Wagon Trail Solar Project: Draft Proposed Order on Application for Site Certificate

To:	Oregon Energy Facility Siting Council
From:	Chase McVeigh-Walker, Senior Siting Analyst
Date:	May 7, 2024
Re:	Draft Proposed Order on Application for Site Certificate for Wagon Trail Solar Project

Applicant:	Wagon Trail Energy Center, LLC, a wholly owned subsidiary of NextEra Energy Resources, LLC
Proposed Facility:	500 megawatts (MW) of solar photovoltaic energy generation components to use or occupy up to 3,641 acres (5.6 square miles) of Exclusive Farm Use (EFU) zoned land. Related or supporting facilities include a 500 MW lithium-ion energy storage system, two collector substations, a 34.5-kilovolt (kV) collection system, Supervisory Control and Data Acquisition (SCADA) System, driveway and access roads, an Operation and Maintenance (O&M) Building, 0.6 miles of 230 kV transmission line, four meteorological stations and four construction staging areas.
Location:	Morrow County
Staff Recommendation:	Applicant has demonstrated, based on a preponderance of evidence in the application for site certificate, that, with mitigation as applicable, it would comply with applicable requirements.

To issue a site certificate, the Energy Facility Siting Council (EFSC or Council) must find that an Application for Site Certificate (ASC) demonstrates that the applicant can satisfy, or based on compliance with conditions can satisfy, each of the applicable EFSC Siting Standards set forth in Oregon Administrative Rule (OAR) 345 Divisions 22 through 24 as well as all other Oregon statutes and administrative rules identified in the Project Order, as amended, as applicable to the proposed facility.

As staff to EFSC, the Oregon Department of Energy (Department) reviewed the Wagon Trail Solar Project ASC, in consultation with state and local reviewing agencies, tribal governments and a third-party environmental consultant. Based upon the coordinated review of the ASC, the Department recommends the Council make findings of compliance for the applicable requirements, as established in the Project Order, and subsequent Amended Project Order. The Draft Proposed Order (DPO) contains the Department's initial analysis of the ASC and includes recommended site certificate conditions necessary to minimize impacts under applicable Council standards and other rules and statutes. The analysis and recommendations contained in this DPO are not a final determination.

A public comment period is now open on the DPO and ASC. In addition, the Council will conduct a public hearing during this phase. A public hearing will be held on May 30, 2024 at 6:15 PM. This hearing will be held both in person and via remote/WebEx. The in-person public hearing will be held at the Port of Morrow, Riverfront Room 2. Please note, interested persons must comment on the record during the public hearing, either orally at the public hearing or in writing during the comment period, to preserve their right to participate further in the process. The public comment period will close on June 7, 2024 at 5:00 P.M Pacific Time, unless extended by Council. Written or oral comments must be received by the Department by the close of the public comment period.

BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of the Application for Site Certificate for the Wagon Trail Solar Project	))))	DRAFT PROPOSED ORDER

May 7, 2024

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Attachment X-1: Retirement and Restoration Cost Estimate

ABBREVIATIONS AND ACRONYMS

ASC	Application for Site Certificate
APLIC	Avian Power Line Interaction Committee
BESS	battery energy storage system
BMPs	best management practices
BOC	Board of Commissioners
BLM	Bureau of Land Management
CTUIR	Confederated Tribes of Umatilla Indian Reservation
CTWSRO	Confederated Tribes of Warm Springs Reservation of Oregon
CRPP	Cultural Resources Protection Program
dB	decibels
DC	direct current
DPO	Draft Proposed Order
EMWMP	Emergency Management and Wildfire Mitigation Plan
EFSC	Energy Facility Siting Council or Council
ESEE	Environmental, Socioeconomic and Energy
ESCP	Erosion and Sediment Control Plan
EFU	Exclusive Farm Use
HMP	Habitat Mitigation Plan
HVF	high-value farmland
HPRCSIT	Historic Properties of Religious and Cultural Significance to Indian Tribes
kV	kilovolt
LCDC	Land Conservation and Development Commission
MW	megawatt
met	meteorological
MCZO	Morrow County Zoning Ordinance
Mgal	Million gallon
NPS	National Park Service
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWCC	Northwest Interagency Coordination Center
NOI	Notice of Intent
OAH	Office of Administrative Hearings
O&M	Operations and Maintenance
OAR	Oregon Administrative Rule
ODA	Oregon Department of Agriculture
ODOE	Oregon Department of Energy or Department
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries
ODWR	Oregon Department of Water Resources
ONHT	Oregon National Historic Trail
ORS	Oregon Revised Statute
PSA	predicted service area

ABBREVIATIONS AND ACRONYMS

pASC	preliminary Application for Site Certificate
Wagon Trail Solar Project	proposed facility
RAI	Request for Additional Information
SEIA	Solar Energy Industries Association
SAG	Special Advisory Group
SPCC	spill prevention, control and countermeasure plan
SCADA	Supervisory Control and Data Acquisition
TNC	The Nature Conservancy
UEC	Umatilla Electric Cooperative
applicant	Wagon Trail Energy Center, LLC
WGS	Washington Ground Squirrel
WMP	wildfire mitigation plan
WMMP	Wildlife Monitoring and Mitigation Plan

I. INTRODUCTION

In accordance with Oregon Revised Statutes (ORS) 469.370(1), the Oregon Department of Energy (Department) issues this draft proposed order (DPO) regarding the Wagon Trail Solar Project (proposed facility) application for site certificate.

Wagon Trail Energy Center, LLC (applicant), a wholly owned indirect subsidiary of NextEra Energy Resources, LLC, seeks Energy Facility Siting Council (EFSC or Council) approval to construct and operate up to 500 megawatts (MW) of solar photovoltaic energy generation components. Proposed related or supporting facilities components include a 500 MW lithium-ion energy storage system, two collector substations, a 34.5 kilovolt (kV) collection system, Supervisory Control and Data Acquisition (SCADA) System, driveway and access roads, an Operation and Maintenance (O&M) Building, 0.6 miles of 230 kV transmission line, four meteorological stations and four construction staging areas.

The proposed facility would permanently occupy up to approximately 3,685 acres of private, Exclusive Farm Use (EFU) zoned land, located within a site boundary of 7,450 acres.[1] Within the proposed site boundary, approximately 1,705 acres are high-value farmland (HVF) under ORS 195.300(10) because they are within the place of use of a water right or irrigation district and/or within designated Columbia Valley American Viticultural Area. The proposed facility site would be located entirely in north-central Morrow County, near Lexington, Oregon.

The Department's role is to review an application for a site certificate (or for an amendment to a site certificate) and assess whether the application meets the criteria established in statute for Council to approve the application and issue a site certificate. In a DPO, the Department provides a preliminary assessment and recommendations to Council. The Department subsequently will accept comments on the DPO and issue a Proposed Order. Ultimately, Council decides whether to approve an application and issue a site certificate in a Final Order. The Department bases this DPO on its review of the Application for Site Certificate (ASC) and comments and recommendations received during review of the preliminary and complete ASC from state agencies, local governments, and tribal governments. This DPO includes recommended conditions of approval for inclusion in the site certificate to ensure or maintain compliance with applicable rules and standards during proposed facility construction, operation and retirement. Based upon its review of the ASC, as presented in recommended findings of fact, conditions and conclusions of law, the Department recommends Council approve the ASC and issue a site certificate for the facility.

II. PROCEDURAL HISTORY

[1] Proposed site boundary is 7,450 acres, where within that area a maximum footprint for the micrositing area is 3,852.5 acres, which is made up of 167.5 acres of temporary impacts and 3,684 acres of permanent impacts. See Section III.C., Proposed Facility Location and Section IV.A., General Standard of Review, for an expanded discussion.

II.A. NOTICE OF INTENT

On November 3, 2020, the Department received a Notice of Intent (NOI) to file an ASC for the proposed facility.[2] The Department issued a Public Notice of the NOI and Public Comment Period on November 25, 2020 and held an informational meeting on January 7, 2021.[3] On June 11, 2021, the applicant submitted an amended NOI to address site boundary modifications.[4] Subsequently, the Department issued a Public Notice of the Amended NOI on June 16, 2021 and published the NOI Public Notice in both the East Oregonian newspaper on June 17, 2021, and the Heppner Gazette on June 16, 2021.[5] The Department distributed the NOI to state, tribal and local reviewing agencies on June 18, 2021 and requested comments on the NOI no later than July 6, 2021.[6]

Pursuant to ORS 469.480(1), on November 20, 2020, the Council appointed the Morrow County Board of Commissioners as the Special Advisory Group (SAG) for the proposed facility.[7] As a SAG, the Morrow County Board of Commissioners is tasked with recommending "applicable substantive criteria" from the acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the data the preliminary ASC is submitted, and any Land Conservation and Development Commission administrative rules and goals and any land use statutes that apply directly to the facility under ORS 197.646.

II.B. PROJECT ORDER

Pursuant to ORS 469.370(10), OAR 345-015-0160, and OAR 345-015-0300(3) the Department issued a Project Order on March 23, 2021, which specified the state statutes and administrative rules, and local, state, and tribal laws, regulations, ordinances and other requirements applicable to the siting of the facility and is discussed further in this order.[8] The Project Order outlines the ASC requirements from OAR 345-021-0010 that are relevant to the proposed facility. Under OAR 345-015-0160, the Project Order also establishes analysis areas for the proposed facility which are areas that may contain resources that the proposed facility may affect and that must be evaluated in the ASC.[9] For issuance, the Project Order was posted to the Department's project webpage and provided to the applicant. Under OAR 345-015-0160(3), the Department or Council may amend the Project Order at any time.

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[2] NOI received on October 13, 2020, however payment for the NOI was received on November 3, 2020, therefore that is the formal submission date for the NOI. WTSNOIDoc1 Notice of Intent 2020-10-13.

[3] WTSNOIDoc2 NOI Public Notice 2020-11-25

[4] WTSNOIDoc16 Amended NOI 2021-06-11.

[5] WTSNOIDoc17 Amended NOI Public Notice 2021-06-16, WTSNOIDoc17-4 Amended NOI Affidavit of Publication Heppner Gazette 2021-06-16.

[6] Comments on the NOI and amended NOI were received by the Department from 11 state, local and tribal reviewing agencies and one member of the public.

[7] WTSNOIDoc28 SAG Appt Order 2020-11-20.

[8] WTSNOIDoc15 Project Order 2021-03-23.

[9] OAR 345-015-0160(1)(f) and OAR 345-001-0010(2).

On August 17, 2021, the Department issued an Amended Project Order, which reflected the modifications of the amended NOI.[10] The Amended Project Order was posted to the Department's website on August 17, 2021. Table 1 below provides the Analysis Areas evaluated in the ASC, as provided in the Second Amended Project Order. Further, the Department considered the size and type of the proposed facility in determining the analysis areas the applicant must evaluate in the ASC.[11] On November 2, 2022, the Department issued a second Amended Project Order, based on the Council's new Wildfire Prevention and Risk Mitigation standard and Division 21 application requirements.[12] The second Amended Project Order was posted to the Department's project webpage on November 2, 2022, and provided to the applicant on November 4, 2022.

Table 1: Analysis Areas for Proposed Facility

Affected Standard or Resource	Exhibit	Analysis Area
Structural Standard	H	The area within the site boundary, notwithstanding the distances related to an assessment of seismic hazards required by OAR 345-021-0010(1)(h).
Soil Protection	I	The area within the site boundary.
Wetlands	J	The area within the site boundary.
Land Use	K	The area within and extending 0.5 mile from the site boundary.
Protected Areas	L	The area within and extending 20 miles from the site boundary.
Fish and Wildlife Habitat	P	The area within and extending 0.5 mile from the site boundary.
Threatened and Endangered Species	Q	The area within and extending 5 miles from the site boundary.
Scenic Resources	R	The area within and extending 10 miles from the site boundary.
Historic, Cultural and Archaeological Resources	S	For direct impacts to archeologic sites and objects, the area within the site boundary. For indirect impacts to aboveground resources, including Traditional Cultural Properties or Historic Properties of Religions and Cultural Significance to Indian Tribes, were identified within 1-mile of the site boundary during the desktop review, the analysis area shall include the area within and extending 1-mile from the site boundary.
Recreation	T	The area within and extending 5 miles from the site

[10] WTSNOIDoc26 NOI Amended Project Order 2021-08-17.

[11] OAR 345-015-0160(2).

[12] WTSNOIDoc27 Second Amended Project Order (SIGNED) 2022-11-02.

Table 1: Analysis Areas for Proposed Facility

Affected Standard or Resource	Exhibit	Analysis Area
		boundary.
Public Services	U	The area within and extending 15 miles from the site boundary, including the Cities of Ione, Heppner, and Boardman and the Town of Lexington.
Wildfire Risk	V	The analysis area is the site boundary and 0.5 mile from the site boundary.
Noise Control Regulation	Y	The area within and extending 1-mile from the site boundary.

II.C. APPLICATION FOR SITE CERTIFICATE

The Department received the preliminary application for site certificate (pASC) on August 31, 2022.[13] The Department distributed the pASC to reviewing agencies and requested pASC review and comment by October 14, 2022. Additionally, the Department posted an announcement on its project website notifying the public that the pASC had been received.

Pursuant to OAR 345-015-0190(1), following review of the pASC, the Department determined the pASC to be incomplete and requested that the pASC include a wildfire mitigation plan as applicable by rules.[14] Subsequently, on November 7, 2022 the Department issued additional requests for additional information (RAI1), RAI2 on February 3, 2023, and RAI3 on December 3, 2023.[15] The applicant responded to the Department's information requests on October 13, 2023, December 8, 2023 and on an ongoing basis for coordination with the Department.[16] The applicant also provided responses to reviewing agency comment letters on July 7, 2023. In its response to Department RAI's and agency comment letters, the applicant provided redline revised Exhibits, response in a response table, as well as supplemental information. After reviewing the applicant's responses and revised pASC exhibits, the Department determined the pASC to be complete on December 22, 2023.[17] Under OAR 345-015-0190(5), an ASC is complete when the Department finds that the applicant has submitted information adequate for the Council to make findings or impose conditions on all applicable Council standards. The applicant filed a complete ASC on January 3, 2024.[18]

[13] WTSAPPDoc1 Preliminary ASC 2022-08-31.

[14] WTSAPPDoc2 pASC Incompleteness Determination 2022-10-27.

[15] WTSAPPDoc2-3 ODOE Request for Additional Information Batch 1 2022-11-07, WTSAPPDoc2-4 ODOE Request for Additional Information Batch 2 2023-02-03, and WTSAPPDoc2-5 ODOE Request for Additional Information Batch 3 2023-12-03.

[16] WTSAPPDoc13 Applicant Response to RAI 1 and 2 2023-10-13, WTSAPPDoc13-1 Applicant Response to RAI 3 2023-12-08.

[17] WTSAPPDoc1 Determination of Complete Application 2023-12-22.

[18] WTSAPPDoc2 Complete ASC 2024-01-03_Combined, see also DocID's WTSAPPDoc2-01 through WTSAPPDoc2-30 for the ASC per Exhibit.

Public notice of the complete ASC was issued via U.S. Mail to property owners within 500-feet of the property on which the proposed facility site boundary would be located, electronically via ClickDimensions to all individuals signed up to receive email notices from the Department regarding the proposed facility or all EFSC facilities, and in the East Oregonian and the Heppner Gazette--Times Newspapers in general circulation in the vicinity of the proposed facility.[19] On January 17, 2024, the Department held a remote public information meeting on the complete ASC with an opportunity within the vicinity of the facility for the public to login in-person.[20] Pursuant to OAR 345-015-0200, the Department distributed electronic copies of the complete ASC to reviewing agencies, along with a request for agency reports on the complete ASC by January 18, 2024.

On July 23, 2021, the Council appointed Joe Allen, J.D., Senior Administrative Law Judge with the Oregon Office of Administrative Hearings (OAH), as the hearing officer to conduct the public hearing on the DPO and to conduct the contested case proceeding.[21]

II.D. COUNCIL REVIEW PROCESS

The Department issued the DPO on May 7, 2024, initiating a 31-day comment period. The Council Chair will conduct a public hearing on the DPO starting at 6:15 P.M. Pacific Time (PT) on May 30, 2024 at the Port of Morrow Riverfront Center/Riverfront Room, in Boardman, Oregon – representing the geographic area that would be affected by the proposed facility. In addition to accepting written comments during the comment period, the hearing officer will also accept oral testimony at the public hearing.[22] Following the close of the record of the public hearing and Council review of the DPO, the Department will issue a Proposed Order, taking into consideration Council comments, any comments received "on the record of the public hearing" (i.e. oral testimony provided at the public hearing and written comments received by the Department from May 7, 2024 through June 7, 2024), and agency consultation.

Concurrent with the issuance of the Proposed Order, the Department will issue a Notice of Proposed Order and Contested Case.[23] Only those persons who comment in person or in writing on the record of the DPO public hearing may request to participate as a party or limited party in the contested case proceeding. Additionally, to raise an issue in a contested case, the

[19] WTSAPPDoc3 ASC and Informational Meeting Public Notice 2024-01-04, WTSAPPDoc3-2 Attachment F-1. Property Owner List duplicates removed 2024-01-03, WTSAPPDoc3-4 ASC Newspaper Notice 2024-01-03 to 2024-02-13, WTSAPPDoc3-5 ASC Active Emails sent 2024-01-04.

[20] As designated in the Notice of the ASC, an informational meeting was scheduled remotely and in-person in Lexington, Oregon. However, due to state-wide inclement weather and ice storms, the Department hosted the meeting remotely and the local venue in Lexington provided the space for the public to participate in the meeting remotely. Under OAR 345-015-0198, the Department of Energy *may* hold one or more informational meetings on the proposed facility…[emphasis added].

[21] WTSNOIDoc29 Hearing Officer Appt Order SIGNED 2021-07-23.

[22] ORS 469.370(2).

[23] See ORS 469.370(4) and OAR 345-015-0014.

issue must be within Council jurisdiction, and the person must have raised the issue on the record of the public hearing with "sufficient specificity to afford the Council, the department, and the applicant an adequate opportunity to respond."[24] At the conclusion of the contested case proceeding, the hearing officer must issue a Proposed Contested Case Order stating the hearing officer's findings of fact, conclusions of law and recommended site certificate conditions on the issues in the contested case. The Council may adopt, modify or reject the hearing officer's proposed contested case order. If adopted or modified, the order would then be incorporated into the Proposed Order for Council's review.

Following the contested case proceeding, the Council will take action to ether modify or approve the Proposed Order as the Final Order and issue a site certificate; or, may reject the Proposed Order, denying the Final Order and issuance of a site certificate, based upon the standards adopted under ORS 469.501, and any additional state statutes, rules, or local government regulations or ordinances determined to be applicable to the proposed facility in the Project Order.[25] The Council's Final Order is subject to judicial review by the Oregon Supreme Court. Only a party to the contested case proceeding may request judicial review and the issues on appeal are limited to those raised by parties or limited parties in the contested case proceeding. A petition for judicial review must be filed with the Supreme Court within 60 days after the date of service of the Council's final order or within 30 days after the date of the petition for rehearing is denied or deemed denied.[26]

III. DESCRIPTION OF THE PROPOSED FACILITY

The information presented in this section is based upon details provided in ASC, primarily from Exhibits B and C. Section III.A., *Proposed Facility Components,* describes proposed facility components and Section II.B., *Proposed Facility Location*, describes the proposed location and site boundary of the facility.

III.A. PROPOSED FACILITY COMPONENTS

Proposed facility components (including related or supporting facility components), and details for each component are presented in Table 2 below. The solar facility and its related or supposed facilities are also described in more detail in Section III.A.1 and III.A.2.

Table 2: Facility Component Summary

Component and Design Standard	No.	Unit
Site Boundary		
Site Boundary/Micrositing Area	7,450	acres
Permanent Impacts	3,685	acres
Temporary Impacts	168	acres

[24] ORS 469.370(3).
[25] ORS 469.370(7) and (10).
[26] ORS 469.403.

Table 2: Facility Component Summary

Component and Design Standard	No.	Unit
Solar Components		
PV Solar Modules		
Approx. Total number	965,007	modules
Max Height at full-tilt	16	feet
Posts		
Approx. Total number	213,585	posts
Inverters/Transformer Units		
Approx. total number	142	each
Noise level	99	dBA
Transformer oil-containing capacity	244	gallons
Related or Supporting Facility Components		
34.5 kV Collection System		
Collector line length, belowground	67.9	miles
Collector Substations		
Substations; Transformers per each	2; 3	each
Site size (northern; southern)	11; 5	acres
Transformer oil-containing capacity	263,387	gallons
Transformer noise level	98	dBA
Height of dead-end structures	65	feet
230 kV Transmission Line		
Length	0.6	miles
Structures: Type; quantity	H-frame; 20	each
Height of structures	70- 180	feet
Solar/Substation/O&M Perimeter Fence		
Length	60,192	linear feet
Height	6-8	feet
Facility Roads		
New roads (length, width)	47	miles
Width (within solar fence line; outside solar fence line/between solar and substation)	12; 20	feet
Battery Energy Storage System (Lithium-ion)		
Approx. total batteries	604	each
Site size (northern; southern)	10; 25	acres
Approx. total containers	604	each
Approx. container dimensions	8 x 9.5 x 20	H x W x L, feet
Noise level (broadband)	100	dBA
Meteorological Stations		
Quantity	4	each
Met pad dimensions	8 x 8 x 6	W x L x H

Table 2: Facility Component Summary

Component and Design Standard	No.	Unit
Height	8.5	feet
O&M Building		
Site size	0.2	acres
Size	6,000 x 9,000	square feet
Height	20	feet
Appurtenances	On-site well, septic system	
Temporary Construction Areas		
Quantity	4	each
Site size	10	each
Source: WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.0, WTSAPPDoc2-03 Exhibit C. Project Location compiled_2024-01-03, Table C-2, WTSAPPDoc2-07 Exhibit G. Materials Analysis_2024-01-03, Section 3.0, WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Attachment X-1. Estimated Retirementand Restoration Cost, and WTSAPPDoc2-25 Exhibit Y. Noise compiled Updated_2024-01-03, Section 5.0.		

III.A.1. Energy Facility

The solar energy facility would be comprised of approximately 965,007 solar modules that would use either mono- or poly-crystalline cells contained within antireflective glass panels linked together with wire connectors.[27] The modules are connected in series to form long rows, where rows of modules are then connected via combiners, cables, and switchboards. The configuration of multiple rows (also referred to as an "array") can vary depending on the module technology, spacing, mounting equipment, and other design criteria, which are subject to change during final design. Each row will be spaced approximately 24.67 feet.

Strings of these solar modules would be mounted on single-axis tracker systems that rotate the modules to follow the path of the sun throughout the day. The length of each tracker row may vary by topography and the number of modules that the tracker can hold. Each set of approximately 54 racked modules will be mounted approximately 5 feet off the ground on a single-axis tracker that rotates 60 degrees to the east and west, at its steepest tilt the modules can be 16 feet tall. The tracker system would be supported by approximately 213,585 steel posts, which could be round hollow posts or pile-type posts (i.e., H-pile, C-pile, S-pile) or helical, and the applicant assumes that all posts will need concrete foundations.[28]

Low-voltage cabling will connect the solar modules of each tracker string in series and combine two strings to a single combiner box. Cabling from multiple combiner boxes will connect to a single inverter, which will convert the DC to AC and connect to the buried collection system. For

[27] WTSAPP ASC Exhibit B, Section 2.1.1.

[28] Concrete foundations are estimated to be approximately five feet deep and up to two feet wide. WTSAPP ASC Exhibit B, Section 2.1.3.

example, the cabling system for the site plan shown on Exhibit C, Figure C-2 connects 27 modules in series per string, 54 modules (two strings) per tracker rack, with a single pad-mounted combiner box per rack, for a total of 17,870 combiner boxes. A larger DC cable will run between each combiner box and then to the module block inverter. This cable will hang underneath the modules. Cabling can be mounted to the tracker system, placed in cable trays, or buried.

The type of post and post depth may vary depending on soil conditions, but the posts would typically be installed 5 to 20 feet below the surface and protrude approximately 5 feet above grade. Posts at the end of tracker rows are usually installed to greater depth to withstand wind uplift. In some soil conditions, concrete backfill would be required for each post, which would be determined by geotechnical investigations conducted prior to construction of the proposed facility as discussed further in Sections IV.D., *Soil Protection* and IV.C., *Structural Standard*. The solar array and related or supporting facilities would be within a 6 to 8-foot-tall chain link perimeter fence line. A solar "array" refers to the configuration of multiple rows of modules and can vary depending on the type of equipment technology and topography of the site. Related or supporting facilities are discussed in more detail below.

Approximately 142 inverters serve the function of converting DC power supply to an AC power supply in accordance with electrical regulatory requirements. Low-voltage cabling will link each solar module to inverters to convert panel output from 400-watt DC to 1,500-volt. ASC Figure C-2 depicts inverters co-located with transformers on the same concrete slab, string inverters may also be used.[29] The AC from the inverters will be routed to approximately 142 transformers (at inverter/transformer stations) that will increase the output voltage from the inverter (1,500 volts) to the desired substation feed voltage (34.5 kV). The transformers will contain up to 244 gallons of oil and may be mounted on concrete pads with secondary spill containment traps designed to minimize the possibility of accidental leakage. From the inverters, the AC electricity is aggregated via approximately 67.9 miles of underground 34.5-kV cables to the collector transmission lines.

III.A.2. Related or Supporting Facilities

Related or supporting facilities, as further described below, include:

- Battery storage system
- Collector substations
- 230-kV Transmission Line
- SCADA System

[29] If collocated inverters are installed at each solar panel, they would have a smaller footprint than string inverters. String inverters are larger and are installed to link several solar panels together rather than being located at each solar panel. Although less string inverters are technically required, they require a much larger footprint, thus the applicant assumed collocated inverters would be installed for the purposes of this ASC. WTSAPP ASC Exhibit B, Section 2.1.5.

- O&M Building
- Meteorological Stations
- Security fencing and gates
- Site access and service roads
- Construction staging areas

III.A.2.a Battery storage system

The proposed lithium ion (li-ion) battery energy storage system would be capable of storing and later deploying approximately 500 MW of energy generated by the solar facility. Li-ion battery systems are modular systems in which each module contains multiple smaller battery cells, each measuring up to 3.2 by 7 centimeters. The cells are the primary containment for the gel or liquid electrolyte materials. The module containing the cells is relatively small and serves as leak-proof secondary containment. Modules are placed in anchored racks within the concrete containers; typically, each rack houses 8 to 15 battery modules along with a switchgear assembly depending on the configuration chosen. Cooling units will be placed either on top of the concrete containers or along the side. Applicant proposes two locations for the battery storage units, one of the AC coupled battery storage sites would consist of up to 182 battery storage units located adjacent to the proposed northern substation, occupying approximately 10 acres. The second of the two AC coupled battery storage sites would consist of up to 422 battery storage units and would be collocated with the proposed southern substation, occupying approximately 25 acres. Both sites will be fenced separately from the solar array. The battery storage systems as a whole may use a series of self-contained containers located within a fenced area or would be located within a single warehouse-type enclosure of a similar scale and size. The analysis presented in the ASC and DPO assumes the individual containers would be used because they will generally have a greater potential impact from a noise and visual perspective, and a similar disturbance area. Each battery container would be placed on a concrete foundation (9.5 feet wide, 20 feet long, and 8 feet tall). Each container holds the batteries, a supervisory and power management system, and a fire prevention system.[30]

If selected for construction, the warehouse-type enclosure will be designed generally consistent with the character of similar buildings and painted in a low-reflectivity, neutral color to blend with the surrounding landscape. The enclosure will be constructed in compliance with State of Oregon structural and electrical code requirements, to the extent applicable, and in compliance with applicable site certificate conditions. Applicant proposes to maintain flexibility to have DC coupled distributed battery storage sites as an additional option to the AC coupled battery storage sites. The DC units would have comparable characteristics to the AC units except that the DC units would be distributed and collocated with the solar array inverters/transformer stations, located within the solar array area fence line. The ASC and DPO assume AC units are used because they will have a larger disturbance area since they are not contained within the

[30] WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.1.

footprint of the solar array area and will generally have a greater potential impact from a noise and visual perspective.

Li-ion batteries have a typical lifespan of 5 to 10 years and will experience a consistent degradation of performance over that time.

III.A.2.b Collector substation

Applicant proposed up to two collector substations which would combine and step up the voltage of energy generated by the solar facility to the desired transmission voltage to connect to the transmission grid. The southern collector substation would be located on an approximately 5-acre site and the northern (alternate) collector substation would be located on an approximately 11-acre site, enclosed by a locked 6- to 8-foot-tall wire mesh fence; both areas will be fenced separately from the solar array areas.[31] Additional substation equipment may include circuit-breakers and fuses, power transformer(s), bus bar and insulators, disconnect switches, relaying, battery and charger, surge arresters, AC and DC supplies, control systems, metering equipment, grounding, and associated control wiring. Transformers would be non-PCB oil–filled types and would be up to 25 feet tall. Dead end structures at the substation will be a maximum of 65 feet tall.

III.A.2.c 230-kV Transmission Line

To connect the southern solar array areas to the regional grid, the proposed facility will require construction of an associated transmission line. The associated transmission line will be approximately 0.6 miles of 230-kV overhead line, running east along Strawberry East Road to connect the southern collector substation to the existing Blue Ridge Substation.[32] The 230-kV overhead line will be supported either by H-frame structures with two galvanized steel or wood poles, or by galvanized steel or wood monopole structures; a maximum of four poles will be used. The structures would be approximately 70 to 180 feet tall, above grade depending on design and terrain. The transmission line would be within the site boundary but outside the solar array fence line. The northern substation (and in turn the northern solar array areas) would interconnect with the directly adjacent, existing Umatilla Electric Cooperative/Columbia Basin Electric Cooperative 230-kV transmission line adjacent to the facility, running north to south through the northern solar array areas; there will be no interconnection line required for this facility component.

III.A.2.d SCADA System

SCADA systems provide for remote operation of the facility from the O&M building. The SCADA system is installed to collect operating and performance data from the solar array, batteries

[31] WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.2.

