sections 2.B.10 and 4.20

Submittal Name	Description	Submittal Timing	Expert agency participation	ASC Section References
Construction Management Plan	The detailed Construction Management Plan addressing the primary site preparation and construction phases and based generally on mitigation measures as summarized in Section 2.A.5.	60 days prior to site preparation	Consultation with EFSEC	Section 2.A.2.g
Construction Schedule	Overall construction schedule	30 days prior to site preparation		Sections 2.A.2.g and 2.A.2.k
Construction Plans and Specification	A set of construction plans, specifications, drawings and design documents that demonstrate the Facility is in compliance with conditions of the Site Certificate Agreement	60 days prior to construction	Agency comment as requested by EFSEC	Section 2.A.2.g
Operations Phase SWPPP	The Operations Phase SWPPP would be based on Ecology's SWPPP template and would address stormwater runoff, flooding, and erosion to assure compliance with state and federal water quality standards. The SWPPP would include BMPs from the Department of Ecology's Stormwater Management Manual for Eastern Washington.	60 days prior to commercial operations	Comment from Ecology	Sections 3.7, 4.1, 4.3, 4.5 and 4.9
Operations Phase SPCC Plan	The Operations Phase SPCC Plan would 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 would 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.	60 days prior to commercial operations	Comment from Ecology	Sections 4.3, 4.5, 4.9 and 4.13

Submittal Name	Description	Submittal Timing	Expert agency participation	ASC Section References
Operations Phase Emergency Plan	The Operations Phase Emergency Plan would include consideration of the following, in a level of detail that is commensurate with the nature and probability of risk: a) medical emergencies, b) operations emergencies, c) site evacuation, d) fire protection and prevention, e) flooding, f) extreme weather abnormalities, g) earthquakes, h) volcanic eruption, i) Facility blackout, j) Hazardous materials spills, k) terrorism, sabotage, or vandalism; and l) bomb threats.	60 days prior to commercial operations	Consultation with Yakima County Sheriff's Office, the Yakima County Fire Marshal and the East Valley Fire Department	Sections 3.21 and 4.13
Operations Phase Fire Control Plan	The Operations Phase Fire Control Plan would help minimize the risk of accidental fire during operations and ensure an effective response to any fire that does occur.	60 days prior to commercial operations	Consultation with Yakima County Sheriff's Office, the Yakima County Fire Marshal and the East Valley Fire Department	Sections 3.21 and 4.13
Operations Phase Health and Safety Plan	The Construction Phase Health and Safety Plan would describe the health and safety hazards at the Facility during operations, preventative measures and procedures to take when accidents occur.	60 days prior to commercial operations	Consultation with Yakima County Sheriff's Office, the Yakima County Fire Marshal and the East Valley Fire Department	Sections 3.21 and 4.13

2.A.7. Federal and State Requirements

Per WAC 463-60-297, Table 2-1 below lists the federal and state statutes, rules and permits applicable to the Facility. The Land Use Consistency Review (Attachment A) addresses local statutes and requirements.

Table 2-1: List of Federal and State Permits and Regulations Potentially Applicable to the Goose Prairie Solar Facility

Permit or Requirement	Agency Code, Ordinance, Statute, Rule, Regulation, or Permit	Application Section
Federal		
Threatened or Endangered Species	U.S. Fish and Wildlife Service Endangered Species Act of 1973 (16 USC, 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 BGEPA	Sections 4.8 and 4.9
Migratory Birds	U.S. Fish and Wildlife Service Migratory Bird Treaty Act (16 USC, 703-711)	Sections 4.8 and 4.9
Bald Eagles	U.S. Fish and Wildlife Service Bald and Golden Eagle Protection Act (16 CFR 668-668c) Eagle permit regulations (50 CFR 22)	Sections 4.8 and 4.9
Air Quality	U.S. Environmental Protection Agency (EPA) Clean Air Act (40CFR 111)	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	Not Applicable to this Facility; Section 4.3
State of Washington		
Electrical Construction Permit	Washington Department of Labor and Industries WAC 296-746A, Washington Department of Labor and Industries Safety Standards—Installing Electrical Wires and Equipment—Administration Rules	Section 2.A.2
Noise Control	Washington Department of Ecology RCW 70.107, Noise Control; WAC 173-58, Sound Level Measurement Procedures WAC 173-60, Maximum Environmental Noise Levels; WAC 463-62-030, Noise Standards	Section 4.16
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 Permit Program 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, 42 USC 1251; 15 CFR 923-930	Sections 3.3, 3.4, 3.7 and 4.5

	Construction Stormwater General Permit Section 401 Water Quality Certificate	
Air Quality	Yakima Regional Clean Air Agency (in partnership with Department of Ecology) Yakima Regional Clean Air Agency Regulations (and related WAC-173)	Not Applicable to this Facility; Section 4.2
Fish and Wildlife	Washington Department of Fish and Wildlife WAC 220-610, defines State species status and protections WAC 232-12, Washington Department of Fish and Wildlife Permanent Regulations, provides information on classification of wildlife species, including “Priority Habitats and Species” RCW 77.55, Hydraulic Code for in-water work; Hydraulic Project Approval	Section 4.8 *(for WAC 220-610 and WAC 232-12)* Section 4.3 *(for the RCW 77.55 and Hydraulic Project Approval)*
Shorelines of the State	Washington Department of Ecology WAC 173-18, Shoreline Management Act, Streams and Rivers Constituting Shorelines of the State (Note EFSEC energy facility exemptions from Shoreline Act permitting requirements, RCW 90.58.14[9]) 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 not applicable to this Facility; Section 4.14 Shorelines of the State/ Shoreline Conditional Use Permit Not applicable to this Facility; Section 4.3
State Environmental Policy Act (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	Sections 3 and 4
Archaeology and Historic Preservation	Washington State Departments of Archaeology and Historic Preservation RCW 27.53, Archaeological Sites and Resources	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) WSDOT General Permit Oversize and Overweight Permit	Sections 2.B.10 and 4.20

2.B. Project and Site Information

2.B.1. Earth and Ground Disturbance

2.B.1.a. Soils and Slopes

Soil types	Willis silt loam, Finley cobbly fine sandy loam, Kiona stony silt loam, Moxee silt loam See the Soil Map (Attachment E, Map 1), for the locations of these soils within the Facility Area Extent.
Steepest slope	20.71% is the max slope of areas within the Facility Area Extent as currently designed.
Range of Slopes	0.1% - 20.7% See the Topographic Map (Attachment E, Map 2).

2.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**	
	☒ Grading	Cubic yards proposed: Approximately 50,000 cubic yards
	☒ Filling (import material to site)	Cubic yards proposed: Approximately 25,000 cubic yards
		Source of fill: Applicant would specify the source of fill in the Construction Plans and Specifications which would be provided to EFSEC for approval at least 60 days prior to site preparation. Per the Vegetation and Weed Management Plan (Attachment D), the source would be

		certified weed-free by the Yakima County Noxious Weed Control Board.
	☐ 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**	
	☐ Fill	Cubic yards: N/A
	☐ Excavation/ Dredging	Cubic yards: N/A
	Describe area(s) where this would occur: N/A	

2.B.2. Surface Types and Acreage

Please see the Habitat Map (Attachment E, Map 4).

		Acreage or Square Feet	
Project Site Areas		**Pre-Construction, within full Area of Extent**	**Post-Construction, as currently designed**
Roads, buildings, and other impervious surfaces		0 acres	29.5 acres
Wetlands	**Emergent wetland**	0 acres	0 acres
	Scrub Shrub wetland	0 acres	0 acres
	Forested wetland	0 acres	0 acres
	Open Water *do not include any area already listed in previous categories*	0 acres	0 acres
Vegetated Uplands	**Croplands**	16.9 acres	0 acres
	Shrub-steppe - Intact	144.2 acres	39.5 acres
	Shrub-steppe - Degraded	40.5 acres	33.0 acres
	Eastside Grasslands	88.6 acres	64.9 acres
	Pasture Mixed Environs	14.2 acres	3.0 acres
Unvegetated *such as rock, earth, or fill*			
Other	**Ephemeral Streams**	4.3 acres	Less than 0.01 acres (one stream crossing which will be either a bridge or culvert)
	Conservation Reserve Program	484.5 acres	455.0 acres
TOTAL:		789.0 acres	595.4 acres

2.B.3. Plants and Habitats

Are there any plants or habitats present on the site?			
☐ **None**	☒ **Yes** See the Wildlife and Habitat Survey Report (Attachment F) for a more detailed description of the plants and habitats found within the Facility Area Extent.		
	Deciduous trees: *such as alder, maple, aspen*		
	☐ **No**	☒ **Yes**	
		Specify: A few isolated, stunted deciduous trees are located on the Meacham Property.	
	Evergreen trees: *such as fir, cedar, pine:*		
	☒ **No**	☐ **Yes**	
		Specify:	
	Shrubs, grass, pasture		
	☐ **No**	☒ **Yes**	
		Specify: Downy brome, wheatgrass, fescue species, various mustards, salsify, hawksbeard, redstem filaree, annual Jacob's ladder and yarrow.	
	Shrub-steppe: *such as sage brush, native grasses*		
	☐ **No**	☒ **Yes**	
		Specify: Big sagebrush, threetip sagebrush, spingy hopsage, buchwheat shrubs and desert parsley.	
	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:		
	☐ **No**	☒ **Yes**	
		Specify: Some "Pasture and Mixed Environs" areas with vegetation that is heavily trampled and soils impacted from cattle and vehicle usage. Bare ground with patches of low bunchgass and scattered, degraded shrub cover characterized this area.	

	Other habitat types:		
	☒ **No**	☐ **Yes**	
		Specify:	
	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**
		Likely to occur: Columbia milkvetch, pauper milkvetch, bristle-flowered collomia, dwarf mooncup and Hoover's biscuitroot	Special status
		Possible to occur: Cottonball cryptantha, desert cryptantha, bristly cryptantha, coyote tobacco and tufted evening-primrose	Special status
	Name the sources that were checked, or work done to identify the at-risk species: Western Ecosystems Technology, Inc.(WEST) issued a memo titled "Review of Rare Plant Occurrence and Big Game Movement at the Goose Prairie Solar and Storage Project, Yakima County, Washington" (Attachment G). The plants listed here are special status plant species as listed by the Washington Natural Heritage Program.		

2.B.4. Forest Harvest

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

2.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**		**List species that use the site as a travel corridor.**
	Birds: *such as hawk, heron, eagle, songbirds*		
	☐ **No**	☒ **Yes**	Please see Section 4.9 (Animals) for a detailed discussion of migration routes.
		Specify: A complete list of the birds observed on-site can be found in the Wildlife and Habitat Survey, Attachment F.	
	Mammals: *such as deer, bear, elk, beaver*		
	☐ **No**	☒ **Yes**	
		Specify: A complete list of the mammals observed on-site can be found in the Wildlife and Habitat Survey, Attachment F.	
	Fish: *such as bass, salmon, trout, herring, shellfish*		
	☒ **No**	☐ **Yes**	
		Specify:	
	Other:		
	☒ **No**	☐ **Yes**	
		Specify:	

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**
Loggerhead Shrike	BCC, SC
Long-billed curlew	BCC
Sagebrush Sparrow	BCC, SC
Sandhill crane	SE
Townsend's ground squirrel	SC

	BCC = Federal Birds of Conservation Concern Bird Conservation Region 9; SC = State Candidate; SE = State Endangered
	Name the sources that were checked, or work done to identify at-risk species: Wildlife and Habitat Survey performed by WEST (Attachment F).

2.B.6. Property/Site Designations

Provide information for these 7 items	
Comprehensive Plan (name, date, pertinent sections):	Yakima County Comprehensive Plan: Horizon 2040 Comprehensive Plan, effective Aug 29, 2017 The Facility's consistency with the applicable goals and policies of the Yakima County Comprehensive Plan is demonstrated in the Land Use Consistency Review (Attachment A), provided as a supplement to Section 4.14 (Land Use).
Current Zoning:	Agriculture (AG) District. The Facility is consistent with the County's definition of a "power generating facility" and would be a Type 3 conditional use in the AG zoning district (YCC Table 19.14-1). See the Land Use Consistency Review (Attachment A) for more detail.
Planning Area:	Agricultural Resource
Shoreline Master Plan:	N/A
Designation:	N/A
Closest Surface Water:	Ephemeral Streams within Facility Area Branch of the Roza Canal approximately 300 feet to the SW of Facility Parcels
Distance:	See above.
WRIA #:	37

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

Is the site a designated Natural Resource Land? *Designated by the county or city*	
☒ **No** ☐ **Yes**	**Forest land**
☐ **No** ☒ **Yes**	**Agriculture**
☒ **No** ☐ **Yes**	**Mineral**

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**
☒ **No** ☐ **Yes**	**Frequently flooded**
☐ **No** ☒ **Yes**	**Aquifer recharge**
☐ **No** ☒ **Yes**	**Geologic hazard**
☐ **No** ☒ **Yes**	**Fish/wildlife habitat conservation**
☒ **No** ☐ **Yes**	**Other** *provide Critical Area name(s):*

On a Local, State, or Federal Historic Register?		
☐ **No**	☒ **Yes**	The BPA Midway-to-Moxee 115 kV line that bisects the Facility Area is eligible for listing on the National Register of Historic Places (NRHP) and the Washington Historic Register (WHR). The Facility would involve tapping this line for interconnection but otherwise would be avoided by the Applicant. In order to accommodate interconnection of the Facility, BPA may make modifications to the line which are subject to its own NEPA review.
	☐ **Listed**	☐ **Proposed**

Identified as a Local, State, or Federal Cultural Site?		
☐ **No**	☒ **Yes**	
	☐ **Listed**	☒ **Proposed**

Are there tribes that may have or claim particular rights to all or part of the project area?		
☐ None known	**☒ Yes**	
	Tribe	**Contact Made or Attempted, Who/When/method of contact** **Outcome of Contact including Right Asserted (*if any*)**
	Yakama Nation	The Facility Area is within the ceded territory of the Yakama Nation. The Applicant has been in contact with the Yakama Nation since April 2019. The current contact is Jessica Lally. Additionally, the Applicant has reached out to the Governor's Office of Indian Affairs (GOIA) and the Department of Archaeology and Historic Preservation (DAHP), which helped identify the potentially affected tribes and identified the need for a cultural resources survey. The Applicant provided the draft Cultural Resources Report to the Yakama Nation for review and received comments which have been incorporated into the final report. The final report (Attachment H) was submitted to DAHP. Additional detail regarding consultation with the Yakama Nation is provided in Section 4.18 (Archaeological and Historical Resources) and Section 4.19 (Cultural Resources).

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

2.B.7. Land Uses

Identify the following.

Existing Land Uses	Conservation Reserve Program (CRP) and Grazing	
Past Known Land Uses	Row crops on approximately 230 acres of the Meacham site.	
Existing Adjacent Uses	**North:**	Grazing
	South:	Washington State Route 24, Agriculture, Residences (2 residences approximately 250 feet from nearest Facility fence)
	West:	Agriculture, Grazing, Residence (1,200 feet from nearest Facility fence)
	East:	Agriculture, residence (0.27 miles from nearest Facility fence)

2.B.8. Utilities

2.B.8.a Stormwater Management – Construction

Would there be stormwater runoff during construction?

☒ **No**	☐ **Yes**			
	Source of runoff:	See Section 3.5		
	Quantity of runoff:			
	Method of collection:			
	Drain/ discharge to:	☐ **Onsite**	☐ **Overland flow**	
			☐ **Engineered infiltration**	
			Describe:	
		☐ **Offsite**	☐ **Utility**	**Name:**
			☐ **Other**	
			Describe:	
	Is a new facility, system, or line required?			
	☐ **No**	☐ **Yes**		
		Describe and locate on site map*:*		

2.B.8.b Stormwater Management - Operations

Would there be stormwater runoff during operations?

☒ **No**	☐ **Yes**			
	Source of runoff	See Section 3.5		
	Quantity of runoff			
	Method of collection			
	Drain/ discharge to:	☐ **Onsite**	☐ **Overland flow**	
			☐ **Engineered infiltration**	
			Describe:	
		☐ **Offsite**	☐ **Utility**	**Name:**
			☐ **Other**	
			Describe:	
	Is a new facility, system, or line required?			
	☐ **No**	☐ **Yes**		
		Describe and locate on site map:		

2.B.8.c Energy

Would there be energy consumption?

☐ **No**	☒ **Yes**	
	☒ **Electricity ⇒ Utility name:** Benton PUD	
	☐ **Natural gas ⇒ Utility name:**	
	☐ **Fuel ⇒ type:**	
	Is a new facility, generator, line, or connection required?	
	☐ **No**	☒ **Yes**
		Describe and locate on site map: New connection to Benton PUD for station service power at the Facility Substation.
Would there be energy production?		
☐ **No**	☒ **Yes**	
	☒ **Electricity ⇒ Receiving utility name:** Unknown at this time. Commercial discussions for delivery of the power from the Facility are in process.	
	Is a new facility, generator, line, or connection required?	
	☐ **No**	☒ **Yes**
		Describe and locate on site map: *length of new line, height of poles* Length of line: 250 feet Height of poles: four new poles, heights between 50 and 70 feet. Existing poles for 115kV line are 70 feet.

2.B.8.d Water Use - Construction

Would there be water use during construction?

☐ No	☒ Yes	
	Gallons per day proposed: 30,000-50,000 gallons/day Water would be primarily used during construction for fugitive dust suppression. A small amount would be used for drinking water and portable toilet facilities for construction workers. The amount of water required would depend on site and weather conditions and would range from 30,000-50,000 gallons per day. The water used for drinking and portable toilet facilities would be delivered in five-gallon drinking water containers and in portable toilets and hand-washing stations.	
	Water source: Likely trucked in and procured by the construction contractor. The City of Moxee has provided a letter verifying availability of water with sufficient existing water rights (see Attachment Q).	
	☐ **Utility**	**Name:**
	☐ **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:	

2.B.8.e Water Use - Operation

Would there be water use during operation?

☐ No	☒ Yes
	Gallons per day: 500,000-1.1 million gallons per year. Water would be used during operations for washing the PV panels and for domestic uses at the O&M building. It is estimated that the panels would be washed between two and four times per year and require 250,000 gallons per wash, resulting in 500,000 to 1 million gallons per year. For comparison, one hop plant requires 1-3 gallons of water per day during the irrigation season and one acre of land supports about 890 hop plants. Thus, 625 acres (the maximum footprint of the Facility Area) of hops requires approximately 500,000-1,500,000 gallons of water each day. The Facility is expected to use less than 73,000 gallons per year (200 gallons per day) for domestic use in the O&M building.
	Water source: Water used for panel washing would likely be trucked in and procured by the O&M contractor. Domestic water for the O&M building may be supplied by a new well or stored in aboveground water tanks brought in from offsite.
	☐ **Utility** — **Name:**
	☐ **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:

2.B.8.f. Sanitary Waste Management

Would there be a need for sanitary waste management?

☐ **No**	☒ **Yes**	
	Gallons per day: Estimated at 200 gallons per day.	
	Discharge to:	
	☐ **Utility**	**Name:**
	☒ **Septic system**	
	☐ **Other**	
	Is a new system, line, or connection required?	
	☐ **No**	☒ **Yes**
	Describe and locate on a site map: The O&M building may have a bathroom, kitchen, and utility sink which would drain into a new on-site septic system. Alternatively, the restroom facilities may be portable toilets. The Facility is estimated to produce no more than 200 gallons of wastewater per day, which is less water than typically used for a residential septic system.	

2.B.9. Emergency Service Providers

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

Police Services:	Yakima County Sheriff
Fire Services:	East Valley Fire Department also known as Yakima County Fire District #4 and the Yakima County Fire Marshal
Other Emergency Services:	Emergency Medical Services provided by East Valley Fire Department

2.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:

What are the arterial roads serving the area of the project site?	Washington State Route 24.

Vehicular traffic generated by project:				
	Round trips per day		**Peak hour trips/day**	**Timing of peak hours**
During:	**Vehicles**	**Heavy equipment/material deliveries**		
Construction	Estimated at 150 max	20 at max	~50	10am-3pm
Operation/use	1-2	0		

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

Are any public road improvements proposed?	
☐ **No**	☒ **Yes**
	Location/description: The only public road improvement required for the Facility is the approach off State Route 24 onto the private road which accesses the Facility Area. Based on consultation with WSDOT, the Applicant would be required to obtain a General Permit from WSDOT to perform the upgrade work. The Applicant would continue to consult with WSDOT to ensure the approach meets all applicable codes and standards. Additionally, a Traffic Control Plan would be prepared and submitted to EFSEC at least sixty days prior to site preparation.
Parking	**Existing spaces:** 0
	Spaces after project: Minimum of 3 parking spaces provided in gravel lot next to O&M building.

Intentionally Blank

Part 3 – Screening Questions

Intentionally Blank

3.1. Earth – Screening

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

3.1.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:

A portion of the Facility Area Extent is in an area designated by data provided by Yakima County as a geologically hazardous area. Most of the geologically hazardous area is designated as "Alluvial Fan, High Risk," and a very small area is designated as "Over-steepened Slopes, Intermediate Risk." Per YCC 16C.08.02, these maps indicate "approximate location and extent" of these features. The Applicant contracted with a geotechnical engineering firm to conduct a Geotechnical Site Investigation and Critical Areas/Geohazards Report (Attachment L), which includes an assessment of the actual geohazards present at the Survey Area.

No development associated with the Facility is planned within or within sufficiently close proximity to a high-risk area; therefore, the Facility would not be at risk from the area in its current condition. As identified in the Geotechnical Site Investigation and Critical Areas/Geohazards Report, "the proposed development at the site would not pose a threat to the health or safety of the citizens, or increase the risk from geologic hazards at the site or to surrounding properties, provided the recommendations [in said report] are followed in the design and construction of the project". All recommendations in the Geotechnical Site Investigation and Critical Areas/Geohazards Report would be followed.

Because the county data indicates the presence of critical areas, the Applicant has prepared a Section 4 analysis, which details potential issues and mitigation strategies related to the Earth category, including those related to geology, soils, and seismic hazards.

3.2. 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 proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	Yes

3.2.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 Facility would use heavy construction equipment and may have a temporary concrete batch plant on site, which would produce dust and minor odors during construction. Dust would 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 Facility would otherwise not produce air pollution emissions or long-term odors during construction or operations, other than those related to vehicle emissions.