[32] WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.3.

and associated electrical equipment. Fiber optic cables for the SCADA system will be installed with the collection system. In areas where the collection system is buried, the fiber cables will be installed in the same trench. Where the collection system is above ground, the fiber cables will be mounted on overhead poles along with conductors.

III.A.2.e O&M Building

Applicant indicates that the O&M building may be shared with the Wheatridge Wind Energy Facility II[33], however, if not, applicant proposes an operation and maintenance (O&M) building which would be located within an approximately 0.2 acre fenced area outside the fence line of the solar facility and near the norther substation.[34] The proposed O&M building would be one-story, prefabricated, and approximately 6,000 to 9,000 square feet in size, and include an office, break room, kitchen, lavatory with shower, utility room, covered vehicle parking, storage for maintenance supplies and equipment, and SCADA system. A permanent, fenced, graveled parking and storage area for employees, visitors, and equipment will be located adjacent to the O&M building. The building will be served by an exempt, on-site groundwater well or wells, which allows the use of up to 5,000 gallons per day of groundwater for industrial and commercial applications, and septic system (discussed in Section IV.R.3, of this order) and power would be supplied by a local service provider using overhead and/or underground lines.

III.A.2.f Meteorological Stations

Applicant proposes up to four permanent met stations. Each permanent met station would have a met sensor support tower, support enclosure, datalogger enclosure (mounts above support enclosure), AC/ethernet pull box, soiling station, and met station pull box, and would be installed on a met station pad, approximately 8 by 8 feet and will have a minimum thickness of 6 inches. The height of each permanent met station will be approximately 8.5 feet at the tallest point (met sensor support tower). The met stations will each require a 30- by 30-foot temporary disturbance area. All permanent met stations will be within the solar array fence line.

III.A.2.g Access Roads, security fencing and gates

Applicant proposes approximately 47 miles of new roads needed access facility infrastructure in areas not previously approved through the Council for other energy facilities. These roads include access roads to the site, access roads within the solar micrositing areas, as well as roads outside the solar areas that would connect facility components such as the substations. All newly constructed roads would be graded and graveled to meet load requirements for all equipment. Service roads, approximately 12 feet wide, would be constructed within the solar array fence line, to facilitate access for construction and maintenance purposes. Approximately

[33] See Section IV.G., *Retirement and Financial Assurance*, of this order for additional discussion of shared facilities.
[34] WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.4.

20-footwide service roads would be constructed outside the solar array fence line to reach the separately fenced substations.[35] Service roads will be all-weather, compacted soil or gravel, with an internal turning radius of 28 feet. Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety, which is discussed further in Section IV.N, of this order. Use of the roads may continue after construction, or new roads may be removed and the land reclaimed to pre-construction conditions. The locations of specific access points and gates will depend on the final configuration of the solar array and related infrastructure. Chain-link perimeter fencing, 6 to 8 feet in height, will enclose the solar arrays, O&M building, and the battery storage system; the substations will be enclosed by a 6- to 8-foot-high wire mesh fence. The perimeter fencing will have lockable vehicle and pedestrian access gates.

III.A.2.h Construction staging areas

Up to four temporary construction areas (laydown areas) would be necessary to support construction, store supplies and equipment, and facilitate the delivery and assembly of materials and equipment. Temporary construction areas would be up to 10 acres each and will consist of a crushed gravel surface that will be removed following construction.[36] These construction areas may contain temporary storage of diesel and gasoline fuels, located in an aboveground 1,000- gallon diesel and 500-gallon gasoline tanks, within designated secondary containment areas.

III.B. DESCRIPTION OF CONSTRUCTION, OPERATION, AND RETIREMENT ACTIVITIES

III.B.1. PROPOSED FACILITY CONSTRUCTION ACTIVITIES AND SCHEDULE

The facility would be constructed in phases with each phase being constructed over the course of approximately a single year. Phasing, if approved, would be in 100-200 MW increments, beginning construction of the first phase by 2025. The impact analysis presented in this ASC represents the fully built-out scenario of 500 MW.

Construction of the proposed facility is anticipated to take 12 months, however, under Recommended General Standard of Review Condition 1, the Department recommends the applicant be allotted three years from site certificate execution to begin construction and then three years to complete construction after construction has begun.[37] Construction activities would employ an average of 150 people and a maximum of 200 people during peak months of construction. Most construction workers will be employees of construction and equipment manufacturing companies under contract to the Applicant. Some specialty laborers will be

[35] WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.6.

[36] WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.7.

[37] ORS 469.300(6) "Construction" means work performed on a site, excluding surveying, exploration or other activities to define or characterize the site, the cost of which exceeds $250,000.

required for installation of the solar components and battery storage but likely will not significantly affect the maximum number of employees at any given time.

Construction activities include:

- Clearing and grubbing of vegetation in temporary construction areas, solar array, and new access roads;
- Constructing new access roads;
- Hauling heavy equipment and other truck traffic for the delivery of aggregates, concrete, water, solar components, and construction supplies; and
- Fueling or maintaining construction equipment or vehicles.

Construction related impacts to soils would be mitigated by the following actions:

- Avoiding sensitive soil areas to the extent practicable;
- Maintaining a Spill Prevention, Control and Countermeasure Plan (SPCC Plan);
- Implementing a Dust Control Plan prior to construction;
- Implementing the erosion and sediment control best management practices (BMPs) included in the final Erosion and Sediment Control Plan (ESCP), as required by the Oregon Department of Environmental Quality (ODEQ) National Pollutant Discharge Elimination System (NPDES) 1200-C Construction Stormwater Discharge General permit (see draft application in Attachment I-1); and
- Implementing appropriate site restoration practices following construction as described in the ESCP (Attachment I-1) and the Draft Reclamation and Revegetation Plan (see Exhibit P, Attachment P-3).

Heavy-duty trucks would deliver construction equipment such as bulldozers, graders, compactors, forklifts, and would also carrying gravel and other materials required for site grading and constructing the new site access road segments. Heavy-duty trucks would also carry proposed facility components and materials for the solar module blocks, battery and substation. Lighter-duty trucks would deliver water to the site for dust control during construction and other electrical equipment and materials required for solar panel construction and power transmission. All construction vehicles would be limited to 20 miles per hour on all facility access roads.

During construction of the transmission line (0.6 mile to interconnect to the Blue Ridge Substation), a short segment of one lane of traffic on the graveled Strawberry East Road may need to be temporarily closed over several weeks to a month to accommodate construction crews and equipment.

III.B.2. PROPOSED FACILITY OPERATIONAL ACTIVITIES

The estimated operational life of the facility is 50 years. The facility would be operated remotely except for routine maintenance and facility repair activities where approximately three workers would be deployed to the site for maintenance or repairs of facility components.

Facility O&M activities would include routine inspections of the battery storage, transformers, and other electrical equipment, vegetation management, solar panel washing, and changing the lithium-ion batteries and solar panels. Operational water may be trucked in and stored in a water tank or trucked in for specific uses.

Inspections of the inverters, transformers, and battery system would be conducted according to the manufacturer's recommendations, which are assumed to be monthly inspections. Vegetation and weed management under the solar arrays and other areas within the site boundary that aren't graveled would be implemented through manual, mechanical or chemical (i.e., herbicide) control measures, but vegetation would be low growing or maintained to not become overgrown. Solar panels may need to be washed up to twice per year and wash water would be applied via tanker truck without any cleaning solvents added to the water so it may be absorbed into the ground after application. Lithium-ion batteries would need to be changed approximately every 10 years or two to three times throughout the life of the proposed facility because they degrade over time, particularly batteries that are more heavily used. The following procedures would be implemented for the battery replacement:

- Facility operator would disconnect and de-energize battery systems prior to removal from the installed racks and package the batteries for transport to a licensed recycling facility.
- At the recycling facility, the qualified contractor would dismantle the battery modules and prepare individual cells for metals recovery.
- Individual cells would be processed in a furnace to recover metals. Recovered metals may include aluminum, calcium, lithium, and a metal alloy comprising cobalt, copper, nickel, and iron.
- Recovered metals would be recycled or separated to recover individual metals where economically viable.

Solar modules and electrical equipment would need to be repaired or replaced over the lifetime of the facility. Solar panels that are nonfunctional or are retired would be recycled to the maximum extent feasible as described in Section IV.N., *Waste Minimization*.

III.B.3. PROPOSED FACILITY RETIREMENT ACTIVITIES

Facility retirement or decommissioning is described in detail in Section IV.G., *Retirement and Financial Assurance*, but begins with disconnecting all electrical equipment disassembling equipment and components such and the battery storage units, solar panels and transformers. Larger containers and equipment would be removed, trucked off-site and recycled and disposed of. None of these materials are considered hazardous. Solar panels would be disconnected, and piles would be removed including the excavation of any concrete foundations. Gravel and foundations from the inverters and transformers, O&M building, substations, and battery units would be removed by trenching and excavation. The facility site would then be restored through minimal grading and revegetation with plants or seed mix consistent with applicable plans and conditions discussed in this order or landowner interests.

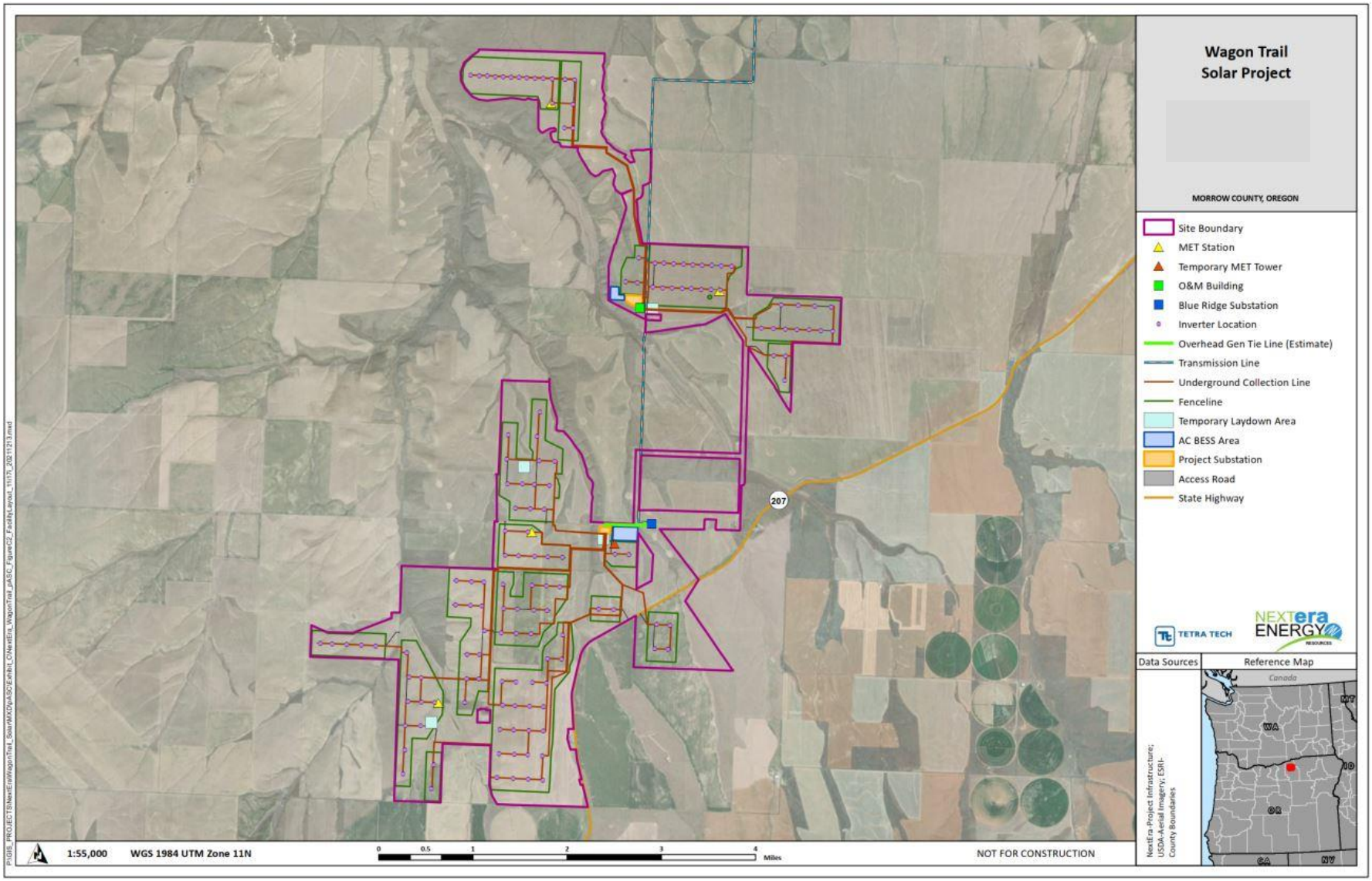
Any hazardous material would be handled by a qualified contractor and adhere to applicable regulations for transport and disposal, including but not limited to 49 Code of Federal Regulations 173.159. The decommissioning of the energy storage system, if used, would involve disposing of battery components at an off-site facility approved for disposal or recycling of batteries, following the same process as replaced batteries during operations. Solar panels would be recycled to the greatest extent feasible at the time of facility retirement and solar panels not recycled would be disposed of at a certified disposal site or program for solar panels.

III.C. PROPOSED FACILITY LOCATION, SITE BOUNDARY, AND MICROSITING AREA

The facility site boundary covers approximately 7,450 acres. The applicant has requested flexibility for micrositing the facility and related or supporting facilities within the site boundary and considered a "worst-case scenario" for the analysis of permanently disturbing 3,684 and temporarily disturbing 167.5 acres. Therefore, the micrositing area within the 7,450-acre site boundary would be up to 3,852.5 acres.

See Section IV.A., *General Standard of Review*, for an expanded discussion of the site boundary and micrositing area.

Figure 1: Proposed Site Boundary and Facility Layout



IV. EVALUATION OF COUNCIL STANDARDS

As discussed above, ORS 469.320 requires a site certificate from the Energy Facility Siting Council (EFSC or Council) before construction of a "facility." ORS 469.300(14) defines "facility" as an "energy facility together with any related or supporting facilities." The ASC seeks approval for a proposed 500 MW solar PV energy generation facility. If final design is equivalent to the maximum built scenario, this proposed facility could permanently occupy 3,641 acres (5.6 square miles). This proposed facility qualifies as an "energy facility" under the definition in ORS 469.300(11)(a)(D)(i).[38]

To issue a site certificate for a proposed facility, the Council must determine that "the facility complies with the applicable standards adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the facility outweigh any adverse effects on a resource or interest protected by the applicable standards that the facility does not meet."[39] The Council must also determine that the proposed facility complies with all other applicable Oregon statutes and administrative rules, as identified in the Project Order, excluding requirements governing design or operational issues that do not relate to siting[40] and excluding compliance with requirements of federally-delegated programs.[41] Nevertheless, the Council may consider these programs in the context of its own standards to ensure public health and safety and protection of the environment.[42]

Under ORS 469.310, the Council is charged with ensuring that the "siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety." ORS 469.401(2) further provides that the Council must include in the site certificate "conditions for the protection of the public health and safety," for the time for completion of construction, and to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS 469.503."[43] The Council implements this statutory framework and ensures the protection of public health and safety by adopting findings of fact, conclusions of law, and conditions of approval concerning the proposed facility's compliance with the Council's Standards for Siting Facilities at OAR 345, Divisions 22, 24, 26 and 27.

[38] ORS 469.300(11)(a)(D)(i) defines an EFSC jurisdictional solar photovoltaic power generation facility as using more than 160 acres located on high-value farmland as defined in ORS 195.300.

[39] ORS 469.503(1).

[40] As stated above, such matters include design-specific construction or operation standards and practices that do not relate to siting, as well as matters relating to employee health and safety, building code compliance, wage and hour or other labor regulations, or local government fees and charges.

[41] ORS 469.401(4); ORS 469.503(3).

[42] The Council does not have jurisdiction over matters that are not included in and governed by the site certificate or amended site certificate. However, the Council may rely on the determinations of compliance and the conditions in the permits issued by these state agencies and local governments in deciding whether the facility meets other standards and requirements under its jurisdiction.

[43] ORS 469.401(2).

This DPO includes the Department's initial analysis of whether the applicant has demonstrated an ability to satisfy each applicable Council Standard (with mitigation and subject to compliance with recommended conditions, as applicable), based on the information in the ASC. Following the 31-day comment period on the DPO, public hearing on May 30, 2024, and Council's review of and comments on the DPO, the Department will issue a Proposed Order presenting an evaluation of the Council's comments and issues raised with sufficient specificity on the record of the DPO.

IV.A. GENERAL STANDARD OF REVIEW: OAR 345-022-0000

(1) To issue a site certificate for a proposed facility or to amend a site certificate, the Council shall determine that the preponderance of evidence on the record supports the following conclusions:

(a) The facility complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to 469.570 and 469.590 to 469.619, and the standards adopted by the Council pursuant to 469.501 or the overall public benefits of the facility outweigh any adverse effects on a resource or interest protected by the applicable standards the facility does not meet as described in section (2);

(b) Except as provided in OAR 345-022-0030 for land use compliance and except for those statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council, the facility complies with all other Oregon statutes and administrative rules identified in the project order, as amended, as applicable to the issuance of a site certificate for the proposed facility. If the Council finds that applicable Oregon statutes and rules, other than those involving federally delegated programs, would impose conflicting requirements, the Council shall resolve the conflict consistent with the public interest. In resolving the conflict, the Council cannot waive any applicable state statute.

(2) The Council may issue or amend a site certificate for a facility that does not meet one or more of the applicable standards adopted under ORS 469.501 if the Council determines that the overall public benefits of the facility outweigh any adverse effects on a resource or interest protected by the applicable standards the facility does not meet. The Council shall make this balancing determination only when the applicant has shown that the proposed facility cannot meet applicable Council standards or has shown, to the satisfaction of the Council, that there is no reasonable way to meet the applicable Council standards through mitigation or avoidance of any adverse effects on a protected resource or interest. The applicant has the burden to show that the overall public benefits outweigh any adverse effects on a resource or interest, and the burden increases proportionately with the degree of adverse effects

on a resource or interest. The Council shall weigh overall public benefits and any adverse effects on a resource or interest as follows:

(a) The Council shall evaluate any adverse effects on a resource or interest by considering factors including, but not limited to, the following:

(A) The uniqueness and significance of the resource or interest that would be affected;

(B) The degree to which current or future development may adversely affect the resource or interest, if the proposed facility is not built;

(C) Proposed measures to reduce any adverse effects on a resource or interest by avoidance of impacts;

(D) The magnitude of any anticipated adverse effects on a resource or interest, taking into account any proposed mitigation.

(b) The Council shall evaluate overall public benefits by considering factors including, but not limited to, the following:

(A) The overall environmental effects of the facility, considering both beneficial and adverse environmental effects;

(B) The degree to which the proposed facility promotes Oregon energy policy as described in ORS 469.010 by demonstrating or advancing new efficiency or renewable technology or by expanding electric generating capacity from renewable energy sources;

(C) Recommendations from any special advisory group designated by the Council under ORS 469.480;

(D) Evidence that the benefits are likely to occur only if the proposed facility is built;

(E) For facilities that are subject to a need standard, evidence underlying the Council's decision on compliance with the rules in OAR 345, Division 23, except that the Council shall not find that need for a facility is sufficient, by itself, to outweigh any adverse effects on a resource or interest affected by the proposed facility.

(3) Notwithstanding section (2) of this rule, the Council shall not apply the balancing determination to the following standards:

(a) The organizational expertise standard described in OAR 345-022-0010;

(b) The land use standard described in OAR 345-022-0030;

(c) The retirement and financial assurance standard described in OAR 345-022-0050;

(d) The need standards described in OAR 345-023-0005;

(e) The standards for energy facilities that emit carbon dioxide described in OAR 345-024-0500 through 345-024-0720;

(f) The protected areas standard described in OAR 345-022-0040, if the statutes or administrative rules governing the management of the protected area prohibit location of the proposed facility in that area; or

(g) The sage-grouse specific habitat mitigation requirements under the Council's fish and wildlife habitat standard described in OAR 345-022-0060, except that the Council may apply the balancing determination to the requirements of 635-140-0025(2)(a) and (b) for indirect impacts on core and low density sage-grouse habitat, as defined in 635-140-0015, which are caused by transmission lines or pipelines as defined in ORS 469.300(11)(a), and by transmission lines or pipelines that are related or supporting facilities to an energy facility as defined in ORS 469.300(24), proposed to be sited entirely outside of core and low density sage-grouse habitat.

(4) In making determinations regarding compliance with statutes, rules and ordinances normally administered by other agencies or compliance with requirements of the Council statutes if other agencies have special expertise, the Department of Energy shall consult with such other agencies during the notice of intent, site certificate application and site certificate amendment processes. Nothing in these rules is intended to interfere with the state's implementation of programs delegated to it by the federal government.[44]

IV.A.1. <u>Findings of Fact</u>

OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council to find that a preponderance of evidence on the record supports the conclusion that a proposed facility would comply with the requirements of EFSC statutes and the siting standards adopted by the Council and that a proposed facility would comply with all other Oregon statutes and administrative rules applicable to the issuance of a site certificate for the facility.

[44] OAR 345-022-0000, effective March 8, 2017.

The requirements of OAR 345-022-0000 are discussed in the sections that follow. The Department consulted with other state agencies, and the Morrow County Board of Commissioners, as the appointed Special Advisory Group (SAG) for the proposed facility, during review of the preliminary Application for Site Certificate (pASC) and ASC to aid in the evaluation of whether the proposed facility would satisfy the requirements of applicable statutes, rules and ordinances otherwise administered by other agencies. Additionally, in many circumstances the Department relies upon these reviewing agencies' special expertise in evaluating compliance with the requirements of Council standards.

OAR 345-022-0000(2) and (3) apply to ASCs where an applicant has shown that the proposed facility cannot meet Council standards or has shown that there is no reasonable way to meet the Council standards through mitigation or avoidance of the damage to protected resources; and, for those instances, establish criteria for the Council to evaluate in making a balancing determination. The applicant does not assert that the proposed facility would not meet an applicable Council standard. Therefore, OAR 345-022-0000(2) and (3) do not apply to this review.

As discussed in Section III.C., *Proposed Facility Location, Site Boundary, and Micrositing Area*, the facility site boundary includes approximately 7,450 acres. The applicant requests flexibility for micrositing the facility and related or supporting facilities within the site boundary and considered a "worst-case scenario" for the analysis of permanently disturbing 3,684 and temporarily disturbing 167.5 acres. Therefore, the micrositing area within the 7,450-acre site boundary would be up to 3,852.5 acres.

Under OAR 345-001-0010(31), the site boundary is defined as "the perimeter of the site of a proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors *proposed by* the applicant" [Emphasis added]. Council's definition expressly gives the certificate holder, deference to define its site boundary. Under its own definition, Council is obligated to review a facility within a proposed site boundary, as proposed by the applicant, and does not otherwise have criteria or requirements that would grant Council the legal ability to deny a proposed site boundary or site boundary expansion unless specifically related to compliance with a Council standard or other applicable law or regulation.

A micrositing corridor, by definition, means a continuous area of land within which construction of facility components may occur, subject to site certificate conditions.[45] Micrositing corridors or areas are intended to allow some flexibility in specific component locations and design in response to site-specific conditions and engineering requirements to be determined prior to construction. Council permits final siting flexibility within a micrositing corridor when an applicant demonstrates that requirements of all applicable standards have been satisfied by adequately evaluating the entire corridor and location of facility components anywhere within the corridor. An applicant must demonstrate that it has submitted the necessary information to

[45] OAR 345-001-0010(32).

the record to support the evaluation under applicable Council standards, which are described in applicable Sections in this Order. As provided above, Council frequently approves facilities with a larger site boundary and varying micrositing areas within the site boundary. Therefore, because the record for the facility supports the evaluation the larger site boundary and micrositing area within, the Department recommends Council approve the site boundary and micrositing areas.

Certificate Expiration (OAR 345-027-0013)

ORS 469.370(12) requires the Council to "specify in the site certificate the date by which construction of the facility must begin." ORS 469.401(2) requires that the site certificate contain a condition "for the time for completion of construction." Under OAR 345-025-0006(4), the certificate holder must begin construction on the facility no later than the construction beginning date specified by Council in the site certificate. "Construction" is defined in ORS 469.300(6) and OAR 345-010-0010(12) to mean "work performed on a site, excluding surveying, exploration or other activities to define or characterize the site, the cost of which exceeds $250,000."

The applicant anticipates constructing the facility in phases, and estimates the duration of facility construction to be 12 months from the time of permit approval to commercial operation (per phase). The applicant indicates in ASC Exhibit B and Exhibit U that the size and construction schedule for each phase will depend on market demand, but expects construction of all phases to be completed by the end of 2030. In consideration of a phased construction schedule, and based on the Council's experience with large energy facilities and unforeseen factors that can lead to delays (including financial, economic, technologic and weather), the Department recommends Council establish a construction commencement deadline that provides sufficient time for planning and unexpected delays of three years after the issuance of the site certificate, and a three year completion deadline once construction commences.

Recommended General Standard Condition 1 (GEN): The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate.

a. Construction of the facility or facility component(s) shall commence within three years after the date of Council action [DATE TO BE SPECIFIED]. Within 7 days of construction commencement, the certificate holder shall provide the Department written verification that it has met the construction commencement deadline by satisfying applicable preconstruction conditions and completing at least $250,000 work at the site.
b. Construction of the facility shall be completed within three years after the construction commencement date. Within 7 days of construction completion, the certificate holder shall provide the Department written verification that it has met the construction completion deadline.

[GEN-GS-01; Mandatory Condition OAR 345-025-0006(4)]

Mandatory and Site-Specific Conditions in Site Certificates [OAR 345-025-0006 and OAR 345-025-0010]

OAR 345-025-0006 lists certain mandatory conditions that the Council must adopt in every site certificate. Mandatory conditions OAR 345-025-0006(7) through (9) and (16) are discussed and applied in Section IV.G *Retirement and Financial Assurance* of this order as they relate to the restoration of the site, Council approval of a retirement plan, and bonding requirements. Mandatory conditions OAR 345-025-0006(12) through (14) are discussed and applied in Section IV.C *Structural Standard*, because they are associated with the design, construction and operation of the proposed facility to avoid dangers of seismic hazards, coordination with and notifications to the Department of Geology and Mineral Industries (DOGAMI). In addition, pursuant to OAR 345-025-0006(10), the Council shall include as conditions in the site certificate all representations in the ASC and supporting record the Council deems to be binding commitments made by the applicant, as necessary to avoid or minimize a potential impact. Mandatory conditions that are not otherwise addressed in the evaluation of compliance with specific standards are discussed below, in the context of the Council's General Standard of Review. The Department notes that these are not presented as "recommended" conditions because they are mandatory conditions in all site certificates.

The following are applicable mandatory conditions required pursuant to OAR 345-025-0006:

> **Recommended General Standard Condition 2 (GEN):** The certificate holder shall submit a legal description of the site to the Oregon Department of Energy within 90 days after beginning operation of the facility or any phase of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identify the outer boundaries that contain all parts of the facility.
> [GEN-GS-02; Mandatory Condition OAR 345-025-0006(2)]

OAR 345-025-0006(3) establishes, as a mandatory condition, that the certificate holder design, construct, operate, and retire the facility substantially as described in the site certificate in compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued, and with all applicable permit requirements of other state agencies. In ASC Exhibit E, the applicant identifies one federally-delegated state permit necessary for construction of the proposed facility, the National Pollutant Discharge Elimination System (NPDES) 1200-C Permit, which would be issued by the Oregon Department of Environmental Quality (DEQ and is required for construction activities that disturb one or more acres of land and have a potential to impact waters of the state. Compliance with the NPDES 1200-C permit would be required under OAR 345-025-0006(3).

> **Recommended General Standard Condition 3 (GEN):** The certificate holder shall design, construct, operate and retire the facility substantially as described in the site certificate:

a. Use or occupation of land by solar photovoltaic energy generation components, as described in the site certificate, not to exceed 3,641 permanent acres;
b. In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued;
c. In compliance with all applicable permit requirements of other state agencies; and,
d. In compliance with all applicable lawful rules and requirements of federal agencies.

[GEN-GS-03; Mandatory Condition OAR 345-025-0006(3); OAR 345-026-0015(3)]

Recommended General Standard Condition 4 (PRE): Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under this section, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, "construction rights" means the legal right to engage in construction activities. For the transmission line associated with the energy facility if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of a transmission line occurs during the certificate holder's negotiations to acquire construction rights on another part of the site.
[PRE-GS-01; Mandatory Condition OAR 345-025-0006(5)]

Recommended General Standard Condition 5 (GEN): If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility or any phase of the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions.
[GEN-GS-04; Mandatory Condition OAR 345-025-0006(6)]

Recommended General Standard Condition 6 (PRO): Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility.
[PRO-GS-01; Mandatory Condition OAR 345-025-0006(11)]

Recommended General Standard Condition 7 (GEN): Before any transfer of ownership of the facility, any phase of the facility, or ownership of the site certificate holder, the

certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0400 apply to any transfer of ownership that requires a transfer of the site certificate.
[GEN-GS-05; Mandatory Condition OAR 345-025-0006(15)]

Site Specific Conditions [OAR 345-025-0010]

In addition to mandatory conditions imposed on all facilities, the Council rules also include "site specific" conditions at OAR 345-025-0010 that the Council may include in the site certificate to address issues specific to certain facility types or proposed features of facilities.[46] The Department notes that these are not presented as "recommended" conditions because they are designated under OAR 345-025-0010 to apply to the site certificate.

Because the proposed facility includes a 230 kV transmission line, the Department recommends the Council adopt the following site-specific conditions:

Recommended General Standard Condition 8 (GEN): The certificate holder shall:

a. Design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code as approved by the American National Standards Institute; and
b. The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line.
c. Design the battery storage system in accordance with the requirements of the National Fire Protection Association's (NFPA) 855: Standard for the Installation of Stationary Energy Storage Systems (NFPA, 2020) or most current version.

[GEN-GS-06; Site Specific Condition OAR 345-025-0010(4)]

Recommended General Standard Condition 9 (GEN): The certificate holder is authorized to construct a 230 kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The approved corridor extends approximately 200 feet in length between the facility substation and the Point of Interconnect, and 0.5-of-a-mile in width.
[GEN-GS-07; Site Specific Condition OAR 345-025-0010(5)]

As noted above, General Standard Condition 8(c) includes a design requirement applicable to the proposed battery storage system. As represented in ASC Exhibit B, the applicant represents that, to minimize potential fire hazards from battery storage system operation, the systems would be designed in accordance with NFPA 855: Standard for the Installation of Stationary

[46] Site-Specific Conditions at OAR 345-025-0010(1)-(3), and (6)-(7) do not apply to the proposed facility based on facility energy source/type (solar photovoltaic power generation facility with related or supporting facilities including a proposed 230 kV transmission line).

Energy Storage Systems (NFPA, 2020). The Department recommends Council find this representation to be both binding and necessary to ensure fire related hazards from battery storage operation are minimized. Therefore, the Department recommends that the representation be reflected in General Standard Condition 8(c).

Construction and Operation Rules for Facilities [OAR Chapter 345, Division 26]

The Council adopted rules at OAR Chapter 345, Division 26 to ensure that construction, operation, and retirement of facilities are accomplished in a manner consistent with the protection of the public health, safety, and welfare and protection of the environment. These rules include requirements for compliance plans, inspections, reporting and notification of incidents. The applicant must construct the facility substantially as described in the site certificate and the applicant must construct, operate, and retire the facility in accordance with all applicable rules adopted by the Council in OAR Chapter 345, Division 26.[47]

The Department recommends that the Council adopt General Standard Condition 10 and 11, as presented below, to support the Department's review of ongoing site certificate compliance, in accordance with OAR Chapter 345, Division 26.

> **Recommended General Standard Condition 10 (PRE):** At least 90 days prior to beginning construction, (unless otherwise agreed to by the Department), the certificate holder shall submit to the Department a compliance plan documenting and demonstrating actions completed or to be completed to satisfy the requirements of all site certificate terms and conditions and applicable statutes and rules. The plan shall be provided to the Department for review and compliance determination for each requirement. The Department may request additional information or evaluation deemed necessary to demonstrate compliance.
> [PRE-GS-02; OAR 345-026-0048]
>
> **Recommended General Standard Condition 11 (GEN):** The certificate holder shall:
> a. Within six months after beginning construction, and every six months thereafter during construction, submit a semiannual construction progress report to the Department. In each construction progress report, the certificate holder shall describe any significant changes to major milestones for construction. The certificate holder shall report on the progress of construction and shall address the subjects listed in (b). When the reporting date coincides, the certificate holder may include the construction progress report within the annual report described in this rule.
> b. After January 1 but no later than April 30 of each year after beginning operation of the facility, the certificate holder shall submit an annual report to the Department addressing the following for the calendar year preceding the date of the report:

[47] Applicable rule requirements established in OAR Chapter 345 Division 26 include OAR 345-026-0005 to OAR 345-026-0170.

i. Facility Status: An overview of site conditions, the status of facilities under construction and a summary of the operating experience of facilities that are in operation. The certificate holder shall describe any unusual events, such as earthquakes, extraordinary windstorms, major accidents or the like that occurred during the year and that had a significant adverse impact on the facility.
ii. Reliability and Efficiency of Power Production: For electric power plants, the plant availability and capacity factors for the reporting year. The certificate holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems.
iii. Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.
iv. Monitoring Report: A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with site certificate terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes.
v. Compliance Report: A report describing the certificate holder's compliance with all site certificate conditions that are applicable during the reporting period. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate.
vi. Facility Modification Report: A summary of changes to the facility that the certificate holder has made during the reporting period without an amendment of the site certificate in accordance with OAR 345-027-0350.

[GEN-GS-08; OAR 345-026-0080]

IV.A.2. Conclusions of Law

Based on the foregoing analysis, recommended findings of fact, conclusions of law, and subject to recommended, mandatory and site-specific conditions, the Department recommends Council find that the proposed facility would satisfy the requirements of ORS 469.300 to 469.570 and 469.590 to 469.619, the Council's standards in OAR chapter 345, and all other Oregon statutes and administrative rules applicable to the issuance of a site certificate.

IV.B. ORGANIZATIONAL EXPERTISE: OAR 345-022-0010

(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the

applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.

(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.

(3) If the applicant does not itself obtain a state or local government permit or approval for which the Council would ordinarily determine compliance but instead relies on a permit or approval issued to a third party, the Council, to issue a site certificate, must find that the third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering into, a contractual or other arrangement with the third party for access to the resource or service secured by that permit or approval.

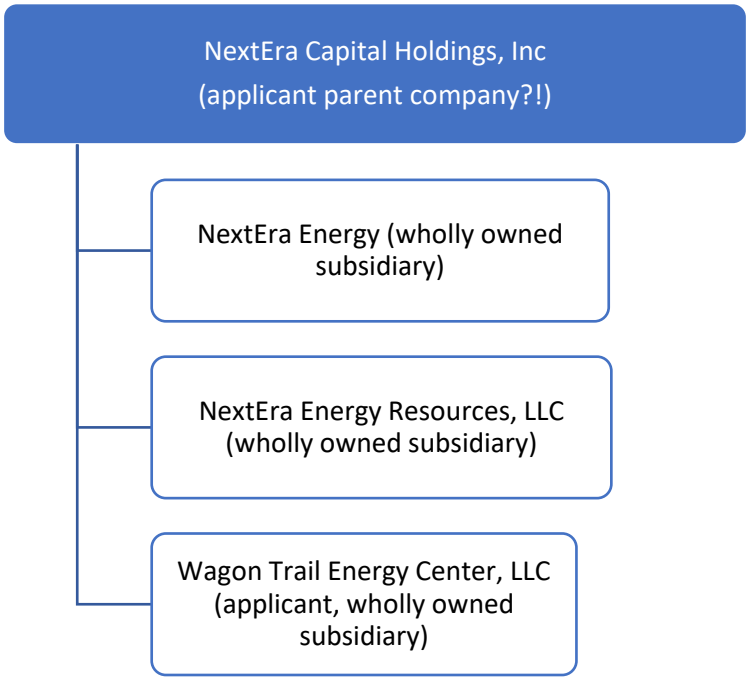
(4) If the applicant relies on a permit or approval issued to a third party and the third party does not have the necessary permit or approval at the time the Council issues the site certificate, the Council may issue the site certificate subject to the condition that the certificate holder shall not commence construction or operation as appropriate until the third party has obtained the necessary permit or approval and the applicant has a contract or other arrangement for access to the resource or service secured by that permit or approval.[48]

IV.B.1. <u>Findings of Fact</u>

Organizational Expertise of Applicant

The applicant, Wagon Trail Energy Center, LLC is a project-specific LLC without prior experience. It is a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC (NextEra).

[48] OAR 345-022-0010, effective April 3, 2002.



The applicant relies on the expertise of its parent company, NextEra. NextEra is a regionally diversified energy generation company with approximately 5,100 employees. It has 175 energy facilities in 36 states and four Canadian provinces (as of year-end 2019). NextEra's wind generation capacity totals more than 15,000 MW, solar generation is more than 3,000 MW and natural gas generation is more than 2,100 MW of electricity. It also operates three nuclear power plants with a capacity of more than 2,700 MW. As of January 2022, NextEra had more than 145 MW of operating energy storage assets, was integrating another 100 MW of energy storage systems under late-stage development or construction.

In Oregon, NextEra subsidiaries FPL Vansycle, LLC and FPL Energy Stateline II constructed, own, and operate 186 wind turbines, with a total peak generating capacity of 123 MW at the Stateline 1 and 2 wind energy facilities, and 43 turbines with a total peak generating capacity of 99 MW at the Vansycle II Wind Energy Facility. NextEra subsidiaries also operate a 300 MW wind farm in Morrow County, Oregon, the Wheatridge Renewable Energy Facility II, and a 50 MW solar energy generation facility on 357 acres also in Morrow County, the Wheatridge Renewable Energy Facility III. Council approved these projects.

The applicant's management team is NextEra personnel with substantial experience in development, permitting and compliance matters of renewable energy facilities,[49] including personnel with the following experience as of early 2022:

- Environmental permitting and compliance – 15 years
- Power generation and utilities, development, origination and permitting – 20 years
- Utility-scale solar, distributed generation and energy storage development – 14 years

[49] WTSAPPDoc2-04 Exhibit D. Org Expertise 2024-01-03, Section 3.0.

The applicant and NextEra have also provided a letter confirming "Wagon Trail Energy Center, LLC will have access to sufficient resources and expertise to construct, own, operate, and maintain the Facility, which resources and expertise may be obtained as services provided by NextEra Energy Resources, LLC or an affiliate thereof on terms and conditions that will ensure the availability of such resources and expertise to Wagon Trail Energy Center, LLC as and when needed to ensure safe and reliable operation of the Facility."

The applicant will engage in mitigation actions to demonstrate compliance with several of Council's standards, including the Fish and Wildlife Habitat standard. The applicant will rely on the experience and expertise of Anneke Solsby (a NextEra employee identified as a member of its management team) and Northwest Wildlife Consultants, Inc. (NWC) to complete the mitigation required for the proposed facility. Per the applicant, Ms. Solsby has approximately 15 years of experience in environmental permitting and compliance, functioning as an environmental consultant supporting numerous renewable energy development clients. NWC has experience in conducting the type of mitigation that would be required for the proposed facility on other renewable energy projects in Oregon and Washington, including facilities approved by Council – the Wheatridge Facilities, Stateline 2, Stateline 3, Klondike III, Leaning Juniper I, Leaning Juniper II.

To further support a Council finding that the applicant has the organizational expertise to design, construct, operate and retire the facility in a manner that protects public health and safety, the Department recommends Council impose the following conditions.

General Conditions

Recommended Organizational Expertise Condition 1 (GEN):

a. The certificate holder must notify the Department within 72 hours of any occurrence of the following:
    i. There is an attempt by anyone to interfere with the facility's safe operation.
    ii. There is a natural event such as a fire, earthquake, flood, or tornado, or a human-caused event such as a fire, explosion or change in market conditions that affects or could affect the certificate holder's ability to construct, operate or retire the facility in compliance with site certificate conditions and in a manner that protects public health and safety.
    iii. There is any fatal injury at the facility.
b. If the Department or Council learn of an incident, either through the notification described in paragraph a. of this condition or in another manner, that the Department or Council determines impacts the adequacy of the facility decommissioning cost estimate / financial assurance amount, the Department or Council may adjust the contingencies identified in Final Order on ASC Retirement and Financial Assurance Section Table 3 and shall request and receive an updated bond or letter of credit from certificate holder in the adjusted amount.

[GEN-OR-01]

Recommended Organizational Expertise Condition 2 (GEN): The certificate holder shall, as soon as reasonably possible:

a. Report incidents or circumstances that violate the terms or conditions of the site certificate, terms or conditions of any order of the Council, or the terms or conditions of any order issued under OAR 345-027-0230, to the Department. In the report to the Department, the certificate holder shall provide all pertinent facts including an estimate of how long the conditions or circumstances existed, how long they are expected to continue before they can be corrected, and whether the conditions or circumstances were discovered as a result of a regularly scheduled compliance audit;
b. Initiate and complete appropriate action to correct the conditions or circumstances and to minimize the possibility of recurrence;
c. Submit a written report within 30 days of discovery to the Department. The report must refer to the language in (d) of the condition and contain:
    i. A discussion of the cause of the reported conditions or circumstances;
    ii. The date of discovery of the conditions or circumstances by the responsible party;
    iii. A description of immediate actions taken to correct the reported conditions or circumstances;
    iv. A description of actions taken or planned to minimize the possibility of recurrence; and
    v. For conditions or circumstances that may violate the terms or conditions of a site certificate, an assessment of the impact on the resources considered under the standards of OAR Chapter 345 Divisions 22 and 24 as a result of the reported conditions or circumstances.
d. Upon receipt of the written report in sub(c) of this condition, the Department may review the facility record for incidents or circumstances reported or reportable under sub(a) related to public health and safety, the environment, or other resources protected under Council standards. If these incidences are determined by the Department or Council to impact the adequacy of the facility decommissioning cost, the Department or Council may adjust the contingencies identified in Final Order on ASC Retirement and Financial Assurance Section Table 8 and shall request and receive an updated bond or letter of credit from certificate holder in the adjusted amount.

[GEN-OE-02]

Preconstruction Conditions

Recommended Organizational Expertise Condition 3 (PRE): Prior to construction of the facility, facility component or phase, as applicable, the certificate holder shall select construction contractors with a low rate of past environmental and safety compliance incidents and citations. Certificate holder shall provide the following documentation to the Department:

a. Qualifications and contact information of the major design, engineering and construction contractor(s) and subcontractors, as applicable, including but not limited to the contractor(s) hired to serve as the construction manager.
b. Construction contractor compliance history.
c. Copy of signature page(s) and excerpt from each contract with the aforementioned contractors affirming that the contractor is required to comply with the terms and conditions of the site certificate, including selecting design layout and construction materials that minimize impacts to resources protected under Council standards.

[PRE-OE-01]

Construction Conditions

Recommended Organizational Expertise Condition 4 (CON): During construction, the certificate holder shall:

a. Maintain an onsite construction manager.
b. Require that the construction manager implement and monitor all applicable construction related site certificate conditions.
c. Within six months after beginning construction, and every six months thereafter during construction, submit a semiannual construction progress report to the Department. In each construction progress report, the certificate holder shall describe any changes to major milestones for construction. The certificate holder shall report on the progress of construction and shall address the following:
    i. Facility Status: An overview of site conditions, the status of components under construction and a summary of the operating experience of components that are in operation. The certificate holder shall describe any events, such as earthquakes, windstorms, major accidents or the like that occurred during the year and that had an adverse impact on the facility.
    ii. Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.
    iii. Compliance Report: A report describing the certificate holder's compliance with all site certificate conditions that are applicable during the reporting period. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate.
    iv. Facility Modification Report: A summary of any changes to the facility that the certificate holder has made during the reporting period without an amendment of the site certificate in accordance with OAR 345-027-0050.

    [CON-OE-01]

Operational Conditions

Recommended Organizational Expertise Condition 5 (PRO): Before operation, the certificate holder shall provide the Department the identity, telephone number, e-mail

address and qualifications of the individuals responsible for managing facility operations, including individuals or any third-party entity responsible for onsite maintenance. Qualifications shall demonstrate experience in managing operation of a utility-scale energy facility, including complying with permit and regulatory requirements.
[PRO-OE-01]

Recommended Organizational Expertise Condition 6 (OPR): During operation, the certificate holder shall ensure that the Department has the contact information and qualifications of the facility manager. The facility manager must be responsible for site certificate requirements.
[OPR-OE-01]

Recommended Organizational Expertise Condition 7 (OPR): During operation, the certificate holder shall maintain records of equipment malfunction and significant repairs and make them for Department review upon request.
[OPR-OE-02]

Public Health and Safety

Facility components including the solar array, substation transformers, transmission line, and battery storage system could result in health and safety impacts from unanticipated fire and electrical hazards. To ensure that potential risks from handling and transport of spent or damaged battery and battery waste would be minimized during facility construction, operation, and retirement, the Department recommends Council impose the following condition to require the certificate holder to secure contracts with third-party operators that require the contractors to comply with applicable federal battery transport requirements:

Recommended Organizational Expertise Condition 8 (GEN): The certificate holder shall contractually require its third-party contractor used to transport and dispose battery and battery waste to comply with all applicable federal regulations and manufacturer recommendations related to the transport and handling of battery related waste.
[GEN-OE-03]

In ASC Exhibit W, the applicant lists procedures anticipated to be implemented by its third-party contractor during facility operations, for battery replacement. In Section IV.O. Waste Minimization, the Department recommends Council impose Waste Minimization Condition 1, to require the certificate holder to draft and implement an Operational Waste Management Plan. The Operational Waste Management Plan would include battery replacement procedures, if different from those listed in Section 3.2 of ASC Exhibit W and also in Section IV.O. below.

Ability to Restore the Site to a Useful, Non-Hazardous Condition

The applicant's ability to restore the site to a useful, non-hazardous condition under the Organizational Expertise standard, is evaluated based on the applicant's experience decommissioning facilities (if any), its environmental compliance history, the adequacy of the facility decommissioning cost estimate, the tasks, actions, and assumptions that are inputted into the retirement cost estimate, and its ability to obtain a bond or letter of credit in the amount equivalent to the decommissioning estimate. The applicant's parent company experience with environmental compliance and mitigation is addressed above. The project-specific applicant does not have experience retiring a large solar facility. The applicant's ability to restore the site to a useful and nonhazardous condition as well as its ability to secure a bond or letter of credit in the amount that it is estimated to retire the facility ($30.3 million) is addressed in detail in Section IV.G., *Retirement and Financial Assurance*, of this order. As discussed there, there are specific tasks and actions that are involved with retiring each type of facility component, and restoration of the site would be managed by the retirement plan, revegetation plan, and applicable site certificate conditions. Further, the applicant provides a January 14, 2022 letter from Wells Fargo Bank, an EFSC approved financial institution, which indicates that NextEra Energy Capital Holdings, Inc. has an existing revolving credit and letter of credit facility in the aggregate amount of $4,256,850,000 (i.e., just under $4.3 billion). Based on the recommends findings of fact in this Section and in Section IV.G., of this order, the Department recommends Council find that the applicant has demonstrated its ability to restore the site to a useful nonhazardous condition.

The applicant has not selected its contractors, nor confirmed the third-party permits that will be required for facility construction and operation. Therefore, no evidence has been provided demonstrating that the applicant can obtain access to the resources secured by the permits. The Council imposes the following condition requiring that adequate evidence be provided for third-party permits and resources prior to construction:

> **Recommended Organizational Expertise Condition 9 (PRE):** Prior to construction, the certificate holder shall:
>
> a. Provide to the Department a list of federal, state and local permits, including any third-party permits related to facility siting; and a schedule for obtaining identified permits.
> b. Once obtained, provide copies of all permits, including third-party permits, required for facility siting to the Department.
>
> [PRE-OE-02]

IV.B.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended conditions of approval as described above, the Department recommends Council find that the Applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate.

IV.C. STRUCTURAL STANDARD: OAR 345-022-0020

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that:

(a) The applicant, through appropriate site-specific study, has adequately characterized the seismic hazard risk of the site; and

(b) The applicant can design, engineer, and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site, as identified in subsection (1)(a);

(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility; and

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety and the environment presented by the hazards identified in subsection (c).

(2) The Council may not impose the Structural Standard in section (1) to approve or deny an application for an energy facility that would produce power from wind, solar or geothermal energy. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

(3) The Council may not impose the Structural Standard in section (1) to deny an application for a special criteria facility under OAR 345-015-0310. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[50]

IV.C.1. Findings of Fact

The analysis area for review of geologic and soil stability, as evaluated under the Council's Structural Standard, is the area within the proposed site boundary. The analysis area for historic seismic and potentially active faults, as defined by the applicant, is the area within and extending 50-miles from the proposed site boundary.

Council rules at OAR 345-021-0010(1)(h)(B) require applicant consultation with DOGAMI on the appropriate methodology and scope for evaluating seismic, geologic and soil-related hazards,

[50] OAR 345-022-0020, effective October 18, 2017, as amended by minor correction filed May 28, 2019.

and the appropriate site-specific geotechnical work to be completed to demonstrate compliance with the Council's Structural standard. The applicant consulted with DOGAMI and the Department on July 28, 2021.[51]

Potential Seismic Risks

In the 2021 consultation, DOGAMI recommended that the 2021 Oregon HazVu and the 2021 SLIDO database be used to evaluate earthquakes and landslides within the analysis area. The applicant utilized the 2021 HazVu dataset and SLIDO Release 1 to create Figure 2 below.

Based on earthquakes hazards and quaternary faults documented in Oregon's 2021 HazVu and United States Geologic Service's Geologic Hazards Science Center, there are no active faults within the site boundary. There are no mapped faults within the site boundary. There are north-northwest-striking strike slip faults in the Yakima Fold Belt to the north-northwest of the site boundary that, per consultation with DOGAMI, may be potentially active.

Data from The National Earthquake Information Center show two earthquake epicenters of from 2.5 to 2.9 magnitude along the southeastern site boundary. Several northwest/southeast trending faults are mapped within the proposed site boundary, however no known active faults are mapped.

SLIDO

The probability of a fault displacement within the site boundary is considered moderate to high. Numerous 2.5 to 2.9 magnitude earthquakes and two 3.0 to 3.9 earthquakes are in this area, and moderate to strong shaking could be expected at the Facility site during an earthquake event.

Seismic hazards within the analysis area include seismic shaking or ground motion, fault rupture, liquefaction, seismically-induced landslides, and subsidence. Non-Seismic geologic hazards evaluated in the following section include landslides, volcanic activity, erosion, flooding, and shrinking and swelling soils.

Site Class for the facility was assumed at D, for the seismic hazard analysis. Using USGS Unified Hazard Tool and 2015 IBC to prepare a probabilistic seismic hazard analysis, the Maximum Considered Earthquake Ground Motion would have peak ground acceleration of 0.163g, where "g" is the acceleration of gravity, at the bedrock surface at the western edge of the site boundary, at 2,475-year intervals.

During the applicant's consultation with DOGAMI, DOGAMI noted that a fault occurs within the proposed site boundary which requires further evaluation. Several northwest/southeast trending faults are mapped within the proposed site boundary, which appear to be part of

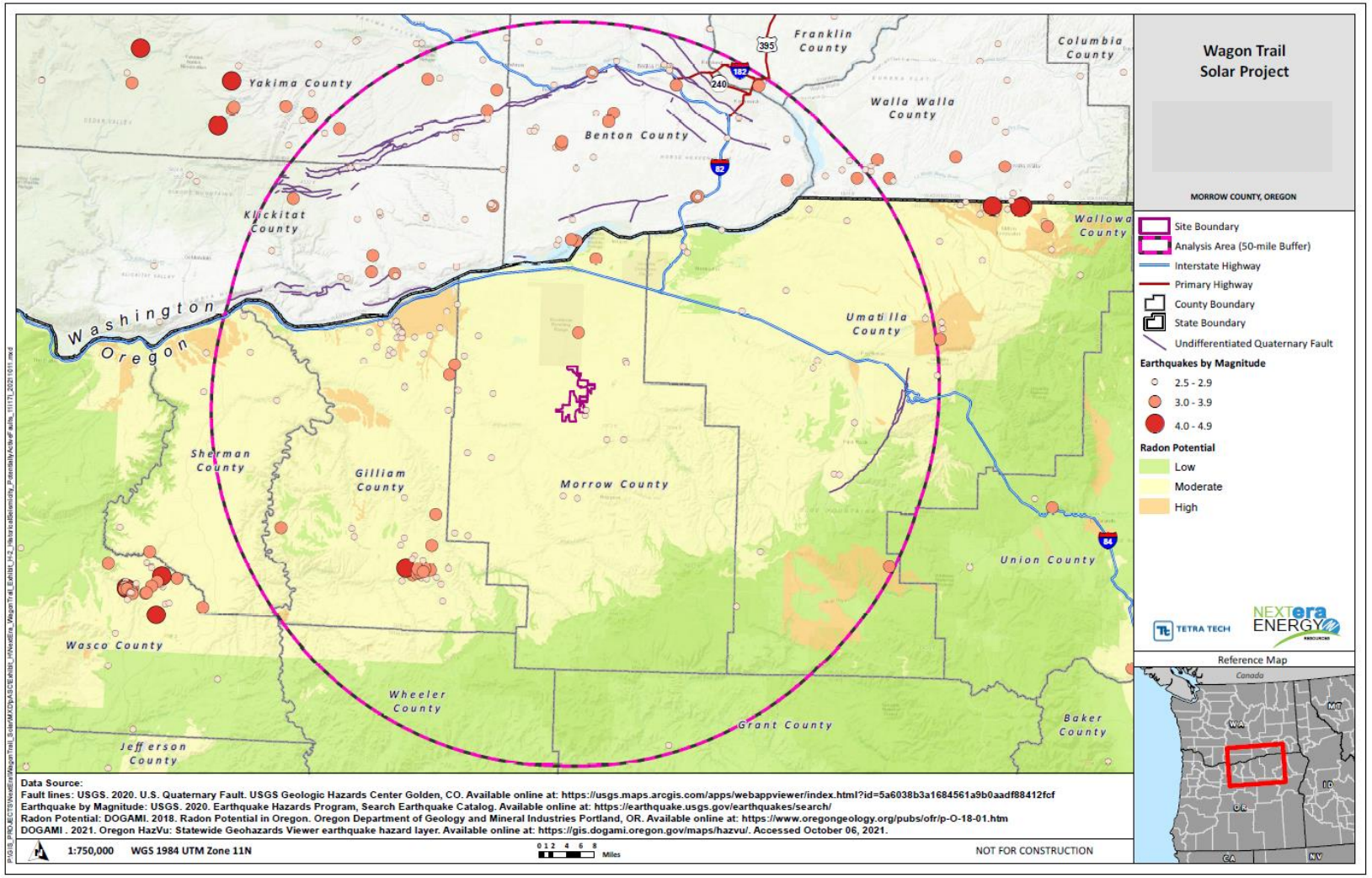
[51] WTSAPPDoc2-08 ASC Exhibit H Geological Soil Stability 2024-01-03. Attachment H-1.

numerous similar-trending faults mapped in the greater Columbia River Basin and are not indicated to be active within the Quaternary timeframe.

Seismicity in the region has the potential to trigger landslides and mass wasting processes within the site boundary; however, the potential is considered low and limited to the steepest areas surrounding drainages. No active landslides are mapped within the site boundary. The closest mapped landslides are located approximately 4.5 miles to the southeast of the site boundary. The top of the Columbia Plateau, where the facility is proposed to be located, is relatively flat but has been dissected by ephemeral streams into steep-sided canyons. Slopes within the proposed site boundary range from approximately zero to 24 percent with an average slope of 5.5 percent.

Figure 2: Historic Seismicity and Potentially Active Faults within 50-miles of Proposed Facility Site

1



Site-Specific Geotechnical Investigation

Seismic hazards at the site will be further evaluated through a preconstruction site-specific geotechnical investigation. The investigation will include a description of the potentially active faults, their potential risk to the facility, and any additional mitigation that will be undertaken by the applicant to ensure safe design, construction, and operation of the facility. Structures will be designed to withstand the maximum risk-based design earthquake ground motions, at a 2,475-year recurrence interval, developed for the site.

Slope stability issues identified during the final design geotechnical investigations will be mitigated through structure relocation or remedial measures to improve slope stability will be implemented.

The preconstruction geotechnical investigation will include subsurface explorations to confirm the anticipated soil conditions and provide final design recommendations. The site-specific geological and geotechnical investigation will address subsurface exploration plans and testing plans. The geotechnical analyses will be used to calculate bearing capacity of the soils, conduct stability analyses, and provide engineering recommendations for construction of the structures.

The Department recommends Council impose the following conditions:

> **Recommended Structural Standard Condition 1 (PRE):** Before beginning construction, the certificate holder shall submit a site-specific geotechnical investigation report, consistent with the Oregon State Board of Geologist Examiners Guideline for Preparing Engineering Geologic Reports, or newer guidelines if available to the Department, for review in consultation with its third-party consultant.
> [PRE-SS-01]

Council's Mandatory Conditions at OAR 345-025-0006(12) – (14) provide structural related design requirements, which the Department recommends Council find sufficient to address the Applicant's ability to design the proposed facility to minimize risks to public health and safety and the environment from a seismic event, as represented below:

> **Structural Condition 2 (GEN):** The certificate holder must design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction.
> [GEN-SS-01; Mandatory Condition OAR 345-025-0006(12)]
>
> **Structural Condition 3 (GEN):** The certificate holder must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries

promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.
[GEN-SS-02; Mandatory Condition OAR 345-025-0006(13)]

Structural Condition 4 (GEN): The certificate holder must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.
[GEN-SS-03; Mandatory Condition OAR 345-025-0006(14)]

Potential Non-seismic Geologic and Soils Hazards

OAR 345-022-0020(1)(c) and (d) require that the applicant adequately characterize the non-seismic hazards of the proposed site; and, that the applicant demonstrate an ability to design, engineer and construct the proposed facility to avoid dangers to human safety and the environment from the identified hazards.

In the 2021 consultation, DOGAMI recommended the following sources be evaluated to evaluate geological hazards at the site:

- 2021 SLIDO Release 4.4
- Preliminary geologic map of the Umatilla Basin, Morrow and Umatilla Counties, Oregon, Open-File Report O-07-15, Oregon Department of Geology and Mineral Industries, 1:24,000 (Madin, I.P and Gietgey, R.P., 2007)
- Oregon geologic data compilation, release 7 [OGDC-7] (statewide): Oregon Department of Geology and Mineral Industries Digital Data Series OGDC-7, Esri geodatabase (Franczyk, J. J., I. P. Madin, C. J. M. Duda, and J. D. McClaughry. 2020)

Non-seismic hazards within the analysis area include landslides, volcanic activity, erosion, flooding; and shrinking and swelling/collapsing soils.

Landslide Hazards

No active landslides are identified in the site boundary. The closest mapped landslides are located approximately 4.5 miles to the southeast of the site boundary. If slope stability issues are identified during the final design geotechnical investigations (see recommended Structural Condition 1), either the structures will be relocated during the micrositing process or remedial measures to improve slope stability will be implemented.

Hazards from Volcanic Activity

The closest volcano to the site boundary is Mount Hood located approximately 100 miles away to the west. Most of the potential volcanic hazard impacts would occur within a 50-mile radius of the erupting volcano. Depending on the prevailing wind direction at the time of the eruption and the source of the eruption, ash fallout in the region surrounding the proposed facility may occur, however impacts to the proposed facility from volcanic activity would be indirect and likely be limited to ash fallout due to the distance from the Facility. In addition, the proposed facility is not located near any streams that would likely be subject to pyroclastic flows from a volcanic eruption from these close volcanoes. The Department recommends Council find that it is unlikely that there would be any adverse effects from volcanic activity on the construction or operation of the proposed facility.