The analysis in Section 4.2 addresses the anticipated air pollution emissions generated during construction/operation, as well as the measures that would be implemented to avoid or minimize these impacts.

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 proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	Yes	Yes	Yes	Yes	N/A

3.3.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:

The Applicant contracted to have a Wetland Delineation Report (see Attachment O) which identified three non-wetland water features within the Survey Area. The features were determined to be ephemeral drainages that are classified as Type 5 streams under the Yakima County Code (YCC 16C.06.06). Per YCC 16C.06.16 ("Vegetative Buffers"), Type 5 streams do not require any buffer; however, the Facility would be designed to maintain a 50-foot buffer from the delineated streams.

Because the Facility's design (which includes the installation of a bridge or culvert over one of the ephemeral streams) would include work within 300 feet of a surface water body, a detailed analysis of surface waters and wetlands is provided in Section 4.3.

3.4. 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 proposed **mitigation** (if any) adequate?
[Applicant only] No, Yes, Maybe/na / [EFSEC only] No, Yes, Maybe/na	No	Yes	Yes	Yes	N/A

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

Will the proposal discharge wastewater (septic systems, process waters, dairy waste, etc.) to onsite or offsite surface waters, wetlands, or the ground? (do not include discharges to 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 operations and maintenance (O&M) building may have a bathroom, kitchen, and utility sink that would drain into a new on-site septic system, which would be permitted, installed by a licensed professional, and maintained through the Yakima County Health Department in compliance with applicable regulations including WAC 246-272A.

It is estimated that the on-site septic system would produce up to approximately 200 gallons per day and as such would be permitted as a small septic system/on-site sewage system (less than 3,500 gallons per day).

As identified in Section 4.14, Land Use, pursuant to YCC 12.05.150, a private sewage disposal system would be permitted with approval from the County. Prior to construction of the proposed on-site septic system serving the Facility's O&M building, the Applicant would obtain the required permit from the Yakima Health District and meet system recommendations from the Washington State Department of Health (DOH) if provided. Pursuant to YCC 12.05.190, the Applicant would operate and maintain the private sewage disposal facility in a sanitary manner at all times at no expense to the County. Because the septic system would manage wastewater flows of less than 3,500 gallons per day (i.e., currently estimated at approximately 200 gallons per day), it is not considered a large on-site sewage system and would not require a permit from the DOH (WAC 246-272B). Therefore, the Facility would comply with the applicable provisions under YCC 12.05.150 through 12.05.200. Furthermore, because of the reasons presented above, a Part 4 analysis is not warranted and no mitigation (beyond adhering to permit requirements) is proposed.

3.5. 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

3.5.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:
The Facility would be designed and constructed to retain all stormwater on-site and maintain natural drainage patterns for conveyance of upland flow per YCC 12.10.250. While the Facility would create new impervious surfaces, most of the Facility Area would remain as pervious vegetation.

The analysis in Section 4.5 presents more detailed information regarding the type and extent of impervious surfaces that would be created, the infiltration rates of the soils at the site (based on the Geotechnical Site Investigation and Critical Areas/Geohazards Report), as well as mitigation tactics that would be implemented to minimize the effects of stormwater runoff.

3.6. 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

3.6.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:

Water required for construction, for uses such as dust mitigation, domestic use and potentially for making concrete, and for washing panels during operation, would be trucked in and provided from off-site sources (i.e., municipal water source or a vendor with a valid water right) as is further addressed in Section 4.22. The City of Moxee has provided a letter verifying availability of water with sufficient existing water rights (see Attachment Q).

Water for domestic use at the O&M building during operations would be provided by drilling a new well or stored in aboveground water tanks brought in from offsite. Domestic water needs for the O&M building are expected to be less than 200 gallons per day. Because the new well would use less than 5,000 gallons per day, it is a groundwater permit-exempt water use under state code (RCW 90.44.050).

However, following the 2016 Washington State Supreme Court Decision *Whatcom County, Hirst (Eric) v: W Wash. Growth Mgmt. Hr'gs Bd., No.91475* (commonly known as the "Hirst decision"), which was concerned with the connection between groundwater and surface water supplies, Yakima County was required to implement a process for determining if water is both legally and physically available for all new domestic wells, regardless if less than 5,000 gallons per day would be used. This is because, in part, there are more existing water rights in the Yakima Basin than available water to fulfill those rights (Yakima County 2020). Therefore, the Applicant would follow the domestic well application process administered by the Yakima County Water Resource System (YCWRS) established under YCC Chapter 12.08 Water System (including but not limited to provisions per YCC 12.08.390 Applicability,

12.08.400 Property Eligibility Criteria, 12.08.410 Well Eligibility Criteria, 12.08.420 Well Depth Standards, and 12.08.440 Limitations on Use).

The result of this process would be to obtain a YCWRS domestic well permit, obtained prior to construction of the well with additional post-construction approvals and agreements required (Yakima County 2020). If YCWRS determines there is not sufficient water availability, or the Yakima Health District determines the water supply is either not potable or adequate quantity per YCC 12.08.050, the Applicant would secure an adequate water supply for the O&M building through an existing permitted source with on-site water tank storage (see Section 4.22). Based on early-stage conversations with Joel Freudenthal with the Water Resources division of Yakima County, it is anticipated that the Applicant would be able to drill a well via the YCWRS process for this low-consumption, domestic use.

Based on this analysis, it is anticipated that a well permit can be obtained and if not, that the Applicant will procure water from a vendor with adequate water rights to provide sufficient water for use at the O&M building. Therefore, no additional analysis is provided under Part 4 and no mitigation (beyond adhering to permit requirements) is proposed.

3.7. 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

3.7.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:

Creation of new impervious surfaces and grading activities associated with the Facility would not result in changes to the flow or volume of water bodies or aquifers. Impervious surfaces would comprise only a small percentage of the Facility Area. Activities associated with the Facility would result in minor changes to existing surface-water runoff patterns but would maintain natural drainage pathways. Minor stormwater drainage changes would result due to the creation of new impervious surfaces developed as part of this Facility, including gravel roads, a potential culvert, inverter pads, battery storage container pads, and pads for substation components. As currently designed, the Facility would create 29.5 acres of impervious surfaces. However, stormwater would generally infiltrate through the gravel roads and vegetated surfaces at the Facility. No potential loss of groundwater recharge or change in seasonal stream flow is anticipated as a result of Facility construction or operation.

The Facility is not located in a FEMA designated flood area. As identified in the Geotechnical Site Investigation and Critical Areas/Geohazards Report, the site has a natural drainage pathway that flows through the site from the northeast to the southwest. The drainage pathway is lined with cobble and boulder deposits from wash and possible flooding events. The Facility components would not be located in any drainage areas, and therefore does not pose a flood risk. The Phase I Environmental Site Assessments completed for the subject parcels indicate no existing or potential conditions on the Facility Parcels that would contribute to water quality issues (EarthTouch, Inc. 2019 and 2020). The Geotechnical Site

Investigation and Critical Areas/Geohazards Report did not report any pollutants encountered during the subsurface investigation (GNN 2020).

Because construction and operation of the Facility would not change flow or volume of a water body or aquifer, a detailed analysis of water quality for surface waters and wetlands under Part 4 is not warranted. Mitigation actions would be implemented during construction and disturbed soils would be revegetated. Mitigation actions would include implementation of an ESCP, CSWGP, SWPPPs, Vegetation and Weed Management Plan, and associated BMPs. No grading would be done that would affect identified ephemeral stream drainages.

3.8. 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

3.8.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:

The Facility may partially be built on shrub-steppe habitat, which is considered by WDFW as a PHS habitat. However, approximately 46% of the shrub-steppe habitat impacted by the Facility as currently designed is degraded due to cattle grazing. The Applicant contracted with Western Ecosystems Technology (WEST) to complete a Wildlife and Habitat Survey Report (Attachment F) and a Review of Rare Plant Occurrence and Big Game Movement (Attachment G).

Section 4.8 is based on the information obtained during surveys and site-specific feedback from the WDFW.

3.9. Wildlife

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

3.9.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 Facility may partially be built on shrub-steppe habitat, a WDFW designated PHS habitat, and in areas with species which are listed on federal and state lists, as shown in Section 2.B.5. However, approximately 46% of the shrub-steppe habitat impacted by the Facility as currently designed is degraded due to cattle grazing. The Applicant contracted with Western Ecosystems Technology (WEST) to complete a Wildlife and Habitat Survey Report (Attachment F) and a Review of Rare Plant Occurrence and Big Game Movement (Attachment G).

The analysis in Section 4.9 is based on the information obtained during surveys and site-specific feedback from WDFW.

3.10. 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

3.10.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:

The Facility would not require the consumption or removal of substantial quantities of renewable or non-renewable natural resources during construction or operation. Facility construction would require natural resource use for the installation of the solar array, battery storage pad, and associated electrical facilities. Gravel, a non-renewable resource, would be used to upgrade the existing public road approach to the Facility, to establish a surface within the substation and battery energy storage system area, and to establish access roads within the solar array. A temporary concrete batch plant may be used on site during construction. The solar array is largely made from non-renewable silicon components. Electricity obtained from the Benton Public Utility District would be required at the Facility to power construction and operational equipment/facilities. Fuel, from non-renewable fossil fuel sources, would also be required for construction vehicles and some equipment, as well as operational vehicles. Quantities consumed would be typical or less than commercial construction facilities of a similar size, and well within the availability of local service providers.

Because the Facility would not require the consumption or removal of substantial quantities of non-renewable or renewable natural resources, a detailed analysis of energy/natural resources under Part 4 is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

3.11. 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

3.11.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:

The Facility would not generate large quantities of waste during either construction or operation. Typical construction wastes include discarded construction materials, packaging materials, and spent erosion control materials. Other discarded construction material could include wood forms for cast-in-place foundations, scrap metal, or unused wiring. Packaging and other materials would be recycled to the extent possible. Overall solid waste types and quantities from construction would be typical of any large-scale construction facility, and likely less than many commercial buildings relative to the total size of the Facility Area Extent.

A low volume of waste would be generated during the Facility's operations. Office waste, such as paper and food packaging and scraps, would be generated at the O&M building. Repair or replacement of the solar array and associated electrical equipment could generate incidental solid waste; however, a solar array typically lasts more than 30 years without significant loss of function, and components would be replaced infrequently, if at all. In addition, Washington State law (RCW 70.355) requires manufacturers of PV modules to provide a convenient and environmentally sound way to recycle all modules purchased after July 1, 2017. The battery storage system may also generate incidental waste from the repair or replacement of electrical equipment. Depending on the battery system technology selected for the Facility, batteries would need to be replaced every 5 to 20 years and would follow specific protocols for disposal of battery components at an approved facility for disposal or recycling. Wastes generated during construction and operation would be hauled away by an appropriate contractor, in accordance with applicable federal, state, and local regulations.

As further described in Section 2.A.2.i, the Applicant would develop an Initial Site Restoration Plan that would include provisions for removal of the solar panels and racking system, foundations, cables, and other facilities to a depth of four feet below grade.

Because the Facility would not generate large quantities of waste during either construction or operation, a detailed analysis of waste management under Part 4 is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

3.12. 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

3.12.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:

A Phase I Environmental Site Assessment (ESA) has been completed for the Facility Parcels following ASTM Standard Practice E1527-05. Based on the review of readily available historical information, site inspection, interview with knowledgeable parties, and a regulatory records search, the assessment found no evidence of recognized environmental conditions in connection with the Facility Parcels. A "recognized environmental condition" is 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*." No further investigation of environmental conditions within the Facility Parcels was found to be warranted.

Similar to most agricultural sites across Washington, historical agricultural use in this area may have included application of fertilizers, pesticides, or herbicides. However, such application would have been relatively uniform and generally consistent with manufacturer guidelines. The Phase I ESA concluded the possible past application of agricultural chemicals would pose a low concern of adverse environmental impact, particularly with respect to future commercial development of a solar energy facility.

As discussed above, there is no evidence that the Facility Area Extent contains "potentially hazardous materials." For this reason, further detailed analysis of existing site contamination

under Part 4 is not warranted. 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.

3.13. 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

3.13.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 Facility may include a BESS and, depending on the technology selected, the BESS may present a flammability hazard. Specifically, lithium-ion systems are susceptible to overheating and generally require cooling systems to mitigate the risk. Aligned with industry standards, each BESS would contain a fire suppression system that meets with International Fire Code and National Fire Protection Association (NFPA) Standards, specifically NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems."

The analysis in Section 4.13 presents more detailed information regarding potential BESS technologies and their respective risks as well as the associated control measures that would be implemented to protect public health and the environment. The analysis also discloses the Facility's compliance with standard fire safety measures, spill control and response measures, as well as related guidelines and regulations for solar energy generation facilities. In addition to these environmental protection measures, the analysis discusses mitigation measures, such as providing technology-specific training to local emergency responders.

3.14. 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	N/A

3.14.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 identified in Section 2.B.7 of this application, the Facility Area Extent is currently in agricultural use; specifically, grazing (rangeland) and land enrolled in the U.S. Department of Agriculture (USDA) Conservation Reserve Program (CRP). The Facility Area Extent is located within the agricultural zoning designation of Yakima County, and is considered designated natural resource land (agriculture) under RCW 36.70A.030. There are no shorelines designated under the Yakima County Shoreline Master Program within the Facility Area Extent. Implementation of the Facility would result in a change in the type and intensity of the existing land use; however, the change in use would comply with local land use planning and development regulations.

The analysis in Section 3.14 addresses the Facility's potential effects to land use as well as the Facility's compliance with relevant local land use regulations. In Yakima County, "power generating facilities" are a Type 3 use in the AG zoning district and may be authorized subject to the approval of a conditional use permit; however, outside of complying with County conditions, no land use mitigation requirements are anticipated for the Facility.

3.15. 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

3.15.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 Facility will not displace existing or future housing, including housing for low- and moderate-income households. As noted in Section 2.A.2.c of this application, the parcel that may be utilized for an aerial easement currently contains a residence; however, implementation of such an easement would not displace the residence. Furthermore, local land use planning documents, including the Yakima County Comprehensive Plan, have not identified the Facility Area Extent as a site for future residential growth (Yakima County 2017a).

As shown in the attached Socioeconomic Review (Attachment P), any non-local hires may commute from within Yakima County or the Tri-Cities area or they may relocate temporarily. There is sufficient capacity to house any temporary workers in hotels, motels or RV parks. Since the Facility Area Extent is within a reasonable commute distance from the city of Yakima as well as the Tri-Cities area (ranging from approximately 20 to 80 minutes of commute time), there is likely sufficient temporary housing available to support the Facility (e.g., hotels, motels). During operation, the Facility will not employ any full-time staff. Approximately one to two part-time staff may be employed, hired locally and/or from outside the region, and would not noticeably affect the availability of housing in the area.

Because the Facility is not likely to displace or otherwise affect existing or future housing, particularly housing for low- and moderate-income households, a Part 4 detailed analysis of housing impacts is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

3.16. 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

3.16.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:

During operation, minimal glare may be generated by the Facility, and noise will be generated by inverters, transformers, as well as potentially by HVAC (heating, ventilation, and air conditioning) equipment associated with battery storage. Noise will also be produced during the construction phase of the Project. Therefore a Part 4 analysis is provided and is split into two parts: 4.16a covers noise and 4.16b covers light, glare and aesthetics.

Due to the infrequent nature of loud construction activities at the site, the limited hours of construction and the implementation of noise mitigation measures, the temporary increase in noise due to construction would not be a significant impact. Tetra Tech has prepared an Acoustic Analysis (Attachment I) to support development of the detailed analysis in Section 4.16a.

Views of the Facility would be altered due to the change in land use, though these changes would not block scenic views or introduce visual elements that strongly contrast surrounding visual characteristics. Lighting would be designed to provide the minimum illumination needed to achieve safety and security. The potential reflection from solar photovoltaic modules is inherently low since they are designed with a non-reflective coating to capture and not to reflect sunlight. A Visual Impact Assessment Report (Attachment J) as well as Glare Reports (Attachment K) were prepared to support the analysis in Section 4.16b.

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	No	N/A	Yes	Yes	N/A

3.17.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 Facility Area Extent is on private land and does not include any designated or informal recreation opportunities. Recreation opportunities could include parks, campgrounds, trails, developed river access, wildlife viewing areas, hunting areas, or similar recreational uses. There are no designated recreation opportunities adjacent to, in the immediate vicinity of, or within an approximately 5-mile radius of the Facility Area Extent. The closest developed recreation site is the 13-acre Moxee City Park, located over 6 miles to the west (just north of Washington State Route 24). There may be informal recreation opportunities in the vicinity on state and federal land that are open to the public, though these areas are not specifically designated for recreation. These include parcels owned by the Washington Department of Natural Resources (i.e., state trust land; the closest parcel located approximately 1 mile east of the Facility Area Extent) and U.S. Bureau of Land Management (i.e., grazing allotments; the closest parcel located approximately 1 mile northeast of the Facility Area Extent) that are managed for mixed uses. If allowed by private landowners, there may also be informal recreation opportunities along small creeks in the immediate vicinity, such as undesignated swimming, fishing, or other day use. The types of limited informal recreation opportunities described above are common throughout eastern Yakima County.

Given the limited designated or informal recreation opportunities within or near the Facility Area Extent, the Facility would not displace or otherwise adversely affect existing recreational uses. Therefore, a detailed analysis of potential impacts to recreation opportunities under Part 4 is not warranted. Furthermore, no mitigation is anticipated to be required for this resource.

3.18. 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

3.18.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:

A Cultural Resources Report has been prepared for the Survey Area by Tetra Tech (see confidential Attachment H). The Survey Area contains archaeological sites and historic properties, including five archaeological sites (i.e., 45YA01808, 45YA01809, 45YA01810, and 45YA01811) and two historic properties (i.e., Site 722140 and BPA Midway-Moxee Transmission Line). One of the historic properties (i.e., BPA Midway-Moxee Transmission Line) has been recommended as eligible for listing in the National Register of Historic Places (NRHP), while the remaining identified resources have been recommended as not eligible for listing in the NRHP. The BPA Midway-Moxee Transmission Line is also protected by the

Washington Heritage Register (WHR). Three of the NRHP-ineligible archaeological sites (i.e., 45YA01808, 45YA01809, and 45YA01811) are also protected by the WHR. The remaining resources (i.e., 45YA01810 and Site 722140) are not protected by the WHR.

The analysis in Section 4.18 relies, in part, on the information collected during cultural resources field survey (King et al. 2020). Pending final design, the Facility may disturb archaeological resources that are protected by the WHR, but the Applicant would obtain the necessary permits and licenses prior to any direct impacts. Additionally, an Unanticipated Discovery Plan would address the minimal potential that the Facility may encounter unidentified archaeological resources during construction.

3.19. 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

3.19.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:

The Facility is within the ceded and usual and accustomed lands of the Yakama Nation; however, the Facility will be constructed on private lands that are currently inaccessible to tribes for hunting, fishing, or plant gathering. Three archaeological sites (i.e., 45YA01808, 45YA01809, and 45YA018115) with pre-contact material culture artifacts are within the Survey Area. Communications between the Applicant and Yakama Nation are ongoing to assess any tribal significance attributed to those resources. Continuing communications are also anticipated to assess whether Facility-related activities would impede views of or from tribal cultural sites.

The analysis found in Section 4.19 is based on the information and results of the consultation with the Yakama Nation, as applicable (noting that confidential and privileged information provided by the tribes is not included in these publicly disclosed documents). If deemed appropriate through communication with the Yakama Nation, additional mitigation measures may be developed.

3.20. 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

3.20.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:

Facility construction would involve temporary increased truck traffic to the site for delivery of materials and worker transportation, and an improvement to the approach off State Route 24 to the Facility. During Facility operations, traffic would be limited to periodic maintenance visits as no full-time staff would be on site. The Facility would be unlikely to reduce the level of service on area roads, except potentially during brief periods during construction. The Facility 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, an analysis has been completed in Section 4.20.

Section 4.20 analyzes the existing level of service on transportation routes that will be used during the Facility's construction and an evaluation of potential impacts from Facility construction on the existing level of service for transportation routes. Mitigation for temporary traffic impacts during construction is discussed in Section 4.20.

3.21. 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

3.21.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:

The Facility is unlikely to directly or indirectly increase use of public services and facilities during construction or operation, largely because the Facility is a solar power generating facility and is located outside the Yakima County urban growth boundary, where many such public services and facilities are unavailable. Potential minor impacts to facilities and services would be limited to the period of construction, approximately 270 days, during which up to 300 workers would be employed. During operations, the Facility would be largely self-sufficient, and staffed by only one to two part-time personnel. Additionally, the Facility will generate significant tax revenue for Yakima, which would outweigh minor, temporary impacts to facilities and services. By implementing the mitigation measures outlined below, the Facility would not adversely affect public services and facilities during construction or operation.

The East Valley Fire Department, also known as Yakima County Fire District #4, would provide fire response and emergency medical services for the Facility. The Facility will maintain its own Construction Fire Control Plan and Operations Fire Control Plan and implement best practices for fire prevention. Additionally, the Facility will develop and implement a 1) Construction Emergency Plan, 2) Construction Phase Health and Safety Plan, 3) Operations Emergency Plan, and 4) Operations Health and Safety Plan. The Applicant has initiated consultation with the Yakima County Fire Marshal's Office and the East Valley Fire Department (also known as Yakima County Fire District #4), providing the Preliminary Site Plan and notifying them of these plans. The Applicant will continue to coordinate with these agencies to ensure compliance with the International Fire Code, provide site and equipment information pertinent to emergency response, and provide training as described in Section

4.13.D. To mitigate the need for fire protection services, the Facility would include its own fire suppression and cooling systems for its BESS.

The Yakima County Sheriff's Office has adequate equipment, personnel, and facilities to provide services, as outlined in the Yakima Capital Facilities Plan (Yakima County 2017b). An adequate Level of Service for Police in Yakima was deemed to be 1.8 police officers per every 100,000 people in Yakima (Yakima County 2017b). A temporary increase of 300 people during Facility construction would not effectively reduce the Level of Service. No adverse impacts to law enforcement services are anticipated as a result of the Facility. To mitigate the need for law enforcement services, the Facility will be secured by a fence, and access will be restricted. The Facility will not require special services from the Yakima County Police Department.