Erosion Hazards

Data from the NRCS Web Soil Survey indicates that the soils within the site boundary have a K factor that ranges from 0.10 to 0.55. For the range of K at the proposed facility, the soil could be considered slightly to moderately severe in erodibility.

To reduce the potential for soil erosion, a construction ESCP will be developed for the site. The ESCP will include both structural and nonstructural BMPs to divert flows from exposed soils, or otherwise limit runoff and pollutants from exposed areas within the Facility site boundary (see recommended Soil Protection Condition 2). In addition, the Department recommends Council impose Soil Protection Condition 1 requiring that the applicant develop and implement a phased grading plan and demonstrate, prior to construction, that the necessary materials for adequate BMPs and BMP repair have been obtained/are onsite. The Department recommends Council find that based on compliance with recommended Soil Protection conditions, potentially significant adverse impacts from soil erosion will be minimized.

Flooding Hazards

The site boundary is not within an identified FEMA 100-year or 500-year floodplain.[52] Seasonal thunderstorms can result in concentrated stormwater runoff and localized flooding. The proposed facility will be designed and constructed to meet the requirements of the zoning ordinances and building codes that establish flood protection standards for all construction, to avoid dangers to the infrastructure, as well as human safety and the environment, including criteria to ensure that the foundation will withstand flood forces. Therefore, the Department recommends Council find that the risks and potential impacts to the proposed facility as well as human safety and the environment from flood hazards are expected to be low.

[52] DOGAMI's 2018 Statewide Flood Hazard Database for Oregon – FEMA Flood Insurance Study inundation zones; FEMA's 2018 National Flood Hazard Layer.

Shrinking and Swelling/Collapsing Soil Hazards

There is no soil identified in the site boundary with potential for shrinking and swelling. As part of the geotechnical investigation, an investigation of the swell and collapse potential of loess soil in the site boundary. Based on the results of the investigation, the applicant will include mitigation measures including, as necessary, over-excavating and replacing loess soil with structural fill; wetting and compacting; deep foundations; or avoidance of specific areas. The solar structures will be supported by steel posts; post depth will vary depending on soil conditions but is typically 5 to 20 feet below the surface. If soil conditions require it, concrete foundations will be used. If steel posts are used, they will be driven into bedrock.

The applicant's methods for evaluating seismic, non-seismic and geologic hazards at the proposed facility site are consistent with DOGAMI's recommendations provided at the July 28, 2021 meeting. Because the methods used adhere to DOGAMI's recommendations, the Department recommends Council find that potential non-seismic hazards at the site have been adequately characterized.

IV.C.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended conditions of approval as described above, the Department recommends Council find that the applicant adequately characterized potential seismic and geologic hazards at the site and can design, engineer and construct the proposed facility to avoid dangers to human safety and the environment presented by those hazards.

IV.D. SOIL PROTECTION: OAR 345-022-0022

> *To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.*[53]

IV.D.1. Findings of Fact

The analysis area for the Soil Protection standard is the area within the site boundary. The site boundary encompasses 7,450 acres.

Existing Soil Conditions and Land Use

[53] OAR 345-022-0022, effective May 15, 2007.

The Natural Resources Conservation Service (NRCS) Soil Data identifies 17 major soil types within the analysis area. These soil types are characterized as moderate to high permeability, with areas of fertile silt loams in loess deposits. Ritzville silt loam (which constitutes approximately 45 percent of the 7,450 acre analysis area), Willis silt loam (approximately 26 percent of the analysis area), and Warden silt loam (approximately 21 percent of the analysis area) are the primary major soil types, comprising of approximately 92 percent of the analysis area. These three soil types are at least seven feet thick, have slopes ranging from 0 to 40 percent, and have moderately low to moderately high runoff. Soil units that encompass less acreage have slopes ranging from 2 to 70 percent, and low to high runoff. Soils with slopes less than 7 percent compose approximately 84 percent of the analysis area.

The erosion factor that indicates the susceptibility of a soil to erosion by water, or "K factor" of all soil types within the site boundary range from approximately 0.10 to 0.55, which could be considered slightly to moderately severe erodibility. Soils within the analysis area have wind erodibility group numbers from 3 to 7, which is considered low to moderate wind erosion potential. The land within the analysis area is zoned Exclusive Farm Use by Morrow County with a small area zoned Public. The land uses within the analysis area consists of private agricultural land generally used for dryland winter wheat production with small areas of grassland. The analysis area includes some areas with soil defined as High Value Farmland by the NRCS. Kimberly fine sandy loam, some Ritzville silt loams, some Warden very fine sandy loams, some Warden silt loams, and some Willis silt loams are considered prime farmland if irrigated (Exhibit K).

Soil characteristics including the NRCS capability class and farmland rating of the two soil types in the analysis area are presented in Table 3: *Soil Characteristics within the Proposed Site Boundary* below.

Table 3: Soil Characteristics within the Proposed Site Boundary

NRCS Soil Unit	NRCS Farmland Classification	NRCS Farmland Rating	Water Erosion (K-factor)	Wind Erosion	Permeability
22 Kimberly fine sandy loam	Class 3	Prime farmland if irrigated	0.32	3	Very High
78 Xeric Torriorthents	Class 6	Farmland of statewide importance	0.24	3	Very High
13D Gravden very gravelly loam	Class 7	Not prime farmland	0.15	7	Low
13E Gravden very gravelly loam	Class 7	Not prime farmland	0.15	7	Low
28E Lickskillet very stony loam	Class 7	Not prime farmland	0.2	7	Low

Table 3: Soil Characteristics within the Proposed Site Boundary

NRCS Soil Unit	NRCS Farmland Classification	NRCS Farmland Rating	Water Erosion (K-factor)	Wind Erosion	Permeability
29F Lickskillet-Rock outcrop complex	Class 7	Not prime farmland	0.2	No Data	Low
45B Ritzville silt loam	Class 3	Prime farmland if irrigated	0.49	5	High
45C Ritzville silt loam	Class 3	Farmland of statewide importance	0.49	5	High
47E Ritzville silt loam	Class 6	Farmland of statewide importance	0.49	5	High
70B Warden very fine sandy loam	Class 4	Prime farmland if irrigated	0.55	3	High
71A Warden silt loam	Class 4	Prime farmland if irrigated	0.55	3	High
71B Warden silt loam	Class 4	Prime farmland if irrigated	0.55	3	High
71C Warden silt loam	Class 4	Farmland of statewide importance	0.55	3	High
71D Warden silt loam	Class 4	Farmland of statewide importance	0.55	3	High
75B Willis silt loam	Class 3	Prime farmland if irrigated	0.55	5	Moderate
75C Willis silt loam	Class 3	Farmland of statewide importance	0.55	5	Moderate
75D Willis silt loam	Class 4	Farmland of statewide importance	0.55	5	Moderate

Potential Adverse Impacts to Soil

As described in Exhibit C, to evaluate potential adverse impacts to soils, the applicant considers a solar array that will occupy approximately 3,641 acres within 16 separate, fenced areas within the site boundary. This entire area is considered permanently disturbed. The addition of the O&M building, substation areas, and battery storage areas bring the total area of disturbance to 3,684.9 acres. All temporary disturbance areas comprise 167.5 acres and are located outside the fenced solar array. Temporary impact assumes a 50-foot temporary disturbance corridor and includes pulling/tensioning areas.

Construction

Proposed facility construction could result in adverse impacts to soils from construction activities such as clearing and grubbing vegetation, constructing access roads, hauling heavy equipment, and fueling or maintaining construction equipment or vehicles.

To minimize construction-related erosion impacts, the applicant would obtain a NPDES 1200-C construction permit and would implement an ESCP. A draft ESCP is provided in ASC Exhibit I Attachment I-1 and would be updated based on final facility design, prior to and during construction. The applicant states that appropriate site restoration practices would be implemented in the ESCP and a Reclamation and Revegetation Plan (Exhibit P, Attachment P-3). Based on the severity of erosion potential during construction-related activities, the Department recommends Council require that the final ESCP require:

- Placement of mulch and stabilized construction roadways (aka gravel covered roads). Covering large areas with mulch may not always be feasible; alternatively, the Department recommends the applicant be required to apply soil tackifiers for large areas and erosion control blankets or mulch for small areas.
- Installation of swales and check dams for areas along disturbed slopes. Sediment barriers and sediment fences will be placed below small, disturbed areas on gentle to moderate slopes.
- Minimizing to the maximum extent practicable, grading at the site and unnecessary disturbance, while preserving existing vegetation where practical. A scheduled/phased grading approach would minimize soil exposure and prevent exposed inactive areas from becoming a source of erosion and minimize fugitive dust.

The Department recommends Council impose the following condition to ensure the soil erosion impacts are minimized during construction activities:

Recommended Soil Protection Condition 1 (PRE): Prior to construction of the facility, facility component or phase, the certificate holder shall:

a. Consult with the Morrow Soil and Water Conservation District, Morrow County Planning Department and Department on layout and design methods that would minimize impacts to agricultural lands.
b. Consult with the Department and Oregon Department of Environmental Quality on the Erosion and Sediment Control Plans (ESCP) to be included in the application for the National Pollutant Discharge Elimination System Construction Stormwater Discharge (NPDES) General Permit 1200-C. Consultation shall address erosion control measures and identify Best Management Practices (BMPs) such as mulch, soil tackier, erosion control blankets, gravel, and swales and check dam installation based on site-specific information obtained during the preconstruction, geotechnical

investigation, final facility design limits of disturbance, phased grading plan and seasonal conditions at the time of disturbance.

c. Obtain all foreseeable equipment and materials necessary to install and maintain BMPs.

[PRE-SP-01]

Recommended Soil Protection Condition 2 (CON): During construction, the certificate holder shall:

a. Conduct all work in compliance with the NPDES 1200-C General Construction Permit, ESCP or revised ESCP if applicable. The ESCP shall be revised if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department. Any Department-required ESCP revisions shall be implemented within 14-days, unless otherwise agreed to by the Department based on a good faith effort to address erosion issues.

b. Following completion of construction, provide evidence to the Department that the NPDES General Permit 1200-C permit was terminated by DEQ.

[CON-SP-01]

Facility construction could result in soil compaction, predominately for any temporary actions outside of the facility's perimeter fenceline. Activities within the facility perimeter fenceline could result in soil compaction, however, these activities are considered permanent impacts and will be subject to decommissioning and site restoration requirements at site certificate termination (i.e., end of the facility's useful life). Therefore, for any construction activities, such as preparation and use of temporary laydown areas, that occur outside of the facility's perimeter fenceline, the Department recommends be subject to decompaction requirements. Several soil reclamation measures are included in the draft Reclamation and Revegetation Plan (Attachment P-4 of this order). The Department recommends Council amend the reclamation requirements to require that the applicant conduct short-term, immediate compaction testing to inform adequacy of decompaction before contractors leave the site, under recommended Fish and Wildlife Habitat Condition 1.

Potentially hazardous materials that will be used for construction include herbicide, paint, unused solvents, and spent vehicle and equipment fluids and components (e.g., used oil, used hydraulic fluids, spent fluids, oily rags, and spent lead-acid or nickel-cadmium batteries). Potentially hazardous substances will not be permanently present within the construction areas in quantities that exceed Oregon State Fire Marshal Reportable Quantities. Construction-based equipment will be regularly inspected to detect potential leaks or other issues that may require maintenance. Refueling will take place a substantial distance from waterways or wetlands to prevent water quality impacts in the event of an accidental release. During construction, on-site fuel storage (i.e., for back-up generators, etc.) may be placed in designated areas within temporary staging areas. Secondary containment and refueling procedures for on-site fuel storage will follow the contractor's Spill Prevention, Control, and Countermeasures Plan (SPCC), discussed further below and in Exhibit G of the ASC.

Prior to construction, the applicant will retain a contractor to prepare an SPCC Plan that would comply with 40 CFR 112 (Oil Pollution Prevention), including the safe cleanup of hazardous materials. The Department recommends Council require that the applicant develop, maintain, and conduct all work in compliance with an SPCC Plan, by imposing the following Conditions:

Recommended Soil Protection Condition 3 (PRE): Prior to construction, the certificate holder shall prepare and submit to the Department a Construction Spill Prevention Control and Countermeasure Plan (SPCC).
[PRE-SP-02]

Recommended Soil Protection 4 (CON): During construction, the certificate holder shall conduct all work in compliance with the Construction SPCC Plan. SPCC updates shall be provided to the Department. Certificate holder shall report spill and cleanup activities to the Department within 72 hours and shall make inspection records available to the Department upon request.
[CON-SP-02]

Operation

Operational activities that could result in negative impacts to soils including erosion, compaction and contamination from solar panel washing, routine service maintenance of the facility components, and inadvertent spills from facility components. To minimize potential soil impacts from these environmental risks, the Department recommends Council impose the following conditions:

Recommended Soil Protection 5 (OPR): During operation, the certificate holder shall monitor and implement necessary controls for any onsite wind or water related erosion issues.
[OPR-SP-01]

Recommended Soil Protection Condition 6 (OPR): During facility operation, if solar panel washing is planned to occur, the use of chemicals, soaps, detergents and heated water is prohibited, unless Chemical Safety Data Sheets for low volatile organic compound/biodegradable cleaning chemicals and solvents are submitted to the Department for review and approval. Pressure washing is allowed, so long as it does not remove paint or other finishes.
[OPR-SP-02]

The transformers associated with the solar panels would contain approximately 244 gallons of transformer oil per station. The substation transformers would contain approximately 263,387 gallons of transformer oil in total. Small quantities of lubricants, degreasers, herbicides, or other chemicals may be stored in the O&M building. Storage of these chemicals will follow label instructions. Spill kits containing items such as absorbent pads would be located on equipment and in on site temporary storage facilities to respond to accidental spills.

Given the oil-containment capacity of the transformers, secondary containment and an SPCC are required. The Department recommends Council impose conditions to ensure that an operational SPCC is developed and implemented to address potential spill-related incidents during operations.

> **Recommended Soil Protection Condition 7 (PRO):** Prior to operation, the certificate holder shall submit to the Department an Operational Spill Prevention Control and Countermeasures Plan (SPCC Plan).
> [PRO-SP-01]

> **Recommended Soil Protection Condition 8 (OPR):** During operations, the certificate holder shall adhere to the requirements of the Operational SPCC Plan. Any SPCC updates shall be described and included in the Annual Report to the Department. Certificate holder shall report spill and cleanup activities to the Department within 72 hours and shall make inspection records available to the Department upon request.
> [OPR-SP-03]

Conclusions of Law

Based on the foregoing findings of fact and conclusions of law, and subject to compliance with the recommended site certificate conditions, the Department recommends that the Council find that the proposed facility would comply with the Soil Protection standard.

IV.D.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended conditions of approval as described above, the Department recommends Council find that the proposed facility is not likely to result in a significant adverse impact to soils.

IV.E. LAND USE: OAR 345-022-0030

> *(1) To issue a site certificate, the Council must find that the proposed facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission.*
>
> *(2) The Council shall find that a proposed facility complies with section (1) if:*
>
> > *(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a) and the Council finds that the facility has received local land use approval under the acknowledged comprehensive plan and land use regulations of the affected local government; or*

(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and the Council determines that:

(A) The proposed facility complies with applicable substantive criteria as described in section (3) and the facility complies with any Land Conservation and Development Commission administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3);

(B) For a proposed facility that does not comply with one or more of the applicable substantive criteria as described in section (3), the facility otherwise complies with the statewide planning goals or an exception to any applicable statewide planning goal is justified under section (4); or

(C) For a proposed facility that the Council decides, under sections (3) or (6), to evaluate against the statewide planning goals, the proposed facility complies with the applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under section (4).

(3) As used in this rule, the "applicable substantive criteria" are criteria from the affected local government's acknowledged comprehensive plan and land use ordinances that are required by the statewide planning goals and that are in effect on the date the applicant submits the application. If the special advisory group recommends applicable substantive criteria, as described under OAR 345-021-0050, the Council shall apply them. If the special advisory group does not recommend applicable substantive criteria, the Council shall decide either to make its own determination of the applicable substantive criteria and apply them or to evaluate the proposed facility against the statewide planning goals.

(4) The Council may find goal compliance for a proposed facility that does not otherwise comply with one or more statewide planning goals by taking an exception to the applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide planning goal pertaining to the exception process or any rules of the Land Conservation and Development Commission pertaining to the exception process, the Council may take an exception to a goal if the Council finds:

(a) The land subject to the exception is physically developed to the extent that the land is no longer available for uses allowed by the applicable goal;

(b) The land subject to the exception is irrevocably committed as described by the rules of the Land Conservation and Development Commission to uses not allowed by the applicable goal because existing adjacent uses and other relevant factors make uses allowed by the applicable goal impracticable; or

(c) The following standards are met:

(A) Reasons justify why the state policy embodied in the applicable goal should not apply;

(B) The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility; and

(C) The proposed facility is compatible with other adjacent uses or will be made compatible through measures designed to reduce adverse impacts.

(5) If the Council finds that applicable substantive local criteria and applicable statutes and state administrative rules would impose conflicting requirements, the Council shall resolve the conflict consistent with the public interest. In resolving the conflict, the Council cannot waive any applicable state statute.

(6) If the special advisory group recommends applicable substantive criteria for an energy facility described in ORS 469.300(11)(a)(C) to (E) or for a related or supporting facility that does not pass through more than one local government jurisdiction or more than three zones in any one jurisdiction, the Council shall apply the criteria recommended by the special advisory group. If the special advisory group recommends applicable substantive criteria for an energy facility described in ORS 469.300(11)(a)(C) to (E) or a related or supporting facility that passes through more than one jurisdiction or more than three zones in any one jurisdiction, the Council shall review the recommended criteria and decide whether to evaluate the proposed facility against the applicable substantive criteria recommended by the special advisory group, against the statewide planning goals or against a combination of the applicable substantive criteria and statewide planning goals. In making the decision, the Council shall consult with the special advisory group, and shall consider:

(a) The number of jurisdictions and zones in question;

(b) The degree to which the applicable substantive criteria reflect local government consideration of energy facilities in the planning process; and

(c) The level of consistence of the applicable substantive criteria from the various zones and jurisdictions.[54]

The Land Use Standard requires the Council to find that a proposed facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission (LCDC).

The applicant may elect to demonstrate compliance with the land use standard / statewide planning goals by either obtaining land use approval from the affected local government, or by obtaining a determination of land use compliance from the Council. The applicant elects to seek a Council determination of compliance under ORS 469.504(1)(b).[55] Pursuant to that statute, a proposed facility shall be found in compliance with the statewide planning goals if Council determines:

ORS 469.504(1)(b)(A) The facility complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted, and with any Land Conservation and Development Commission administrative rules and goals and any land use statutes that apply directly to the facility under ORS 197.646;

ORS 469.504(1)(b)(B) For an energy facility or a related or supporting facility that must be evaluated against the applicable substantive criteria pursuant to subsection (5) of this section, that the proposed facility does not comply with one or more of the applicable substantive criteria but does otherwise comply with the applicable statewide planning goals, or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section; or

ORS 469.504(1)(b)(C) For a facility that the council elects to evaluate against the statewide planning goals pursuant to subsection (5) of this section, that the proposed facility complies with all applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.

IV.E.1. Findings of Fact

The analysis area for the evaluation of compliance with the Land Use standard, as defined in the Second Amended Project Order, is the area within and extending ½-mile from the proposed

[54] OAR 345-022-0030, effective September 3, 2003, as amended by minor correction filed May 28, 2019.
[55] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03. page 1

site boundary. The proposed site boundary consists of 7,450 acres of private land. All the area within the site boundary, and all land within the analysis area to the east, west, and south of the proposed facility site is in Morrow County's Exclusive Farm Use (EFU) zone. The land to the north of the proposed facility site is within the boundaries of the Naval Weapons Systems Training Facility Boardman which is zoned for Public Use.

The proposed facility includes the following land uses and zones:

- Photovoltaic solar power generation facility, EFU zone
    - Up to 3,685 acres (5.6 square miles) of solar PV energy generation components and related or supporting facilities
- Utility facilities necessary for public service, EFU zone
    - 0.6 of-a-mile of 230 kV transmission line

Section IV.E.1.a. evaluates the proposed facility's compliance with the applicable substantive criteria from the Morrow County Comprehensive Plan and Morrow County Zoning Ordinance recommended by Morrow County. Section IV.E.1.b. evaluates directly applicable statutes and rules. Because the proposed facility would not comply with acreage standards and land use criteria for photovoltaic solar power generation sited on agricultural lands, Section IV.E.2. presents the Department's recommendations to Council on whether an exception to Statewide Planning Goal 3 is justified.

IV.E.1.a. Local Applicable Substantive Criteria

Applicable substantive criteria are listed in Table 4 below.

Table 4: Morrow County Applicable Substantive Criteria

Morrow County Zoning Ordinance, 2018 (MCZO)	
Article 1 – Introductory Provisions	
Section 1.050	Zoning Permit
Article 3 – Use Zones	
Section 3.010 Exclusive Farm Use	B.25 and D.10 Utility Facility Necessary for Public Service
	C.24 and K.3 Commercial Photovoltaic Solar Power Generation Facilities
	M. Yards
	N. Transportation Impacts
Article 4 - Supplementary Procedures	
Section 4.010	Access
Section 4.020	Site Distance
Section 4.035	Permit Requirements
Section 4.040	Off-Street Vehicle Parking
Section 4.070	Sight Limitations
Section 4.165	Site Plan Review
Article 6 – Conditional Uses	
Section 6.020	General Criteria
Section 6.025	Resource Zones Standards for Approval
Section 6.030	General Conditions
Section 6.040	Permit and Improvements Assurance

MCZO Article 1 Introductory Provisions

Section 1.050 - Zoning Permit

> *Prior to the construction, reconstruction, alteration, or change of use of any structure larger than 100 square feet or use for which a zoning permit is required, a zoning permit for such construction, reconstruction, alteration, or change of use or uses shall be obtained from the Planning Director or authorized agent thereof. A zoning permit shall become void after 1 year unless the development action has commenced. A 12-month extension may be granted when submitted to the Planning Department prior to the expiration of the approval period.*

MCZO 1.050 requires a Zoning Permit to be obtained prior to the construction of any structure larger than 100 sq. feet or use for which a zoning permit is required.

The construction and operation of the facility would alter or change the existing land use by more than 100 square feet. Therefore, the applicant is required to obtain a zoning permit from the Morrow County Planning Department prior to construction. The Department recommends the Council impose the following condition to ensure the applicant obtains the required zoning and conditional use permit.

Recommended Land Use Condition 1 (PRE): Prior to construction of the facility, facility component or phase, as applicable, the certificate holder must remit requisite fee and completed forms to Morrow County for Zoning Permits per affected tax lot and Conditional Use Permit.
[PRE-LU-01]

MCZO Article 3

Sections 3.010.B.25 and D.10 Utility Facility Necessary for Public Service

B. Uses Permitted Outright. In the EFU zone, the following uses and activities and their accessory buildings and uses are permitted subject to the general provisions set forth by this ordinance:

** * * * **

25. Utility facilities necessary for public service, including associated transmission lines as defined in Article 1 and wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height as provided in Subsection D.10.

MCZO 3.010.B.25 provides that an associated transmission line, as defined in Article 1, is an outright permitted use in EFU zoned land if the transmission towers supporting the transmission line do not exceed 200 feet in height and the use criteria under MCZO 3.010.D.10 are satisfied.[56] The applicant seeks approval to construct and operate 0.6 of-a-mile of 230 kV transmission line to connect the proposed southern collector substation to the existing Blue Ridge Substation.

MCZO Article 1 Section 1.030 defines "associated transmission lines" as "[t]ransmission lines constructed to connect an energy facility to the first point of junction with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid." The proposed 230 kV transmission line meets this definition and the line towers would be less than 200 feet in height (approximately 70 to 180 feet above grade depending on design and terrain). Therefore, the proposed transmission line is permitted outright in the EFU zone, subject to the criteria in MCZO 3.010, Subsection D.10, analyzed below.

Tower structure height is referenced in Table 2 of this order and in draft site certificate (Attachment 1 of this order). Council's mandatory condition under OAR 345-025-0006(3)(a)

[56] Under both MCZO Article 1 and ORS 215.274, the statute underlying MCZO 3.010.B.25, "associated transmission lines" have the same meaning as provided in ORS 469.300.

requires that the design and construction of the facility be "substantially as described in the site certificate." The inclusion of Table 2 in the draft site certificate is intended to ensure that facility components, including transmission tower structure height, are designed and constructed substantially as described in this order and in the site certificate, consistent with the mandatory condition.

For an associated transmission line with transmission towers of less than 200 feet to be considered a utility facility necessary for public service, the use standards under MCZO 3.010.D.10.b must be evaluated. The proposed associated transmission line must meet the requirements of either MCZO 3.010.D.10.b.(1) or (2) to satisfy the use standard.

MCZO 3.010. D. Use Standards

** * * * **

10. A utility facility that is necessary for public service.

** * * * **

b. An associated transmission line is necessary for public service upon demonstration that the associated transmission line meets either the following requirements of Subsection (1) or Subsection (2) of this Subsection.

1) An applicant demonstrates that the entire route of the associated transmission line meets at least one of the following requirements:
   (a) The associated transmission line is not located on high-value farmland, as defined in ORS 195.300, or on arable land;
   (b) The associated transmission line is co-located with an existing transmission line;
   (c) The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or
   (d) The associated transmission line is located within an existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground.

The associated transmission line does not meet the requirements of MCZO 3.010.D.10.b.(1). Therefore, those requirements are not evaluated further.

2) After an evaluation of reasonable alternatives, an applicant demonstrates that the entire route of the associated transmission line meets, subject to Subsections D.10.b(3) and (4), two or more of the following criteria:
   (a) Technical and engineering feasibility;
   (b) The associated transmission line is locationally-dependent because the associated transmission line must cross high-value farmland, as defined in ORS 195.300, or arable land to achieve a reasonably direct

route or to meet unique geographical needs that cannot be satisfied on other lands;

(c) Lack of an available existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground;

(d) Public health and safety; or

(e) Other requirements of state or federal agencies.

As a threshold matter, MCZO 3.010.D.10.b.(2) first requires the applicant to demonstrate that it has considered reasonable alternatives to placing the line within an EFU zone. The evaluation of "reasonable alternatives" does not require an evaluation of all alternative EFU zoned routes on which the transmission line could be located.[57] Rather, the applicant must consider reasonable alternatives and show that the transmission line must be sited on EFU-zoned land to provide the service. The proposed 230 kV line would interconnect a proposed substation to the existing Blue Ridge Substation on Strawberry East Road. ASC Exhibit K Figure K-2 demonstrate that there is no non-EFU zoned land between the proposed substation and Blue Ridge Substation.

The Department therefore recommends that the Council find that alternative transmission line routes have been evaluated and that no reasonable alternatives that would avoid EFU land exist within the land use analysis area.

Technical and engineering feasibility

MCZO 3.010.D.10.b.(2)(a) provides that an applicant may demonstrate that the proposed transmission line must be sited in an EFU zone due to technical and engineering feasibility constraints. The Department interprets this factor as requiring a demonstration that technical or engineering constraints, such as extreme topographic features, cannot be overcome but for facility engineering through EFU-zoned land.

The applicant, in contrast, evaluates alternative routes with potentially lessor impacts to arable and high-value farmland. All of the route and substation alternatives would be located within EFU zoned lands; and, as described under the evaluation of MCZO 3.010.D.10.b.(2) above, non EFU zoned land does not exist within or surrounding the proposed interconnection location at the existing Blue Ridge Substation. Therefore, the Department recommends Council find that there are not technical or engineering constraints, such as extreme topographic features, that cannot be overcome but for siting the proposed 230 kV transmission line segment through EFU zoned land and therefore, MCZO 3.010.D.10.b.(2)(a) would not be satisfied.

Locational Dependence

MCZO 3.010.D.10.b.(2)(b) provides that an applicant may demonstrate that the proposed transmission line must be sited in an EFU zone because it is locationally-dependent and must

[57] *Sprint PCS v. Washington Cnty*., 186 Or. App. 470, 479, 63 P.3d 1261, 1266 (2003).

cross high-value farmland, as defined in ORS 195.300, or arable soil to achieve a reasonably direct route.

ASC Exhibit K Figure K-6 and K-7 presents arable soil and high-value farmland located within and surrounding the site boundary. As shown in the figures, arable soil and high-value farmland are interspersed throughout the site boundary and analysis area. The extent of interspersed high-value farmland throughout the site boundary, including the transmission line corridor along Strawberry East Road, provides a reasonable basis for siting the transmission line on or near high value farmland while still providing the ability to interconnect to the fixed point existing Blue Ridge Substation. The entirety of the proposed transmission line corridor and surrounding area is arable soils. Given these circumstances, the Department recommends that the Council find that the proposed 230 kV transmission line meets the locational dependence criteria.

Lack of existing right-of-way

MCZO 3.010.D.10.b.(2)(c) provides that an applicant may demonstrate that the proposed transmission line must be sited in an EFU zone due to the lack of an available existing right of way (ROW) for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground.

The applicant proposes to locate the proposed 230 kV transmission line adjacent to or within the existing Strawberry East Road ROW, utilizing the existing road ROW to the greatest extent practicable. There are uncertain limitations on actual availability of the road ROW including use of the northern ROW by an existing distribution line, Morrow County's requirements for clear zone distance and potential plans by the county for future road widening.

The Department recommends Council impose a condition requiring that, prior to transmission line construction, evidence be provided to the Department demonstrating that the applicant coordinated with Morrow County Public Works Department on the feasibility of utilizing the existing ROW for siting of the transmission line. The Department recommends that Council require that the transmission line be sited in the existing road ROW unless Morrow County Public Works Department confirms that it is not feasible for either planning, safety or similar reasons.