No adverse impacts to housing, schools, parks, or recreational facilities are anticipated as a result of the proposed Facility. During operations, the Facility would employ one to two part-time personnel, which would not create an adverse impact for schools, parks, or recreational facilities. Construction of the Facility would be about 270 days, during which period a peak of up to 300 workers would be employed. Because the construction period is short and far less than one year, few workers are likely to relocate their residences and families to Yakima County. Thus, no adverse impact on housing or schools would be observed. Temporary school and housing needs would be supported within the purview of Yakima County's current growth trajectory, which plans for significant population increases to Yakima County (Yakima 2017b). Use of parks and recreational facilities would be temporary and would not adversely affect the facilities.

No impacts to water, stormwater, sewer, or solid waste facilities are anticipated as a result of the proposed Facility (see discussion above for the respective resources). The Facility is outside the urban growth boundary service area where public water, stormwater, sewer, and solid waste facilities are provided, and will therefore not impact these services and facilities, as discussed in Section 4.22. The Facility will utilize a new well and/or on-site water storage system for less than 200 gallons per day domestic water use at the O&M building, as discussed in Sections 3.4, 3.6, and 3.22. Therefore, the Facility will not have an adverse effect on public water and sewer services. The Yakima County Wastewater Treatment Plant has a 21.5 million gallons per day capacity, which is adequate to receive septic system waste from the Facility, if necessary (Yakima County 2017b). Domestic waste produced during construction and operation of the Facility will be handled by a licensed waste hauler. At the end of the Facility's useful life, spent solar panels will be recycled by the manufacturer post-decommissioning. Therefore, the Facility will not adversely impact public solid waste disposal facilities. Yakima County requires new development to capture and treat stormwater on site to mitigate runoff (Yakima County 2017b). The Facility design will allow stormwater to be captured on site and returned to groundwater on site, and no municipal stormwater facilities will be utilized.

Because public services and facilities will not be adversely affected, a detailed analysis of potential impacts to public services and facilities under Part 4 is not warranted. Furthermore, no mitigation is anticipated to be required.

3.22. 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	Yes	Yes	Yes	Yes	Yes

3.22.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 Facility would require private utility facilities for water, on-site septic, stormwater capture, solid waste disposal, and communications. The Facility is a solar power generating facility and would supply its own energy which will be supplemented with a small amount of station service power from Benton Rural Electric Association when the Facility is not generating power. Impacts on public utilities would be minimal, largely because the Facility is a solar power generating facility that produces electricity and is located outside the Yakima County urban growth boundary, where most public utilities are unavailable. Utilities used during construction would be limited to a period of about 270 days. Utilities used during operations would be limited to domestic use from the O&M building. During operations, the Facility would be largely self-sufficient, generate electricity, and require staffing by only one to two part time personnel. However, overall water availability for use at the Facility requires further analysis, which is discussed in Section 4.22.

The Facility will utilize a new well and/or on-site water storage system for less than 200 gallons per day domestic water use at the O&M building, as discussed in Sections 3.4, 3.6, and 3.21. Wastewater would be collected in an on-site septic system, that could be disposed of at Yakima County Wastewater Treatment Plant, which at a 21.5 million gallon per day capacity, has adequate capacity to receive septic system waste from the Facility (Yakima County 2017b). Domestic waste produced during construction and operation of the Facility will be handled by a licensed waste hauler. At the end of the Facility's useful life, spent solar panels will be recycled by the manufacturer post- decommissioning. Yakima County requires

new development to capture and treat stormwater on site to mitigate runoff (Yakima County 2017b). The Facility design will allow stormwater to be captured on site and returned to groundwater on site, and no municipal stormwater facilities will be utilized. The Facility would have its own supervisory control and data acquisition communications facility and would not require connection to public communications facilities.

Because public and private utilities will be utilized, a detailed analysis of potential impacts to utilities under Section 4.22 is warranted. Please see Section 4.22 for detailed analysis and mitigation measures including an analysis of water availability for construction and panel washing.

Part 3 References:

EarthTouch, 2019. Phase I Environmental Site Assessment, Goose Prairie Solar Project (Gordon Meacham/Estate of Willamae G. Meacham) Submitted to OneEnergy Renewables; EarthTouch, 2020. Phase I Environmental Site Assessment, Goose Prairie 2 Solar Project (S. Martinez Livestock, Inc.) Submitted to OneEnergy Renewables.

EarthTouch. 2020. Phase I Environmental Site Assessment. SITE: Goose Prairie 2 Solar Project. LOCATION: Near Yakima, Yakima County, Washington. S. Martinez Livestock, Inc. Prepared for OER WA Solar 1, LLC. February 7.

GNN (GN Northern, Inc.). 2020. Geotechnical Site Investigation and Critical Areas/Geohazards Report. Goose Prairie Photovoltaic (PV) Solar Array Project State Route 24 & Desmaris Cutoff, Moxee, Yakima County, Washington. GNN Project Number 220-1274. Prepared for OER WA Solar 1, LLC. November.

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King, E, B. Berger, J. Mates, D. Huntley, and M. Connell. 2020. Cultural Resources Survey for the Goose Prairie Solar Project, Yakama County, Washington. Tetra Tech, Inc., Bothell, Washington. Submitted to OneEnergy Renewables.

Yakima County. 2017a. Horizon 2040 Yakima County Comprehensive Plan. Available online at: https://www.yakimacounty.us/846/Horizon-2040-Comprehensive-Plan

Yakima County. 2017b. We Are Yakima Comprehensive Plan 2040 – Capital Facilities Plan. Available online at: https://www.yakimawa.gov/services/planning/files/2014/12/Capital-Facilities-Plan.pdf

Yakima County. 2020. Yakima County Water Resource System (YCWRS). Water Availability – Adequate Water Supply – Well Permit. Available online at: https://www.yakimacounty.us/2095/YCWRS---Water-Availability---Well-Permit. Accessed October 19, 2020.

Part 4 – Detailed Analysis

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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	Expert agency participation Name, Title, and Involvement	Completed Y/N
Geotechnical Site Investigation and Critical Areas/Geohazards Report, (Attachment L)	Complete	GN Northern, Inc., Consulting Geotechnical Engineers Meets requirements of WAC 463-60-302 and YCC 16C.03.18(4)	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 Site Investigation and Critical Areas/Geohazards Report (Attachment L) states that the Survey Area is currently undeveloped and has a natural drainage pathway that flows through the site from the northeast to the southwest. The drainage pathway is lined with cobbles and boulders deposited from wash and possible flash flooding events. As seen on the Preliminary Site Plan (Attachment B), the site slopes down to the southwest, with surface elevations ranging from approximately 1,726 feet near the northeast corner of the site to approximately 1,386 feet near the southwestern corner of the site. Additional information about the geology of the Survey Area is found in Attachment L.
Geologic hazards	The Geotechnical Site Investigation and Critical Areas/Geohazards Report describes the geology, soils, topography, lack of unique physical features, and existing erosion patterns, meeting the requirements of Washington Administrative Code (WAC) 463-60-302(1) and (2). The Geotechnical Site Investigation and Critical Areas/Geohazards Report also provides information regarding geologic hazards that may affect the development including seismic hazards (e.g., ground shaking, surface fault rupture, soil liquefaction, and other secondary earthquake-related hazards), slope instability, flooding, ground subsidence, and erosion, meeting the requirements of WAC 463-60-265 and WAC 463-62-020.

	A portion of the Facility Area Extent is in an area designated by data provided by Yakima County as a geologically hazardous area. Most of the geologically hazardous area is designated as "Alluvial Fan, High Risk," and a very small area is designated as "Over-steepened Slopes, Intermediate Risk." Per YCC 16C.08.02, these maps indicate "approximate location and extent" of these features. The Geotechnical Site Investigation and Critical Areas/Geohazards Report addresses these two issues. It states that "there is no geologic hazard directly associated with the [Survey Area] situated on alluvial fan deposits," that the Facility is not "at risk from potential flooding events" and that the Facility "avoids any areas of significantly steep slopes." In addition, the Site Geotechnical Investigation and Critical Areas/Geohazards Report states: • Due to the lack of known active fault traces in the immediate site vicinity, surface fault rupture is unlikely to occur at the project site. • The site is mapped within an area of very low to low liquefaction susceptibility with a few areas mapped as bedrock. Based on the site-specific evaluation, the risk of liquefaction at the subject site is considered very low. • The site is inland far enough that the hazard from tsunamis is non-existent. The potential hazard from seiches in also nil due to the lack of nearby surface water bodies and the noted low magnitudes of potential seismic shaking. • Anticipated ground motions in the region due to seismic activity along faults in other parts of the Northwest are relatively low.
Soils	Silt loam soils were the primary underlying soil type accounting for 95.2% of the soil types, with only Finley cobbly fine sandy loam as the non-silt soil type. The primary soil type found in the Meacham Property was Willis silt loam, 2 to 5% slopes and is the same underlying soil type as that found in the intact shrub-steppe habitat differing only in the percent slope (Willis silt loam, 8 to 15% slopes). Silt loam soils are characterized by deep soil horizons that lack the basalt bedrock and shallow, rocky soil structure indicative of lithosols, an ecologically sensitive soil type. A Soil Map is included as Attachment E, Map 1.
Unique physical features	The Facility Area Extent is bisected by an erosional drainage gully or wash that extends from the northeast portion of the site and then drains approximately east to west through the site through the northern boundary of Section 18. The Wetland Delineation Report determined that the incised drainage is an ephemeral stream (flow only after significant precipitation). The drainage path incises through the alluvial fan deposits and Yakima County has mapped the area along the drainage as geologically hazardous that is susceptible to "alluvial fan/flash flooding".

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**
	Critical Areas/ Geohazards	The Geotechnical Site Investigation and Critical Areas/Geohazards Report states that "the proposed development as depicted on the conceptual site layout plan …will not pose a threat to the public health, safety, or welfare of the citizens, or increase the risk from geologic hazards on the site or to the surrounding properties, provided the recommendations in [said report] are followed in the design and construction of the project."
	Water flow	The Facility would not increase water flow over or through the Facility Area Extent. The majority of the Facility Area Extent would not be covered with impervious surfaces (see Section 2.B.2) and infiltration of precipitation would not differ significantly from current conditions. The Geotechnical Site Investigation and Critical Areas/Geohazards Report indicates that the infiltration rates range from 0.1 to 0.9 inches per hour. The average annual precipitation in nearby Moxee, Washington is approximately 9 inches per year.
	Topography	The Facility will require minimal grading on-site as shown in Section 2.B.1. The Applicant would obtain a Grading Permit prior to site preparation and will provide the grading site plan to EFSEC at the time of submittal for said permit. The Applicant would specify the source of fill in the Construction Plans and Specifications which would be provided to EFSEC for approval at least 60 days prior to site preparation. Per the Vegetation and Weed Management Plan (Attachment D), the source would be certified weed-free by the Yakima County Noxious Weed Control Board.

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 slope and geohazards	The Facility has been designed to avoid the steepest slopes, watercourse drainages and geo-hazardous areas in the Facility Area Extent to minimize risk due to erosion and flash flooding. No development is planned within or in sufficiently close proximity to the noted incised drainage to pose a risk from potential flooding events. Appropriate project design, construction, and maintenance would be necessary to mitigate the risk from site erosion.

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**
	Implementation of Geotechnical Recom-mendations	The Applicant would follow all geotechnical recommendations provided by GN Northern in section 14 of the Geotechnical Site Investigation and Critical Areas/Geohazards Report.	GN Northern, Inc.
	Best Management Practices - Erosion	The Applicant would implement an Erosion and Sediment Control Plan (ESCP) and a Construction Phase SWPPP and Operations Phase SWPPP in compliance with local stormwater regulations. These plans would address stormwater runoff, flooding, and erosion to assure compliance with state and federal water quality standards. The ESCP would include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. The SWPPP would include BMPs from the Department of Ecology's Stormwater Management Manual for Eastern Washington. The Vegetation and Weed Management Plan would be implemented to revegetate	Ecology

		temporarily impacted areas and minimize erosion.	
	Building Permits	The Applicant would obtain all necessary permits including a Building Permit and a Grading and Excavation Permit. The seismic design parameters to be considered are in the 2015 International Building Code (IBC) and American Society of Civil Engineers (ASCE) 7-10 and ASCE 7-16; these are in compliance with the Washington State Building Codes. The Facility would comply with the current codes at the time of construction, demonstrating compliance with WAC 463-62-020.	Yakima Planning Department and Washington State Building Code Council

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

References

GNN (GN Northern, Inc.). 2020. Geotechnical Site Investigation and Critical Areas/Geohazards Report. Goose Prairie Photovoltaic (PV) Solar Array Project State Route 24 & Desmarais Cutoff, Moxee, Yakima County, Washington. GNN Project Number 220-1274. Prepared for OER WA Solar 1, LLC. November.

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 in the Facility Area Extent have been conducted, nor are any studies planned.			

☒ **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 (AAQS). The State of Washington has established rules through the Washington Department of Ecology (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. 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. New sources of air emissions in non-attainment areas must undergo more rigorous permitting than equivalently sized sources in attainment areas, in an effort to bring the area back into compliance with air quality standards. However, the Project is not located within a non-attainment area for any criteria pollutants (EPA 2020a). 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 (NOC)/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. An NOC is not required for the Project because there would be no permanent source of regulated air emissions. If a portable concrete batch plant is installed, an NOC is not required under WAC 173-400. 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. **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 federal 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(4–4a) 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. **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 80.80, which establishes goals for statewide reduction of GHG emissions. The statute aims to reduce overall GHG emissions to 1990 levels by 2020, and to 25 percent below 1990 levels by 2035. By 2050, the state intends to reduce overall emissions to 50 percent below 1990 levels. Goals also include 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. 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 Facility. In addition, the Facility could assist the State in achieving these goals.
Climate	The Facility is located in the Moxee Valley, 6 miles east of the town of Moxee and 12 miles east of the city of Yakima. It is located within a rain shadow created by the Cascade Mountains, which causes a decrease in precipitation to the east. In this region of Washington, the summers are

	short, hot, and mostly clear; winters are very cold and partly cloudy; and it is typically dry year-round (e.g., on average, there are nearly 200 days of sunshine). Average annual precipitation at Yakima, the city closest to the Facility, is 8.25 inches. The average seasonal snowfall at Yakima is 22.6 inches. In winter, temperatures in Yakima average a high of 40 degrees Fahrenheit (°F) and a low of 23.4°F, with extreme lows below 10°F. In summer, temperatures average a high of 84.8°F and a low of 51.2°F, with extreme highs above 95°F. Average relative humidity is 72 percent in the morning and 44 percent in the afternoon. 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 Yakima Airport in Yakima, Washington (KYKM). Based on data collected over the period from January 1, 1990 to December 31, 2019, the prevailing winds most frequently blew from the west (approximately 32 percent of the time), from the northwest (approximately 13 percent of the time), from the southwest (approximately 9 percent of the time), with calm conditions (less than 2.0 miles per hour) occurring approximately 21 percent of the time. The average wind speed for the period was approximately 6.0 miles per hour (3.0 meters per second) (NOAA 2020).
Regional Air Quality	While the air quality in Yakima County is healthy most of the year, the county's sunny climate, pollution-trapping mountains, and growing population contribute to occasional air quality issues. Fugitive dust and wood smoke are two of the most prevalent existing sources of air pollution in the area. Wood-fueled home heating methods combined with weather inversions during cold winter months contribute to elevated levels of $PM_{2.5}$. Windblown fugitive dust is prevalent in non-irrigated agricultural areas, especially where traditional farming methods are used. Agricultural land uses and rural residences surround the Facility Area, with the nearest schools and parks located 6 miles to the west in the town of Moxee. The nearest air quality monitors to the Facility are located in Toppenish, Washington (approximately 11 miles to the south), which measures $PM_{2.5}$, and in Yakima, Washington (approximately 13 miles to the northwest), which measures PM_{10} and $PM_{2.5}$. The nearest ozone monitor is in Kennewick, Washington (approximately 52 miles southeast). The nearest SO_2 monitor is in Wenatchee, Washington (approximately 55 miles to the north). The nearest NO_2 monitors are in Tacoma, Washington (approximately 115 miles to the northwest) and Portland, Oregon (approximately 135 miles southwest). The nearest CO monitors are in Seattle, Washington (approximately 121 miles to the northwest) and Portland, Oregon (approximately 135 miles to the southwest).

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	The primary sources of air pollution generated by construction of the Facility would be vehicle exhaust emissions, fugitive dust particles from disturbed soils that become airborne, and operation of a concrete batch plant. 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 access the site. The amount of pollutants emitted from these sources would be relatively small, given the size of the construction workforce and equipment fleet, and similar to emissions from other equipment commonly used for agriculture, transportation, and construction in Yakima County. The emissions would generally be dispersed among multiple locations in and near the Facility site at any given time rather than concentrated in a specific location, and they likely would not reach significant concentrations at off-site locations. 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 or plowing for underground utility cables. Operation of the concrete batch plant during construction would result in emissions of particulate matter. These emissions come primarily from the transfer of cement, sand, and aggregate, truck and mixer loading, and blowing from piles. However, like other emissions associated with construction, impacts are expected to be temporary and minor. Construction activities for the Facility are scheduled to take approximately one year (see Section 2.A.2.k). Given the relatively low magnitude, localized extent, and temporary duration of construction-related emissions, air quality impacts associated with Facility construction would not be substantial. In addition, standard dust control practices would be applied. Consequently, there is no basis to assume that these emissions would contribute to an exceedance of any air quality standards.
	Operation	Operations and maintenance (O&M) impacts on air quality from the Facility would be minimal. Combustion emissions and fugitive dust generated by vehicles traveling on Facility access roads to

		perform O&M functions would be the only emissions expected. The volume of O&M vehicle traffic would be very low. Therefore, quantities of potential emissions generated by these vehicles would be very small, intermittent, and localized. Areas disturbed during construction and not occupied by permanent Project infrastructure would be revegetated to prevent the generation of dust. Facility operation would not produce visible plumes, fogging, misting, icing, impairment of visibility, changes in ambient levels of pollutants, or impacts on climate. The Facility is not expected to induce regional growth that would result in substantial changes to off-site air quality. Other pollutants, including GHGs, would be emitted from outside the immediate vicinity, as a result of the total fuel cycle of the Facility. These emissions would be generated from manufacturing and transporting Facility parts and equipment. However, the Facility itself would not directly emit GHGs, beyond the use of vehicles and transportation (as mentioned earlier). Furthermore, the Facility would support the state's goal of increasing use of renewable energy resources, which has been declared in part to protect Washington's clean air and water. Implementation of any weed control measures at the Facility (e.g., herbicide spraying) would be conducted in compliance with federal, state, and local regulations to ensure that adverse impacts to air quality do not occur.
	Odors	During Facility-related construction activities, exhaust from diesel-powered vehicles and equipment and painting of the O&M facilities and other structures could create minor odors. These odors are not likely to be noticeable beyond the immediate vicinity and would be temporary and short-lived. Long-term odors are associated typically with industrial projects involving use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. The Facility involves no elements related to these types of uses. Therefore, no long-term odor impacts would occur with Facility operation.

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	N/A

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**
	Best Management Practices – Air Quality	Washington Administrative Codes (WAC) addressing air quality include: • WAC 173-400-040(3) Fallout. • WAC 173-400-040(4–4a) Fugitive emissions. • WAC 173-400-040(5) Odors. • WAC 173-400-040(9)(a) Fugitive Dust. To adhere to these codes, the Facility would implement BMPs and standard construction practices, including the following: • Graveling, watering or other fugitive dust-abatement measures would be used as needed to control fugitive dust generated during construction. When applied, Applicant would use water or a water-based environmentally safe dust palliative such as lignin for dust control. • 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. • Construction materials that could be a source of fugitive dust would be covered when stored.	N/A

		• 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

4.3. Water Quality – Wetlands and Surface Waters

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
Wetland Delineation Report (Attachment O)	Complete	Wetland Specialists at Tetra Tech, Inc. performed field surveys and completed the report which meets USACE and Department of Ecology specifications.	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
Wetland Delineation	The Wetland Delineation Report (Attachment O) found that there are no wetlands (as defined in the Wetland Delineation Manual from the US Army Corps of Engineers) and five ephemeral stream segments within the Facility Area Extent that combine to form two main-stem ephemeral streams. The ephemeral stream drainages within the Facility Area Extent, identified as STR-1, STR-1a, STR-2, STR-2a and STR-3 in the delineation report, are classified as Type 5 streams under the Yakima County Code (YCC 16C.06.06). Per YCC 16C.06.16 (“Vegetative Buffers”), Type 5 streams do not require any buffer; however, the Facility will be designed to maintain a 50-foot buffer from the delineated streams with one exception. The current design calls for the installation of either a bridge or a culvert to connect the northern and southern portions of the Facility. The bridge or culvert will be designed to accommodate debris and water passage, disturbance would be limited to the temporary effects of construction, and construction activities will comply with applicable clearing and grading regulations. Within 300 feet, but outside of, the Facility Area Extent and Survey Area, there are potentially two wetlands: one riverine and one likely excavated pond (see Figure 4.3-1). The riverine wetland shows up on the National Wetland Inventory and, unlike other drainages in the Facility Area Extent, only appears in some years in the historical aerial imagery from 1994 to 2020. The field where it is mapped has been in agricultural use for at least that time period, if not longer. The pond feature appears to be human-made; it is built up with earthen berms, rectangular in appearance, and does not

	always have water present in the historical aerial imagery (Google Earth Pro 2020). Yakima County requires buffers on wetlands according to their classification (YCC 16C.06.16). The riverine wetland outside the Survey Area is likely to be a Type 4 wetland due to the amount of agricultural disturbance. Type 4 wetlands have a 50-foot buffer requirement. The closest ground disturbance to these wetlands outside of the Facility Area Extent is the proposed access road improvement from State Route 24, which is approximately 160 feet to the west. Thus, the riverine wetland and requisite buffer falls outside any disturbance from the Facility.
Regulatory	The State of Washington considers all water bodies to be "Waters of the State" and therefore has jurisdiction over the ephemeral streams found within the Facility Area Extent. The U.S. Environmental Protection Agency and the Department of the Army published the Navigable Waters Protection Rule on April 21, 2020, which states that "Ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools" are not considered waters of the United States. Thus, the features are not subject to the jurisdiction of the Army Corps of Engineers. The installation of either a bridge or a culvert in a waterway may require a Hydraulic Project Approval (HPA) permit from the Washington Department of Fish and Wildlife (WDFW). 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. Because the on-site ephemeral streams are not fish-bearing, the Applicant will engage with WDFW to determine if an HPA is necessary in this case. As natural drainageways, the Type 5 streams are also reviewed by Yakima County as part of the Stormwater Plan, submitted in compliance with YCC 12.10.210.