> **Recommended Land Use Condition 2 (PRE)**: Prior to construction of the 230 kV transmission line, the certificate holder shall demonstrate to the Department that the transmission line will be sited within the exiting right-of-way of Strawberry East Road, unless Morrow County Public Works Department confirms that use of the existing county road right-of-way is not feasible.
> [PRE-LU-02]

Public health and safety

MCZO 3.010.D.10.b.(2)(d) provides that an applicant may demonstrate that the associated transmission line must be sited within the EFU zone to minimize potential impacts to public health and safety. The proposed transmission line route was not selected for health and safety reasons.[58] Accordingly, the Department recommends the Council find that the applicant has not demonstrated that the associated transmission line must be sited in EFU zoned land due to this criterion.

Other State and Federal Requirements

MCZO 3.010.D.10.b.(2)(e) provides that the applicant may demonstrate that the proposed transmission line must be sited in an EFU zone due to other state or federal requirements. While the applicant represents that the proposed associated transmission line will comply with other requirements of state or federal agencies, it did not identify any specific requirements of other state or federal agencies as a factor in the siting of the associated transmission line. Accordingly, the Department recommends Council find that the applicant has not demonstrated that the associated transmission line must be sited in EFU zoned land due to this criterion.

> *3) As pertains to Subsection (2), the applicant shall demonstrate how the applicant will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.*

Under MCZO 3.010.D.10.b.(3), the applicant must demonstrate how it will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding EFU lands devoted to farm use to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

The proposed 230 kV transmission line would follow a direct route from a proposed collector substation to the existing Blue Ridge Substation' it would be sited within or adjacent to the Strawberry East Road ROW and would permanently impact less than 0.01 acres of land. Because the proposed 230 kV transmission line would be the most direct route from the proposed substation to the point of interconnection, and that all alternative routes would also cross EFU land, the Department recommends the Council find that the applicant, subject to recommended Land Use Condition 2 has adequately demonstrated how it will minimize the impacts of the associated transmission line on surrounding EFU lands devoted to farm use to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on those lands.

> *4) The county may consider costs associated with any of the factors listed in Subsection (2), but consideration of cost may not be the only*

[58] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 15.

consideration in determining whether the associated transmission line is necessary for public service.

MCZO 3.010.D.10.b.(4) allows for consideration of costs in determining whether the associated transmission line is necessary for public service. However, due to the locationally dependent nature of the associated transmission line and lack of other feasible alternatives, the Department does not recommend that costs are relevant to the determination of compliance with MCZO 3.010.D.10.b.

The Department recommends the Council find the applicant has demonstrated that there are no reasonable alternatives to placing the associated transmission line within EFU lands because the associated transmission line is locationally-dependent and, based on evidence to be provided prior to construction, either existing road ROWs will be used for siting of the transmission line or it will be demonstrated that there is a lack of availability in the existing road ROW. The Department recommends the Council further find the applicant has demonstrated that by selecting the most direct route between the facility collector substation and the point-of-interconnection, and by siting the associated transmission line within or adjacent to the right-of-way for Strawberry East Road, the applicant has minimized the impacts of the associated transmission line on surrounding EFU lands.

Based on the above findings of fact and the recommended conditions of approval in this section, the Department recommends Council find that the proposed associated transmission line connecting the southern collector substation to the existing Blue Ridge Substation is necessary for public service and is therefore a use permitted out-right in the EFU Zone.

<u>Sections 3.010.C.24 and K.3 Commercial Photovoltaic Solar Power Generation Facilities</u>

C. Conditional Uses. The following uses are permitted subject to county review, any specific standards for the use set forth in Section D, Article 6, the general standards for the zone, and any other applicable standards and review process in the ordinance:

** * * * **

24. Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale subject to Subsection K.3.

K. Commercial Facilities for Generating Power

** * * * **

3. Photovoltaic Solar Power Generation Facility. A proposal to site a photovoltaic solar power generation facility shall be subject to the following definitions and provisions:…

MCZO 3.010.C.24 identifies a "photovoltaic solar power generation facility" as a conditional use in the EFU zone, subject to numerous provisions with generally mirror LCDC's minimum conditional use requirements as established in OAR 660-033-0130(38). However, in 2019 LCDC amended the administrative rules governing a "photovoltaic solar power generation facility" in EFU zoned land. Morrow County has not amended MCZO Section 3.010 to reflect LCDC's 2019 amendments and is therefore inconsistent with the amended OAR 660-033-0130(38) provisions. Accordingly, the Council is not required to apply both the current OAR 660-033-0130(38) rules and the local code, and instead must only apply the OAR 660-033-0130(38) rules to this proposed solar photovoltaic power generation facility. OAR 660-033-0130(38) is evaluated in Section IV.E.1.b of this order.

Section 3.010.M. Yards

> *In an EFU Zone, the minimum yard setback requirements shall be as follows:*
>
> *1. The front yard setback from the property line shall be 20 feet for property fronting on a local minor collector or marginal access street ROW, 30 feet from a property line fronting on a major collector ROW, and 80 feet from an arterial ROW unless other provisions for combining accesses are provided and approved by the County.*
>
> *2. Each side yard shall be a minimum of 20 feet except that on corner lots or parcels the side yard on the street side shall be a minimum of 30 feet.*
>
> *3. Rear yards shall be a minimum of 25 feet,.*
>
> *4. Stream Setback. All sewage disposal installations such as outhouses, septic tank and drainfield systems shall be set back from the high-water line or mark along all streams and lakes a minimum of 100 feet, measured at right angles to the high-water line or mark. All structures, buildings, or similar permanent fixtures shall be set back from the high-water line or mark along all streams or lakes a minimum of 100 feet measured at right angles to the high-water line or mark.*

MCZO Section 3.010.M.1 establishes yard setbacks to major, minor and arterial roads and road rights-of-way. ASC Exhibit K Figure K-7 presents roads within the proposed site boundary. Roads within the proposed site boundary that are identified in Morrow County's 2022 Transportation System Plan Table 3-2 as a major and minor collector roads and arterial roads include Bombing Range Road (major, 30 foot yard setback), Baseline Road (minor, 20 foot yard setback) and Highway 207 (arterial, 80 foot yard setback). Final facility design must adhere to the yard setback requirements for these roads and any other roads within or on the perimeter of the facility that are identified in Morrow County's TSP.

To ensure that final facility design complies with yard setback requirements, the Department recommends Council impose the following condition:

Recommended Land Use Condition 3 (PRE): Prior to construction, the certificate holder shall provide final facility design/layout maps to the Department and Morrow County Planning Department that demonstrate facility components, not including the perimeter fence, comply with the following yard setback requirements:

a. Facility components shall be setback a minimum of 20 feet from any property line fronting Baseline Road or any other minor collector or marginal access street right of way;
b. Facility components shall be setback a minimum of 30 feet from any property line fronting Bombing Range Road or any other major collector right of way; and
c. Facility components shall be setback a minimum of 80 feet from any property line fronting Highway 207, or any other arterial right of way.

[PRE-LU-03]

MCZO Section 3.010.M.2 and -3 establish minimum side and rear yards setbacks of 20 and 25 feet, respectively. Compliance with side and rear yard setbacks is not required between two lots that are both occupied by facility components with no intervening use or public right-of-way.[59] Lots uses by facility components would not have intervening uses or public right-of-way; therefore, the Department recommends Council find that the side and yard setbacks are not applicable.

MCZO Section 3.010.M.4 establishes minimum setbacks to streams of 100 feet. There are no streams or other waters of the state within the proposed site boundary. Therefore, the Department recommends Council find that this provision is not applicable.

MCZO 3.010.N: Transportation Impacts

> *1. Traffic Impact Analysis (TIA). In addition to the other standards and conditions set forth in this section, a TIA will be required for all projects generating more than 400 passenger car equivalent trips per day. Heavy vehicles – trucks, recreational vehicles and buses – will be defined as 2.2 passenger car equivalents. A TIA will include: trips generated by the project, trip distribution for the project, identification of intersections for which the project adds 30 or more peak hour passenger car equivalent trips, and level of service assessment, impacts of the project, and, mitigation of the impacts. If the corridor is a State Highway, use ODOT standards. (MC-C-8-98)*

Construction traffic is estimated to result in approximately 134 truck trips per day. Conservatively, this equates to approximately 295 passenger car equivalents (PCE) per day (134 x 2.2 PCE). Operational traffic is estimated to result in 3 full-time staff, or 3 worker vehicle trips or passenger car equivalents per day. Neither construction or operational traffic volumes are

[59] Exhibit K, Section 5.2.1.5, citing Final Order on Request for Amendment 4 of the Site Certificate for the Wheatridge Wind Facility, p. 36-37.

estimated to generate more than 400 PCE per day. Therefore, the Department recommends Council find that a Traffic Impact Analysis is not required.

MCZO Article 4 Supplementary Procedures

Section 4.010 Access

> *A. Minimum Lot Frontage Requirement. Every lot shall abut a street, other than an alley, for at least 50 feet, except on cul-de-sacs where the frontage may be reduced to 30 feet.*

Creation of new lots is not proposed as part of this ASC. Lots within the site boundary adhere to the 50-foot setback. The Department recommends Council not make findings for this provision.

> *B. Access Permit Requirement. Where access to or construction on a county road is needed, an access permit or right-of-way permit from Morrow County Public Works department is required subject to the requirements in this Ordinance. Where access to a state highway is needed, an access permit from ODOT is required as part of the land use application. Where access is needed to a road managed by the Forest Service or other entity, an access permit or other authorization from the appropriate entity shall be required as part of the land use application.*

Improvements to existing county roads are not proposed as part of this ASC. The Department recommends Council not make findings for this provision.

> *C. Emergency Vehicle Access. It is the responsibility of the landowner to provide appropriate access for emergency vehicles at the time of development. A dead-end private street exceeding one hundred-fifty (150) feet in length shall have an adequate turn around facility approved by the appropriate Fire Marshal or, if the Fire Marshal fails to review the private street, approval by the Building Official or his designee.*

The applicant proposes to construct up to 47 miles of new roads located within the facility's perimeter fenceline. Facility roads must be sufficiently sized for emergency vehicle access. As discussed in Section IV.M.1.h, the proposed facility is within the boundaries of the Ione Rural Fire Protection District (Ione RFPD). Therefore, the Department recommends the Council find that the Fire Chief for the Ione RFPD is the appropriate fire official to review emergency vehicle access for the proposed facility.

As presented in the evaluation of compliance with MCZO 4.165, below, the Department recommends that the Council impose Land Use Condition 4, requiring, in part, that the applicant demonstrate compliance with the emergency vehicle access standards in MCZO 4.010.C through the final site plan review, and to provide the final site plan to the Ione RFPD Fire Chief for review. Subject to compliance with this condition, the Department recommends the Council find the requirements of MCZO 4.010.C are satisfied.

<u>D. Easements and Legal Access:</u> All lots must have access onto a public right of way. This may be provided via direct frontage onto an existing public road, a private roadway, or an easement. Minimum easement requirements to provide legal access shall be as follows:

1. 1000' or less, a minimum easement width of 20'

2. More than 1000', a minimum easement width of 40'

3. Parcels where 3 or more lots share an access (current or potential), a minimum easement of 60'.

Creation of new lots is not proposed as part of this ASC. Lots within the site boundary adhere to the public ROW requirements. The Department recommends Council not make findings for this provision.

<u>E. Access Spacing Requirements for Development Accessing State Highways.</u> Applications for development with access onto state highways shall be provided to ODOT for review, to ensure consistency with adopted ODOT Access Management Standards shown in Table 4.010-1. These standards apply only to unsignalized access points. Where a right of access exists, a property shall be allowed to have access onto a state highway at less than adopted access spacing requirements only if all the following conditions are met:

1. The property does not have reasonable access via an alternative to the state highway;

2. There are no other possible access options along the parcel's highway frontage; and

3. The access spacing standards cannot be accomplished.

When a proposed access onto a state highway does not meet the access spacing standards in Table 4.010-1, a deviation from standard will be considered by the ODOT Region Manager, subject to requirements in OAR 734-051-0135.

[Table 4.010-1 Omitted]

The proposed facility would have access points onto OR-207, and would be subject to the requirements of MZCO 4.010.E and OAR 734-051-0135. The portion of OR-207 that crosses

through the site boundary has a Posted Speed of 55 mph. As provided in Table 4.010-1, any unsignalized access onto OR-207 must be spaced at least 700 ft apart.

As discussed in the evaluation of MCZO 4.165 below, the Department recommends the Council impose Land Use Condition 4 requiring, in part, that the applicant demonstrate compliance with the access spacing standards in MCZO 4.010.E through the site plan review, and to provide the final site plan to ODOT for review. Subject to compliance with this condition, the Department recommends the Council find the requirements of MCZO 4.010.E are satisfied.

> *F. Access within the Influence Area of an Interchange Access within the influence area of existing or proposed state highway interchanges is regulated by standards in OAR 734-051, which are included as Appendix F of the 2005 Morrow County Transportation System Plan Update. These standards do not retroactively apply to interchanges existing prior to adoption of the 1999 Oregon Highway Plan, except or until any redevelopment, change of use, or highway construction, reconstruction or modernization project affecting these existing interchanges occurs. It is the goal at that time to meet the appropriate spacing standards, if possible, but, at the very least, to improve the current conditions by moving in the direction of the spacing standard.*

There are no interchanges nor an Influence Area of an Interchange Access in the analysis area. The Department recommends Council not make findings for this provision.

> *G. Signalized Intersection Spacing on State Facilities. New traffic signals proposed for state facilities, whether the intersecting facility is a public or private road, shall meet the requirements for installation of a traffic signal on a state highway in OAR 734-020-0400. New traffic signals on state facilities must be approved by the State Traffic Engineer. For approval of a new traffic signal on a County facility as part of a condition of development approval, the applicant shall be required to show, through analysis prepared by a qualified professional engineer registered in the State of Oregon, that the signal is warranted to improve traffic operations, address safety deficiencies, or a combination, based upon traffic signal warrants in the current version of the Manual on Uniform Traffic Control Devices.*

There are no new traffic signals for state facilities proposed in the ASC. The Department recommends Council not make findings for this provision.

> *H. Access Spacing Requirements for Development Accessing County Facilities. All developments shall have legal access to a County or public road. Except for interim access as provided in Section 4.010 H [Interim Access], access onto any County road in the unincorporated or incorporated urban area shall be permitted only upon issuance of an access permit upon demonstration of compliance with the provisions of the County road standards and the standards of Section 4.010. For County roadways designated as major collector or arterial in the*

Transportation System Plan, the standards in Table 4.010-2 apply for intersections created by a new public roadway, new private roadway or new private driveway. For County roadways designated as minor collectors or local access roads, intersections created by a new public roadway, new private roadway or new private driveway shall meet minimum County traffic safety and operational requirements, including sight distance, as determined by the County Engineer.

TABLE 4.010-2: ACCESS MANAGEMENT STANDARDS FOR MORROW COUNTY ROADWAYS

	Access Spacing Standards for Public or Private Access (ft)		
Classification	Public Roadway	Private Roadway	Private Driveway[a]
Arterial	600	600	300
Collector	300	300	100
Local	200	200	Access to each lot

a. For most roadways, at-grade crossings are appropriate. Also, allowed moves and spacing requirements may be more restrictive than those shown to optimize capacity and safety. Any access to a state highway requires a permit from the district office of ODOT and is subject to the access spacing standards in Table 4.010-1 in this section.

No use will be permitted to have direct access to a street or road except as specified below, or as provided in Section 4.010.H (Interim Access). Access spacing shall be measured from existing or approved accesses on either side of a street or road. Measurements shall be made from easement or right-of-way line to easement or right-of-way line. (See following access diagram where R/W = Right-of-Way; P.I. = Point-of-Intersection where P.I. shall be located based upon a 90 degree angle of intersection between ultimate right-of-way lines, and 'C' and 'D' = each side of adjacent accesses to private property.

1. All minimum distances stated in the following sections shall be governed by sight distance requirements according to this Ordinance and applicable County Road Standards.

2. All minimum distances stated in the following sections shall be measured to the nearest easement line of the access or edge of travel lane of the access on both sides of the road.

3. The minimum curb radius shown in the diagram below (i.e., distance from Point "A" to Point "B") shall be 15 feet. In areas zoned for industrial uses, the minimum curb radius shall be 30 feet. At intersections between facilities classified as major collector, arterial or highway, any new or modified intersection shall be designed to accommodate a WB-50

Semitrailer Design Vehicle. If either route is designated by the County as a truck route, the intersection shall be designed to accommodate a WB-65 Interstate Semitrailer Design Vehicle. The curb alignment shall be designed so that the design vehicle can complete a right turn without entering a lane used by opposing traffic.

4. All minimum distances between accesses shall be measured from existing or approved accesses on both sides of the road.

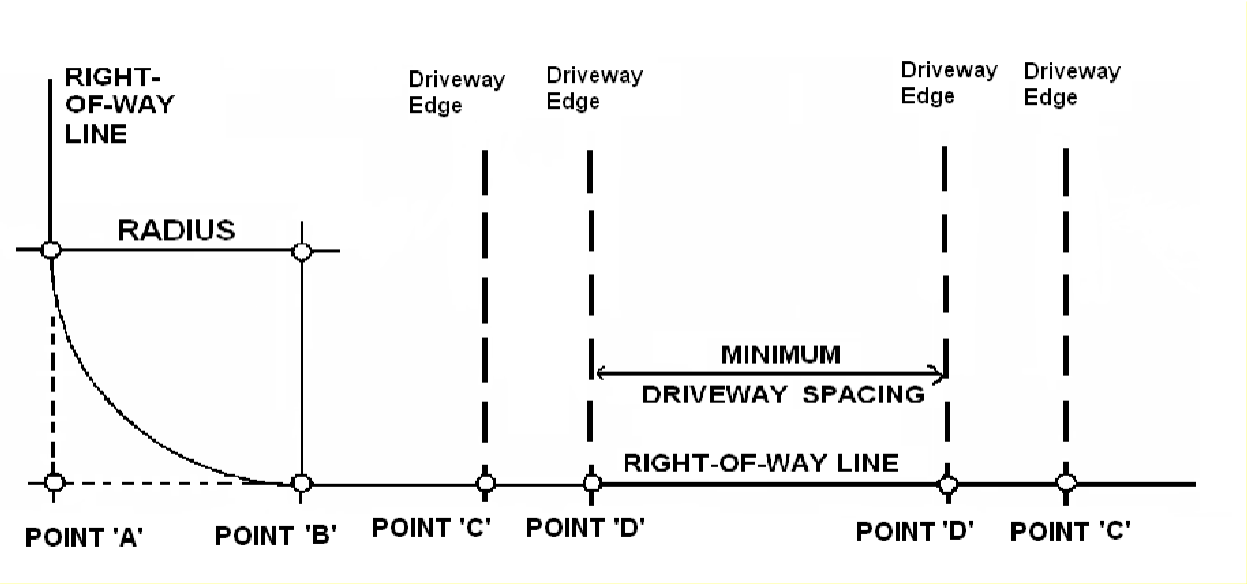
5. Minimum spacing between driveways shall be measured from Point "D" to Point "D" as shown below (i.e., the edges of adjacent driveways closest to each other).

6. In all instances, access points near an intersection with a Collector or Arterial shall be located beyond the influence of standing queues of the intersection in accordance with AASHTO standards. Additionally, access shall be located beyond the back of any left turn refuge either existing on the affected road or required to accommodate the proposed development. This requirement may result in an access spacing greater than one hundred (100) feet in the case of a collector, or 300 feet in the case of an arterial.

7. Access onto local roads will not be permitted within ten (10) feet of Point "B" as shown below. If no radius exists, access will not be permitted within twenty-five (25) feet of Point "A".

8. Access onto collector roads will not be permitted within fifty (50) feet of Point "B" as shown below. If no radius exists, access will not be permitted within sixty-five (65) feet of Point "A". Where a common or shared access is available it shall be used, provided that such use will not result in operational or safety problems. Minimum spacing between driveways shall be one-hundred (100) feet.

9. Direct access to an arterial will be permitted provided that Point 'C' of such access is more than three hundred (300) feet from any intersection Point 'A' or other access to that minor arterial.



As discussed in the evaluation of MCZO 4.165 below, the Department recommends the Council impose Land Use Condition 4 requiring, in part, that the applicant demonstrate compliance with the access spacing standards in MCZO 4.010.H through the site plan review.

> *I. Interim Access onto County Facilities. No development with sole access onto a County arterial or major collector shall be denied based only on an inability to provide an access that meets applicable access spacing standards. In such an event, the use may be issued an interim access permit which shall expire when access as required under this Ordinance becomes available. An interim access permit may be granted based upon the following:*
>
> > *1. The site is situated such that adequate access cannot otherwise be provided in accord with the access spacing requirements of this Code.*
> >
> > *2. The interim access shall meet minimum County traffic safety and operational requirements, including sight distance.*
> >
> > *3. Alternate access shall **not** be deemed adequate and connections to alternate access shall **not** be required if the resulting route of access would require a trip in excess of one (1) block or five-hundred (500) feet out of direction (whichever is less).*
> >
> > *4. The property owner signs a consent to participate agreement for the formation of a Local Improvement District or similar financing mechanism for the primary purpose of constructing a public road or right-of-way providing access to the arterial or collector road; such access shall meet the minimum applicable County standard.*

5. The property owner records an agreement to participate in any project that would consolidate access points where such project would not result in new or more severe traffic operation or safety problems.

6. The property owner records an agreement to abandon use of the existing private access way when an adequate alternative access becomes available.

The proposed facility will not require interim access onto County facilities because the facility is expected to meet Morrow County access standards.

Section 4.020 Site Distance

In all zones, adequate sight distance shall be maintained at the intersection of two roads (public or private), a road intersecting a private driveway, or a road crossing a railroad.

A. Sight Distance Requirements for New Accesses. It is the intent of this section to ensure that each new access point or each new lot or parcel created or development in the County will have a safe access to a public road, with the exception of development actions listed in Section 4.020.B. but are subject to improvements to maximize sight distance to the extent practicable by the County Operations Division through an Access Permit or Right-of-way Permit:

1. Existing access points that do not satisfy the sight distance standards and are on property included with a development action which will not add any additional vehicle trips to that access, are exempt from this Section. Improvements at these existing access points may be required of the applicant to maximize sight distance to the extent practicable through an Access Permit application.

2. The minimum intersectional sight distance shall be based on the vehicular speeds of the road. The vehicular speeds for the purpose of determining intersectional sight distance shall be the greater of the following, to be selected by the County Engineer or designee.

a. Design Speed - A speed selected by a registered engineer (Oregon) for purposes of design and correlation of those features of a road, such as curvature, superelevation, and sight distance, upon which the safe operation of vehicles is dependent.

b. Posted Speed - That speed which has been established by the Oregon State Speed Control Board and is posted by the County.

c. Eighty-fifth Percentile Speed - That speed as certified by a registered engineer (Oregon) below which 85 percent of all traffic units travel, and above which 15 percent travel. The eighty-fifth percentile speed shall be measured at the point where the sight restriction occurs.

3. The intersectional sight distance shall:

a. Be based on an eye height of 3.5 feet and an object height of 4.25 feet above the road; and

b. Be assumed to be 10 feet from the near edge of pavement or the extended curb line or the near edge of the graveled surface of a gravel road to the front of a stopped vehicle.

4. Minimum intersectional sight distance shall be equal to ten (10) times the vehicular speed of the road such as in the table below.

INTERSECTIONAL SIGHT DISTANCE

MPH	DISTANCE ALONG CROSSROAD (FT)
25	250
30	300
35	350
40	400
45	450
50	500
55	550

5. Intersectional sight distance values shall conform to (3) above. For significant road improvement projects, the above intersectional standards shall be met in addition to the applicable AASHTO roadway sight distance standards.

6. In those instances where there are no access locations available to the site that meet or can meet the sight distance requirements, a written request for modification may be submitted to the County Engineer or designee. The request for modification of the sight distance requirements shall be subject to the following requirements:

a. Submitted and certified by a registered engineer (Oregon);

b. Nationally accepted specifications or standards are documented and referenced;

c. Certification that the modification will not compromise safety or the intent of the County's transportation standards;

d. Agreement that the cost of any modifications agreed to must be borne by the applicant; and

e. Statement that there is no location available to provide an alternative access location which currently meets the sight distance requirements, or which can be altered to meet the sight distance requirements. Alterations needed to provide adequate sight distance include but are not limited to grading and the removal of vegetation. For the purpose of this subsection alternative access location means:

i. Any location on the proposed development site which meets or can meet the sight distance requirements; or

ii. Any location off the proposed development site which can provide access to the site by an existing access easement or through an access easement which will be provided to the site as part of the development application. Such an off-site access must be shown to meet or be able to meet sight distance requirements.

<u>B. Accesses Exempt from Sight Distance Requirements</u>. Accesses for the following development actions are exempt from the Sight Distance standards (Section 4.020.A), but are subject to improvements to maximize sight distance to the extent practicable by the County Operations Division through an Access Permit or Right-of-way Permit:

1. Replacement dwellings;

2. Nonbuildable parcels;

3. Applications for one dwelling on an existing vacant parcel;

4. Home Occupation applications in the EFU, FU, SF-40, FR-2 and RR-1 zones; or

5. Applications which will not add additional vehicle trips to an existing access which does not meet the sight distance standards.

The applicant represents that, as part of the zoning permit, it would maintain adequate sight distance at facility approaches, in compliance with the requirements in MCZO Section 4.020.A.[60] As discussed in the evaluation of MCZO 4.165 below, the Department recommends the Council impose Land Use Condition 4 requiring, in part, that the applicant demonstrate compliance with the sight distance requirements in MCZO 4.020 through the site plan review.

Section 4.035 Permit Requirements for Land Use Development

> *Except where otherwise noted, all proposed projects should meet the following Plot Plan Requirements as described in Table 4.035-1 below. A common threshold for a TIA (traffic impact analysis) applying to all types of development is 400 daily trips (e.g., 40 houses). Trip generation should be estimated using the current edition of* ***Trip Generation*** *by the Institute of Transportation Engineers, other similar published resources, or actual driveway counts of similar land uses. The County Planning Commission, County Planning Director or County Public Works Director or designee may require a TIA for any level of development. TIA requirements are described in the Appendix.*
>
> *[Table 4.035-1 Omitted]*
>
> *A. Consent to Participate Agreement Required. For those Local roads which are not improved in accordance with Morrow County Road Standards or maintained by the County, and which abut the property owner's proposed development or which do not abut the development but provide direct access to the development, the property owner shall sign a consent to participate agreement for the potential formation of a local improvement district or other mechanism to improve and maintain these roads to County standards, per the Morrow County standard Consent to Participate Agreement. Applications for property line adjustments, nonbuildable parcels, temporary housing permits, land partitions in resource zones, and one dwelling on an existing vacant parcel, are not subject to this requirement.*
>
> *For those Arterial and Collector roads which are not improved in accordance with Morrow County Road Standards and which abut the development site or those roads which do not abut the development site but provide access to the site, the property owner shall sign a consent to participate agreement for the potential formation of a local improvement district or other mechanism to improve the base facility of this road(s) to County standards, per the Morrow County standard Consent to Participate Agreement. Applications for property line adjustments, nonbuildable parcels, temporary housing permits, land partitions in resource zones, and one dwelling on an existing vacant parcel, are not subject to this requirement.*

Construction traffic is estimated to result in approximately 134 truck trips per day. Conservatively, this equates to approximately 295 passenger car equivalents (PCE) per day (134

[60] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03. p. 33.

x 2.2 PCE). Operational traffic is estimated to result in 3 full-time staff, or 3 worker vehicle trips or passenger car equivalents per day. Neither construction or operational traffic volumes are estimated to generate more than 400 PCE per day. Therefore, the Department recommends Council find that a Traffic Impact Analysis is not required.

Section 4.040 Off-Street Vehicle Parking Requirements

> *Because vehicle parking facilities can occupy large amounts of land, they must be planned and designed carefully to use the land efficiently while maintaining the visual character of the community. At the time of construction, reconstruction, or enlargement of a structure, or at the time a use is changed in any zone, off-street parking space shall be provided as follows unless greater requirements are otherwise established. When the requirements are based on the number of employees, the number counted shall be those working on the premises during the largest shift at peak season. Fractional space requirements shall be counted as a whole space. Off-street parking spaces may include spaces in garages, carports, parking lots, and/or driveways if vehicles are not parked in a vehicle travel lane (including emergency or fire access lanes), public right-of-way, pathway or landscape area. The County may allow credit for "on-street parking", as provided in Section 4.050. For uses not specified in Table 4.040-1, parking requirements shall be determined by the use in Table 4.040-1 found to be most similar in terms of parking needs.*
>
> *[Table 4.040-1 Omitted]*

Table 4.040-1 does not specify off-street parking requirements for commercial photovoltaic solar power generation facilities, and as such parking requirements must be determined based on the use found to be most similar in terms of parking needs. Because the proposed facility would not be open to the public, and would only be staffed on a limited basis, the Department recommends the Council find that the most similar use in Table 4.040-1 would be an industrial storage warehouse or manufacturing establishment. The minimum vehicle parking requirements for this use is one space per employee on the largest shift.

As discussed in Section IV.M Public Services, proposed facility operation is expected to result in up to 3 permanent full-time employees. Parking for O&M personnel working at the facility will be accommodated within the solar array site access roads and in permanent graveled parking areas located at each of the four O&M buildings proposed to be constructed at the facility.[61]

As presented in the evaluation of compliance with MCZO 4.165, below, the Department recommends that the Council impose Land Use Condition 4, requiring, in part, that the applicant to demonstrate compliance with the off-street vehicle parking standards in MCZO 4.040 through the final site plan review. Subject to compliance with this condition, the Department recommends the Council find the requirements of MCZO 4.040 are satisfied.

[61] WTSAPPDoc2-11 Exhibit K Land Use Section 5.2.2.4. 2024-01-03.

Section 4.070 Sign Limitations and Regulations

In addition to sign limitations and regulations set forth in a specific zone, the following limitations and regulations shall apply to any sign hereafter erected, moved or structurally altered within the jurisdiction of the County.