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**
	Bridge/Culvert Installation	Current conceptual designs call for either a bridge or a culvert to be installed over/in an ephemeral drainage (STR-1 in the wetland delineation report). If a bridge is constructed, its abutments would be placed outside of the Ordinary High Water Mark (OHWM). Temporary impacts could include construction disturbances, including potential sediment, dust, and noise. Permanent impacts

		could include excavation (removal and fill) within the stream corridor and below the OHWM, construction of the roadway, and placement of the culvert or bridge.

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**
	Stream Buffers	Within the Survey Area, the Wetland Delineation Report identified three ephemeral stream features, classified as Type 5 streams by Yakima County (YCC 16C.06.16). Though Type 5 streams do not have any required buffer, the Facility is designed to maintain a 50-foot buffer on both sides of delineated streams.

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	No wetland features exist within the Facility Area Extent. The stream features that are present are Type 5 streams which do not require a buffer per Yakima County Code. The Facility has been designed to maintain a 50-foot buffer from these streams in order to avoid, reduce or eliminate impacts to the delineated streams. The Facility has no impacts to wetlands and is consistent with WAC 463-62-050.	N/A
	Stream Crossing Design	The stream crossing will be designed to minimize permanent impacts per YCC 16C.06.13, YCC 16C.06.17 and WAC 220-660-190, including: • Location and alignment of the proposed road crossing to minimize impacts to the stream corridor. • Excavated material not used to achieve the design grade shall be removed from the stream corridor.	Ecology, WDFW

		• Stream crossing structure (i.e., bridge or culvert) will be sized to accommodate ordinary high water or other design flow, sediment, and woody debris. • Site restoration and revegetation.	
	Best Management Practices - Stream Crossing Construction	The Applicant will implement BMPs during construction of the bridge or culvert as described at WAC 220-660-120 and in the Stormwater Management Manual for Eastern Washington. These measures include: • Stage materials and equipment to prevent contamination of Waters of the State • Develop and implement a Construction Phase Stormwater Pollution Prevention Plan (SWPPP), an Erosion and Sediment Control Plan (ESCP), and a Construction Phase Spill Prevention, Countermeasures, and Control (SPCC) Plan • Installation and maintenance of temporary erosion and sediment control measures including the appropriate use of silt fencing • Complete all work when no water is present	Ecology, WDFW
	Hydraulic Project Approval	If deemed necessary following discussions with WDFW, the Applicant would obtain an HPA permit for the bridge or culvert from WDFW per WAC 20-660-050.	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**
	N/A	N/A

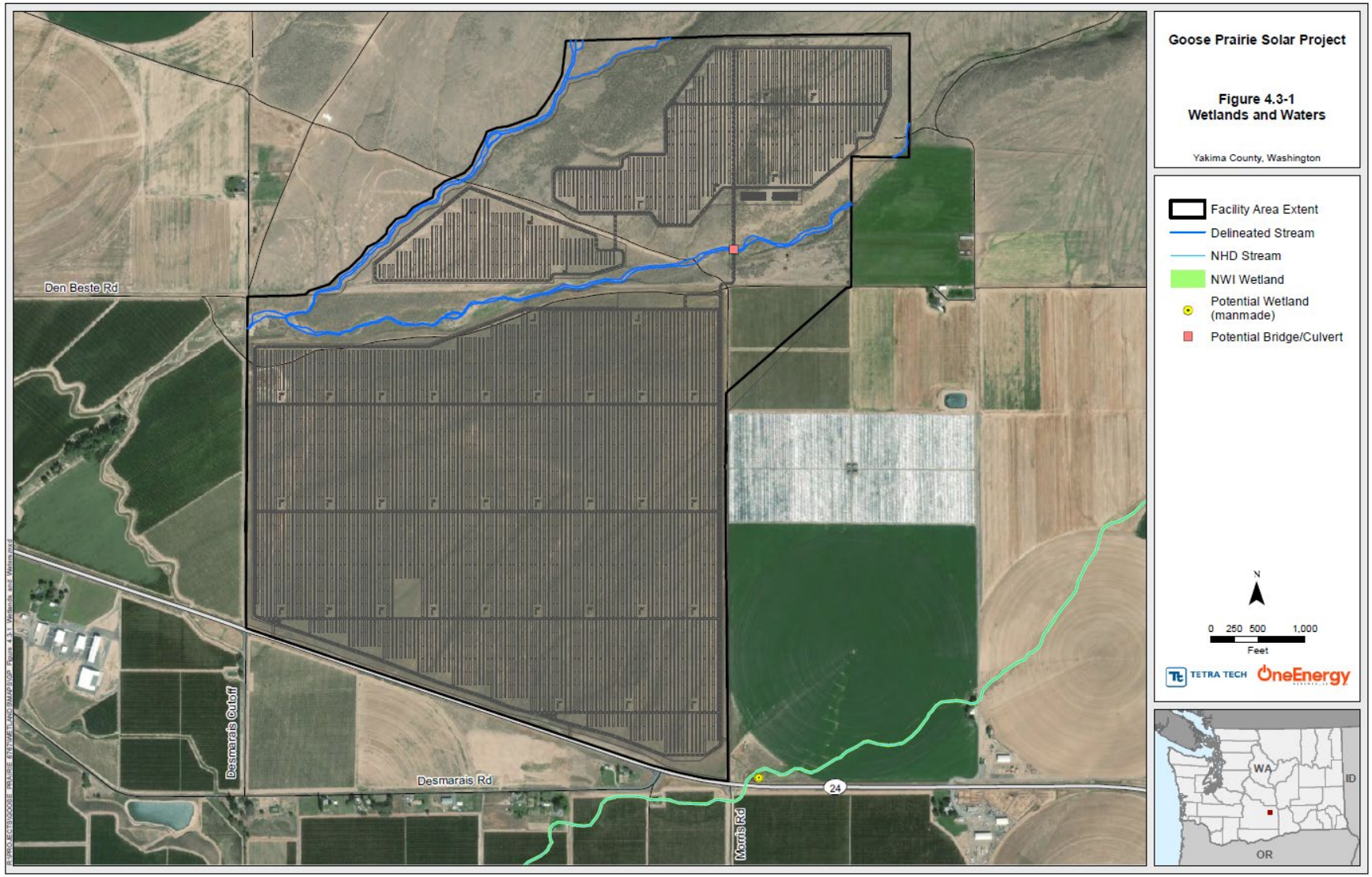

Figure 4.3-1. Wetlands and Waters

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4.4. Water Quality – Wastewater Discharges

No Part 4 Analysis 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
Geotechnical Site Investigation and Critical Areas/Geohazards Report (Attachment L)	Complete	GN Northern, Inc., Consulting Geotechnical Engineers, Contractor	Y
Phase I Environmental Site Assessment - Estate of Willamae G. Meacham. December 19, 2019. (not included)	Complete	EarthTouch, Inc., Environmental Consultants, Contractor	Y
Phase I Environmental Site Assessment, S. Martinez Livestock, Inc.. February 7, 2020. (not included)	Complete	EarthTouch, Inc., Environmental Consultants, Contractor	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 Geotechnical Site Investigation and Critical Areas/Geohazards Report (Attachment L) indicates the Survey Area is currently undeveloped and has a natural drainage pathway that flows through the site from the northeast to the southwest. The drainage pathway is lined with cobble and boulder deposits from wash and possible flash flooding events. Based on the topographic survey, the site slopes down to the southwest, with surface elevations ranging from approximately 1,726 feet near the northeast corner of the site to approximately 1,386 feet near the southwestern corner of the site. The Facility is not located in an area mapped by the Federal Emergency Management Agency regarding flooding concerns. The Geotechnical Site Investigation and Critical Areas/Geohazards Report indicates that the infiltration rates range from 0.1 to 0.9 inches per hour (limited to those locations tested). The average annual precipitation in nearby Moxee, Washington is approximately 9 inches per year. The report also indicates that near surface site soils are known to exhibit a moderate to severe potential for erosion and appropriate erosion and sediment control and drainage plans shall be prepared by the project civil engineer with the final construction drawings. Finally, the report identifies that groundwater was not encountered within the borings and test-pits at the time of exploration to a maximum depth of approximately 41 feet below ground surface.
Existing water quality issues	The Phase I Environmental Site Assessments indicate there are no existing/potential water quality issues identified on the Facility Parcels (EarthTouch, Inc. 2019 and 2020). In addition, the Geotechnical Site Investigation and Critical Areas/Geohazards Report (GNN 2020) did not report any pollutants encountered during the subsurface investigation.
Critical Aquifer Recharge Area	The Facility Area Extent is entirely within a mapped Critical Aquifer Recharge Area (CARA) identified by the County as “moderately susceptible to degradation or depletion” per YCC 16C.09.02(6). Note that almost the entire County is mapped as a CARA. No wellhead protection areas, sole source aquifers, susceptible groundwater management areas, special protection areas, or moderately or highly vulnerable aquifer recharge areas are identified within the Facility Area Extent.

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 activities associated with the Facility would result in some minor changes to existing surface-water runoff patterns, though it would not increase water flow over or through the area. Stormwater drainage changes would result due to new impervious surfaces developed as part of this Facility. As currently designed, there will be 29.5 acres of new impervious surfaces including gravel roads, a potential culvert, steel support posts, inverter pads, battery storage container pads, and pads for substation components. However, the Facility would be designed and constructed in compliance with YCC 12.10.250 in retaining stormwater on-site and maintaining natural drainage patterns for conveyance of upland flow. Because of the deep groundwater level identified in Attachment L, the Facility is not expected to impact the groundwater.
	Loss of wetland/surface water functions and values	There would be no loss of wetland/surface water functions and values (see Section 3.3).
	Critical Aquifer Recharge Area	The Applicant will comply with YCC 16C.09 which deals with CARAs, as demonstrated in the Land Use Consistency Review (Attachment A). Furthermore, the Geotechnical Site Investigation and Critical Areas/Geohazards Report (Attachment L) found that due to the prevailing subsurface soil and rock conditions and significant depth to groundwater across the Facility Area Extent, there is no or negligible risk of groundwater contamination from development of the Facility provided stormwater management is incorporated into the design. Therefore, due to existing site conditions and to the SWPPP and SPCC procedures, the Facility is not expected to result in impacts to the CARA from hazardous spills. Existing laws and regulations would adequately mitigate any potential impact from hazardous materials involved for the Facility.

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, flooding, and erosion.	The existing stormwater runoff and erosion patterns would inform the final design of the Facility and as a result, changes to drainage patterns would be minimized. The civil engineer would determine appropriate erosion and sediment control and drainage plans based on existing conditions and planned impervious surfaces (e.g. roads and other graveled areas).

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 compliance with WAC 173-200, the Applicant would obtain a Construction Stormwater General Permit (CSWGP) from Ecology. The CSWGP requires an Erosion and Sediment Control Plan (ESCP) and a SWPPP. Additionally, the Applicant would provide Yakima County with a Stormwater Plan in compliance with YCC 12.10.210.	Ecology
	Best Management Practices - Stormwater	The ESCP and SWPPPs (both for construction and operation) would address stormwater runoff, flooding, and erosion to assure compliance with state and federal water quality standards. The ESCP would include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. The SWPPPs would include BMPs from the Department of Ecology's Stormwater Management Manual for Eastern Washington. The Vegetation and Weed Management Plan would be implemented to revegetate temporarily impacted areas and minimize erosion.	Ecology

	Preventative procedures to avoid spills	Substantial quantities of oils, fuels, and other potential contaminants are not expected to be stored on-site during construction or operation. The Applicant would prepare a Construction Phase Spill Prevention, Control, and Countermeasures (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. Preventative procedures and rapid response measures would address/prevent potential water quality issues. The Applicant would 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.	N/A

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

References

EarthTouch. 2019. Phase I Environmental Site Assessment. SITE: Goose Prairie Solar Project. LOCATION: (Yakima), Yakima County, Washington. Gordon Meacham / Estate of Willamae G. Meacham. Prepared for OER WA Solar 1, LLC. December 19.

EarthTouch. 2020. Phase I Environmental Site Assessment. SITE: Goose Prairie 2 Solar Project. LOCATION: Near Yakima, Yakima County, Washington. S. Martinez Livestock, Inc. Prepared for OER WA Solar 1, LLC. February 7.

GNN (GN Northern, Inc.). 2020. Geotechnical Site Investigation and Critical Areas/Geohazards Report. Goose Prairie Photovoltaic (PV) Solar Array Project State Route 24 & Desmaris Cutoff, Moxee, Yakima County, Washington. GNN Project Number 220-1274. Prepared

4.6. Water Quantity – Water Use

No Part 4 Analysis required for this section.

4.7. Water Quantity – Runoff, Stormwater & Point Discharges

No Part 4 Analysis 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
Review of Rare Plant Occurrence and Big Game Movement (Attachment G)	Oct 2020	Prepared by Western Ecosystems Technology, Inc. (WEST)	Y
Wildlife and Habitat Survey Report (Attachment F)	Sep 2020	WDFW – Eric Bartrand and Scott Downes; site visits and feedback on protocols; Prepared by WEST	Y

☒ **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
DNR Natural Heritage Program - Special Status Plants	Western Ecosystems Technology, Inc. (WEST) has completed a Review of Rare Plant Occurrence and Big Game Movement, which is included as Attachment G. The goal of the desktop survey was to determine the likelihood for special status plant species to occur within the Facility Area Extent. Of the 38 sensitive plant species known to occur with Yakima County, five species were classified as likely to occur and five were classified as possible to occur within the Facility Area Extent. See Table 4.8-1 below for a list of the species.

Common Name[2]	Species	Habitat	Distribution Pattern[3]	Elevation (ft asl)	Blooming / Fruiting Period
Likely to Occur					
Columbia milkvetch	*Astragalus columbianus*	Shrub-steppe habitat on sandy loams or gravelly loams	Local Endemic; Current records from NE corner of County	420 - 2,330	Mid-late April through Mid-June
Pauper milkvetch	*Astragalus misellus var. pauper*	Shrub-steppe habitat found on open ridgelines and gentle upper slopes	Regional Endemic; Current records from NE corner of County	500 - 3,280	April through Mid-May
Bristle-flowered collomia	*Collomia macrocalyx*	Shrub-steppe habitat in dry open places on talus, rock outcrops, and lithosols. Typically vegetation is sparse and species diversity is low	Regional Endemic; Current records from NE corner of County	870 - 2,130	Late May to Early June
Dwarf mooncup	*Eremothera pygmaea*	Shrub-steppe habitat on unstable soil or gravel in steep talus, dry washes, banks and road cuts	Regional Endemic; Current record from E edge of County	450 - 2,050	June to August
Hoover's biscuitroot	*Lomatium lithosolamans*	Shrub-steppe habitat with basalt lithosols that are flat and well-drained with prominent rocks and gravel but little soil	Local Endemic; Current records throughout County	1,300 - 4,000	Early to late March
Possible to Occur					
Cottonball cryptantha	*Cryptantha gracilis*	Shrub-steppe habitat on basalt talus rock in dry, rocky or silty seasonal drainages	Sparse; historic record from NE corner of County	1,250 - 2,680	May to June
Desert cryptantha	*Cryptantha scoparia*	Shrub-steppe habitat on south facing slopes with full sun and little competing vegetation; grows between canyons with fine dry silt and talus	Sparse; historic record from NE corner of County	1,200 - 2,100	April to June
Bristly cryptantha	*Cryptantha spiculifera*	Shrub-steppe habitat on dry, open, flat or sloping areas with stable or stoney soils with low vegetation cover	Sparse; current records from E edge of County	450 - 3,500	May to July
Coyote tobacco	*Nicotiana attenuata*	Shrub-steppe habitats with dry sandy bottomlands, rocky washes and other dry open places	Sparse; Current records throughout County	320 - 2,640	June through August
Tufted evening-primrose	*Oenothera cespitosa ssp. cespitosa*	Shrub-steppe habitats and dry deserts; on loose talus; steep sandy or gravelly slopes	Peripheral; Current records in NE corner of County	410 - 1,800	Late April through Mid-June

[1] All species are considered sensitive by WNHP except for the bristle-flowered collomia which is listed as State Threatened
[2] Common name from Camp and Gamon (2011)
[3] *Local Endemic* = global range of taxon is less than 16,500 km² or about 1 degree of latitude x 2 degrees of longitude (about the size of an average county)
Regional Endemic = global range of taxon is between 16,500 to 250,000 km² (or an area about the size of the state of Washington)
Peripheral = globally widespread but Washington population is at the margin of the main contiguous range of the taxon
Sparse = widely distributed across the state but with relatively few populations (less than 20)

Table 4.8-1: Special status plant species that are likely or possible to occur within the Facility Area Extent

WDFW Priority Habitats and Species

WEST completed a habitat survey for the Survey Area, which wholly contains the Facility Area Extent, and found that there are approximately 195 acres of shrub-steppe habitat. Please see the Wildlife and Habitat Survey Report (Attachment F) for additional information. Of that total, approximately 45 acres have been characterized as “degraded” shrub-steppe which has a lower habitat function due to reduced shrub height, herbaceous cover and compacted soils.

Please see section 4.3 of the Wildlife and Habitat Survey Report for additional information.

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**
	DNR Natural Heritage Program - Special Status Plants	Special status plant species that were classified as possible or likely to occur at the Facility are associated with shrub-steppe habitat. Site and design measures that minimize development in shrub-steppe habitat and avoid development of high-quality shrub-steppe habitat in the draw have reduced the likelihood that construction and operation of the Facility would result in impacts to sensitive plant species.
	WDFW Priority Habitats and Species	Please see Section 4.9 of the ASC for information regarding impacts to habitat including those classified as Priority Habitat and Species by WDFW.

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**
	WDFW Priority Habitats and Species	There are approximately 195 acres of shrub-steppe habitat within the macro-siting boundary of the Facility Area Extent. As further discussed in the Wildlife and Habitat Survey Report (Attachment F), the qualitative conditions of this shrub-steppe habitat function range have been assessed and assigned value as either “intact” or “degraded.” At present, WDFW does not consider habitat function and value in their mitigation framework, so while the underlying soil type for the “intact” shrub-steppe habitat is the same as the “degraded” shrub-steppe habitat, the “degraded” habitat has lower habitat function due to reduced shrub height, herbaceous cover and compacted soils. To limit impacts to intact shrub-steppe, the proposed facilities north of the sage draw area are intentionally located in areas of lower sage habitat quality, including in the area of “degraded” shrub-steppe habitat, while avoiding other areas of intact, higher-quality shrub-steppe habitat. Thus, the Facility has been designed to minimize and avoid impacts to this shrub-steppe habitat when possible, including the avoidance of intact, higher-value habitat.

		In addition, at the request of WDFW, the “big sage draw” that runs east-west through the Facility Area Extent has been avoided entirely except for a road and electrical line crossing. This area will remain unfenced leaving the corridor open for terrestrial movement and wildlife connectivity.

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**
	Habitat Restoration and Mitigation Plan	The Applicant would develop and implement a Habitat Restoration and Mitigation Plan in consultation with WDFW and EFSEC. The Plan would detail the implementation of mitigation measures for impacts to the shrub-steppe habitat, including identification of the seed mixes that will be used for revegetation.	WDFW
	Best Management Practices - Special Status Plant Species	During construction, existing trees, vegetation, and wildlife habitat would be protected and preserved to the extent practical. The Applicant would implement the Vegetation and Weed Management Plan (Attachment D). Noxious weeds would be controlled in compliance with RCW 17.10.140. All herbicide and pesticide applications would be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations; herbicides and pesticides would only be directly applied to localized spots and would not be applied by broadcasting techniques (RCW 17.21). Additionally, gravel for the Facility would be procured from a certified weed-free source. The Applicant would implement the Construction Stormwater Pollution Prevention Plan (SWPPP) and Operations SWPPP to reduce erosion.	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**

4.9. Wildlife

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
Wildlife and Habitat Survey Report (Attachment F)	Sep 2020	WDFW – Eric Bartrand and Scott Downes; site visits and feedback on protocols; Prepared by Western Ecosystems, Inc. (WEST)	Y
Review of Rare Plant Occurrence and Big Game Movement (Attachment G)	Oct 2020	Prepared by WEST	Y

☒ **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 contracted with WEST to complete a Threatened Endangered and Sensitive Species (TESS) survey and habitat mapping for the Survey Area which wholly encompasses the Facility Area Extent, over 2019 and 2020. The results of these surveys are found in the Wildlife and Habitat Survey Report (Attachment F). Please see Section 4.3 of the report for a detailed description of the habitat types found within the Facility Area Extent. Table 4.9-1 and Figure 4.9-1 below summarize the acreage and areas of each habitat type (Figures are found at the end of this Section). **Habitat Type** / **Area (ac)** / **% Composition** Conservation Reserve Program 487.3 60.3 Shrub-steppe - Intact 149.5 18.5 Shrub-steppe - Degraded 45.3 5.6 Eastside Grasslands 95.0 11.8 Croplands 16.9 1.8 Pasture Mixed Environs 14.5 2.1 **Total** 808.5 100 *Table 4.9-2: Habitat types observed during surveys*

<table>
<tr><td>Threatened Endangered and Sensitive Species</td><td>Please see Section 4.1 of the Wildlife and Habitat Survey Report for a detailed discussion of the TESS species observed within the Facility Area Extent. Table 4.9-2 below and Figure 2 in Attachment F summarize the sensitive species observed during the surveys.