In addition to the standards and limitations set forth in this Ordinance, signs shall be installed in accordance with applicable regulations of state and federal agencies. No sign will hereafter be erected, moved or structurally altered without being in conformity with the provisions of this Ordinance. Official traffic control signs and instruments of the state, county or municipality are exempt from all provisions of this Ordinance.

A. All outdoor advertising signs shall be in compliance with the provisions of this Ordinance and the provisions of ORS Chapter 377 when applicable.

B. No outdoor advertising sign permitted by ORS Chapter 377 shall be erected within 300 feet of a residential dwelling without written consent of the owner and/or occupant of said dwelling.

C. No sign shall be placed so as to interfere with visibility or effectiveness of any permanent traffic control device.

D. No sign shall be placed so as to impede the sight distance triangle at any access point or intersection as specified in Section 4.020 of this Ordinance.

E. No sign shall cause glare, distraction or other driving hazards within a street or road right-of-way.

F. No sign shall shine directly upon a residential dwelling or otherwise create a nuisance.

G. In addition to the limitations on signs as provided by (1) through (5) above, additional sign restrictions may be required as determined by the Planning Commission in approving conditional uses, as provided by Article 6.

H. Signs erected along Scenic Byways or other roads with similar designations must meet applicable criteria for sign placement.

I. Residents may request specific cautionary signage for individual resident(s) to be installed within County right-of-way. All costs including materials, installation, maintenance, and removal, shall be borne by the requestor, and shall otherwise conform with Morrow County Policy M-43674.

J. Installation of Regulatory Signs in Public Right-of-Way. Developers are to install street name, posted speed, and other traffic control signage required for private developments, per applicable standards from Morrow County and the Manual on Uniform Traffic Control Devices (MUTCD).

Signage may be included at the site access roads and would comply with the requirements of MCZO Section 4.070, as documented through the zoning and building permit process.[62] As presented in the evaluation of compliance with MCZO 4.165, below, the Department recommends that the Council impose Land Use Condition 4, requiring, in part, that the applicant demonstrate compliance with the sign limitations and standards in MCZO 4.070 through the final site plan review. Subject to compliance with this condition, the Department recommends the Council find the requirements of MCZO 4.070 are satisfied.

Section 4.165 Site Plan Review

Site Plan Review is a non-discretionary or "ministerial" review conducted without a public hearing by the County Planning Director or designee. Site Plan Review is for less complex developments and land uses that do not require site development or conditional use review and approval through a public hearing.

A. Purpose. The purpose of Site Plan Review (ministerial review) is based on clear and objective standards and ensures compliance with the basic development standards of the land use district, such as building setbacks, lot coverage, maximum building height, and similar provisions. Site Plan review also addresses conformity to floodplain regulations, consistency with the Transportation System Plan, and other standards identified below.

B. Pre-application review. Prior to filing its application for site plan review, the applicant shall confer with the County Planning Director or designee, who shall identify and explain the relevant review procedures and standards.

C. Applicability. Site Plan Review shall be required for all land use actions requiring a Zoning Permit as defined in Section 1.050 of this Ordinance. The approval shall lapse, and a new application shall be required, if a building permit has not been issued within one year of Site Review approval, or if development of the site is in violation of the approved plan or other applicable codes.

As described in the evaluation of MCZO 1.050, the Department recommends the Council impose Land Use Condition 1 requiring that, prior to construction, the applicant obtain a Conditional Use Permit and Zoning Permit from the Morrow County Planning Department.

[62] WTSAPPDoc2-11 Exhibit K Land Use. 2024-01-03, p.34.

These land use permits are addressed in, and governed by, the site certificate, and as such are subject to the provisions of ORS 469.401(3) and must be promptly issued by the County upon submission by the applicant of the proper applications and payment of the proper fees.

Under MCZO 4.165, a site plan review is required by the County prior to the issuance of the required Zoning Permit. As described in the ordinance, the site plan review is a ministerial review intended to verify compliance with County development standards based on clear and objective standards. The site plan review applies the review criteria under MCZO 4.165.D to a final site plan submitted by the applicant under MCZO 4.165.E.

As described below, the Department recommends the Council impose Land Use Condition 4, requiring the applicant to obtain approval of its final site plan from the County prior to construction. The recommended condition identifies the relevant criteria in MCZO 4.165.D for the review. Like other land use approvals, the Department recommends that the site plan approval is a matter addressed in and governed by the site certificate under ORS 469.401(3); and the only issues to be decided is whether the permit is consistent with the terms of the site certificate, including the terms of recommended Land Use Condition 4. If the County finds that the final site plan complies with the listed criteria, it must promptly issue the site plan approval without further hearings or other proceedings.

D. Review Criteria.

1. The lot area shall be adequate to meet the needs of the establishment.

There are no new plats or changes to tax lot lines proposed in the ASC. Due to its modular nature, a solar photovoltaic power generation facility may be designed to fit the available lot area.

2. The proposed land use is permitted by the underlying land use district.

The proposed facility is a solar photovoltaic power generation facility and is a conditionally allowed use in Morrow County's EFU Zone. The proposed facility would exceed the allowable acreage thresholds for a solar photovoltaic power generation facility sited on high-value farmland and arable land in Morrow County; however, as described in Section IV.E.1.c *Goal 3 Exception*, the Department recommends the Council grant an exception to these requirements and find compliance with the statewide planning goals as required by the Land Use Standard.

3. The land use, building/yard setback, lot area, lot dimension, density, lot coverage, building height and other applicable standards of the underlying land use district and any sub-district(s) are met.

As described in the sections evaluating MCZO 3.010.M, 4.010, 4.020, 4.035. 4.040, and 4.070, the Department recommends Council impose conditions requiring that, prior to construction,

the applicant demonstrate that final facility design adheres to all applicable setback, lot, and height standards established in the MCZO.

> *4. Development in flood plains shall comply with Section 3.100 Flood Hazard Overlay Zone of the Ordinance.*

ASC Exhibit H Figure H-3 presents special flood hazard areas within and extending several miles from the proposed site boundary. Based on ASC Exhibit H Figure H-3, no portions of the site boundary are within a designated flood hazard area or Morrow County's Flood Hazard Overlay Zone.

> *5. Development in hazard areas identified in the Morrow County Comprehensive Plan shall safely accommodate and not exacerbate the hazard and shall not create new hazards.*

The proposed site and site boundary are not located within a designated hazard area; therefore, facility construction and operation are not likely to exacerbate or create new hazards.

> *6. Off-street parking and loading-unloading facilities shall be provided as required in Section 4.040 and 4.050 of the Morrow County Zoning Ordinance. Safe and convenient pedestrian access to off-street parking areas also shall be provided as applicable.*

MCZO 4.040 requires one parking space be provided for each worker that will be on the premises during the largest shift at peak season. The applicant estimates that there will be 3 permanent employees hired for the operation and maintenance of the facility, and as such, the applicant must provide at least 3 parking spaces at the facility site.

As discussed below, the Department recommends the Council impose Land Use Condition 4, requiring, in part, that the applicant to verify that adequate parking has been provided through the final site plan review.

> *7. County transportation facilities shall be located, designed and constructed in accordance with the design and access standards in the Morrow County Transportation System Plan.*

The applicant represents that it will follow the design and access standards in the Morrow County Transportation System Plan. As discussed in Section IV.M.1.e *Public Services, Traffic Safety*, recommended Public Services Condition 1 and 2 requires the applicant to enter into and adhere to the terms of a Road Use Agreement with the Morrow County Public Works Department.

8. Site planning, including the siting of structures, roadways and utility easements, shall provide, wherever practicable, for the protection of trees eight inch caliper or greater measured four feet from ground level, with the exception of noxious or invasive species, such as Russian olive trees.

The majority of the site consists of cultivated dryland-wheat fields that do not contain trees of any size.

9. Development shall comply with Section 3.200 Significant Resources Overlay Zone or 3.300 Historic Buildings and Sites protecting inventoried significant natural and historic resources.

No natural or historic resources inventoried as significant in the Morrow County Comprehensive Plan are located within the site boundary, and as such, the provisions of MCZO 3.200 and 3.00 do not apply to the construction and operation of the proposed facility.

10. The applicant shall determine if compliance is required with Oregon Water Resources Department water quantity and/or Oregon Department of Environmental Quality water quality designations.

No permits or approvals are required for construction and operation of the wells as long as the applicant complies with the Oregon Water Resources Department use limitations and standards for "exempt" wells under ORS 537.545.

An Onsite Sewage Disposal Construction-Installation Permit from Umatilla County Public Health under ORS 454 and MCCEO Section 10 is required for facility siting. Recommended Organizational Expertise Condition 9 would require the applicant, or its construction contractor, to obtain the required permit prior to construction of the facility. The Department recommends the Council find that compliance with this condition would satisfy the requirements of MCZO 4.165.D.10.

11. The applicant shall determine if previous Code Enforcement violations have been cleared as applicable.

No code enforcement violations associated with the tracts have been identified by the applicant or County. While unlikely, it is possible for code enforcement violations to be issued prior to the construction of the facility. To account for this possibility, the Department recommends that the Council impose Land Use Condition 4, requiring, in part, that the Certificate Holder Demonstrate compliance with MCZO 4.165.D.11 as part of the Site Plan Review, as presented below.

12. The applicant shall determine the method of disposal for solid waste, with staff providing information to the applicant about recycling opportunities.

As described in Sections IV.O. *Waste Minimization*, the Department recommends the Council find that, subject to compliance with recommended conditions of approval, the applicant's solid waste plans are likely to minimize generation of solid waste from the construction and operation of the proposed facility, that solid wastes will be recycled to the extent reasonably practicable, and that the wastes generated by the construction and operation of the facility are likely to result in minimal adverse impacts on surrounding and adjacent areas and public service providers. Accordingly, the Department recommends that the requirements of MCZO 4.165.D.12 are satisfied.

> *13. The applicant shall obtain the necessary access permit through the Public Works Department as required by Morrow County Resolution R-29-2000.*

As described in the evaluation of MCZO 4.010, the applicant represents that it will obtain all necessary local permits, including access permits through the Morrow County Public Works Department, prior to construction.[63] Recommended Organizational Expertise Condition 9 would require the applicant to provide evidence that it, or its construction contractor, has obtained the necessary permits prior to construction of the facility. As described below, the Department also recommends that the Council impose Land Use Condition 4, requiring, in part, that the Certificate Holder verify compliance with MCZO 4.165.D.13 as part of the Site Plan Review.

> *E. Submittal Requirements. A site plan shall be submitted including all of the following information except for specific items determined at the pre-application review not to be applicable. All site plans shall have dimensions clearly indicated. An applicant may provide the information on separate sheets, if necessary or desirable for clarity.*
>
> *1. North arrow and scale.*
>
> *2. Location of property boundaries, including adjacent public or private streets and rights of way.*
>
> *3. Location of existing structures and natural features.*
>
> *4. Areas affected by the proposed development with slopes in excess of 10 percent.*
>
> *5. Location of utilities and facilities, or proposed locations (sewer, water, fire hydrants, septic system, storm water facilities, etc.).*
>
> *6. Proposed landscaping.*
>
> *7. Exterior lighting.*

[63] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03. Section 5.2.2.6.

8. Circulation plan for vehicles, pedestrians, and bicyclists, including existing and proposed points of access and sidewalks.

9. Parking lot layout, with circulation plan and striping details.

10. Sign location and details.

As described above, the Department recommends the Council impose Land Use Condition 4, requiring the applicant to submit a final site plan that complies with the requirements of MCZO 4.165.E, and demonstrates compliance with the relevant criteria in MCZO 4.165.D, as presented below.

Recommended Land Use Condition 4 (PRE): Prior to construction of the facility, facility component or phase, as applicable, the certificate holder must submit a final site plan that includes all information required by MCZO 4.165.E to the County and the Department. The final site plan must demonstrate compliance with all applicable site certificate conditions, and the criteria listed in MCZO 4.165.D, including but not limited to, the following:

1. The setback requirements established in Land Use Condition 3 (MCZO 3.010.M)
2. The emergency vehicle access standards established in MCZO 4.010.C. The final site plan must also be provided to the Fire Chief of the Ione Rural Fire District for comment on whether the facility provides appropriate access and turnaround facilities for emergency vehicles.
3. The access spacing standards and permitting requirements established in MCZO 4.010.E and H. The final site plan must also be provided to the Oregon Department of Transportation to ensure compliance with OAR 734-051-0135.
4. The sight distance requirements established in MCZO 4.020.
5. The off-street vehicle parking requirements established in MCZO 4.040. The certificate holder must provide at least 3 parking spaces at the site. Site access roads not used for emergency access may be used for parking.
6. The sign limitations and regulations established in MCZO 4.070.
7. The requirement for all outdoor lighting to be directed downward and sited, hooded and shielded in a manner that prevents the lighting from projecting on to adjacent properties under MCCEO 5.400.E.
8. The requirement to determine if all previous code enforcement violations have been cleared established under MCZO 4.165.D.11.

[PRE-LU-04]

<u>MCZO Article 6 Conditional Uses</u>

<u>Section 6.020 General Criteria</u>

In judging whether or not a conditional use proposal shall be approved or denied, the Commission shall weigh the proposal's appropriateness and desirability, or the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular development at the location proposed and, to approve such use, shall find that the following criteria are either met or can be met by observance of conditions.

A. The proposal will be consistent with the Comprehensive Plan and the objectives of the Zoning Ordinance and other applicable policies and regulations of the County.

B. If located within the Urban Growth Boundary of a city, that said city has had an opportunity to review and comment on the subject proposal.

C. The proposal will not exceed carrying capacities of natural resources or public facilities.

MCZO Section 6.020 requires the governing body to weigh the appropriateness and desirability, or the public convenience or necessity to be served, against any adverse conditions that would result from authorizing the development at the location proposed. The Department recommends Council conclude, based on the findings of fact and conclusions of law presented in this order, that because the facility would provide a desirable, renewable energy source (solar), and has reasonable access to the existing regional grid, and subject to compliance with the recommended site certificate conditions, that the appropriateness and desirability of the facility would outweigh any adverse conditions resulting from the facility. In addition, the evaluation of the MCZO Section 6.020(A) – (C) criteria immediately below supports a conclusion that the appropriateness and desirability of the proposed facility outweighs any potential adverse conditions resulting from construction and operation of the energy facility.

MCZO Section 6.020(A) requires that conditional use permit applications establish compliance with the MCCP, MCZO and other applicable policies and regulations of the county. Compliance with the provisions of the MCCP identified by Morrow County as applicable substantive criteria is discussed below. Compliance with zoning ordinance and other county policies and regulations is discussed throughout this Land Use section. Therefore, this criterion is satisfied upon a determination that the facility satisfies the identified applicable substantive criteria. Subsection B applies only to conditional use permit applications within an urban growth boundary. The proposed facility would not be located within the urban growth boundary and therefore this criterion does not apply. Subsection C requires that the facility not exceed carrying capacities of natural resources or public facilities. MCZO Section 1.030 defines "carrying capacity" as the "level of use that can be accommodated and continued without irreversible impairment of natural resources productivity, the ecosystem, and the quality of air, land and water resources." The applicant addresses impacts on Morrow County public facilities in ASC Exhibit U. Those impacts are evaluated and addressed in Section IV.M. *Public Services* of this order. As discussed in that section, the proposed facility would not be likely to result in a significant adverse impact to the ability of service providers to provide the necessary services.

The evaluation in Section IV.M. *Public Services* also includes site certificate conditions that the Department recommends the Council consider sufficient to ensure the facility would not exceed the carrying capacities of public facilities.

The applicant addresses the proposed facility's impacts to soils, surface or groundwater resources, and protected plant and animal species and their habitats in ASC Exhibits I, J, O P and Q. Because the facility would not include emission-generating equipment (criteria pollutants or greenhouse gas emissions), the facility would not result in potential adverse air quality or emissions-related climate change impacts. As discussed in Sections IV.D. *Soil Protection*, IV.H. *Fish and Wildlife Habitat*, IV.I. *Threatened and Endangered Species*, IV.R.2. *Removal-Fill Law*, and IV.R.3. *Water Rights* of this order, the Department recommends Council find that, subject to compliance with the conditions, those natural resource Council standards would be satisfied. The identified sections also support a finding that, with the imposition of the recommended conditions, the energy facility would not exceed the carrying capacities of Morrow County natural resources. Therefore, the Department recommends Council find that with the recommended conditions the proposed facility would comply with MCZO Sections 6.020(A), (B) and (C).

Section 6.025 Resource Zones Standards for Approval

> *A. In the Exclusive Farm Use zone a conditional use may be approved only when the County finds that the use will not:*
>
> > *1. Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or*
> >
> > *2. Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use*[64]*.*

[64] The Morrow County conditional use standards are identical to those in ORS 215.296(1) and OAR 660-033-0130(5). Pursuant to ORS 215.203(2)(a) "farm use" means "the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof." "Farm use" includes the preparation, storage and disposal by marketing or otherwise of the products or by-products raised on such land for human or animal use. "Farm use" also includes the current employment of land for the primary purpose of obtaining a profit in money by stabling or training equines including but not limited to providing riding lessons, training clinics and schooling shows. "Farm use" also includes the propagation, cultivation, maintenance and harvesting of aquatic, bird and animal species that are under the jurisdiction of the State Fish and Wildlife Commission, to the extent allowed by the rules adopted by the commission. "Farm use" includes the on-site construction and maintenance of equipment and facilities used for the activities described in this subsection. "Farm use" does not include the use of land subject to the provisions of ORS chapter 321, except land used exclusively for growing cultured Christmas trees as defined in subsection (3) of this section or land described in ORS 321.267 (3) or 321.824 (3)."

B. In the Forest Use Zone a conditional use may be approved only when requirements that are designed to make the use compatible with forest operations and agriculture and to conserve values found on forest lands are met. A conditional use may be approved only when the County finds that the use will not:

1. Force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

2. Significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel; and

3. A written statement recorded with the deed or written contract with the County is obtained from the land owner that recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules. (MC OR-1-2013)

There are no lands in the analysis area in forest use; therefore, Section 6.025.B. is not applicable to the proposed facility.

The applicant makes the following assertions as to why Council should find the proposed facility would not: force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.

- "Facility components and temporary construction areas will be within the solar array permanent disturbance area to minimize disturbance to farming operations."

Here, the applicant appears to be asserting that, because it will keep the components and construction areas within the area to be permanently disturbed, that supports Council making the findings described in Section 6.025 A. 1 and 2. The Department disagrees. Limiting the components and construction to the area that will be permanently disturbed does not demonstrate the proposed facility will not force a significant change in, or significantly increase the cost of accepted farm practices on surrounding lands. Therefore, the Department recommends Council not adopt this as a reason for finding the proposed facility meets Section 6.025 A. 1 and 2.

- "Most of the land within the site boundary currently available for agricultural use will be returned to its current status after Facility decommissioning."

The applicant estimates the useful life of the facility to be 50 years. Further, the applicant has noted the useful life could be extended if equipment continues to function well with routine maintenance, or the facility could be repowered with newer-generation equipment in the same

locations.[65] The Department recommends Council not adopt this as a reason for finding the proposed facility meets Section 6.025 A. 1 and 2 because the applicant's returning the land the facility occupies to its current status after 50 years or more of operations does not demonstrate the proposed facility will not force a significant change in, or significantly increase the cost of accepted farm practices on surrounding lands during the years the facility is in operation.

- "Even if the land within the site boundary were assumed to be permanently lost to farm use due to siting of permanent Facility improvements, the amount of loss would be a de minimis percentage of the total farm use land in Morrow County—less than 1 percent of the 1,126,101 acres of land in farms (USDA 2017). Therefore, the inability to use the land for farm purposes is not significant."

Pursuant to Section 6.025 A. 1 and 2, Council must analyze the impact of the proposed facility on accepted farm practices and the cost to farm "on surrounding lands." While comparing the amount of farmland displaced by the facility to the amount of farmland in all of Morrow County may be useful information for assessing the facility's impact relative to farming in the county as a whole, it does not assist Council in analyzing these impacts on "surrounding lands."[66] Nor does it provide any information about current farming practices or costs on surrounding lands and what, if any, impact the proposed facility would have on those practices and costs. Therefore, the Department recommends Council not adopt this as a reason for finding the proposed facility meets Section 6.025 A. 1 and 2.

- "The Applicant will implement a Noxious Weed Control Plan consistent with the Morrow County Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated land and the associated cost to the landowner for weed control."

ASC Exhibit P Attachment P-5 includes a draft Noxious Weed Control Plan. This plan includes measures to minimize and prevent the introduction and spread of noxious weeds from proposed facility construction and operation. The draft Noxious Weed Control Plan identified target noxious weed species within Morrow County and includes measures to prevent and control the introduction and/or spread of noxious weeds including: education and training of all construction personnel and contractors regarding known locations of noxious weed infestations, identification of noxious weed species, and the importance of preventive measures and treatment methods; the implementation of measures to prevent the spread of noxious weeds during any phase of the facility, including construction and operations and maintenance activities; and effective and timely treatment of known noxious weed infestations when identified to occur throughout construction and the lifetime of the facility. The draft plan also includes BMPs for preventing the introduction and or spread of noxious weeds. Treatment

[65] WRSAPPDoc2-23 Exhibit W Waste Section 2.0 2024-01-03.

[66] The legislature intended the "significant change" in a farm practice or "significantly increased cost" of a farm practice standard to apply practice by practice and farm by farm. Stop the Dump Coal. v. Yamhill Cnty., 364 Or. 432, 458, 435 P.3d 698, 712 (2019)

of noxious weeds will be implemented through mechanical or chemical (herbicide) control measures. Monitoring will occur to ensure noxious weeds are identified and treated in a timely manner and that treatment methods are successful.

The draft Noxious Weed Control Plan requires that prior to construction and every fall season during facility operation, the applicant or its contractor shall consult with the Morrow County Weed Supervisor on timing, method and application rates for each identified weed species of concern, to allow for adaptive weed management given changes in weed control effectiveness from noxious weed species tolerance to herbicide treatment over time. Results of the consultation shall be reported in the applicant's annual weed monitoring report. Any alternative control methods can be proposed by the Applicant or its contractors, after consulting with the Morrow County Weed Supervisor, and included in the Applicant's annual weed monitoring report. The Department recommends Council adopt the following conditions:

> **Recommended Land Use Condition 5 (PRE):** Prior to construction, the certificate holder shall submit a final Noxious Weed Plan, based on the draft plan provided in Attachment P-4 of the Final Order on the ASC to the Department for review and approval.
> [PRE-LU-05]
>
> **Recommended Land Use Condition 6 (CON):** During construction, the certificate holder shall implement and adhere to the requirements of the Final Noxious Weed Plan or Amended Noxious Weed Plan, as applicable.
> [CON-LU-01]
>
> **Recommended Land Use Condition 7 (OPR):** During operation, the certificate holder shall implement and adhere to the applicable requirements of the Final Noxious Weed Plan or Amended Noxious Weed Plan, as applicable.
> [OPR-LU-01]

Based on compliance with the above recommended conditions, the Department recommends Council adopt the above reasoning in support of finding that the proposed facility meets Section 6.025 A. 1 and 2.

- "Construction and operation of the Facility could cause changes in routes of access to fields, and changes in the pattern of cultivation, seeding, fertilizing and harvesting near the solar array areas. To minimize this, the Applicant, in consultation with the landowners, will design Facility components to minimize obstacles to farming in cultivated fields (components around which the farmer would have to plow, plant and harvest)."

The applicant's consulting with the owners of surrounding farmland to design the facility to minimize the facility creating obstacles to farming in cultivated fields is a valid basis for Council finding the applicant has demonstrated the proposed facility will not force a significant change in, or significantly increase the cost of accepted farm practices on surrounding lands. Consistent

with this representation, the Department recommends Council adopt the following condition and that adoption of this condition provides a reason for finding the proposed facility meets Section 6.025 A. 1 and 2.

Recommended Land Use Condition 8 (PRE): Prior to construction of the facility, facility component or phase, as applicable, the certificate holder shall submit to the Department:

a. Evidence of consultation with landowners of farmland within and adjacent to the perimeter fenceline regarding the design of the facility, and what steps it has taken in facility layout/design to minimize any obstacles to farming practices on those lands.
b. Final facility layout maps demonstrating that the perimeter fenceline is placed at the edge of existing agricultural fields or along property lines and is designed to minimize impacts to agricultural practices and based on landowner consultation; and, that any other facility components outside of the perimeter fenceline have been designed in a manner that minimizes unnecessary agricultural impacts (e.g. isolation of property or access impacts).

[PRE-LU-06]

Recommended Land Use Condition 9 (CON): During construction, the certificate holder shall provide evidence to the Department that it has consulted with each of the owners of farmland that is within and adjacent to the site boundary regarding landowner farm practices on each of those tracts (including the types of crops and typical timing of crop rotation); and, shall demonstrate that the construction schedule and offsite dust and erosion impacts are being minimized to the greatest extent practicable.
[CON-LU-02]

Recommended Land Use Condition 10 (OPR): During operational ground disturbing activities, the certificate holder shall provide evidence to the Department that it has consulted with each of the owners of farmland that is within and adjacent to the site boundary regarding landowner farm practices on each of those tracts (including the types of crops and typical timing of crop rotation); and, shall demonstrate that the maintenance schedule and any related offsite dust and erosion impacts are being minimized to the greatest extent practicable.
[OPR-LU-02]

- "Construction of the Facility could adversely affect soil quality by erosion or compaction. Some farmland would be temporarily disturbed and unavailable for farming during construction. To avoid or reduce adverse impacts to soil quality, the Applicant will implement dust control and erosion-control measures during construction and operation of the Facility (see Exhibit I). To the extent practicable, the Applicant proposes to reduce impacts to soils by using areas already impacted by existing roads and previous development activities, thereby limiting the area of new disturbance."

Potential erosion impacts from proposed facility construction and operation are evaluated in Section IV.D *Soil Protection*. In Section IV.D *Soil Protection*, the Department recommends

Council impose Soil Protection Conditions 1, 2 and 5 to monitor and protect onsite erosion issues. The potential for unnecessary compaction during construction and operation is relatively low; however, the Department recommends that any temporary actions, such as development and use of a temporary construction area outside of the facility's perimeter fenceline be tested during restoration actions to ensure that the soils have been adequately decompacted to support the success of future agricultural use. Recommended Fish and Wildlife Habitat Condition 1 require that the certificate holder adhere to the requirements of a Reclamation and Revegetation Plan, including short-term, immediate compaction testing to inform adequacy of decompaction before contractors leave the site. Based on compliance with this condition, the Department recommends Council find that the applicant's compliance with this condition provides a reason for finding the proposed facility meets Section 6.025 A. 1 and 2.

Construction vehicles will cause an increase in traffic of less than 1 percent on I-84, by approximately 5 to 6 percent on OR-207 (between I-84 and Lexington, less just south of the OR 207, Oregon Trail Road intersection and greatest near I-84) and by as much as 10 percent along Bombing Range Road at its peak level, (however, given the lack of recent average daily traffic data for Bombing Range Road, the increase could be much less).[67] While construction-related traffic may cause short-term traffic delays (because of large, slowmoving delivery trucks and increased congestion), the delays will be temporary and will be minimized by, among other measures, the applicant developing a Construction Traffic Management Plan as part of a Road Use Agreement in consultation with the Morrow County Road Department.[68]

Consistent with this statement by the applicant and those in Ex. U, the Department recommends Council impose Public Services Condition 1 (see Section IV.M.1.e of this order).

Letters from the owners of two tracts within the site boundary are provided in ASC Exhibit K Attachment K-1 and K-3. The letters state that the landowners are currently able to farm the adjacent lands around the existing renewable infrastructure at the nearby Wheatridge Renewable Energy Facility and that they plan to farm their 4,000 acres not used by the proposed facility. Furthermore, the landowners anticipate that the proposed facility would have no impact on any of their neighbor's ability to expand, purchase, or lease any vacant land available for farming.

This is useful evidence that supports Council finding the proposed facility meets Section 6.025 A. 1 and 2 / would not force a significant change in accepted farm practices nor significantly increase the cost of accepted farm practices on surrounding lands. However, its' usefulness is limited because it only appears to cover two of nine tracts within the site boundary and does not address all adjacent tracts. But the applicant also states it "will consult with area landowners during facility construction and operation to determine further measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase

[67] WTSAPPDoc2-21 Exhibit U Public Services 2024-01-03, p. 21.

[68] *Id*., p. 22.

in farming costs." Consistent with this representation, and to further support Council's finding the proposed facility meets Section 6.025 A. 1 and 2, the Department recommends Council adopt Land Use Condition 11, 12 and 13 requiring landowner consultation on facility design, construction methods and operational activities to minimize impacts to farming practices.

Section 6.030 General Conditions

> *In addition to the standards and conditions set forth in a specific zone, this article, and other applicable regulations; in permitting a new conditional use or the alteration of an existing conditional use, the Commission may impose conditions which it finds necessary to avoid a detrimental impact and to otherwise protect the best interests of the surrounding area or the County as a whole. These conditions may include the following:*
>
> ******

MCZO 6.030 does not establish standards or criteria for review of a proposed use, but rather authorizes the County to impose additional conditions of approval during its review of a conditional use as it sees fit to avoid detrimental impacts or protect surrounding areas or the County.[69]

Because the County has not recommended that any such conditions of approval are needed to address the potential impacts of the proposed facility, the Department recommends the Council find that no further evaluation of MCZO 6.030 is necessary.

Section 6.040 Permit and Improvements Assurance

> *The Commission may require an applicant to furnish the County with a performance bond or such other form of assurance that the Commission deems necessary to guarantee development in accordance with the standards established and the conditions attached in granting a conditional use permit.*

Section 6.040 allows for a Conditional Use Permit to include, as a condition of approval, a performance bond or other assurances for facility retirement. This provision aligns with the requirements of the Council's Retirement and Financial Assurance standard. As described in Section IV.G., *Retirement and Financial Assurance*, of this order, the applicant would be required to submit a bond or letter of credit in an amount determined satisfactory by the Council, prior to construction, for the amount necessary to decommission the facility and

[69] Under ORS 469.401(3), upon receipt of the proper applications and payment of the proper fees, a county must issue any permits addressed in a site certificate, including a Conditional Use Permit, "subject only to conditions set forth in the site certificate or amended site certificate." As a result, any additional conditions the County wishes to impose under MCZO Section 6.030 would need to be considered by the Council as part of the siting review and incorporated into the site certificate.

restore the site to a useful, non-hazardous condition. Therefore, through compliance with the Council's standard, the applicant would satisfy the requirements of MCZO Section 6.040.