<table>
<tr><th>Common Name</th><th>Number of Individuals Observed</th><th>Status[1]</th></tr>
<tr><td>2019 Surveys</td><td></td><td></td></tr>
<tr><td>loggerhead shrike</td><td>1</td><td>BCC, SC</td></tr>
<tr><td>long-billed curlew</td><td>5</td><td>BCC</td></tr>
<tr><td>sagebrush sparrow</td><td>12</td><td>BCC, SC</td></tr>
<tr><td>sandhill crane</td><td>17</td><td>SE</td></tr>
<tr><td>Townsend's ground squirrel</td><td>12 colonies</td><td>SC</td></tr>
<tr><td>2020 Surveys</td><td></td><td></td></tr>
<tr><td>loggerhead shrike</td><td>2</td><td>BCC, SC</td></tr>
<tr><td>sagebrush sparrow</td><td>12</td><td>BCC, SC</td></tr>
<tr><td>Townsend's ground squirrel</td><td>2 colonies</td><td>SC</td></tr>
</table>
[1] BCC = Federal Birds of Conservation Concern Bird Conservation Region 9; SC = State Candidate; SE = State Endangered
Table 4.9-3: Species of concern observed during TESS surveys</td></tr>
<tr><td>Raptor Nests</td><td>No active nests were identified within the Facility Area Extent during the surveys. One active red-tailed hawk nest was identified within the 0.4-km buffer of the Facility Area Extent. Please see Section 4.2 of the Wildlife and Habitat Survey Report for a detailed discussion of the raptor nests observed within the Survey Area. Table 4.9-3 below and Figure 3 in Attachment F summarize the raptor nests observed during the surveys.

<table>
<tr><th>Nest ID</th><th>Species</th><th>Status</th></tr>
<tr><td>2019 Surveys</td><td></td><td></td></tr>
<tr><td>1</td><td>red-tailed hawk</td><td>Occupied/Active</td></tr>
<tr><td>2</td><td>unknown</td><td>Unoccupied/Inactive</td></tr>
<tr><td>3</td><td>common raven</td><td>Occupied/Active</td></tr>
<tr><td>2020 Surveys</td><td></td><td></td></tr>
<tr><td>1</td><td>red-tailed hawk</td><td>Occupied/Active</td></tr>
<tr><td>2</td><td>N/A</td><td>Did not locate</td></tr>
<tr><td>3</td><td>unknown</td><td>Unoccupied/Inactive</td></tr>
<tr><td>4</td><td>unknown</td><td>Unoccupied/Inactive</td></tr>
<tr><td>5</td><td>unknown</td><td>Unoccupied/Inactive</td></tr>
</table>
Table 4.9-4: Raptor nests observed during surveys</td></tr>
<tr><td>Upland Wildlife Habitat Conservation Area</td><td>As shown in Figure 4.9-2 below, a northern portion of the Facility Area Extent is within an area mapped by Yakima County as an “Upland Wildlife Habitat Conservation Area” (UWHCA) which is subject to the management requirements described in Yakima County Code Chapter 16C.11.</td></tr>
<tr><td>Wildlife Migration Routes</td><td>The Applicant contracted with WEST to perform an analysis of big game movement and the results are presented in the “Review of Rare Plant Occurrence and Big Game Movement at the Goose Prairie Solar Project” memo (Attachment G).</td></tr>
</table>

	The memo concludes that "because of the [Facility's] location on the outside perimeter of a large, unfragmented [Habitat Conservation Area] (HCA), removal of higher quality habitat in the northern portion of the [Survey] Area would not substantially reduce available habitat on the landscape or within the HCA." Specific to movement corridors for mule deer, the memo states that "due to the intensity of existing development in the surrounding landscape, construction of the [Facility] would not interfere with potential movement corridors and linkages between HCAs." For Rocky Mountain Elk, the report states that "removal of habitat from [Facility] construction does not appear to substantially reduce the amount of habitat or connectivity within the elk range." (Attachment G at pages 10-11). The Facility Area is within the Pacific Flyway, a major north-south flyway for migratory birds in America, extending from Alaska to Patagonia. The Pacific Flyway is an extensive area that covers much of the state of Washington. While some migratory birds were observed at the site, such as sandhill cranes, they were observed flying approximately 400 meters above ground level and did not exhibit site use within the Facility Area or surrounding area. The Wildlife and Habitat Survey notes that no suitable foraging, loafing or roosting habitat (i.e., migratory stopover habitat) for sandhill cranes occurred within the Facility Area.
Noise, Light and Glare	The Facility is located in an area with agricultural and residential development and accompanying existing sources of noise, light and glare. The Facility is also located in close proximity to State Route 24 (SR-24), with the closest fence line approximately 150 feet from that thoroughfare. As noted in Section 4.16 of this ASC, existing ambient sound levels are expected to range between 40 and 55 A-weighted decibels (dBA) equivalent sound level (L_{eq}) during daytime hours and 30 and 45 dBA L_{eq} during nighttime hours throughout the Facility Area Extent. Please see Section 4.16 for a detailed analysis of noise, light and glare.

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	Impacts for habitat are distinguished between permanent impacts and temporary impacts. In its Wind Power Guidelines, WDFW defines permanent impacts to habitat as those that are anticipated to persist and cannot be restored within the life of the project. In the context of solar development, permanent impacts would include new permanent roads, operations and maintenance facilities, posts, and concrete pads for electrical equipment. Temporary impacts to habitat are those that are anticipated to end when construction is complete and the impacts have been restored (WDFW 2009). Temporary impacts include trenching for placement of underground cables, construction staging areas, lay-down areas, and temporary construction access. Temporary impacts also include the portions of road corridors that are used during construction but that are re-vegetated at the end of construction, and do not include the portions of roads that continue to be used for project operations. The temporary and permanent impacts would be calculated in consultation with WDFW and EFSEC. Please see Section 4.9.D below and the Habitat Mitigation Memo (Attachment R) for more information regarding this consultation.
	Threatened Endangered and Sensitive Species	The Facility has been designed to avoid impacts to habitats associated with the TESS species that were observed during the pre-construction TESS surveys. Sandhill cranes were only observed flying over the Facility Area Extent at approximately 400 m above ground level. No suitable foraging, loafing or roosting habitat occurred within the Facility Area Extent. The Facility would have no impacts to sandhill cranes. Sagebrush sparrows were primarily associated with drainage bottoms that contained mature patches of shrub-steppe habitat both on the north-facing slopes of the Meacham Parcels and the ephemeral stream running east-west across the Facility Area Extent. Both of these areas are being avoided by the Facility. The Townsend's Ground Squirrel colonies exist primarily along Route 24, under the BPA transmission line and near the

		outbuildings. Most of these areas are being avoided by the Facility by their nature of being adjacent to the highway, within the BPA easement or proximate to outbuildings, which are avoided in Facility design. Long-billed curlews were observed only in the eastside grasslands at the far north and northeast corner of the Facility Area Extent, though evidence of foraging was found in the grasslands in the north central part of the Facility Area Extent. Despite thorough searches in areas where birds were flushed, no long-billed curlew nests were found within the Facility Area Extent. While two loggerhead shrikes were observed during the surveys, WEST concluded that their nesting habitat, which includes trees, hedgerows and windbreaks, is "mostly absent" from the Facility Area Extent. Federally listed wildlife and plant species are unlikely to occur within the Project, nor does the Project contain USFWS-designated critical habitat for these species.
	Upland Wildlife Habitat Conservation Area	As seen below in Figure 4.9-2, the Facility is located at the edge of the UWHCA which totals over 210,000 acres of contiguous area in Yakima County alone. The Facility Area Extent includes 260 acres of this UWHCA, approximately 0.12% of the total area. With the Facility being bordered on its other two sides by actively cultivated land and on its third by State Route 24, the Facility is not expected to have major impacts to the UWHCA.
	Water quality, stream hydrology and in-stream flows	As further described in Section 4.3, the Facility will include either a bridge or a culvert across an ephemeral stream within the Facility Area Extent which may require a Hydraulic Project Approval (HPA) permit from WDFW. If deemed necessary following discussions with WDFW, the Applicant will acquire the HPA permit. As further discussed in Section 4.3, construction activities will be conducted consistent with applicable regulations and site-specific stormwater, sediment, and spill plans to ensure protection of aquatic habitat.
	Wildlife Migration Routes	As noted above, WEST concluded that based on remotely-sensed data from the Washington Wildlife Habitat Connectivity Working Group, the Facility "would not interfere with potential movement corridors and linkages between HCAs." Migration routes for mule deer were mapped north and south of the proposed Facility. State Route 24 which borders the Facility to the south and the high-intensity agricultural operations in the surrounding area reduces the likelihood that the Facility is part of a big game migration route.

	Noise, Light and Glare	As further described in Section 4.16, the Facility is not expected to have significant noise impacts during operations. Human activity and noise would be limited to occasional maintenance activities and is not expected to impact wildlife. Construction activities would only occur between the hours of 7 am and 10 pm in accordance with WAC 173-60-050 which would limit the impacts of construction noise to wildlife. Additional BMPs for noise are listed in Section 4.16. While wildlife species are susceptible to noise disturbances caused by humans and construction equipment, the BMPs will limit these impacts to the extent feasible. Lighting at the Facility would be limited to security lighting which is comparable to the lighting for residences in the surrounding area. Further, unnecessary lighting would be turned off at night to limit attraction of migratory birds. This includes using lights with timed shutoff, downward-directed lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. The Facility would be built with solar panels that are treated with an anti-reflective coating to minimize glare. Fatalities or injuries of aquatic habitat birds such as grebes, loons, herons, coots, and diving ducks at solar energy facilities has led some scientists to suggest that these species might interpret solar facilities as water (Kagan et al. 2014, Walston et al. 2015). Kosciuch et al. (2020) reviewed bird fatality data from 10 PV solar facilities in the southwestern U.S and stated the underlying mechanism responsible for bird fatalities at PV solar projects, especially water-obligate and water-associated birds, was not identified in any studies they reviewed. Kosciuch et al. (2020) found that the closer a PV solar facility was to a major bird migration stop-over site (Salton Sea), the higher the proportion of water bird fatalities. The Facility does not occur near a large waterbody that serves as a major migratory stop-over site; thus waterbird mortality, should it occur, is not expected to rise the level of that found at solar projects in California.
	Noxious or non-native species	The Applicant has developed a Vegetation and Weed Management Plan (Attachment D), which includes methods for effective noxious weed control and revegetation. The plan was created in consultation with the Yakima County Noxious Weed Control Board. The Facility would comply with RCW 17.10.140 in controlling the spread of noxious weeds.

	Risk of collision by avian species	The development of the Facility will convert the current landscape into a PV solar array field, which could pose a collision risk to birds during construction and operation. Predicting the number and species that could occur as fatalities at the Facility (or any project) is not possible at this time. From the review, Kosciuch et al. (2020) derived six key points: 1) three of the top four species detected as fatalities were common and abundant ground-dwelling birds; 2) most fatalities occurred in fall; 3) there has been no evidence of a large-scale fatality event of nocturnal migrating passerines; 4) approximately 53% of fatalities were of feather spots from an unknown source of fatality; 5) water-obligate birds (e.g., loons and grebes) occurred in 9 of 10 studies in the Sonoran and Mojave Deserts bird conservation region (BCR in a known migration route; and 6) the average annual fatality estimate across all species was 2.49 fatalities/MW/year. The 2020 Kosciuch review was based on findings from 10 solar facilities across California and Nevada, some of which were sited in areas similar to the Facility Area Extent (comprising mostly dry climates, some with shrub-steppe habitat). Although the Facility is located outside of the region where the studies summarized by Kosciuch et al. (2020) occurred, similarly low fatality rates of common ground dwelling birds may be expected at the Facility.
	Hazardous or toxic spills	As demonstrated in Section 4.13, the risk of hazardous or toxic spills at the Facility is low. The Applicant would prepare both a Construction Spill Prevention, Control and Countermeasures (SPCC) Plan and an Operations SPCC Plan. The SPCC Plans would be implemented during construction and operation to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release.

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	The Facility has been designed to avoid higher value wildlife habitat, to the extent practical. At the request of WDFW, the shrub-steppe habitat that exists in the draw that runs east-west through the Facility Area Extent has been avoided entirely except for an access road and collector line crossing. This area would remain unfenced during operations, leaving the corridor open for terrestrial wildlife movement.

		At present, WDFW does not consider habitat function and value in their mitigation framework, so while the underlying soil type for the intact shrub-steppe habitat is the same as the degraded shrub-steppe habitat, the degraded habitat has lower habitat function due to reduced shrub height, herbaceous cover and compacted soils. To limit impacts to intact shrub-steppe, the proposed facilities north of the sage draw area are intentionally located on areas of lower sage habitat quality, including in the area of degraded shrub-steppe habitat, while avoiding other areas of intact shrub-steppe brush to the extent practical. Scientific data suggests residual habitat function in areas impacted by solar development. A study conducted at the Topaz Solar Farms in San Luis Obispo County, California documented higher vegetation productivity on site than in surrounding reference sites (Sinha et al. 2018). Numerous wildlife species were recorded using habitat within that project site, including 27 bird species, eight mammal species, and four reptile species (Sinha et al. 2018). As such, the potential impacts to birds will be partially dependent on site restoration.
	Threatened Endangered and Sensitive Species	The initial site was located approximately 12 miles east, as-the-crow-flies. of where the current site is today, in a more remote location that was closer to the Yakima Training Center (YTC). WDFW provided feedback regarding the preliminary site's proximity to sage grouse habitat and expressed concern about potential wildlife impacts. This early feedback led OneEnergy to initiate avoidance mitigation by moving the Project away from the area of WDFW concern. The new (and current) site is in a location that is largely comprised of previously disturbed agricultural land, bordered on three sides by land that is actively farmed for alfalfa, hops, and fruit and on the fourth side by land that is actively grazed, directly in-between proximally-located existing disturbances, including State Route 24 and the BPA Midway-to-Moxee 115 kilovolt transmission line.

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**
	Avoidance Measures	During siting and design, the Applicant took several measures to avoid and minimize impacts to wildlife and habitat. The Applicant has been in consultation with WDFW on this Facility since September 2017. Section 1b of the Habitat Mitigation Memo (Attachment R) includes a detailed history of this consultation. Avoidance measures include site selection screening focused on previously developed, or degraded sites such as the high-intensity agricultural region of the Moxee Valley, where the Facility is located. Based on WDFW feedback, the Applicant moved the site from one with greater potential impacts to Priority Habitat and Species to the current site. Siting the Facility immediately adjacent to the interconnecting transmission line avoids the construction of additional high-voltage transmission lines and accompanying habitat disturbance. Additionally, the Facility will avoid – and leave unfenced – the shrub-steppe sage draw located in between the northern and southern portions of the Facility (see Figure 4.9-3). The only Facility components in this area will be the collector electrical infrastructure and civil road infrastructure necessary to connect the Facility. Avoidance of this approximately 62-acre area maintains higher-value habitat and leaves the corridor open for terrestrial movement and wildlife connectivity function.	WDFW
	Minimization Measures	To minimize impacts to meso-carnivores and small mammals, the Facility has committed to raising the bottom of the fence by four inches above grade. To minimize impacts to birds and animals that attempt to jump the fence, razor wire will not be used with the fence. These fence specifications are in direct response to WDFW request.	WDFW

		To minimize impacts to intact shrub-steppe, the proposed facilities north of the sage draw are intentionally located on areas of lower quality shrub-steppe habitat while avoiding other areas of intact shrub-steppe habitat to the extent practical. During construction, existing trees, vegetation, and wildlife habitat would be protected and preserved to the extent practical.	
	Construction and Operations BMPs	Unnecessary lighting would be turned off at night to limit attraction of migratory birds. This includes using lights with timed shutoff, downward-directed lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. Where applicable, the Project's above-ground power lines are designed and constructed to minimize avian electrocution, according to guidelines outlined in Avian Power Line Interaction Committee standards (APLIC, 2012). Noxious weeds would be controlled in compliance with RCW 17.10.140 and the Vegetation and Weed Management Plan (Attachment D). All herbicide and pesticide applications would be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations; herbicides and pesticides would only be directly applied to localized spots and would not be applied by broadcasting techniques (RCW 17.21). Construction activities would only occur between the hours of 7 am and 10 pm in accordance with WAC 173-60-050 which would limit the impacts of construction noise to wildlife. Prior to construction, all supervisory construction personnel would be instructed on wildlife resource protection measures, including: 1) applicable federal and state laws (e.g., those that prohibit animal collection or removal); and 2) the importance of these resources and the purpose and necessity of protecting the resources, and ensuring this information is disseminated to applicable contractor personnel, including the correct reporting procedures. Construction personnel would be trained in the following areas when appropriate: awareness of sensitive habitats and bird species,	WDFW

		potential bird nesting areas, potential bat roosting/breeding habitat, and general wildlife issues. Appropriate stormwater management practices in accordance with the SWPPPs that do not create attractions for birds and bats would be implemented. The Applicant would prepare an Erosion and Sediment Control Plan (ESCP) which would include BMPs to minimize surface water runoff and soil erosion. The Applicant would prepare Spill Prevention, Control and Countermeasures (SPCC) Plans to be implemented during construction and operation to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the release. Vehicle speeds would be limited to 25 mph to avoid wildlife collisions. Fire hazards from vehicles and human activities would be reduced (e.g., use of spark arrestors on power equipment, avoiding driving vehicles off roads, allowing smoking in designated areas only; WAC 463-60-352). The Applicant would prepare Fire Control Plans in consultation with the Yakima County Fire Marshal and the East Valley Fire Department. Following decommissioning, reclamation of the Facility Area shall begin as quickly as possible to reduce the likelihood of ecological resource impacts in disturbed areas.	
	Compensatory Mitigation	In order to achieve “no net loss of habitat functions and values” as required by WAC 463-62-040, the Applicant proposes to coordinate with WDFW and EFSEC to determine an appropriate compensatory mitigation payment. The Applicant has prepared a Habitat Mitigation Memo (Attachment R), which provides context for determining the additional mitigation required to achieve “no net loss.” The Applicant proposes to begin meeting with WDFW and EFSEC within 15 business days of the submission of this ASC, aimed at conclusion of the	WDFW

		discussion within 60 days of the first meeting and prior to completion of SEPA review. Once determined, the agreed-upon mitigation will be provided as supplemental information to this Section 4.9 to inform the SEPA determination and the EFSEC recommendation.	
	Habitat Restoration and Mitigation Plan	The Applicant would prepare a Habitat Restoration and Mitigation Plan in consultation with EFSEC and WDFW. The plan would specify the mitigation obligations and implementation plans, including those for construction, operations and decommissioning. Additionally, the plan would include details for revegetation of temporarily disturbed areas, including identification of an appropriate native plant seed mixture for revegetation, the timing for restoration and a plan for monitoring the success of revegetation. The plan would address the requirements of YCC 16C.11.070 and WAC 463-60-332(3). The plan would be finalized following issuance of the SCA and submitted to EFSEC for approval at least sixty days prior to site preparation.	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	**N/A**

References

APLIC (Avian Power Line Interaction Committee). 2012. Reducing Avian Collisions with Power Lines. Edison Electric Institute and APLIC. Washington, D.C.

EPA (United States Environmental Protection Agency). 1971. Community Noise. NTID300.3 (N-96-01 IIA-231). Prepared by Wylie Laboratories.

Kagan, R. A., T. C. Viner, P. W. Trail, and E. O. Espinoza. 2014. Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis. National Fish and Wildlife Forensics Laboratory, US Fish and Wildlife Service (USFWS), Ashland, Oregon. April 2014. Available online at: http://docketpublic.energy.ca.gov/publicdocuments/09-afc-07c/tn202538_20140623t154647_exh_3107_kagan_et_al_2014.pdf

Kosciuch, K., D. Riser-Espinoza, M. Gerringer, and W. Erickson. 2020. A Summary of Bird Mortality at Photovoltaic Utility Scale Solar Facilities in the Southwestern U.S. PLoS ONE 15(4): e0232034. doi: 10.1371/journal.pone.0232034.

Sinha, P., Hoffman, B., Sakers, J. and Althouse, L. 2018. Best Practices in Responsible Land Use for Improving Biodiversity at a Utility-Scale Solar Facility. Case Studies in the Environment, 2018, pps. 1–12. electronic ISSN 2473-9510. www.ucpress.edu/journals.php?p=reprints. DOI: https://doi.org/10.1525/cse.2018.0011231.

Walston, L. J., Jr., K. E. Rollins, K. P. SMith, K. E. LaGory, K. Sinclair, C. Turchi, T. Wendelin, and H. Souder. 2015. A Review of Avian Monitoring and Mitigation Information at Existing Utility-Scale Solar Facilities. ANL/EVS-15/2. Prepared by Argonne National Laboratory (Argonne). Prepared for US Department of Energy (USDOE), SunShot Initiative and Office of Energy Efficiency and Renewable Energy (EERE). April 2015. Available online at: http://www.evs.anl.gov/downloads/ANL-EVS_15-2.pdf

WDFW (Washington Department of Fish and Wildlife). 2009. Wind Power Guidelines. Olympia, WA. 30pp.