Morrow County Comprehensive Plan Policies

The County recommends that the Morrow County Comprehensive Plan applies to the review of the proposed facility, and the applicant provides evidence to support its compliance with a number of specific policies.[70] The County has adopted specific standards in the MCZO to implement the policies for solar photovoltaic power generation systems, and the MCZO and Council Standards, require the applicant to evaluate the potential adverse impacts the construction and operation of the proposed facility would have on accepted farm practices, natural resources, public services, and public health and safety, and to avoid, minimize, and mitigate impacts as needed.

As described in this section, the Department recommends that the Council find, with the exception of the acreage standards for solar photovoltaic power generation facilities under MCZO 3.010, the applicant has met the applicable standards and in doing so, has demonstrated that the proposed facility is consistent with the applicable goals and policies of the comprehensive plan.

IV.E.1.b. Directly Applicable State Statutes and Administrative Rules

> *OAR 660-033-0130 – Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses*
>
> *(38) A proposal to site a photovoltaic solar power generation facility shall be subject to the following definitions and provisions:*
>
> *****[71]

The proposed solar facility site is located within land classified as high-value farmland per ORS 195.300(10)(a), (c) and (f). As shown in Table 5: *High-Value, Arable and Nonarable Lands in the Site Boundary*, the proposed facility would use, occupy, or cover 1,580 acres of high-value farmland per ORS 195.300(10). The proposed solar site would not be located on any high value farmland soils as defined under OAR 660-033-0020(8)(b)-(e).

Table 5: High-Value, Arable and Nonarable Lands in the Site Boundary

Land Type	Acres in Site Boundary	Estimated Disturbance within Site Boundary
High-value farmland[1]	3,350	1,580 acres/43%
Arable	7,211	3,684/100%

[70] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03.

[71] OAR 660-033-0130(38)(a)-(e) contain definitions. The provisions begin at (g).

Nonarable	239	1/0%
Source: ASC Exhibit K Table K-3 [1] High-value farmland designations per ORS 195.300(10)(a), (c), and (f). [2] Arable includes Class I-IV soils, cultivated land regardless of soil class, and high-value lands and soils.		

(g) For high-value farmland described at ORS 195.300(10), a photovoltaic solar power generation facility shall not use, occupy, or cover more than 12 acres unless:

(A) The provisions of paragraph (h)(H) are satisfied; or

(B) A county adopts, and an applicant satisfies, land use provisions authorizing projects subject to a dual-use development plan. Land use provisions adopted by a county pursuant to this paragraph may not allow a project in excess of 20 acres. Land use provisions adopted by the county must require sufficient assurances that the farm use element of the dual-use development plan is established and maintained so long as the photovoltaic solar power generation facility is operational or components of the facility remain on site. The provisions of this subsection are repealed on January 1, 2022.

OAR 660-033-0130(38)(g) restricts a photovoltaic solar power generation facility from using, occupying, or covering more than 12 acres of high value farmland unless the provisions of OAR 660-033-0130(38)(h)(H) are satisfied or the County adopts (and the applicant satisfies) land use provisions authorizing projects subject to a dual-use development plan. The proposed facility would not meet either one of these exemptions. As provided under OAR 660-033-0130(38)(k), a solar PV facility that exceeds the threshold established by OAR 660-033-0130(38)(g) requires a goal exception.

Because the proposed facility would use, occupy, or cover more than 12 acres of high value farmland, and does not meet either exemption specified under OAR 660-033-0130(38)(g), the applicant requests an exception to Statewide Planning Goal 3. The Department's analysis of the exception request is provided in Section IV.E.1.c. *Goal 3 Exception* of this order. The remainder of the OAR 660-033-0130(38) criteria are evaluated here.

(h) The following criteria must be satisfied in order to approve a photovoltaic solar power generation facility on high value farmland described at ORS 195.300(10):

OAR 660-033-0130(38)(h)(A) – (D) requires a demonstration that the proposed solar facility components would not create unnecessary negative impacts to agricultural operations, soil erosion or loss, soil compaction, or the unabated introduction or spread of noxious weeds.

(A) The proposed photovoltaic solar power generation facility will not create unnecessary negative impacts on agricultural operations conducted on any portion of the subject property not occupied by project components. Negative impacts could include, but are not limited to, the unnecessary construction of roads dividing a field or multiple fields in such a way that creates small or

isolated pieces of property that are more difficult to farm, and placing photovoltaic solar power generation facility project components on lands in a manner that could disrupt common and accepted farming practices;

OAR 660-033-0130(38)(h)(A) requires a demonstration that the proposed facility would not create unnecessary negative impacts to agricultural operations, such as dividing a field or multiple fields or placing facility components on lands in a manner that could disrupt accepted farming practices.

The proposed facility would consist of multiple solar arrays and approximately 47 miles of new permanent roads. New access roads are assumed to be 12 feet in width inside the solar array fence line and 20 feet outside the solar array fence line.

In ASC, Exhibit C, the applicant provides maps depicting solar arrays that are generally oriented adjacent and parallel to existing roads (see Exhibit C, Figure C-2) and would be sited in areas that do not constrain the current and future dryland wheat farming activities on the remainder of the tract or on neighboring tracts. The applicant requests micrositing flexibility for all areas within the site boundary, and as a result, the facility layout may be amended, and these maps may not be relied upon for the evaluation of impacts to agricultural operations.

The proposed site boundary covers 9 tracts. Interviews with the landowners of Tracts 1, 2, 7, and 8 (see ASC Exhibit K Figure K-3), who also own adjacent and other tracts in the vicinity of the site boundary, did not identify or anticipate any adverse impact, or any increase in the cost of farming practices, in the vicinity of the solar arrays. The applicant has a long history of working with the landowner through coordination on the adjacent Wheatridge projects and maintains ongoing open lines communication with landowners.

Because the final facility layout and design have not yet been selected, the Department recommends Council impose Land Use Condition 11 (see Section 6.025) to ensure that the final design of the facility minimizes unnecessary impacts to agriculture.

Based on compliance with recommended Land Use Condition 11 and preliminary responses from landowner interviews, as provided in ASC Exhibit K Attachment K-3, the Department recommends Council find that the proposed facility would not create unnecessary negative impacts on agricultural operations conducted on any portion of the subject property not occupied by facility components and therefore would satisfy the requirements of OAR 660-033-0130(38)(h)(A).

(B) The presence of a photovoltaic solar power generation facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the submittal and county approval of a soil and erosion control plan prepared by an adequately qualified

individual, showing how unnecessary soil erosion will be avoided or remedied. The approved plan shall be attached to the decision as a condition of approval;

This provision is consistent with Council's Soil Protection standard, where the Department recommends Council impose a condition requiring that, during facility construction, the applicant be required to adhere to the requirements of a DEQ-approved Erosion and Sediment Control Plan during construction (see recommended Soil Protection Conditions 1, 2 and 5) and implementation of a Reclamation and Revegetation Plan and Noxious Weed Plan, prior to and during construction and operation (see recommended Land Use Conditions 8, 9 and 10 and recommended Fish and Wildlife Habitat Conditions 1, 2 and 3). The requirements under recommended Soil Protection Condition 1, 2 and 5 include best management practices to be implemented during construction and operation designed to reduce and minimize unnecessary soil erosion or loss that could limit agricultural productivity within the proposed facility site and on adjacent EFU zoned land.

Based upon compliance with the recommended conditions, the Department recommends Council conclude that the proposed solar facility would satisfy the requirements under OAR 660-033-0130(38)(h)(B).

(C) Construction or maintenance activities will not result in unnecessary soil compaction that reduces the productivity of soil for crop production. This provision may be satisfied by the submittal and county approval of a plan prepared by an adequately qualified individual, showing how unnecessary soil compaction will be avoided or remedied in a timely manner through deep soil decompaction or other appropriate practices. The approved plan shall be attached to the decision as a condition of approval;

Facility construction could result in soil compaction, predominately for any temporary actions outside of the facility's perimeter fenceline. Activities within the facility perimeter fenceline could result in soil compaction, however, these activities are considered permanent impacts and will be subject to decommissioning and site restoration requirements at site certificate termination (i.e., end of the facility's useful life). Therefore, for any construction activities, such as preparation and use of temporary laydown areas, that occur outside of the facility's perimeter fenceline, the Department recommends be subject to decompaction requirements. Several soil reclamation measures are included in the draft Reclamation and Revegetation Plan (Attachment P-4 of this order). The Department recommends Council amend the reclamation requirements to require that the applicant conduct short-term, immediate compaction testing to inform adequacy of decompaction before contractors leave the site, under recommended Fish and Wildlife Habitat Condition 1. Based on compliance with this condition, the Department recommends Council find that the requirements of OAR 660-033-0130(38)(h)(C) are met.

(D) Construction or maintenance activities will not result in the unabated introduction or spread of noxious weeds and other undesirable weed species. This provision may be satisfied by the submittal and county approval of a weed

control plan prepared by an adequately qualified individual that includes a long-term maintenance agreement. The approved plan shall be attached to the decision as a condition of approval;

OAR 660-033-0130(38)(h)(D) requires noxious weed control to minimize potential impacts to adjacent agricultural lands and ensure revegetation and site stabilization within areas of disturbance are achieved.

Recommended Land Use Conditions 8, 9 and 10 require that the applicant finalize and implement the requirements of a Noxious Weed Control Plan, substantially as provided in Attachment P-3 of this order. Elements of the noxious weed control requirements include preconstruction identification and treatment of infestation locations; flagging, avoiding and monitoring of infestation areas during construction; and long-term monitoring and treatment during operations. All of these requirements would be reported to the Department and Morrow County Weed Department and allow for the Department to require additional treatment and monitoring given reported results. Based upon compliance with the condition, the Department recommends Council conclude that the proposed facility would not result in unabated introduction or spread of noxious weeds and other undesirable weed species and would satisfy the requirements under OAR 660-033-0130(38)(h)(D).

(E) Except for electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, the project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);

As defined in OAR 660-033-0020(8)(a), high value farmland means land in a tract composed predominately of soils that are either irrigated and classified prime, unique, Class I or II soils; or, not irrigated and classified prime, unique, Class I or Class II soils. ASC Exhibit K Table K-2 presents a tract analysis predominance test for high-value farmland. Based on the tract analysis, the percent of high-value farmland within the 9 subject tracts ranges from 0 to 23 percent, all of which are below 50 percent (threshold for determining predominance). Therefore, none of subject tracts are located on high-value farmland soils as defined in OAR 660-033-0020(8)(a). The Department recommends Council find that the proposed facility is consistent with OAR 660-033-0130(38)(h)(E).

(F) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:
(i) Non high-value farmland soils are not available on the subject tract;
(ii) Siting the project on non high-value farmland soils present on the subject tract would significantly reduce the project's ability to operate successfully; or
(iii) The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract than other possible sites also located on the subject tract, including those comprised of non high value farmland soils; and

The proposed facility would not be located on high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e), which include certain high-value farmland tracts outside the Willamette Valley growing specified perennials, and certain soils located in other areas that are far from the site boundary (specifically, within the Willamette Valley, west of the Coast Range, and west of U.S. Highway 101). The proposed facility would, however, be located on arable soils, so the applicant must demonstrate that the proposed facility can meet one of the factors listed in (i) through (iii).

Because the proposed site does not contain high-value farmland soils listed as defined in OAR 660-033-0020(8)(b)-(e), the Department recommends the Council find that factors (i) and (ii) do not apply. The applicant provides evidence to demonstrate compliance with OAR 660-033-0130(38)(h)(F) through factor (iii).

While the proposed site boundary/micrositing area does not contain any high-value farmland soils as defined by OAR 660-033-0020(8)(b)-(e), which is cited by OAR 660-033-0130(38)(h)(F), it does contain high-value farmland described at ORS 195.300(10) as well as arable soils. The applicant therefore considered these siting factors in its evaluation of why the proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract than other possible sites also located on the subject tract.

The applicant argues that it is not possible to site the solar arrays completely avoiding the high-value farmland described at ORS 195.300(10) due to the patchy and irregular nature of this high-value farmland on the subject tract. ASC Exhibit K, Figure K-7 shows that high-value farmland described at ORS 195.300(10) at the proposed solar micrositing area and within the subject tract is patchy, irregular, and distributed throughout the subject tract, and therefore avoiding these areas would reduce the number of solar arrays that could be sited contiguous to one another.

As explained in the analysis under OAR 660-033-0130(38)(i), the applicant argues, and the Department agrees, that siting the solar components solely on nonarable soils present on the subject tract would significantly reduce the project's ability to operate successfully, in part because these areas largely consist of steeper slopes not conducive to siting solar arrays. In addition, because the nonarable soils within the subject tract are patchy and relatively narrow, the solar arrays would need to be spread out across many smaller sites, rather than one contiguous site. Disperse solar arrays would also require substantially more infrastructure to connect the facility components (such as more access roads, collector lines, and potentially additional internal transmission lines).

As previously explained, disperse solar arrays would require substantially more infrastructure to connect the facility components. By consolidating the solar components, the applicant would avoid developing additional infrastructure that would have the potential to impact the farming and ranching operation. Based upon this information, the Department recommends that the Council find that the proposed sited is better suited to allow continuation of the existing

commercial farm and ranching operation on the subject tract than other possible sites also located on the subject tract, consistent with factor (F)(iii).

> *(G) A study area consisting of lands zoned for exclusive farm use located within one mile measured from the center of the proposed project shall be established and:*
> *(i) If fewer than 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits within the study area, no further action is necessary.*
> *(ii) When at least 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities within the study area, the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential photovoltaic solar power generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to diminished opportunities to expand, purchase or lease farmland, acquire water rights, or diminish the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area.*

OAR 660-033-0130(38)(h)(G) requires an evaluation of photovoltaic solar power generation facility development within 1-mile of the proposed site. Within 1-mile of the proposed site, there are portions of an operational 50 MW (approximately 121 acres) solar facility, Wheatridge Renewable Energy Facility III.

ASC Exhibit K Attachment K-1 and K-3 include signed landowner statements affirming they have reviewed the location of the proposed facility and do not anticipate any adverse impact, or any increase in the cost of farming practices, in the vicinity of the solar arrays. Nor do they believe the proposed facility will impact their ability to continue operations or diminish their ability to expand, purchase or lease farmland or acquire water rights and explain why or why not.

The location of the proposed facility in proximity to other existing or approved renewable energy facilities allows for efficient use of transmission infrastructure and potential sharing infrastructure, such as an O&M building, while consolidating land use impacts to a specific area.

Based on these facts, the Department recommends Council find that the proposed facility will not materially alter the stability of the overall land use pattern of the area, and would satisfy OAR 660-033-0130(38)(h)(G)(ii).

> *(i) For arable lands, a photovoltaic solar power generation facility shall not use, occupy, or cover more than 20 acres. The governing body or its designate must find that the*

following criteria are satisfied in order to approve a photovoltaic solar power generation facility on arable land.

(A) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);

(B) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:

i. Nonarable soils are not available on the subject tract;

ii. Siting the project on nonarable soils present on the subject tract would significantly reduce the project's ability to operate successfully; or

iii. The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract than other possible sites also located on the subject tract, including those comprised of nonarable soils;

(C) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);

As shown in Table 5: *High-Value, Arable and Nonarable Lands in the Site Boundary*, the proposed facility would use, occupy, or cover 3,684 acres of arable lands, well over the 20-acre threshold established by OAR 660-033-0130(38)(i). As provided under OAR 660-033-0130(38)(k), a solar PV facility that exceeds the threshold established by OAR 660-033-0130(38)(i) requires a goal exception. Therefore, the proposed facility requires an exception to Statewide Planning Goal 3. The Department's analysis of the exception request is provided in Section IV.E.1.c *Goal 3 Exception* of this order. The remainder of the OAR 660-033-0130(38)(i) criteria are evaluated here.

To satisfy OAR 660-033-0130(38)(i)(A), the proposed facility must not be located on those high-value farmland soils listed in OAR 660-033-0020(8)(a). As discussed under OAR 660-033-0130(38)(h)(D), the proposed facility would not be located on high-value farmland soils listed in OAR 660-033-0020(8)(a), consistent with OAR 660-033-0130(38)(i)(A).

OAR 660-033-0130(38)(i)(B) pertains to high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils. As described under OAR 660-033-0130(38)(h)(F), the proposed facility does not contain high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e). It does, however, contain arable soils; therefore, one of the three factors under OAR 660-033-0130(38)(i)(B) must be met.

As defined in OAR 660-033-0130(38)(b), "arable soils" means soils that are suitable for cultivation as determined by the governing body or its designate based on substantial evidence in the record of a local land use application, but "arable soils" does not include high-value farmland soils described at ORS 195.300(10) unless otherwise stated. While the applicant does not quantify the amount of arable soils at the site, the applicant does provide the amount of arable land. "Arable land," which includes predominantly cultivated land, is defined separately under OAR 660-033-0130(38) (and is addressed by the Department under OAR 660-033-

0130(38)(i)) but is useful here to help determine the approximate amount and extent of arable soils within the proposed solar micrositing area. As shown in Table 4: *High-Value, Arable and Nonarable Lands in and Around the Site Boundary and Micrositing Corridors* above, the entirety of the proposed micrositing area (100 percent, or 3,684 acres) consists of arable land. The definition of arable soils – in contrast with arable lands – excludes high-value farmland soils described at ORS 195.300(10) unless otherwise stated. Even excluding the entirety of the 1,580 acres of high-value farmland soils described at ORS 195.300(10) within the proposed micrositing area to reach the minimum amount of arable soils, there are a minimum of 2,104 acres of arable soils. Because the proposed micrositing area would encompass 2,104 acres, a minimum of 57 percent (2,104 divided by 3,684) of the site is comprised of arable soils. No portion of the proposed 3,684-acre micrositing area is comprised of nonarable soils.

Because nonarable soils are available on the subject tract, factor (B)(i) does not apply.

The Department next evaluates factor (B)(ii). ASC Exhibit K Figure K-6 presents the extent of arable soils within the site boundary and analysis area. Given the extremely limited amount of available nonarable soils within the site boundary, 3 acres, it is not possible to site the proposed facility while completely avoiding arable soils.

Similarly, given the extent of arable soils within the proposed site boundary, it is illogical and impractical to evaluate a scenario where the proposed facility could be dispersed in a manner to maximum impacts across the 3 acres of nonarable soils. Dispersing infrastructure to achieve this goal would result in greater impacts with minimal overall reduced impacts to arable soils. By consolidating the solar components, the applicant would avoid developing additional infrastructure that would have the potential to impact the farming and ranching operation. Based upon this information, the Department recommends that the Council find that the proposed sited is better suited to allow continuation of the existing commercial farm and ranching operation on the subject tract than other possible sites also located on the subject tract, consistent with factor (B)(iiI).

Factor (C) requires that no more than 12 acres of the proposed solar facility be sited on high-value farmland soils described at ORS 195.300(10). As discussed in the evaluation under OAR 660-033-0130(38)(g), the proposed micrositing area would use or occupy more than 12 acres of high-value farmland described at ORS 195.300(10). The applicant therefore requests an exception to Statewide Planning Goal 3. The Department's analysis of the exception request is provided in Section IV.E.1.c. *Goal 3 Exception* of this order.

> *(D) A study area consisting of lands zoned for exclusive farm use located within one mile measured from the center of the proposed project shall be established and:*
>
> *i. If fewer than 80 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits within the study area no further action is necessary.*
>
> *ii. When at least 80 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building*

permits either as a single project or as multiple facilities, within the study area the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential photovoltaic solar power generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to diminished opportunities to expand, purchase or lease farmland, acquire water rights or diminish the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area; and

OAR 660-033-0130(38)(i)(D) requires an evaluation of photovoltaic solar power generation facility development within 1-mile of the proposed site. Within 1-mile of the proposed site, there are portions of an operational 50 MW (approximately 121 acres) solar facility, Wheatridge Renewable Energy Facility III.

ASC Exhibit K Attachment K-1 and K-3 include signed landowner statements affirming they have reviewed the location of the proposed facility and do not anticipate any adverse impact, or any increase in the cost of farming practices, in the vicinity of the solar arrays. Nor do they believe the proposed facility will impact their ability to continue operations or diminish their ability to expand, purchase or lease farmland or acquire water rights and explain why or why not.

The location of the proposed facility in proximity to other existing or approved renewable energy facilities allows for efficient use of transmission infrastructure and potential sharing infrastructure, such as an O&M building, while consolidating land use impacts to a specific area.

Based on these facts, the Department recommends Council find that the proposed facility will not materially alter the stability of the overall land use pattern of the area, and would satisfy OAR 660-033-0130(38)(i)(D)(ii).

(E) The requirements of OAR 660-033-0130(38)(h)(A), (B), (C) and (D) are satisfied.

As presented above, the Department recommends the Council find that the requirements of (A), (B), and (D) are satisfied. Factor (C) requires that no more than 12 acres of the proposed facility be sited on high-value farmland soils described at ORS 195.300(10). Because the proposed facility would be sited on more than 12 acres of high-value farmland described at ORS 195.300(10), the applicant requests an exception to Statewide Planning Goal 3. The Department's analysis of the exception request is provided in Section IV.E.1.c. *Goal 3 Exception* of this order.

(j) For nonarable lands, a photovoltaic solar power generation facility shall not use, occupy, or cover more than 320 acres. The governing body or its designate must find that the following criteria are satisfied in order to approve a photovoltaic solar power generation facility on nonarable land:

As shown in Table 5: *High-Value, Arable and Nonarable Lands in the Site Boundary*, the proposed facility would use, occupy, or cover approximately 1.3 acres of nonarable lands, far less than the 320-acre threshold established by OAR 660-033-0130(38)(j).

(A) Except for electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, the project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);

This factor is identical to OAR 660-033-0130(38)(h)(E), which was previously analyzed in this section. As explained under that factor, the Department recommends the Council find that, with the exception of electrical cable collection systems connecting the solar facility to a transmission line, the proposed facility would not be located on high-value farmland soils listed in OAR 660-033-0020(8)(a). The Department therefore recommends the Council make the same finding under OAR 660-033-0130(38)(j)(A).

(B) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:

i. Siting the project on nonarable soils present on the subject tract would significantly reduce the project's ability to operate successfully; or
ii. The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract as compared to other possible sites also located on the subject tract, including sites that are comprised of nonarable soils;

This factor is identical to factors (ii) and (iii) from OAR 660-033-0130(38)(i)(B), which was previously analyzed in this section. As previously explained, the Department recommends the Council find that siting the proposed facility on nonarable soils present on the subject tract would significantly reduce the ability to operate successfully, and that the proposed site is better suited to allow continuation of the existing commercial farm and ranching operation on the subject tract than other possible sites also located on the subject tract (including those comprised of nonarable soils). The Department recommends the Council make the same findings under OAR 660-033-0130(38)(j)(B).

(C) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);

As discussed in the evaluation under OAR 660-033-0130(38)(g), the proposed micrositing area would be sited on more than 12 acres of high-value farmland described at ORS 195.300(10). The applicant therefore requests an exception to Statewide Planning Goal 3. The Department's analysis of the exception request is provided in Section IV.E.1.c *Goal 3 Exception* of this order.

(D) No more than 20 acres of the project will be sited on arable soils;

As discussed in the evaluation under OAR 660-033-0130(38)(i), the proposed solar micrositing area would be located on a minimum of 2,104 acres of arable soils. The proposed solar micrositing area would therefore not meet factor (D) and requires an exception to Statewide Planning Goal 3. The Department's analysis of the exception request is provided in Section IV.E.1.c *Goal 3 Exception* of this order.

(E) The requirements of OAR 660-033-0130(38)(h)(D) are satisfied;

OAR 660-033-0130(38)(h)(D) requires the applicant to demonstrate that the proposed solar facility would not result in the "unabated introduction or spread of noxious weeds and other undesirable weed species." For the reasons discussed under that criterion above, the Department recommends the Council find that the proposed solar micrositing area would not result in the unabated introduction or spread of noxious weeds and other undesirable weed species. The Department therefore recommends that OAR 660-033-0130(38)(j)(E) would also be satisfied.

(F) If a photovoltaic solar power generation facility is proposed to be developed on lands that contain a Goal 5 resource protected under the county's comprehensive plan, and the plan does not address conflicts between energy facility development and the resource, the applicant and the county, together with any state or federal agency responsible for protecting the resource or habitat supporting the resource, will cooperatively develop a specific resource management plan to mitigate potential development conflicts. If there is no program present to protect the listed Goal 5 resource(s) present in the local comprehensive plan or implementing ordinances and the applicant and the appropriate resource management agency(ies) cannot successfully agree on a cooperative resource management plan, the county is responsible for determining appropriate mitigation measures; and

OAR 660-033-0130(38)(j)(F) first requires a determination of whether the photovoltaic solar power generation facility is proposed to be developed on lands that contain a Goal 5 resource protected under the County's comprehensive plan; if so, additional requirements apply. Based on review of the Morrow County Comprehensive Plan (last updated in 2013) there are no Goal 5 resources in the proposed site boundary. The Department recommends Council find that the proposed solar micrositing area would be consistent with OAR 660-033-0130(38)(j)(F).

(G) If a proposed photovoltaic solar power generation facility is located on lands where, after site specific consultation with an Oregon Department of Fish and Wildlife biologist, it is determined that the potential exists for adverse effects to state or federal special status species (threatened, endangered, candidate, or sensitive) or habitat or to big game winter range or migration corridors, golden eagle or prairie falcon nest sites or pigeon springs, the applicant shall conduct a site-specific assessment of the subject property in consultation with all appropriate state, federal, and tribal wildlife management agencies. A professional biologist shall conduct the site-specific assessment by using methodologies accepted by the appropriate wildlife management agency and shall determine whether adverse effects to special status species or wildlife habitats are anticipated. Based on the results of the biologist's report, the site shall be designed to avoid adverse effects to state or federal special status species or to wildlife habitats as described above. If the applicant's site-specific assessment shows that adverse effects cannot be avoided, the applicant and the appropriate wildlife management agency will cooperatively develop an agreement for project-specific mitigation to offset the potential adverse effects of the facility. Where the applicant and the resource management agency cannot agree on what mitigation will be carried out, the county is responsible for determining appropriate mitigation, if any, required for the facility.

ASC Exhibits P and Q and Sections IV.H., *Fish and Wildlife Habitat* and IV.I, *Threatened and Endangered Species* of this order provide information relevant to this criterion. The applicant consulted with ODFW's district biologist and ODOE on the appropriate field survey protocols and performed a site-specific assessment of potential adverse impacts to special status species and fish and wildlife habitat. As presented in Section IV.H., *Fish and Wildlife Habitat* and IV.I, *Threatened and Endangered Species* of this order, the Department recommends Council find that based on the evidence provided in ASC Exhibits P and Q, and compliance with recommended conditions, that the site would be designed to mitigate adverse impacts to special status wildlife species and associated wildlife habitat, consistent with OAR 660-033-0130(38)(j)(G).

(k) An exception to the acreage and soil thresholds in subsections (g), (h), (i), and (j) of this section may be taken pursuant to ORS 197.732 and OAR chapter 660, division 4.

As previously discussed, the proposed solar micrositing area would exceed the 12-acre threshold established at OAR 660-033-0130(38)(g) for high-value farmland described at ORS 195.300(10) because it would use, occupy, or cover 3,684 acres of high-value farmland. In addition, the proposed solar micrositing area would exceed the 20-acre threshold established by OAR 660-033-0130(38)(i) for arable lands, because the facility would use, occupy, and cover up to 2,104 acres of arable lands.

The proposed solar micrositing area therefore triggers the need for a goal exception through both the OAR 660-033-0130(38)(g) threshold exceedance and the OAR 660-033-0130(38)(i) threshold exceedance.

The Department's evaluation of the applicant's Goal 3 exception request is provided below, in Section IV.E.1.c. *Goal 3 Exception* of this order, and recommends the Council find that an exception to Goal 3 is justified.

> *(l) The county governing body or its designate shall require as a condition of approval for a photovoltaic solar power generation facility, that the project owner sign and record in the deed records for the county a document binding the project owner and the project owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).*

Subject to compliance with the recommended condition, the Department recommends that the Council find that the proposed facility would comply with OAR 660-033-0130(38)(l):

> **Recommended Land Use Condition 11 (PRE):** Prior to construction, the certificate holder shall record in the real property records of Morrow County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland. [PRE-LU-07]

> *(m) Nothing in this section shall prevent a county from requiring a bond or other security from a developer or otherwise imposing on a developer the responsibility for retiring the photovoltaic solar power generation facility.*

OAR 660-033-0130(38)(m) allows for the governing body to require a bond or letter of credit for the amount necessary to retire the facility during decommissioning. Recommended Retirement and Financial Assurance Condition 5 would require that, prior to construction, the applicant obtain and provide to the Department a bond or letter of credit in the specified amount recommended by considered by Council as satisfactory for facility decommissioning. Based upon compliance with this condition, the Department recommends Council conclude that the requirements under OAR 660-033-0130(38)(m) would be satisfied.

As discussed above, the proposed solar micrositing area would not comply with OAR 660-033-0130(38)(g) because it would use, occupy, or cover more than 12 acres of high-value farmland (and does not meet either of the exemptions specified in OAR 660-033-0130(38)(g)) and would not comply with OAR 660-033-0130(38)(i) because it would use, occupy, or cover more than 20 acres of arable land. As discussed in Section IV.E.1.a. of this order, the Department recommends the Council follow the process under ORS 469.504(1)(B) and find that the proposed facility does not comply with OAR 660-033-0130(38)(g) or –(i) but that an exception to the applicable statewide planning goal is justified under ORS 469.504(2).

IV.E.1.c. Goal 3 Exception

Statewide Planning Goal 3 seeks to preserve and maintain agricultural lands for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700. Certain nonfarm uses, including solar photovoltaic power generation facilities for commercial power generation, may be sited on agricultural lands if those uses will not have significant adverse effects on accepted farm or forest practices. OAR 660-015-0000(3).