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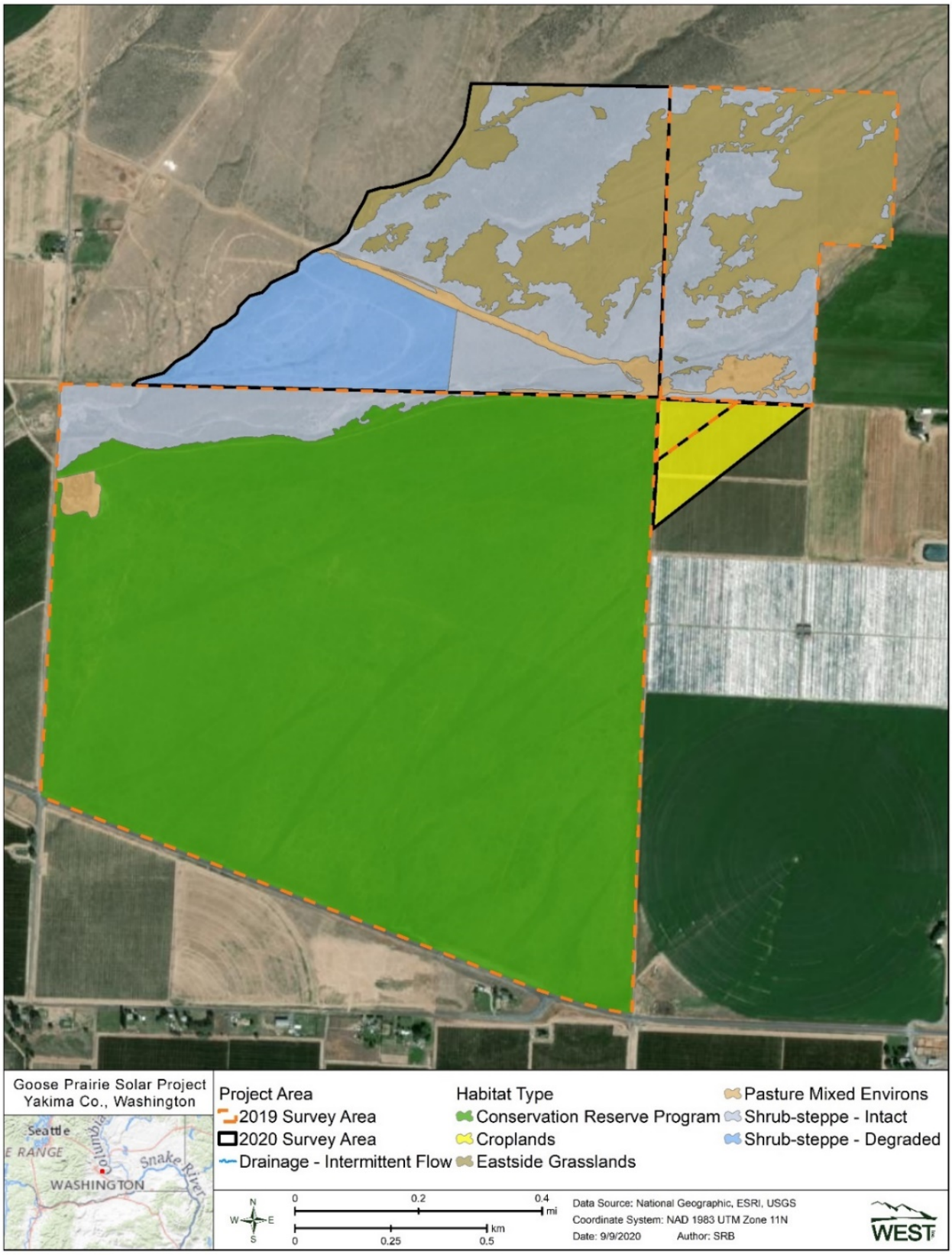

Figure 4.9-4: Habitat Type

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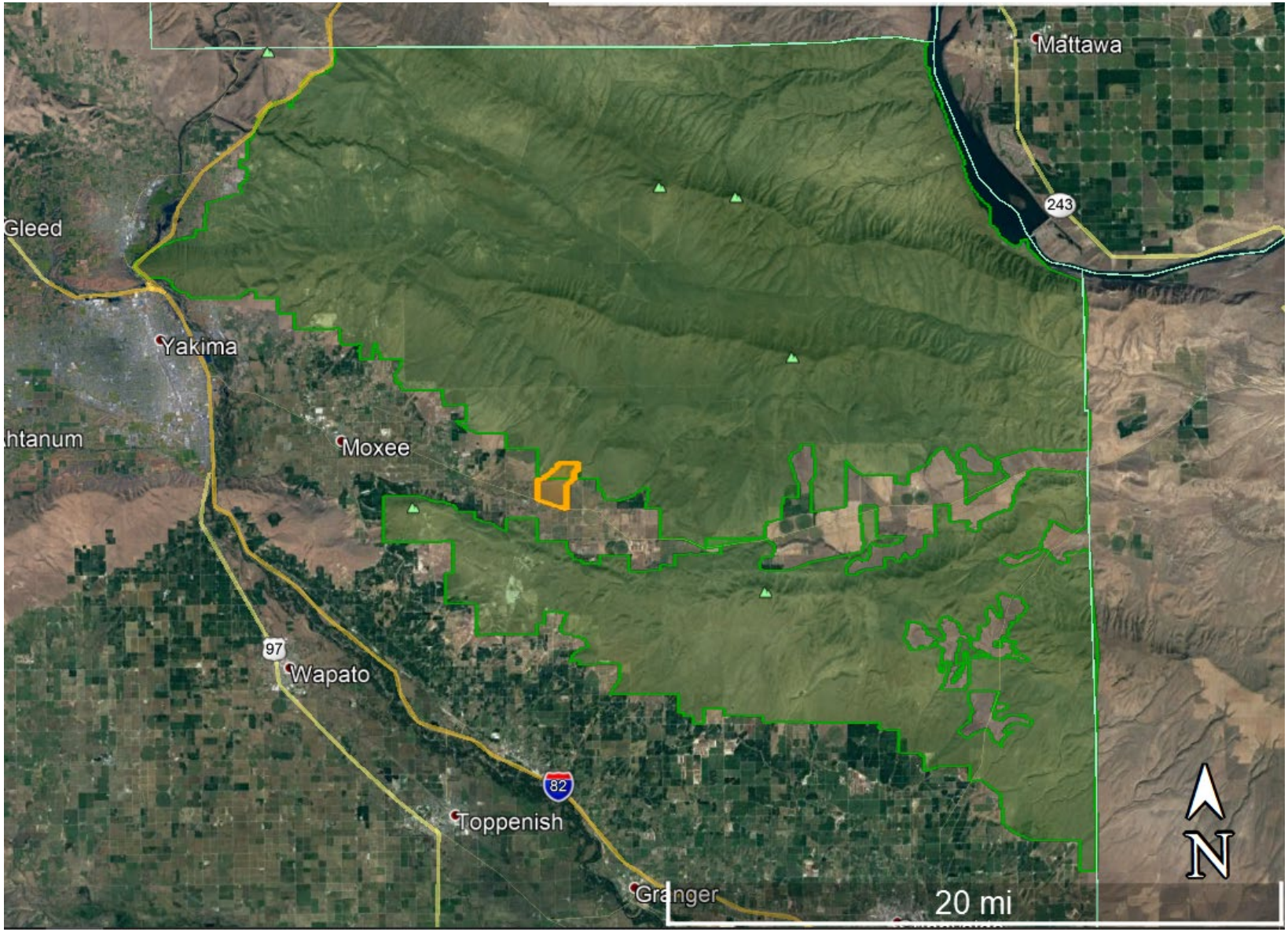

Figure 4.9-2: Upland Wildlife Habitat Critical Area in Yakima County

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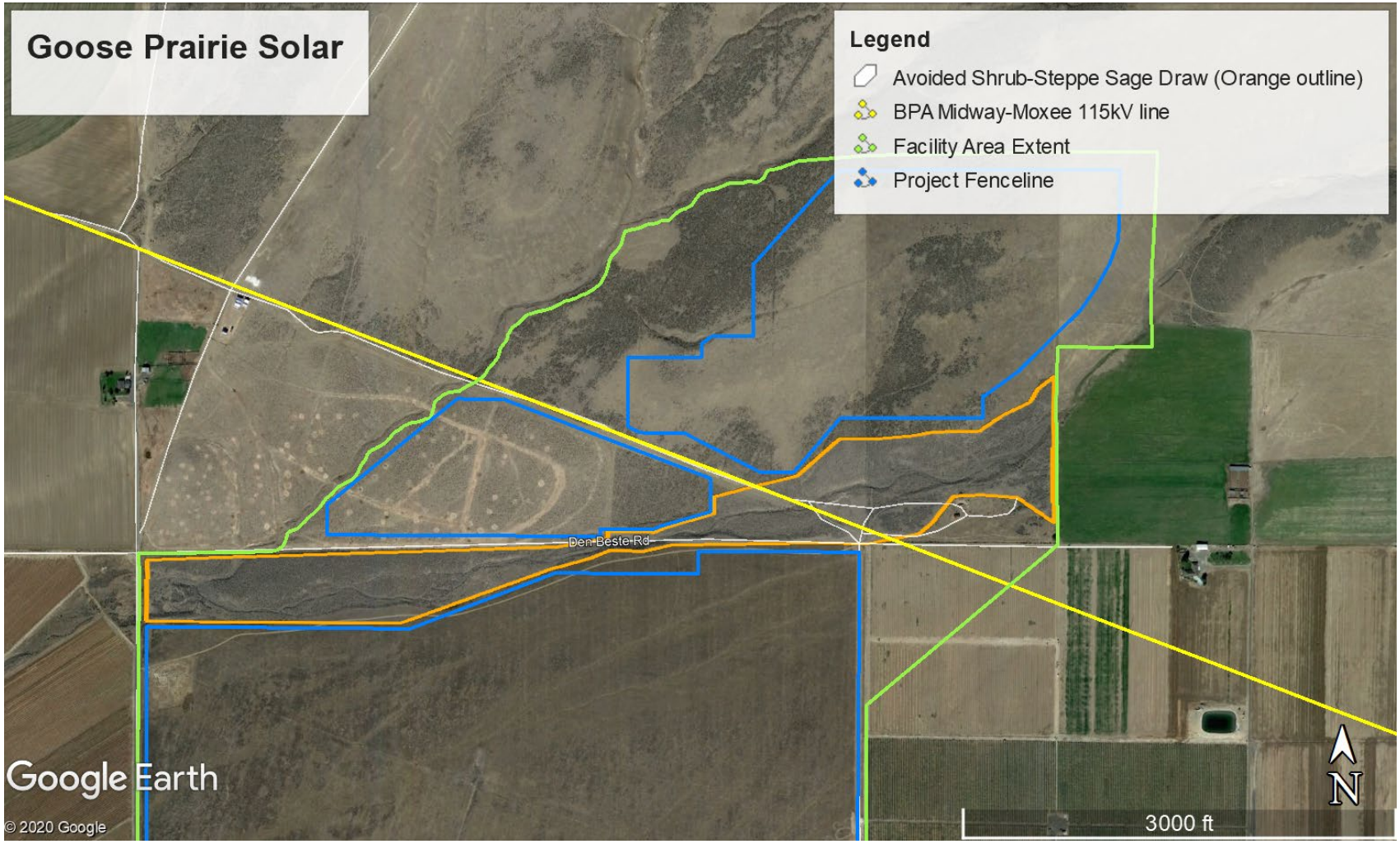

Figure 4.9-3: Location of Avoided Shrub-Steppe Sage Draw

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4.10. Energy and Other Natural Resources

No Part 4 Analysis required for this section.

4.11. Waste Management

No Part 4 Analysis required for this section.

4.12. Environmental Health – Existing Site Contamination

No Part 4 Analysis 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, SITE: Goose Prairie Solar Project, LOCATION: Yakima County, Washington (Gordon Meacham/Estate of Willamae G. Meacham). December 19, 2019.	Complete	EarthTouch, Inc., Environmental Consultants, Contractor	Y
Phase I Environmental Site Assessment, SITE: Goose Prairie Solar Project, LOCATION: Yakima County, Washington (S. Martinez Livestock, Inc.). February 7, 2020.	Complete	EarthTouch, Inc., Environmental Consultants, Contractor	Y

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

The Applicant completed Phase I Environmental Site Assessment (ESA) reports for the Facility Parcels consisting of the Meacham Property and Martinez Property in December 2019 and February 2020, respectively. The Phase I ESA reports are referenced in this section where appropriate to address existing site conditions.

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
Known or possible contamination	Known or possible contamination on the Facility Parcels from present or past uses is documented in the Phase 1 ESA reports (EarthTouch 2019, 2020). The Meacham Property currently consists of vacant undeveloped land with native vegetation. There are no vertical structures on the Meacham Property and no irrigation practices are performed on the property. There was remnant metal piping noted along the northern portion of the Meacham Property and timber noted on the east-central portion of the Property. Historic information indicates that the Meacham Property has been used primarily for agricultural purposes. The owner of the Meacham Property is unaware of the application of herbicides and pesticides on the property in the past. The Phase 1 ESA notes that while use cannot be ruled out, the application of fertilizers, pesticides, or herbicides in agricultural production areas would be assumed to be relatively uniform and generally consistent with manufacturer guidelines. The Martinez Property currently consists of vacant undeveloped land with native vegetation for cattle and sheep grazing, irrigated agricultural areas, and two developed areas including a small corralled area to the southwest and an unoccupied cabin and garage north of Den Beste Road. A representative of the owner of the Martinez Property stated that herbicides and pesticides may have been applied to the property in the past. The Phase 1 ESA notes that the application of fertilizers, pesticides, or herbicides in agricultural production areas would be assumed to be relatively uniform and generally consistent with manufacturer guidelines. The south and southeast portions of the Property outside the Facility Area Extent contain a residence, barn for equipment storage, and irrigated agricultural land. The irrigated areas contain wheel lines, grasses and hay, and a recently planted apple orchard. The residence and unoccupied cabin are serviced by septic systems. An empty approximately 500-gallon metal aboveground storage tank was identified near the unoccupied cabin and was historically used for water. Four 300-gallon totes of sulfuric acid used to neutralize water hardness are located on the southeast portion of the Martinez Property near the reservoir which is outside the Facility Area Extent and would not pose a risk to the Facility. The regulatory database records review completed for both Phase 1 ESA reports conclude that listed facilities, properties, and business operations within one mile of the Meacham and Martinez Properties pose a low or insignificant concern of adverse impact to the environmental condition of the properties.

Risk of fire or explosion	No petroleum products or potentially hazardous substances are stored within the Facility Area Extent on the Meacham and Martinez Properties. The Facility Area Extent occurs predominantly on vacant undeveloped land and land used for dryland agricultural and grazing. The greatest fire risk is associated with grass fires that could occur during the hot, dry summer season.
Hazardous material sources	Past agricultural uses within the Facility Area Extent generally included planting and harvesting of wheat or native crops. As described above, the potential historic use of organic and inorganic fertilizers, pesticides, or herbicides could have occurred in agricultural production areas within the Facility Area Extent. Possible past applications are assumed to be relatively uniform and generally consistent with manufacturer guidelines. There is no evidence that organic or inorganic herbicides and pesticides were stored, staged, mixed, applied through irrigation systems, or disposed of within the Facility Area Extent. Therefore, possible past applications of organic or inorganic herbicides and pesticides pose low concern of adverse environmental impact with respect to development of the Facility. The Phase 1 ESA reports (EarthTouch 2019, 2020) for the Meacham and Martinez Properties do not find current or historic evidence of contamination on the properties and did not identify other potentially hazardous substances within the Facility Area Extent. In addition, no underground hazardous liquid or natural gas transmission pipelines occur within the Meacham and Martinez Property boundaries or surrounding area.
Public safety standards	No safety plans such as preparedness and prevention plans, spill prevention, countermeasure and control (SPCC) plans, or other related plans exist for the Meacham and Martinez Properties.
Emergency plans and services	The Facility Area Extent is currently served by the East Valley Fire Department – Yakima County Fire District #4. No site-specific emergency plans are associated with the Meacham and Martinez Properties.

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	Overall, the risk of fire at the Facility is low. Access roads at the Facility would be designed pursuant to the current International Fire Code adopted by the State of Washington to accommodate heavy-duty firefighting equipment. The Applicant has initiated consultation with the Yakima County Fire Marshal to ensure compliance with the International Fire Code, as well as coordinate with the East Valley Fire Department - Yakima County Fire District #4 to provide the Facility site and equipment information pertinent to emergency response. As described below, minimal amounts of petroleum fuels and lubricating oils would be transported, stored, or used to operate equipment during construction and operation of the Facility. These materials would be stored in compliance with applicable local, state, and federal environmental laws and regulations and would not pose an increased risk of fire or explosion. The Applicant is considering the development of an optional battery energy storage system (BESS) using lithium-ion or flow battery technology described in Section 2.A.2.f. These technologies are typically encased in steel containers. The flow battery technology uses an electrolyte solution circulated through two tanks. While not considered an extremely hazardous material, the electrolyte solution would be contained within the encased steel container in the unlikely case of a leak. The lithium-ion battery technology is composed of individual cells that are hermetically sealed and would not be opened onsite for any installation or maintenance purposes and do not have any wastewater discharges. Lithium-ion batteries contain flammable liquids that can become heated during operation. Accordingly, each lithium-ion BESS would contain a fire suppression system that meets 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. Installation, maintenance, and decommissioning of BESS components would be done in compliance with 49 Code of Federal Regulations (CFR) §173.185, which regulates the transportation of lithium-ion batteries. The Facility would use thoroughly proven, financeable batteries, inverters, and related equipment, including battery products that are

		listed or certified by Underwriters Laboratories (UL), the industry's foremost safety and sustainability third-party standard. Hazardous materials may be involved at the Facility if lead-acid batteries are elected as a backup uninterruptible power supply system. Lead-acid batteries contain sulfuric acid within a maintenance-free sealed leakproof exterior. Sulfuric acid is considered an extremely hazardous material by the U.S. Environmental Protection Agency (EPA) under 40 CFR §355. As required by regulation, if lead-acid batteries are installed, secondary containment would be employed, and the Applicant would include sulfuric acid as part of its annual Emergency Planning and Community Right-to-Know Act report to local emergency responders. The lead-acid batteries would be replaced at least every 5 years, if not earlier, as indicated by system controls. Replacement of lead-acid batteries would be handled by a qualified contractor and adhere to applicable regulations for transport and disposal, including but not limited to 49 CFR §173.159.
	Hazardous material sources	During construction, if storage of small amounts of petroleum fuels and lubricating oils is required, it would occur in a work area that provides for secondary containment. Most fuel and lubricating oil or hydraulic fluids for construction equipment would be delivered to the construction yard by a licensed contractor on an as needed basis. Facility operation would not require substantial quantities of fuels, oils, or chemicals onsite except as required for the operation of Facility components such as the substation transformers and inverters and transformers associated with Facility Power Centers. The Applicant would comply with EPA rules, specifically the USEPA Amended Spill Prevention, Control, and Countermeasure Rule issued in 2006 (EPA-550-F-06-008) related to these components. The Applicant would implement methods for effective noxious weed control and revegetation during construction and operation of the Facility. These methods are described in the Vegetation and Weed Management Plan (Attachment D). The plan includes guidelines for the handling and application of herbicides. If herbicide treatment is necessary, the Applicant would only use herbicides that are approved for use in the state of Washington by the EPA and the Washington State Department of Agriculture (WSDA). Herbicides would be transported to the Facility as needed for the day's work and would not be stored onsite.
	Public safety standards	The Applicant would prepare both a Construction Spill Prevention, Control and Countermeasures (SPCC) Plan and an Operations SPCC Plan. The SPCC Plans would be implemented during construction and operation to reduce the likelihood of an accidental release of a hazardous or regulated liquid and, in the event such a release occurs, to expedite the response to and remediation of the

		release. The SPCC Plans would restrict the location of fuel storage, fueling activities, and equipment maintenance and provide procedures for these activities; identify training and lines of communication to facilitate the prevention, response, containment, and cleanup of spills; and identify the roles and responsibilities of key personnel and contractors. Due to these procedures, the Facility is not expected to result in impacts from hazardous spills. Furthermore, existing laws and regulations identified in Section 4.13.D. below would adequately mitigate any potential impact from hazardous materials involved for the Facility.

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

The Phase I ESA reports conducted for the Facility demonstrate that the existing condition of the Facility Parcels would not affect construction, operation, or decommissioning of the proposed Facility (EarthTouch 2019, 2020). As described above, the ESAs did not find current or historic evidence of contamination on the Meacham and Martinez Properties and did not identify other potentially hazardous substances within the Facility Area Extent. No underground hazardous liquid or natural gas transmission pipelines occur within the Meacham and Martinez Property boundaries or surrounding area.

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 Plans	The Applicant would develop a set of emergency plans including 1) a Construction Phase Emergency Plan, 2) a Construction Phase Fire Control Plan, 3) a Construction Phase Health and Safety Plan, 4) an Operations Phase Emergency Plan, 5) an Operations Phase Fire Control Plan, and 6) an Operations Phase Health and Safety Plan. More information on what each plan would contain and the submittal timeline is provided in Section 2.A.6. A copy of the plans would be maintained onsite in the operations and maintenance building and provided to local emergency services.	Yakima County Sheriff's Office East Valley Fire Department - Yakima County Fire District #4. Yakima County Fire Marshal's Office
	Best Management Practices - Fire Prevention	To minimize the risk of fire or explosions, the Facility would implement Best Management Practices including: • Construction equipment would have spark-arresting mufflers, heat shields, and other protection measures to avoid starting fires.	East Valley Fire Department

		• Fire extinguishers would be available in vehicles and on equipment and work crews would be trained in fire avoidance and response measures. • During construction, water would be trucked on site and would be available for fire suppression should a fire occur. During operation, the Facility's proposed domestic water well would be accessible by standard firefighting equipment and provide adequate water for the potential need of the Facility. Additionally, the Applicant would provide training to fire responders and construction staff on a recurring basis during the life of the Facility. The intent of the training would 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 would include techniques for fire suppression of photovoltaic (PV) and BESS technology.	
	Use of approved herbicides	In compliance with RCW 17.10.140, the Applicant would only use herbicides that are approved for use in the state of Washington by the EPA and WSDA.	Yakima County Noxious Weed Control Board
	Battery Energy Storage System design	The proposed BESS option would 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.	NFPA

Consistent with WAC 463-60-352(2 through 4) and (6), the proposed mitigation described for the Facility complies with existing regulations and provides measures to reduce the risk of fire and explosion, reduce potential hazardous releases to the environment that could affect the public, comply with applicable local, state, and federal safety standards, and implement the Facility's proposed Fire Protection and Safety Plan and Communication and Emergency Response Plan. For the reasons provided, construction and operation of the Facility poses minimal risk to environmental health.

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

References

EarthTouch. 2019. Phase I Environmental Site Assessment. SITE: Goose Prairie Solar Project. LOCATION: (Yakima), Yakima County, Washington. Gordon Meacham / Estate of Willamae G. Meacham. Prepared for OER WA Solar 1, LLC. December 19.

EarthTouch. 2020. Phase I Environmental Site Assessment. SITE: Goose Prairie 2 Solar Project. LOCATION: Near Yakima, Yakima County, Washington. S. Martinez Livestock, Inc. Prepared for OER WA Solar 1, LLC. February 7.

4.14. Land Use, Natural Resource Lands & 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
See Section 1.E (List of Studies)			

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

There are no studies of the Facility conducted solely for the purpose of land use; however, the studies listed in Section 1.E support findings of compliance in response to Yakima County's applicable land use regulations. The Land Use Consistency Review (Attachment A), provides cross-references to these studies where applicable for demonstrating local land use consistency and regulatory compliance.

4.14.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
Existing land use – Meacham Property	Three of the eight Facility Parcels (Tax Parcels 211218-11003, 211218-43004, and 211218-44003), which make up the southern portion of the Facility, are owned by the Estate of Willamae G Meacham and together are known herein as the "Meacham Property." Legal descriptions of the Meacham Property are provided in Section 1.A.4. The Meacham Property is currently in the Conservation Reserve Program (CRP), with enrollment set to expire on September 30, 2022. The CRP area consists predominantly of non-native species such as crested wheat, Russian thistle, mustard species, and others. There is no current agricultural use on the Meacham Property, though a portion of the area was historically used for row crops. Per the Yakima County Comprehensive Plan (YCCP) designation and zoning district (see below), the Meacham Property is within designated agricultural land[1/] where development of a solar energy generation facility is allowed as a conditionally permitted use. There are no existing residences or other structures on the Meacham Property. The property is adjacent to Washington State Route (SR) 24, agricultural land (cropland and rangeland), and related agricultural buildings. Residences are limited in the area and occur predominantly south of Desmarais Road. The nearest two residences occur between SR 24 and Desmarais Road approximately 225 feet south of the Facility Area Extent.

Topical area/issue	Existing Condition and Problems
Existing land use – Martinez Property	Five of the eight Facility Parcels (Tax Parcels 211207-11001, 211207-21001, 211208-32001, 211208-11001, and 211217-21002), which make up the northern portion of the Facility, are owned by S. Martinez Livestock, Inc. and together are known herein as the "Martinez Property." Legal descriptions of the Martinez Property are provided in Section 1.A.4. Four of the Martinez Property parcels are currently used for livestock grazing and consist predominantly of native vegetation (Tax Parcels 211207-11001, 211207-21001, 211208-32001, and 211208-11001). Per the YCCP designation and zoning district (see below), the Martinez Property is within designated agricultural land[1/] where development of a solar energy generation facility is allowed as a conditionally permitted use. There are two abandoned buildings within the Martinez Property to the northeast of the proposed substation, and one agricultural building located outside of the Facility Area Extent on the western edge of the Martinez Property. The fifth Martinez Property parcel (Tax Parcel 211217-21002) includes an active orchard and residence (see description of "Aerial Transmission Easement Area" in Section 2.A.2.c.). In addition, the Bonneville Power Administration (BPA) has a 100-foot easement for the existing Midway-to-Moxee 115-kilovolt (kV) transmission line that crosses the Martinez Property. The property is adjacent to agricultural land (cropland and rangeland) and related agricultural buildings. The nearest residence is located approximately 880 feet east of the Facility Area Extent near Den Beste Road.
Military buffer	The Facility is located within a military training route buffer associated with Naval Air Station Whidbey Island and the Yakima Training Center.
Electrical generation capacity/service	There is no current electrical generation service within the Facility Parcels. As noted above, the existing BPA 115-kV transmission line crosses the Martinez Property. The existing residence on the Martinez Property is connected to local utility service.
Yakima County Comprehensive Plan Designation	The Facility Parcels are within Yakima County's Agricultural Resource Area land use designation identified in the YCCP. Agricultural Resource Areas are "those lands primarily devoted to or important for the long-term 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 state law, or livestock" (Yakima County 2017).
Yakima County Zoning District	The Facility Parcels are within Yakima County's Agriculture (AG) zoning district defined under Yakima County Code (YCC) Section 19.11.010. Per YCC 19.11.010(b), the purpose of the AG district is to "preserve and maintain areas for the continued practice of agriculture by limiting the creation of small lots, permitting only those new uses that are compatible with agricultural activities, protection of agricultural lands of long-term commercial significance, and providing measures to notify and separate especially sensitive land uses from customary and innovative agricultural land management practices. The AG district implements the Comprehensive Plan that calls for the preservation of

Topical area/issue	Existing Condition and Problems
	agricultural lands."[1/] The AG zoning district allows solar energy generation facilities as a conditionally permitted use.
Yakima County Critical Areas	As listed in Section 2.B.6, the Facility Area Extent includes critical areas for aquifer recharge, geologic hazards, and wildlife habitat conservation. Further details regarding existing conditions for these critical areas are provided in Section 4.5 (Water Quality – Stormwater), Section 4.1 (Earth), and Section 4.9 (Animals), respectively.
Shoreline Master Program	No shorelines designated under the Yakima County Shoreline Master Program are within the Facility Area Extent.

Note:
1/ Agricultural land is defined by Washington State 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." (RCW 36.70A.030(3)). Per RCW 36.70A.170, 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." Accordingly, the YCCP identifies Agricultural Resource Areas, and development regulations are adopted and implemented via YCC for the Agriculture zoning district. While the entire designated agricultural area is generally considered agricultural land of long-term commercial significance, the YCC also allows for non-agricultural uses, outright or conditionally, within the zoning district (see the Land Use Consistency Review (Attachment A) for detailed regulatory compliance discussion).

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 – Meacham Property	The Meacham Property parcels total approximately 519 acres within Yakima County's AG zoning district. While the entire Meacham Property is within the Facility Area Extent for micrositing purposes, the fenced Facility Area would occupy less than the full Property, up to approximately 485 acres, for the solar array and supporting components (e.g., access roads, collector lines, security fence) as well as the proposed staging area, O&M facility, and substation (see Preliminary Site Plan, Attachment B). However, the precise distribution of the Facility Area between the Meacham and Martinez Properties may differ in the final design, within the maximum total footprint not to exceed 625 acres.

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
		While the purpose of the AG zoning district is to preserve and maintain areas for agricultural practices on agricultural land of long-term commercial significance, the AG zoning district also allows for uses that are compatible with agricultural activities. The Meacham Property is not in active agricultural use, is not classified as prime farmland (NRCS 2020), and no irrigation infrastructure currently exists; thus, the property is not a likely source of commercially significant agricultural activity over the long-term and no agricultural activities would be displaced by the Facility. Long-term lease payments from the Applicant would effectively replace CRP payments as a valuable revenue source for the landowner. Though commercially viable agricultural use of the Meacham Property is limited based on the reasons described above, future agricultural use would be possible following decommissioning of the Facility. The Facility would not affect or be affected by land uses on nearby or adjacent properties, including normal business operations of working farmland (see the Land Use Consistency Review, Attachment A, for additional details). No structures would be demolished, no people would reside or work in the completed Facility, and no people would be displaced by the completed Facility.
	Changes to land use – Martinez Property	The Martinez Property parcels total approximately 1,048.7 acres. The Facility Area Extent includes 272 acres of the Martinez Property for micrositing purposes; however, the fenced Facility Area would occupy less than this total area, up to approximately 140 acres (13.5 percent) of the Property for a portion of the solar array and supporting components (e.g., access roads, collector lines, security fence), depending on final design. The remainder of the parcels would remain available for the landowner's continued grazing operations and related agricultural uses. As noted above, the precise distribution of the Facility Area between the Meacham and Martinez Properties may differ in the final design, within the maximum total footprint not to exceed 625 acres. As on the Meacham Property, the Facility would not affect or be affected by land uses on nearby or adjacent properties, including normal business operations of working farmland (see the Land Use Consistency Review, Attachment A, for additional details). No structures would be demolished due to the construction of the Facility, no people would reside or work in the completed Facility, and no people would be displaced by the completed Facility. Upon decommissioning of the Facility, the full extent of the Martinez Property would be available for future agricultural use. A portion of the Martinez Property is the proposed Aerial Transmission Easement Area (see Section 2.A.2.c.). Because the interconnection line within the Aerial Transmission Easement Area

☐ No	☒ Yes	
	Topical Area/issue	**Changes**
		would span the property, the existing orchard would not be displaced or otherwise significantly impacted by the interconnection. The line would also be at least 0.25 mile to the west of the residence. The primary option for the BPA interconnection is west of the Aerial Transmission Easement Area on a portion of the Martinez Property used for open rangeland (see Preliminary Site Plan in Attachment B). The final interconnection design would be determined before the execution of an Interconnection Agreement; if the final design from BPA does not use this parcel, then the Aerial Transmission Easement Area would not be a part of the Facility.

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**
	Military buffer and DoD, FAA consultation	Per the Applicant's consultation with the Department of Defense and review by the Federal Aviation Administration (FAA), the Facility would be compatible with Naval Air Station Whidbey Island and Yakima Training Center operations. The Facility would not reduce the military's ability to complete its mission or to undertake new missions or increase its cost of operating. The Department of Defense confirmed the Facility does not appear to pose a direct impact to military operations (see official correspondence provided in Attachment N and FAA Letters of Determination of No Hazard in Attachment M).
	Electrical generation capacity/service	The Facility would be a new source of clean, renewable energy supply for regional customers. The existing BPA Midway-to-Moxee 115-kV transmission line crosses Yakima County and has sufficient electrical capacity to support the addition of 80 MW of generating capacity without significant or cost-prohibitive upgrades. The Facility would support implementation of the Washington Clean Energy Transformation Act (2019), which made it current policy to transition the state's electricity supply to 100 percent carbon-neutral by 2030 and 100 percent carbon-free by 2045 (RCW 19.405.010).
	Yakima County Comprehensive Plan Designation Consistency	The Facility would be consistent with the YCCP. The Land Use Consistency Review, Attachment A, describes the Facility's consistency with applicable goals and policies of Yakima County's Agricultural Resource Area land use designation.

	Yakima County Zoning District Compliance	The total Facility Area footprint, up to 625 acres, would occupy a nominal portion of Yakima County's AG zoning district (less than 0.15 percent; Yakima County 2020) and would comply with applicable zoning standards and requirements for development of a solar energy generation facility. The Land Use Consistency Review, Attachment A, demonstrates the Facility's compliance with applicable provisions of Yakima County's AG zoning district.
	Yakima County Critical Areas	The Land Use Consistency Review, Attachment A, demonstrates that the Facility would comply with Yakima County's applicable critical area regulations.

The current land use does not affect the proposed Facility; the site was chosen specifically for its uniquely compatible qualities for a solar energy generation facility, including abundant solar exposure, previously disturbed land (i.e., not prime habitat), and proximity to existing electrical transmission infrastructure. Future land uses in the area are not anticipated to affect the proposed Facility. Setback requirements and other land use restrictions in the AG zoning district would make conflicting land uses, such as those that would block the Facility site's solar exposure, unlikely.

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**
	N/A	N/A	N/A

Based on the information provided above in Section 4.14.C and in the Land Use Consistency Review, Attachment A, the Facility would have no significant adverse effects on land use. Therefore, no land use mitigation or monitoring measures are proposed. Mitigation measures specific to other topics, for example stormwater management or geological hazards, are listed in their respective resource sections in Part 3 and Part 4 of this application.

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

References:

NRCS (Natural Resources Conservation Service). 2020. Web Soil Survey. Farmland Classification – Yakima County Area, Washington. Survey Area Data Version 20, Jun 4, 2020. Available online at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed August 27, 2020.

Yakima County. 2017. Horizon 2040. Yakima County, WA Comprehensive Plan. Yakima County Public Services, Planning Division. Originally adopted May 20, 1997. Update adopted June 27, 2017 (Ord. No. 4-2017). Available online at: https://www.yakimacounty.us/846/Horizon-2040-Comprehensive-Plan

Yakima County. 2020. Yakima County Zoning. Feature Layer by YakimaGIS. Data last updated October 21, 2020. Available via Yakima County, WA Open Data Portal: https://gis-yakimacounty.opendata.arcgis.com/. Accessed November 2, 2020.

4.15. Housing

No Part 4 Analysis required for this section.

4.16a. Noise

4.16a.AStudies

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 (Attachment I)	December 2020	Tetra Tech Inc. Environmental Consultants, Contractor	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 or county level with numerical decibel limits applicable to the Facility; however, there are regulations at the state-level. Environmental noise limits have been established by the Washington Administrative Code (WAC 173-60). WAC 173-60 establishes limits on sounds crossing property boundaries based on the Environmental Designation for Noise Abatement 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 applicable WAC regulatory limits are further described in the Acoustic Assessment Report (Attachment I).

Existing Conditions	As mentioned 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 Facility was estimated with a method published by the Federal Highway Administration 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 Facility is 8 miles east of the city of Moxee, which has a population density of 1,751.4 per square mile according to the U.S. Census Bureau (2020); however, the population per square mile in blocks within 1 mile of Facility is much less. In addition, the Facility is located in close proximity to State Route 24 (SR-24), with the closest fence line within approximately 150 feet of that thoroughfare. Throughout the Facility Area Extent, ambient sound levels are expected to range between 40 and 55 A-weighted decibels (dBA) equivalent sound level (L_{eq}) during daytime hours and 30 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 Facility construction were analyzed in Attachment I based upon typical ranges of energy equivalent noise levels at construction sites, as documented by the United States Environmental Protection Agency's (EPA) "Construction Noise Control Technology Initiatives" (EPA 1980). 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. Construction was organized in the following work stages: demolition, site preparation and grading, trenching and road construction, equipment installation, and commissioning. Expected noise levels generated during each of these work stages are provided in the Acoustic Assessment Report (Attachment I). The construction of the Facility 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 would vary significantly depending on several factors such as the type and age of equipment, specific

		equipment manufacturer and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers. Facility construction would generally occur during the day, Monday through Saturday. Furthermore, all reasonable efforts would be made to minimize the impact of noise resulting from construction activities including implementation of standard noise reduction measures. Due to the infrequent nature of loud construction activities at the site, the limited hours of construction and the implementation of noise mitigation measures, the temporary increase in noise due to construction is considered to be a less than significant impact.
	Operation	Attachment I presents modeling results for sound levels that would be generated by the facility. Operational sound levels were analyzed using Cadna-A (Computer Aided Noise Abatement), which is 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 Facility’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 inverters, their integrated step-up transformers, battery energy storage system (BESS) units, and substation transformers. Electronic noise from inverters can be audible but is often reduced by a combination of shielding, noise cancellation, filtering, and noise suppression. The BESS would either be included as a consolidated area in the northeastern portion of the Facility Area Extent or in distributed units throughout the solar array. Both options for battery storage and their associated sound emissions, including contributions from cooling, were considered in the acoustic 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 sound pressure levels were calculated for expected normal Facility operation assuming that all components identified previously are operating continuously and concurrently at the representative manufacturer-rated sound power level. It is expected that all sound-producing equipment would 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 I provides modeling results in both visual

		(i.e., sound contour) and tabular formats, providing received sound levels resulting from operation at discrete noise sensitive receptors (NSRs; i.e., residences) and at nearby property lines. Projected exterior sound levels resulting from full, normal operation of the Facility during both daytime and nighttime hours, at all nearby NSRs and property lines, using both centralized and distributed BESS would comply with the applicable WAC 173-6050 dBA daytime and nighttime limits.

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**
	Noise - Best Management Practices	WAC 173.60.050 exempts temporary construction noise from the state noise limits; however, some BMPs would be implemented to reduce off-site construction noise impacts. Since construction equipment operates intermittently, and the types of machines in use at the Facility change with the stage of construction, noise emitted during construction would be mobile and highly variable, making it challenging to control. The construction management protocols would include the following noise mitigation measures to minimize noise impacts: • Maintain all 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	N/A

		hours on weekdays when higher sound levels are typically present and are found acceptable. Some limited activities, such as concrete pours, would 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 utilize 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; and • Utilize 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

References

EPA 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.

United States Census Bureau. 2020. Population and Housing Unit Estimates Datasets.

4.16b. Light, Glare, and 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
Goose Prairie Solar Visual Impact Assessment (Attachment J)	Complete	Tetra Tech, Inc.	Y
Solar Glare Reports (Attachment K)	Complete	ForgeSolar, developed by Sandia National Laboratory and an industry-standard glare screening tool for photovoltaic solar energy projects across the country. The report meets the FAA's glare analysis requirements per 78 FR 63276.	Y
Federal Aviation Administration (FAA) 7460-1 Determination of No Hazard (Attachment M)	Complete	FAA process for evaluating aviation impacts from new construction. The process includes review by Department of Defense.	Y

☒ **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 description of site	As described in the Visual Impact Assessment Report (Attachment J), within the Facility Parcels, the southern portion comprises a relatively flat, fallow field with mostly non-native species such as cheatgrass (downy brome), crested wheat, Russian thistle, mustard species and others while the northern portion consists of rolling hills of shrub-steppe and grasslands with ephemeral creeks used for grazing. The site does not currently contain any sources of light or glare.
Visibility of the site	The Visual Impact Assessment Report (Attachment J) describes the site as most visible from viewpoints within one mile, while site visibility would diminish as distance increases and view angle decreases. From distances greater than one mile, the site would be barely visible, if at all, from viewpoints easily accessible to the

	public due to intervening terrain and/or structures. The site would potentially be visible at higher elevations and greater distances from either Yakima Ridge or Rattlesnake Hills; however, there is very limited public access to these locations.

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	Where visible, views of the Facility Area Extent in the foreground or middle-ground would shift from Conservation Reserve Program land and agricultural fields to an energy-producing facility. These views would be experienced by drivers traveling on local roadways and local residents. Background views of either Yakima Ridge or Rattlesnake Hills would not be obstructed. The Facility would contrast to a minor to moderate degree with the surrounding landscape with the addition of structural elements. The minor to moderate contrasts in the elements of the environment would generally be consistent with the characteristic landscape. Although the surrounding area is primarily agricultural in setting, there are numerous structural elements (e.g., roadways, hop trellises, fencing, overhead utility distribution lines, and residential and agricultural-related structures) visible surrounding the Facility Area Extent. The visible contrasts would not result in a strong or significant change to the characteristic views.
	Light	The Facility is not expected to create a substantial new source of nighttime lighting. The proposed Facility would provide external safety lighting for both normal and emergency conditions at the primary access points. Lighting would be designed to provide the minimum illumination needed to achieve safety and security and would be downward facing and shielded to focus illumination in the immediate area.
	Glare	The glare analysis conducted for this Facility analyzed potential glare hazards for aircraft as well potential impacts to residents and motorists in the area. Modeling inputs and results are provided in Attachment K. Modeling for the glare analysis was conducted for a single axis tracking system. The glare analysis conducted for this Facility analyzed potential glare hazards for aircraft traveling in the area and concluded, based on 11 flight

		paths, that no glare impact would be experienced by aircraft. In addition, analysis of potential glare hazards for area residences located around the Facility Area Extent including those near Washington State Route (SR) 24 and Desmarais Road concluded that no glare impact would be experienced by residences or motorists along SR-24, Desmarais Road, and Den Beste Road. Some glare would be experienced by motorists driving along Morris Lane (north of SR-24) and Desmarais Cutoff (north and south of SR-24). The intensity of glare that would be experienced would not be hazardous but would have the potential for temporary after-image. Motorists along Morris Lane (north of SR-24) could experience temporary after-image glare between 10 a.m. and 2 p.m. during the months of November, December, and January and very briefly at 7 a.m. and 4 p.m. during the months of June and July. Motorists along Desmarais Cutoff (north and south of SR-24) could experience temporary after-image glare between 12 p.m. and 2 p.m. during the months of November, December, and January and very briefly at 4 p.m. during the months of June and July. This amount of glare would not introduce a visual hazard, but would increase the visual contrast of the Facility Area Extent. Due to the relatively low intensity of Facility-caused glare and short duration of travel, the potential impact would not be significant. Therefore, operation and maintenance of the Facility would not introduce a source of light or glare that would significantly impact views in the area and impacts would be less than significant.
	Aviation Impacts	The Applicant consulted with Department of Defense (DoD) to seek an understanding of any potential risks associated with the Facility site and specifically, to confirm no impacts to DoD activities, including aircraft entering the nearby Yakima Training Center (YTC) airspace along a low-altitude military training route (MTR), as well as no impacts to low and high altitude within the weapons delivery range over/around YTC. This consultation took place in two rounds. First, on July 23, 2018 with a formal reply dated August 9, 2018 from the Naval Air Station (NAS) Whidbey Island staff, which found that the project, “does not appear to pose a direct impact to military operations.” Second, on February 10, 2020 with a slightly modified study area. DoD did not issue a second letter, but issued a “No Object” to FAA review for the supplemental 7460-1 FAA submittals, which are detailed below. Please see the correspondence with DoD in Attachment N. The Applicant conducted outreach to the FAA through its online Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) portal online. As demonstrated by the Letters of Determination of No Hazard (Attachment M), the Facility is not expected to impact aviation.

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**
	Best Management Practices – Light, Glare and Aesthetics	The Facility will implement BMPs including: • Downward-directed 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

4.17. Recreation

No Part 4 Analysis required for this section.

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
Cultural Resources Survey (Attachment H)	Complete	Performed by Tetra Tech, with feedback from Jessica Lally, Archaeologist, Yakama Nation Review (see Table 4.18-1)	Y

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

4.18.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
Site Conditions from Cultural Resources Survey	A total of four archaeological sites and two historic property sites were identified within the Survey Area. The recorded sites include two low-density pre-contact lithic scatters, one multicomponent site with a low-density historic refuse scatter and very low-density lithic scatter, one large historic refuse scatter, one set of associated and abandoned historic buildings, and one segment of historic transmission line. Of the two historic property sites evaluated for NRHP eligibility, only the Midway-Moxee transmission line segment (Site 676383) has been recommended eligible for listing on the NRHP, making it also protected by the WHR. Three of the archaeological sites (i.e., 45YA01808, 45YA01809, and 45YA01811) and the Midway-Moxee transmission line (Site 676383) are protected by the WHR. The remaining archaeological site (i.e., 45YA01810) is not protected by the WHR. The two historic buildings at Site 722140 are not recommended eligible for listing on the NRHP and are also not protected by the WHR.

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 Facility has been designed to avoid direct impacts to all cultural resources that are eligible for listing on the NRHP or protected by the WHR when feasible. As currently designed, the Facility has no direct impacts to such resources. However, as the design progresses, the Facility layout may be changed such that impacts to the resources that are protected by WHR are created. Site 45YA01808 in particular may be impacted by the Facility. The Applicant would continue to consult the Yakama Nation regarding the archaeological sites and the potential impacts of the Facility on these sites (see Section 4.18.D below). If any WHR-protected site is impacted by the Facility, the Applicant would obtain a Department of Archaeology and Historic Preservation (DAHP) excavation permit and perform all necessary archaeological work in order to comply with Revised Code of Washington (RCW) 27.53.

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.	As currently proposed, the Facility has been designed to avoid cultural sites, including avoidance of all resources that are eligible for the NRHP or protected by the WHR. The Applicant re-designed portions of the Facility to avoid cultural sites following completion of the survey.

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**
	Avoidance of protected sites and/or DAHP permits	The Facility has been designed to avoid direct impacts to all cultural resources that are eligible for listing on the NRHP or protected by the WHR when feasible. As currently designed, the Facility has no direct impacts to such resources. However, as the design progresses, the Facility layout may be changed such that impacts to the resources that are protected by WHR are created. Site 45YA01808 in particular may be impacted by the Facility. The Applicant would continue to communicate with the Yakama Nation regarding the archaeological sites and the potential impacts of the Facility on these sites. If any WHR-protected site is impacted by the Facility, the Applicant would obtain a DAHP excavation permit and perform all necessary archaeological work in order to comply with RCW 27.53.	DAHP; Yakama Nation
	Unanticipated Discovery Plan	In the event unrecorded archaeological resources are identified during Facility construction or operation, work within 30 meters (100 feet) of the find would 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 G of King et al. (2020) (Attachment H). The plan is in accordance with RCW 27.53.060 and RCW 27.44.040 protecting archaeological resources and Indian graves. This appendix does not contain any confidential information and can be shared with Facility personnel and contractors.	DAHP; Yakama Nation

	Ongoing Communication with Yakama Nation	The Applicant would continue to communicate with the Yakama Nation regarding tribal resources that may be affected by the Facility. Additionally, the Applicant would continue to coordinate with the Yakama Nation regarding final design in relation to pre-contact archaeological sites. Lines of communication would remain open to better facilitate any response to unanticipated discoveries during construction. Table 4.18-1 below details the communications to date between the Applicant and Yakama Nation.	Yakama Nation

Table 4.18-1: Applicant Communications with Yakama Nation

Date	Communication Type	Description
4/22/2019	E-mail and hard copy letter.	Project introduction. Request to consult.
5/10/2019	Letter	Tribe recommends archaeological survey. Requests to review survey report and SEPA documentation.
2/21/2020	E-mail and hard copy letter.	Project update. Invitation to participate in survey.
4/9/2020	E-mail	Tribe requests to review survey findings but declines invitation to participate in survey.
5/11/2020	E-mail and hard copy letter.	Provide preliminary survey results.
8/21/2020	Phone	Review of draft survey report.
10/28/2020	E-mail	Tribal cultural resource concerns to be disclosed directly and confidentially to EFSEC only.

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

4.19. 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
*Cultural Resources Survey (Attachment H)_*	Complete	Performed by Tetra Tech, with feedback from Jessica Lally, Archaeologist, Yakama Nation Review (see Table 4.18-1)	Y

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

4.19.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
Existing tribal hunting or fishing rights	The Facility Area Extent consists of private land owned by the Estate of Willamae G. Meacham (“Meacham Property”) and S. Martinez Livestock, Inc. (“Martinez Property”). Each are non-tribal members. Therefore, tribal hunting and fishing do not occur within the Facility Area Extent.
Existing tribal plant gathering	As stated above, the Facility Area Extent consists of private land owned by non-tribal members. Therefore, tribal plant gathering does not occur within the project area.
Tribal cultural sites	Three of the archaeological sites (i.e., 45YA01808, 45YA01809, and 45YA01811) identified by the cultural resources survey within the Survey Area are pre-contact-era sites associated with Native American activities. However, no tribal cultural sites (i.e., traditional cultural properties, historic properties of religious and cultural significance to Indian tribes, or sacred sites) have been identified through the Applicant’s communications with Yakama Nation to date.
A usual and accustomed area	The Facility Area Extent is within the usual and accustomed area of the Yakama Nation.
Material culture artifacts	Archaeological sites are representations of Native American material culture that contain artifacts. Three of the archaeological sites (i.e., 45YA01808, 45YA01809, and 45YA01811) identified by the cultural resources survey of the Facility Area Extent are pre-contact-era sites associated with Native American activities.

Activities on the site could impede views of tribal cultural sites	No tribal cultural sites (i.e., traditional cultural properties, historic properties of religious and cultural significance to Indian tribes, or sacred sites) have been identified as having impacts due to the Facility through the Applicant's communications with Yakama Nation to date.

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**
	Tribal cultural sites	The Facility has been designed to avoid direct impacts to all cultural resources that are eligible for listing on the NRHP or protected by the WHR when feasible. As currently designed, the Facility has no direct impacts to such resources. However, as the design progresses, the Facility layout may be changed such that impacts to the resources that are protected by WHR are created. Site 45YA01808 in particular may be impacted by the Facility. The Applicant would continue to consult the Yakama Nation regarding the archaeological sites and the potential impacts of the Facility on these sites (see Section 4.19.D below). If any WHR-protected site is impacted by the Facility, the Applicant would obtain a Department of Archaeology and Historic Preservation (DAHP) excavation permit and perform all necessary archaeological work in order to comply with Revised Code of Washington (RCW) 27.53

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**
	Tribal cultural sites	As currently proposed, the Facility has been designed to avoid cultural sites, including avoidance of all resources that are eligible for the NRHP or protected by the WHR. The Applicant re-designed portions of the Facility to avoid cultural sites following completion of the survey.

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.

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**
	See mitigation measures listed in 4.18.D.		

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

References

King, Erin, Brady Berger, Julia Mates, Deborah Huntley, and Mary Connell. 2020. *Cultural Resources Survey for the Goose Prairie Solar Project, Yakima County, Washington*. Tetra Tech, Inc., Bothell, WA. Submitted to One Energy Renewables. Tetra Tech Project #194-6767 and 194-7240. DAHP Project #2018-06-04740.

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 relating to traffic and transportation in the Facility Area Extent have been conducted, nor are any studies planned.			

☒ **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	Access to the Facility is via State Route (SR) 24, which is classified by the Washington State Department of Transportation (WSDOT) as a Rural Minor Arterial. Access to SR-24 would occur primarily from the west via I-82, but some vehicles could travel from the east, leaving Richland via SR-240 to SR-24 or leaving Sunnyside via SR-241 to SR-24. SR-24 would be the preferred route for the limited oversize deliveries for Facility construction, such as support poles for the transmission line or the main power transformers. SR-24 is a two-lane highway with approximately 2,700 average annual daily trips (AADT) in 2019, as measured at the intersection with Den Beste Road, approximately 2 miles west of the Facility (WSDOT 2020). Approximately 19 percent of vehicles currently using the road at this location are trucks (approximately 500 daily trips). Although hourly trip data at this location are not available, it is reasonable to assume that current truck traffic is spread throughout the day, and the majority of other trips in this rural area also are spread throughout the day, with relatively few extra trips focused during the morning and evening commute times. Spreading the average annual daily trips across a 10-hour period from 8 am to 6 pm suggests that on average, approximately 250 to 300 vehicles per hour may travel on SR-24 near the site. Traffic may be slightly higher during morning and evening commute times and some trips also would occur later in the evening or overnight. Information on seasonal fluctuations in existing traffic is not available from WSDOT from locations in the immediate vicinity of the Facility. A monitoring station approximately 35 miles east of the Facility, at the Vernita Bridge across the Columbia River in Mattawa, suggests the highest hourly averages, approximately 12 to 13 percent of total AADT, occur during evening commute times in July through October. This

	likely reflects a slight increase in traffic during the harvest season, consistent with the agricultural character of the area. West of the Facility, traffic numbers are higher passing through Moxee (AADT up to 8,000) and nearing the city of Yakima (AADT up to 23,000 on the off-ramp to I-82 north). Congestion on SR-24 occurs at the westbound off-ramp to I-82 (located approximately 15 miles west of the Facility) during afternoon peak times. WSDOT generically classifies state highways in rural areas with a level of service 'C', indicating speeds near free flow but restricted freedom to maneuver. Site-specific level of service information for SR-24 has not been developed by WSDOT, and Yakima County does not maintain information for state highways. However, it is anticipated that the actual level of service in the vicinity of the Facility is closer to 'B' or 'A', indicating relatively free flow of traffic most of the time. The road surface in this area is in good to very good condition, as defined by WSDOT (WSDOT 2018a). I-82 carries 48,000 to 52,000 average annual daily trips near the intersection with SR-24 and, according to WSDOT (WSDOT 2018b) the entire corridor performs above WSDOT's congestion threshold. SR-240 carries approximately 1,831 vehicles per day at the intersection with SR-24 (WSDOT 2018c). SR-241 carries an average of 1,900 annual daily trips and operates above WSDOT's congestion threshold (WSDOT 2018d). Other roads in the vicinity of the Facility are rural two-lane roads including Desmarais Cutoff and Den Beste Road, which carry local traffic only. These rural roads would not be used for access to the Facility.
Waterborne Air and Rail Traffic	The Burlington Northern Santa Fe Railroad has a track running through the city of Yakima, more than 5 miles to the west and south of the Facility. Union Pacific Railroad's network includes a track between Wallula and the city of Yakima, also to the west and south of the Facility. The Yakima Air Terminal in the city of Yakima provides air service to Seattle. No port service is present in the vicinity of the Facility.
Parking	No designated parking areas are currently present at the Facility location.
Movement of People or Goods	The existing conditions related to the movement of people and goods near the Facility is described above, under "Transportation Systems" and "Waterborne Air and Rail Traffic."
Traffic Hazards	Steep grades are present on the alternative route (i.e., SR-241).

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	**Approach** The Applicant has consulted with WSDOT regarding the approach off SR-24. The existing approach is a private gravel road which will be upgraded to accommodate the Facility. WSDOT has stated that the work will require a General Permit. The Applicant would obtain the General Permit and develop a Traffic Control Plan for traffic management during improvement of highway access. **Construction** Facility construction would add an average of 368 trips (i.e., 184 roundtrips), over a construction period lasting 9 to 12 months. The primary source of construction traffic would be worker commutes to the Facility, originating from nearby communities including Yakima, Sunnyside, and Richland. The trip estimate is based on the Project's estimated average workforce, with a carpool factor of 2 persons per vehicle for construction crews, an average of 20 heavy truck equipment deliveries, and up to 14 water truck deliveries. Construction traffic would include 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 would also provide concrete for component foundations and materials for the solar module blocks themselves. In addition to concrete and gravel, single-unit water-tank trucks delivering water to the Facility would be required. Water would be needed for dust control during road construction and for the temporary concrete batch plant (see Section 2.B.8.d). Trucks would deliver water during construction. Semi-trailer flat beds carrying electrical equipment and materials required for solar panel construction and power transmission equipment also will be necessary. It is assumed construction crews will drive pick-up trucks to and from the Facility. During construction, traffic on SR-24 in the vicinity of the Facility would increase from an average of 2,700 trips per day to an average of 3,068 trips per day. Worker commutes would add

		approximately 150 vehicles to SR-24 during the morning commute and again in the evening, with some workers arriving from housing to the west (Moxee or Yakima area) and others arriving from the east (Sunnyside or Tri-Cities). Equipment deliveries are expected to be approximately 20 per day during the first five months of construction and would taper off to around ten per day for the second half of construction. This 368 trips conservatively considers 20 deliveries over the entirety of construction. Equipment and water deliveries would be spread throughout the day. The timing of peak construction activity on site may overlap with the harvest season; however, harvest vehicles will typically travel throughout the day and are not limited to prime commuting hours. Even if all traffic were to come via the primary route on I-82, a temporary increase of 368 trips per day compared to the current 48,000 to 52,000 trips per day on I-82 would not significantly impact current congestion on this roadway. If all workers arrive on site during one hour in the morning and leave during one hour in the evening, this would constitute a temporary increase over current traffic from the current estimated 250-300 hourly trips during peak commute hours in the vicinity of the Facility. However, the additional vehicles would not all arrive from the same direction and therefore would add only a portion of the total 150 commute trips to traffic from the west, with the remainder adding to traffic coming from the east. Conservatively assuming a relatively even distribution of construction trips leading to SR-24 between I-82, SR-240, and SR-241, the additional daily trips on SR-240 and SR-241 are anticipated to be less than 120 trips per day on either road (i.e., 50-60 worker commute trips in the morning, and 50-60 worker commute trips in the evening). This would constitute a temporary increase on SR-241 and SR-240 of less than 30 percent under the conservative assumption that all of these trips occur during a single peak morning or evening commute hour. These temporary increases would not significantly impact current traffic levels on these roadways. **Operations** Part-time operational staff are expected to occasionally commute to the Facility from nearby communities. Operational trips include maintenance employees traveling to work in their personal vehicles, as well as specialized personnel required for periodic inspections of Facility components who may travel in light-duty trucks. The occasional delivery truck may also access the Facility during operations.

		In addition, water will be delivered to the site approximately two to four times each year for panel washing during operations. Assuming 250,000 gallons are required each time the panels are washed, up to approximately 50 truck trips may be required to wash panels each time. Panel washing will occur over the span of approximately one week, resulting in approximately 10 truck trips per day. This would not result in a significant impact on level of service for area roadways because it would result in less than one percent increase in vehicle traffic on the days when it occurs.
	Waterborne Air and Rail Traffic	No changes will occur to waterborne, rail, or air traffic as a result of Facility construction or operation because construction and operation of the Facility will not rely on these modes of transportation. Furthermore, the glare analysis (see Section 4.16b) concluded that no glare hazard would exist for air traffic as a result of solar panel operation.
	Parking	During construction, workers would park in designated areas of the construction site, off of public roads. Construction would not adversely affect the availability of parking for other users because no parking is currently available. Parking needs during operations would be limited to occasional use by one or two employees at the operations and maintenance (O&M) building. The Facility's gravel parking area would be located less than 300 feet from the O&M building and will include at least three parking spots. As the O&M building is internal to the Facility Area Extent, no vehicular backing up or maneuvering would occur within a public right-of-way.
	Movement of People or Goods	Improvements to the Facility approach along SR-24 may temporarily increase traffic along that roadway. Therefore, a Traffic Control Plan will be prepared in concert with WSDOT.
	Traffic Hazards	Improvements to the Facility approach along SR-24 have a potential to cause traffic hazards if not marked and mitigated. Therefore, a Traffic Control Plan will be prepared and submitted to EFSEC at least sixty days prior to site preparation.

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 Permits	Per WAC 468-51, the Applicant will obtain a General Permit from WSDOT to upgrade the portion of the approach off State Route 24 that is within the WSDOT Right-of-Way. A permit would be obtained for heavy or oversized loads in accordance with WSDOT regulations including RCW 46.44 and WAC 468-38.	WSDOT
	Traffic Control Plan	A Traffic Control Plan would be prepared in consultation with WSDOT for traffic management during improvement of highway access. This plan would contain measures to facilitate safe movement of vehicles in the vicinity of the construction zone and would be in accordance with 23 CFR §655 Subpart F provides for the Federal Highway Administration to maintain the Manual on Uniform Traffic Control Devices for Streets and Highways, which defines standards for traffic control	WSDOT

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

References

WSDOT. 2018a. Corridor Sketch Summary. Corridor 367 - SR 24: I-82 Jct (Yakima) to SR 243 Jct Summary. Available online at: https://wsdot.wa.gov/sites/default/files/2018/04/23/CSS367-SR24-i82JctYakima-SR243Jct.pdf

WSDOT. 2018b. Corridor Sketch Summary. Corridor 512 - I-82: Selah Gap to Union Gap Summary. Available online at: https://wsdot.wa.gov/sites/default/files/2018/02/05/CSS512-i82-SelahGap-UnionGap.pdf

WSDOT. 2018c. Corridor Sketch Summary. Corridor 138 - SR 240: SR 24 (Vernita Vic) Jct to US 395 Jct (Kennewick) Summary. Available online at: https://wsdot.wa.gov/sites/default/files/2017/08/11/CSS138-SR240-SR24JctVernita-US395JctTri-Cities.pdf

WSDOT. 2018d. Corridor Sketch Summary. Corridor 426 - SR 241: I-82 Jct (Sunnyside) to SR 24 Jct Summary. Available online at: https://wsdot.wa.gov/sites/default/files/2018/04/23/CSS426-SR241-i82JctSunnyside-SR24Jct.pdf

WSDOT. 2020. Traffic GeoPortal. Available online at: https://www.wsdot.wa.gov/data/tools/geoportal/?config=traffic

4.21. Public Services and Facilities

No Part 4 Analysis required for this section.

4.22. Utilities

4.22.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
N/A			

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

4.22.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
Water	Yakima County water rights have been over-allocated. Yakima River Basin surface water has been fully adjudicated. Existing water rights exceed the amount of water available. Because groundwater and surface water availability are connected, withdrawal of water from a permit exempt well reduces the amount of water available in the Yakima River, thereby competing with senior water rights (Yakima County 2017). The Facility is located outside the City of Yakima's and the City of Moxee's water system area.
Sewer	Outside of the urban growth boundary, new development in Yakima County typically uses on-site sewage disposal systems which are not capital facilities under the Growth Management Act definition (Yakima County 2017). No developed sewer systems are present in the rural area surrounding the Facility. Therefore, no sewer systems would be impacted by construction or operation of the Facility. The Facility would be limited to an on-site septic system, typical of the surrounding rural area.
Storm Water	No developed stormwater systems are present in the rural area surrounding the Facility. Therefore, no stormwater systems would be impacted by construction or operation of the Facility. In Yakima County, developers are responsible for design and construction of stormwater collection, retention, conveyance, treatment, and disposal systems (Yakima County 2017a).
Solid Waste	Yakima County owns and operates landfills and transfer stations including the Terrace Heights Landfill and Transfer Station, Cheyne Road Landfill and Transfer Station, and Lower Valley Transfer

	Station. The Terrace Heights Landfill is nearing capacity and will be closed in 2027.
Energy	The area is served by the Benton Rural Electric Cooperative for electricity distribution, and by Cascade Natural Gas Corporation for residential natural gas supply. Electricity and gas are not currently supplied to the Facility location. The existing Bonneville Power Administration (BPA) Midway to Moxee 115-kilovolt (kV) transmission line crosses through the Facility Area Extent.

4.22.C. Changes to and from Existing Condition

4.22.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**
	Water	Water is required for construction and operation of the Facility. Water required for dust mitigation, domestic use during construction, and washing panels during operation would be trucked in and provided from off-site sources (i.e., municipal water source or a vendor with a valid water right) as is addressed in Section 3.6. Water for construction use is estimated to be up to 50,000 gallons per day. The City of Moxee has provided a letter verifying availability of water with sufficient existing water rights (see Attachment Q). Water for domestic use at the O&M building during operations, approximately 200 gallons per day, would be provided by drilling a new well, or through an existing permitted source with on-site water tank storage. The Applicant would follow the domestic well application process administered by the Yakima County Water Resource System (YCWRS) established under Yakima County Code (YCC) Chapter 12.08 Water System (including but not limited to provisions per YCC 12.08.390 Applicability, 12.08.400 Property Eligibility Criteria, 12.08.410 Well Eligibility Criteria, 12.08.420 Well Depth Standards, and 12.08.440 Limitations on Use). The Applicant would identify drinking and utility wells located within or near the Facility boundaries, and the permitting process would consider any impact on sanitary control areas around wells. Based on early-stage conversations with Joel Freudenthal with the Water Resources division of Yakima County, it is anticipated that the Applicant would be able to drill a well via the YCWRS process for this low-consumption, domestic use. However, if a well is not able to be

		drilled, then water trucked in from off-site would be stored in water tanks.
	Sewer	During construction, sanitary waste would be collected on-site in portable toilets, to be provided and maintained by a licensed subcontractor. During operations, sanitary waste would be limited to domestic wastewater from the Facility's O&M building, which would be discharged to a licensed on-site septic system. Due to the distance to the nearest developed sewer system from the O&M building, the Applicant does not anticipate that connection to sewers or sewage treatment facilities would be required. Therefore, impacts to community sewer systems are not anticipated. A private sewage disposal system would be permitted with approval from Yakima County. Prior to construction of the proposed on-site septic system serving the Facility's O&M building, the Applicant would obtain the required permit from the Yakima Health District. The Applicant would operate and maintain the private sewage disposal facility in a sanitary manner at no expense to the County. The on-site septic system would comply with all applicable Washington State Department of Health (DOH) requirements. Because the septic system would manage wastewater flows of approximately 200 gallons per day, it is not considered a large on-site sewage system.
	Storm Water	The Facility would not have an adverse impact on stormwater drainage services because construction, operation, and decommissioning would not require construction or expansion of public stormwater drainage facilities. The Facility would manage stormwater onsite. As described in Section 4.5 (Water Quality – Stormwater), the majority of the area would not be covered with impervious surfaces and infiltration of precipitation would not differ significantly from current conditions. The existing stormwater runoff and erosion patterns would inform the final design of the Facility and, as a result, changes to drainage patterns would be minimized. The civil engineer would determine appropriate erosion and sediment control and drainage plans based on existing conditions and planned impervious surfaces (e.g., roads and other graveled areas). Therefore, the Facility would not adversely impact public stormwater drainage facilities.
	Solid Waste	Domestic waste produced during construction and operation of the Facility would be handled by a licensed waste hauler. At the end of the Facility's useful life, spent solar panels would be recycled by the manufacturer. Construction and operation of the Facility would not have an adverse impact on solid waste management. Facility construction would generate a variety of non-hazardous solid wastes associated with construction debris. Wastes would consist of scrap metal (e.g., wire and rebar scraps), wood, concrete, concrete washout, and other debris. Much of this waste would be packing material such as crates, pallets, and paper wrapping to protect equipment during shipping. Grading would produce negligible amounts of spoils that would need disposal. Concrete waste would

		consist of washout from concrete truck chutes and other equipment following pouring for foundations and would typically be placed in a dedicated concrete washout area located within the foundation excavation. Excess soil from road construction and foundation excavation would be spread onsite to the extent practicable, or hauled offsite to be disposed of in accordance with applicable regulations. Waste such as packing material that is not suitable for on-site placement would be collected in a central location during construction, to be hauled away by a licensed waste disposal service for disposal or recycling. No full-time staff would be employed onsite during operation of the Facility. Periodic visits by maintenance staff would result in little generation of solid waste and this waste would be hauled away by a licensed waste disposal service for disposal or recycling.
	Energy	Siting the Facility in proximity to the existing BPA 115-kV Midway-Moxee transmission line takes advantage of Yakima County's existing infrastructure and serves to minimize environmental impacts that would otherwise result from siting the Facility in an area lacking existing transmission infrastructure. When not generating power, the Facility would require a small amount of station service power for running controls systems and lighting as needed. The Facility would connect to Benton Rural Electric Association's system for this nominal amount of power. No adverse impact to regional energy providers is anticipated.

4.22.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

4.22.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**

	N/A	N/A	N/A

4.22.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

References

Yakima County. 2017. Horizon 2040 Yakima County Comprehensive Plan. Available online at: https://www.yakimacounty.us/846/Horizon-2040-Comprehensive-Plan