As described above, LCDC adopted standards and conditions applicable to a solar photovoltaic power generation facility proposed to be sited on agricultural land under OAR 660-033-0130(38). As discussed above, the proposed facility exceeds the thresholds allowed under OAR 660-033-0130(38)(g) and –(i) for photovoltaic solar energy facilities on high-value farmland (12 acres) and arable farmland (20 acres). Therefore, the applicant requests Council grant an exception to statewide planning Goal 3.

Pursuant to ORS 469.504(2)(c) and OAR 345-022-0030(2)(b)(B), if a proposed facility does not comply with applicable substantive criteria, the facility must otherwise comply with the applicable statewide planning goals or the Council must find that an exception to the statewide planning goal is justified. The criteria that must be applied to determine whether an exception is justified are provided in OAR 345-022-0030(4) (these same criteria are in ORS 469.504(2)(c)(A) through (D)):

> *(4) The Council may find goal compliance for a proposed facility that does not otherwise comply with one or more statewide planning goals by taking an exception to the applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide planning goal pertaining to the exception process or any rules of the Land Conservation and Development Commission pertaining to the exception process goal, the Council may take an exception to a goal if the Council finds:*
>
> *(a) The land subject to the exception is physically developed to the extent that the land is no longer available for uses allowed by the applicable goal;*
>
> *(b) The land subject to the exception is irrevocably committed as described by the rules of the Land Conservation and Development Commission to uses not allowed by the applicable goal because existing adjacent uses and other relevant factors make uses allowed by the applicable goal impracticable; or*
>
> *(c) The following standards are met:*
>
> *(A) Reasons justify why the state policy embodied in the applicable goal should not apply;*

(B) The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility; and

(C) The proposed facility is compatible with other adjacent uses or will be made compatible through measures designed to reduce adverse impacts.

The provisions of OAR 345-022-0030(4)(a) and (b) are not applicable to the proposed facility. Under OAR 345-022-0030(4)(c), an exception can be granted if the criteria in (A) through (C) are met. Under 345-022-0030(4)(c)(A), Council must find "reasons justify why the state policy embodied in the applicable goal should not apply."

The state policy embodied in Goal 3 is the preservation and maintenance of agricultural land for farm use. OAR 660-033-0120 allows certain non-agricultural uses on agricultural lands including photovoltaic solar power generation, subject to certain conditions. These conditions limit the amount of land a photovoltaic solar power generation facility may use based on the importance of that land to agricultural uses. A photovoltaic solar power generation facility may not use, occupy, or cover more than 12 acres of high-value farmland, more than 20 acres of arable land, and more than 320 acres of non-arable land.

In ASC Exhibit K, the applicant asserts the following reasons that they believe justify taking an exception to statewide planning Goal 3.

Reasons the applicant asserts justify an exception to Goal 3

<u>The facility responds to important state and county goals and priorities</u>.

The applicant proposes that the statewide planning Goal 3, for the preservation and maintenance of agricultural land for farm use, should not apply to the Council's land use decision on the proposed facility because the proposed facility is consistent with County policies implementing statewide planning Goal 13, and other energy policies and priorities of the State.

Statewide Planning Goal 13 provides that land and land uses "shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles." Statewide planning Goal 13 calls for the conservation of energy and the renewable energy resources but does not, in and of itself, call for the development of renewable energy. Morrow County has, however, in its acknowledged Comprehensive Plan, adopted policies encouraging development of renewable energy in the County:

- Policy 2: To conserve energy and develop and use renewable energy resources.
- Policy 3: Encourage development of solar and wind resources.

- Policy 9: The County will encourage the development of alternative energy sources in County industries and businesses.

The applicant asserts that the proposed facility responds to all three of these policies by developing Morrow County's renewable solar energy resource, thus meeting the County's policies for renewable energy development.

The applicant also notes that in 2021, Governor Kate Brown signed House Bills 2021,[72]2165, 2475, and 3141 to address the climate crisis by moving to 100 percent clean electricity sources by 2040. The applicant contends that, in addition to responding to the County's policies for development of renewable energy, the proposed facility's solar energy generation facilities, which will provide 500 megawatts of renewable solar generated energy, will assist the state in meeting these clean energy goals.

Oregon and Morrow County, like many states and local jurisdictions across the country, are taking measures to combat climate change. At the same time, Oregon has a rigorous land use system that seeks, among other goals, to preserve the state's agricultural lands. While Goal 13, the County's policies and the above cited legislation, including House Bill 2021, aim to reduce the emissions of greenhouse gases and/or encourage the development of renewable energy sources, none address *where* renewable energy facilities should be located, let alone suggest such facilities may be placed on agricultural lands as an exception to Goal 3. To the contrary, the Oregon Court of Appeals has expressly held that Goal 13 does not provide a basis for a reasons exception to Goal 3.[73]Additionally, the applicant has not submitted a power purchase agreement showing that the power from the facility, if approved, would even be used in Oregon. Power from energy generation facilities in Oregon can and are used in other states, just like power from energy generation facilities in other state are used in Oregon.

Therefore, consistent with prior Council findings on this proposed reason, the Department recommends Council reject the applicant's argument that because the proposed facility would

[72] Oregon House Bill 2021 requires retail electricity and electricity service suppliers to reduce greenhouse gas emissions by 100 percent by 2040.

[73] "We agree with LUBA's conclusion that Goal 13 does not require counties to develop or facilitate the development of energy facilities. . .. Neither the text of the goal nor its guidelines 'require' the county to develop or facilitate the development of any particular land use, much less large solar power generation facilities. [footnote omitted]. Instead, Goal 13 requires that *all* development on land be 'managed and controlled' to conserve energy. The text of the goal and its guidelines do not directly or indirectly require the development of energy facilities. . ." The Court went on to note that the developer in that case, as the applicant here, requested an exception "to the requirement in Goal 3 that authorizes counties to approve "farm uses, and those nonfarm farm uses defined by [LCDC] rule" and to the requirement in OAR 660-033-0130(38) that the facility be not more than 12 acres in size when located on high-value farmland. Thus, the exception was to justify an energy facility of a particular size, and Goal 13 has no bearing on that justification." 1000 Friends of Oregon v. Jackson Cnty., 292 Or. App. 173, 192-193, 423 P.3d 793, 804-805 (2018) (emphasis in original).

respond to and be consistent with local and state energy policies, that is a reason justifying taking an exception to Goal 3.[74]

The applicant also contends the following reasons justify an exception to Goal 3.

<u>The facility is locationally dependent.</u>

The applicant requests that Council consider the facility to be "locationally dependent" and that the site's locational dependency is a reason that justifies taking an exception to the statewide Goal 3 regarding preservation of agricultural lands. The applicant contends the proposed facility is locationally dependent because of its proximity to existing energy infrastructure, the regional grid for interconnection, and major transportation corridors.

Proximity to existing energy infrastructure. The proposed facility would be adjacent to Wheatridge Renewable Energy Facility III (WREF III), a 50 MW operational solar facility approved by EFSC. The proposed facility would utilize the existing Blue Ridge Substation to interconnect the facility's southern substation and southern solar array to the regional transmission system. The southern substation would be sited as close as feasible to the point of interconnection while providing adequate room for the proposed BESS area and existing infrastructure. (The applicant's Figure C-3 shows the Blue Ridge Substation is surrounded by project infrastructure associated with WREF I and WREF III). Locating the BESS area near the southern substation would allow for efficiency and avoid increased farmland impacts resulting from longer collection lines that would be necessary to link the facility components. The applicant might also utilize the existing Wheatridge Facilities O&M building.[75] Benefits to siting the facility close to other energy facilities include allowing for efficient use of transmission infrastructure while consolidating land use impacts to a specific area as opposed to spreading the impacts across a broader patchwork of facilities and lands, which would require more infrastructure such as transmission and result in more land use impacts.

Proximity to the regional grid for interconnection. The proposed facility would utilize an existing 230-kV UEC transmission line for both of its connection points. The UEC line runs approximately 20 miles south from the UEC Highway 730 Substation to the Blue Ridge Substation. The northern substation (and thus the northern solar array areas) will potentially interconnect with the existing UEC line or other planned transmission lines adjacent to the facility, running north to south through the northern solar array areas. The southern substation (and thus the southern solar array areas) will connect to the UEC transmission line via a 0.6 mile 230 kV transmission line to the Blue Ridge Substation.

Proximity to major transportation corridors. The site boundary is sited adjacent to Highway 207 and Bombing Range Road providing access for construction and ongoing maintenance and

[74] WESAPP Final Order on ASC for the West End Solar Project 2023-03-24. BSEAPPDoc2 Final Order on ASC 2020-04-24.

[75] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03. p. 44.

operations, thus, per the applicant, no new roads that would impact agricultural operations would need to be built.[76]

The Department agrees that siting the facility close to existing or approved renewable energy development and an existing transmission line would allow for efficient use of infrastructure, while minimizing impacts to surrounding agricultural lands. To ensure that these benefits are realized, the Department recommends Council impose the following condition requiring that, prior to construction of the facility, the applicant provide an executed interconnection agreement between applicant and the Umatilla Electric Cooperative.

> **Recommended Land Use Condition 13 (PRO):** Prior to operation, the certificate holder shall provide to the Department an executed interconnection agreement with Umatilla Electric Cooperative (UEC), authorizing interconnection of the facility to the existing UEC transmission line that runs from the UEC Highway 730 Substation to the Blue Ridge Substation.
> [PRO-LU-01]

For the reasons discussed above and subject to this condition the Department recommends Council find the facility is locationally dependent and that is a reason justifying taking an exception to Goal 3.

<u>Minimal Impacts to Agriculture.</u>

There are nine tracts of land within the proposed site boundary.[77] Following is a summary of the ownership, and present operations on those tracts.[78]

Tract 1: Owned by Petty John, Kerry D Trustee Et al. They conduct agricultural operations (dryland wheat farming).
Tract 2: Owned by Kilkenny Land Company, LLC and RJK Family, LLC, leased by Corey Miller for farming (dryland wheat).
Tract 3: owned by Corrine Lindsay and her husband. They conduct agricultural operations (dryland wheat farming) on the land.
Tract 4: Owned by Gabriel Martin of Bellingham, WA, leased by Corey Miller for farming (dryland wheat).
Tract 5: Owned by Gabriel Martin of Bellingham, WA, leased by Corey Miller for farming (dryland wheat).
Tract 6: Owned by Sheila Munkers of Cottonwood, ID, leased by Corey Miller for farming (dryland wheat).

[76] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 66. Note, elsewhere the applicant states that proposed facility components proposed include some new private access and service roads. Ex. B, p. 5. Thus, the applicant acknowledges that some new roads will be built but believes those roads would not impact agricultural operations.
[77] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, Figure K-3.
[78] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 75.

Tract 7: owned by North Lex Power and Land, LLC. They conduct agricultural operations (dryland wheat farming) on the land.
Tract 8: Owned by Kilkenny Land Company, LLC and RJK Family, LLC, leased by Corey Miller for farming (dryland wheat).
Tract 9: Owned by Wheatridge Wind Land Holdings, LLC and existing Blue Ridge Substation. Lands are used for agricultural operations (mix of fallow fields and fields in small grain production) and otherwise is various grassland habitat and developed areas).

The applicant contends the proposed facility will have minimal direct and indirect impacts to agriculture for the following reasons.

Minimal direct impacts on agriculture

One potential direct impact of the proposed facility could be the loss of employment for persons who farm on lands within the site boundary. Presently, farming operations on the proposed facility site support approximately five full time employment positions. Corey Miller is the tenant farmer on Tracts 2, 4, 5, 6 and 8. Mr. Miller's job is partially supported by operations where the facility would be located. Mr. Miller stated that if the facility is built, he would continue to farm adjacent areas. He noted that if the facility is built on all acres, it would eliminate agricultural related jobs. However, he is contracted by the applicant to support operations and maintenance of its existing facilities and anticipates that work would increase to support the proposed facility, thus supporting his other agricultural operations.[79] The Lindsays, who own Tract 3 are considered to have one full time employee.[80]North Lex Power and Land (owner of Tract 7) employs two people whose jobs are supported by operations on Tract 7.[81]

The applicant surveyed the landowners/farmers regarding the proposed facility. Each indicated that they would continue to farm elsewhere if the facility is built and that none of the five FTE positions are anticipated to be lost during facility construction and operation. [82] While the tenant farmer would no longer farm on the tracts within the facility footprint, the work he would do for the applicant would support his other agricultural operations. Therefore, the proposed facility should not have a direct economic impact on farm employment on lands within the site boundary.

Another potential direct impact of the proposed facility on agriculture would be the loss of revenue generated by farming within the site boundary. Removing approximately 3,700 acres of arable land from agricultural production would result in the farmers no longer receiving the gross value of production from producing wheat, which is estimated to be an annual $487,000

[79]WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, Attachment K-3, Corey Miller response to survey question nos. 4, 6 and 7.
[80] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, Attachment K-3, Corrine Lindsay response to survey questions and Attachment K-4, p. 18, Table 12.
[81] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 75 and Attachment K-3, North Lex response to survey question no. 6.
[82] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 76 and Attachments K-3.

for the projected 3,684 acres removed from production (based on a 10-year average of agricultural production in the site boundary). The applicant contends that impact is counterbalanced by the fact that they will more than compensate the landowners for this annual production value loss through their lease payments.[83]In support of this assertion the applicant refers to letters from the owners of two of those tracts (Tracts 2 and 8) stating, *inter alia*, that the loss of revenue from the removal of their land for farming dryland wheat would be substantially exceeded by the lease payments they receive and that they will keep farming adjacent lands around the renewable infrastructure and on an additional 4,000 acres they own that would not be used by the facility.[84]

The Department recommends Council not find those landowner letters sufficient to make a finding the facility would not have a direct impact on farming revenue, for two reasons. First, the letters are from the owners of only 2 of the 9 tracts within the site boundary and those tracts make up only approximately 50% of the site boundary (3,684 acres within a proposed 7,450 acre site boundary) and approximately 54% of the land that would be removed from agricultural production (2000 acres of 3700 acres). Second, these landowners do not farm the land that the facility would displace – those tracts are farmed by the tenant farmer, Corey Miller, who would lose that farming revenue. While he may replace that revenue with other work for the applicant, it will not be revenue gained from farming. Third, while the owners of Tracts 2 and 8 farm adjacent lands, the letters do not state they would use the lease payments to support their adjacent farming operations. Thus, there is not sufficient evidence in the record for Council to conclude the proposed facility would not have a direct impact on revenue generated by farming / agriculture.

Minimal indirect and induced impacts on agriculture

ASC Exhibit K Attachment K-4 provides an economic impact assessment prepared by ECONorthwest evaluating the potential direct and indirect impacts from the loss of approximately 3,684 acres of EFU land from agricultural production.

Indirect impacts include impacts from the loss of economic activity supported by the agricultural production within the proposed facility site, including spending on inputs such as seeds, fertilizer, fuel and contract services such as harvesting and spraying. ASC Exhibit K Attachment K-4 Table K-4 presents ECONorthwest's estimate of a $749,479 annual loss in agricultural revenue (including employment, labor income and outputs).

Induced impacts are generated by household spending associated with ongoing agricultural operations within the proposed site boundary. Assuming this income is no longer earned, it is not available to spend and would also represent lost economic activity when agricultural

[83] See statements in Attachment K-1 from the owners of Tract 2 (Kilkenny Land Company, LLC and RJK Family, LLC) estimating the increase in revenue from lease payments could exceed 10 times the average revenue from the dryland crops on their land in the site boundary.

[84] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 76 and Attachment K-1.

production stops. ECONorthwest estimates that most of the 1.6 indirect jobs (1.3 FTE) supported by site-related expenditures are in an economic sector categorized as support activities for agriculture and forestry, which was the second largest employer in Morrow County in 2021, with an estimated 816 workers.[85] A potential reduction of 1.3 jobs represents approximately 0.2 percent of existing employment in this sector and about 0.06 percent of total agricultural jobs in Morrow County.[86]

The findings of the ECONorthwest Agricultural Impact Analysis suggest that the proposed facility's removing 3,684 acres of high-value farmland from agricultural production would have minimal direct, indirect, and induced impacts to agricultural activities and the overall agricultural economy in Morrow County.

The ECONorthwest analysis supports Council finding that the proposed facility would have minimal direct and indirect impacts on agriculture.

Water availability

As previously discussed, the site boundary is not located within the boundaries of an irrigation district, there are no irrigated agricultural lands within the site boundary.[87]While there are two water right certificates with authorized places of use located within the site boundary, they are junior relative to other water rights in the area. The well that serves one of these rights is within the Butter Creek Critical Ground Water Area and the other is located within the Ella Butte Groundwater Limited area. If existing groundwater rights were to be curtailed in this area, other more senior water rights would take precedence.[88]

Farmland preservation and temporary land conversion

The applicant notes that many of the soils found within the site boundary are susceptible to wind erosion (see ASC Exhibit I) and asserts that the constructed facility will safeguard soil health and lead to farmland preservation by protecting soils from wind and soil erosion through the minimization of construction impacts and by providing vegetation under solar panels, which shield soils from wind.

The applicant also argues that the renewable energy leases are temporary, and that per the terms of the lease and consistent with a Retirement Plan approved by the landowners and applicable agencies (see ASC Exhibit W), the land would be restored for future agricultural use.

Both of these arguments are premised on an assumption that the land on which the facility sits would be returned to agricultural use after it is no longer used as a solar energy facility.

[85] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, Attachment K-4, p. 5 Table 3 and p. 21.
[86] *Id.*
[87] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 4 and Figure K-4.
[88] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03., pp. 5-6 and 68.

However, the applicant estimates the useful life of the facility to be 50 years.[89] Given the length of time the land would be used for purposes other than agriculture, the Department does not agree that the fact the land could be returned to agricultural use after 50 (or more) years is a valid basis for finding the proposed facility would have minimal impacts to agriculture and, therefore, recommends Council not adopt these rationale as reasons for granting an exception to Goal 3.

The Department however, recommends Council find that the proposed facility will have minimal impacts to agriculture and that is a reason justifying taking an exception to the statewide Goal 3 because the proposed facility would not remove irrigated agricultural land from agricultural use, nor have a significant direct or indirect economic impact, which would be further supported via compliance with recommended Land Use Condition 8 (requiring that the applicant consult with the owners of farmland within and adjacent to the site boundary on the final facility design and construction schedule/disturbance methods to ensure any adverse impacts to farm practices on surrounding lands are minimized or avoided to the greatest extent).

Local Economic Benefits

The applicant contends the proposed facility will provide economic benefits, as follows:

- Full-time jobs: the applicant estimates that operation of the proposed facility will require three full-time employees.[90]
- Construction jobs. As previously noted above, the applicant estimates that each construction phase would last approximately 12 months and that during construction of any phase, an estimated average workforce of 150 people will be employed, with a maximum of 200 people during the peak months of construction. Construction workers will include a mix of locally hired workers within a commutable distance of 30 miles from the site boundary for road and building construction, and specialized workers for solar energy generation construction (e.g., substation and electrical transmission construction, solar array, and battery storage). The applicant conservatively assumes that 30 percent of construction workers will be hired locally.
- Compensation to landowners via commercial contracts including leases.
- Establishing a $500,000 agricultural mitigation fund for Oregon State's Agricultural Research Program ($170k earmarked to fund purchasing of a plot drill, stationary thrasher, small Case-IH tractor needed to expand research program evaluating alternative dryland farming methods) and Morrow County Grain Growers ($300k earmarked to fund improvements to the North Lexington Grain Elevator, which would then increase efficiencies in grain offloading during harvest season).

[89] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, p. 1.

[90] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, p. 43.

As noted above, the applicant has provided letters from owners of two of the tracts on which the facility would be constructed, stating that the lease payments they would receive from the applicant could exceed 10 times the average revenue from their dry land crops within the facility footprint. The Department recommends Council find such lease payments do not constitute a local economic benefit because, while they are a benefit to those particular landowners, they do not benefit the local community as a whole, let alone the local agricultural community.

- Taxes: the applicant estimates that tax revenues for an up to 500-megawatt solar project in Morrow County (over a 25-year operating life) would range from approximately $45.0 million to $95.3 million, which they state is significantly higher than the estimated $0.57 million tax revenue that would be generated by the underlying agricultural lands over the same period without a solar project. The applicant, however, has not provided any evidence that the County would use tax revenues generated by the proposed facility to benefit the county's agricultural economy.
- Community service fees. The applicant anticipates entering into a Strategic Investment Program (SIP) agreement with Morrow County, under which it would pay a community service fee of up to $2.5 million. The applicant contends that the community service fees and any additional negotiated payments may be earmarked for agricultural stakeholders to ensure direct benefits to Morrow County's agricultural economy.[91] While this might end up being the case, at this time the amount of fees that would be generated remains conjecture and the applicant has not provided any documentation from the County committing to using revenue generated to benefit agricultural purposes. Given that lack of evidence, the Department recommends Council not consider community services fees or other amounts that may be negotiated under a SIP to be a local economic benefit justifying a Goal 3 exception.
- The applicant contends the stability of the lease payments will allow farmers to continue their agricultural operations on other areas of their land and points to the landowner letters stating that they don't anticipate any loss of agricultural jobs due to the project, that the lease payments increase their revenues and that they will keep farming the adjacent lands. However, there is no evidence that those owners would not continue farming the adjacent lands if the project were not built. Therefore, the Department recommends Council not find the "stability of the lease payments" to be a local economic benefit justifying a Goal 3 exception.

The Department recommends Council find that evidence related to the economic benefits of construction work, permanent jobs, community service fees and tax payments is not adequate for a reason justifying taking a goal exception because it does not represent any direct benefit to the agricultural community and economy.

In contrast, the Department recommends Council find that the representations and evidence provided related to the economic benefits from the agricultural mitigation fund are a reason

[91] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, pp. 82-83.

justifying a Goal 3 exception. To ensure that these representations are implemented, the Department recommends Council impose the following conditions:

> **Recommended Land Use Condition 14 (PRE)**: Prior to construction, the certificate holder shall remit funding to the Oregon State Agricultural Research Program, Morrow County Extension Office, totaling up to $170,000, based on final acreage impacted by the facility. The certificate holder shall demonstrate that the funds will be used to purchase equipment needed to fund research on dryland winter wheat farming methods.
> [PRE-LU-08]
>
> **Recommended Land Use Condition 15 (PRE):** Prior to construction, the certificate holder shall remit funding to the Morrow County Grain Growers, totaling up to $300,000, based on final acreage impacted by the facility. The certificate holder shall demonstrate that the funds will be used for improvements to the North Lexington Grain Elevator.
> [PRE-LU-09]

Minimal Impacts to Other Environmental Resources

The applicant also contends the proposed facility will have minimal impacts on other environmental resources and that this is a reason justifying a Goal 3 exception. In particular, the applicant notes the proposed facility would be sited to avoid any sensitive environmental features, including Washington ground squirrel habitat, FEMA 100-year floodplains, U.S. Fish and Wildlife Service-designated critical habitat, ODFW-designated big game winter ranges, and mapped wetlands.

As evaluated in Section IV.D., construction and operation of the facility, taking into account mitigation, is not likely to have a significant adverse impact to soils. As evaluated in Section IV.F. Protected Areas of this order, construction and operation of the facility will not impact any protected areas. As evaluated in Section IV.H, construction and operation of the proposed facility, taking into account mitigation, is consistent with general fish and wildlife habitat mitigation goals and standards. As evaluated in Section IV.I, construction and operation of the proposed facility, taking into account mitigation, is consistent with Oregon Department of Agriculture plant conservation program and would not be likely to have a significant impact on wildlife species listed as threatened or endangered by the Oregon Fish and Wildlife Commission. As evaluated in Section IV.J. Scenic Resources of this order, construction and operation of the facility will not impact any important or significant scenic resources. As evaluated in Section IV.R.2 Removal-Fill Law of this order, construction and operation of the facility will not impact any wetlands or waters of the state, because there are no potentially jurisdictional Waters of the State within the site boundary.

Because the proposed facility is anticipated to have no significant impacts to other environmental resources, including to soils, protected areas, fish and wildlife, threatened and

endangered species, scenic resources, and wetlands, the Department recommends Council find this is a reason justifying a Goal 3 exception.

Summary of Justifiable Reasons

As discussed above, the Department recommends Council find that 1) locational dependency, 2) minimal impacts to agriculture within the subject tracts and in the surrounding area; and 3) agricultural related economic benefit; and 4) minimal impacts to other environmental resources protected by Council standards as three reasons that justify taking an exception to the statewide policy embodied in Goal 3.

Environmental, Socioeconomic, and Energy Consequences (ESEE Analysis)

Under OAR 345-022-0030(4)(c)(B) and ORS 469.504(2)(c)(B), for the Council to determine whether to grant an exception to a statewide planning goal, the applicant must show that "the significant environmental, economic, social and energy consequences" of the solar facility have been identified and will be mitigated in accordance with Council standards.

Environmental consequences.

The facility must satisfy the requirements of all applicable EFSC standards, rules and statutes. Applicable environmental EFSC standards include: General Standard of Review; Soil Protection standard; Protected Areas standard; Recreation Standard; Scenic Resources standard; Fish and Wildlife Habitat standard; and the Threatened and Endangered Species standard, as evaluated in this order. Based on the findings of fact, conclusions of law, and conditions of approval presented in this order related to these EFSC standards, the Department recommends Council find that the facility, including mitigation, would not cause significant adverse environmental consequences or impacts.

Economic Consequences

The proposed facility would have positive economic consequences through the creation of construction jobs, three permanent jobs and generation of tax revenue for Morrow County. The facility is not anticipated to create negative economic impacts to public services, based on letters from Morrow County Sheriff's Office and Ione Rural Fire Protection District provided in in ASC Exhibit U Attachments U-2 and U-3. Based on these facts, the Department recommends Council find that the facility, including mitigation, would have a beneficial economic impact.

Social Consequences

Social consequences are evaluated within the context of impacts on a community from a proposed facility, such as impacts from facility visibility, noise, traffic, or demand on providers of public services. As presented in this order, the facility components would not be expected to result in significant adverse visual or noise impacts on any scenic resource, protected area, or

important recreational opportunity within the analysis areas; NRHP-eligible historic, cultural and archeological resources or to public services.

Based on the findings of fact and conclusions of law, and conditions of approval as presented in this order under the Council's Scenic Resources standard; Historic, Cultural and Archeological standard; Public Services standard; and Recreation standard, the Department recommends Council find that the facility would not cause significant adverse social consequences

Energy Consequences.

The proposed facility would produce up to 500 MW of renewable, emissions-free energy. Therefore, the Department recommends Council concludes that the facility would not cause significant adverse energy consequences and would have a positive energy consequence by producing clean, renewable electricity.

Compatibility with adjacent uses

Under OAR 345-022-0030(4)(c)(C) (and ORS 469.504(2)(c)(C)), in order for the Council to determine whether to grant an exception to a statewide planning goal, the applicant must show that the facility is compatible with other adjacent land uses or will be made compatible through mitigation measures.

The site boundary is surrounded by EFU-zoned land to the east, west and south.[92] Adjacent land uses directly north/east, east and south of the site boundary have water rights but are used for dryland wheat farming.[93] Potential impacts from facility construction to adjacent agricultural activities include: traffic congestion on local roads, wind and water-related erosion, offsite dust and noxious weed infestations. To minimize these impacts, the applicant represents that it will:

- Use traffic control measures during construction to ensure safety and to minimize localized traffic congestion.
- Apply water or other dust control measures.
- Implement a Vegetation Management Plan that will include weed control measures.
- Consult with adjacent landowners to determine what impacts, if any, the proposed facility would have on their agricultural operations and identify and take reasonable measures, if any in addition to those already being undertaken by the certificate holder, to reduce or avoid any adverse impacts to farm practices.

The minimization measures addressing construction-related traffic, erosion and dust control, and vegetation management are set forth in Public Services Condition 1, Fish and Wildlife Conditions 1, 2 and 5, Soil Protection Conditions 1, 2 and 5 and Land Use Conditions 8, 9 and 10.

[92] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, Figure K-2

[93] WTSAPPDoc2-11 Exhibit K Land Use 2024-01-03, Figure K-4

Subject to compliance with the recommended conditions, as referenced above, the Department recommends Council find the proposed facility would be compatible with adjacent land uses, which under OAR 345-022-0030(4)(c) and ORS 469.504(2)(c) is a prerequisite to granting an exception to a statewide planning goal and that an exception to Goal 3 is justified.

IV.E.2. Conclusions of Law

Pursuant to ORS 469.504(1)(b)(B), based on the foregoing analysis and subject to compliance with the Site Certificate Conditions recommended in Section IV.E., the Department recommends Council find the proposed facility to be in compliance with the statewide planning goals adopted by the Land Conservation and Development Commission because it complies with all applicable substantive criteria from the Morrow County acknowledged comprehensive plan and land use regulations except for those related to Goal 3 / the siting of the facility on high value farmland and arable land and an exception to Goal 3 is justified for the reasons discussed above.

IV.F. PROTECTED AREAS: OAR 345-022-0040

(1) To issue a site certificate, the Council must find:

(a) The proposed facility will not be located within the boundaries of a protected area designated on or before the date the application for site certificate or request for amendment was determined to be complete under OAR 345-015-0190 or 345-027-0363;

(b) The design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to a protected area designated on or before the date the application for site certificate or request for amendment was determined to be complete under OAR 345-015-0190 or 345-027-0363.

(2) Notwithstanding section (1)(a), the Council may issue a site certificate for:
(a) A facility that includes a transmission line, natural gas pipeline, or water pipeline located in a protected area, if the Council determines that other reasonable alternative routes or sites have been studied and that the proposed route or site is likely to result in fewer adverse impacts to resources or interests protected by Council standards; or

(b) Surface facilities related to an underground gas storage reservoir that have pipelines and injection, withdrawal or monitoring wells and individual wellhead equipment and pumps located in a protected area, if the Council determines that other alternative routes or sites have been studied and are unsuitable.

(3) The provisions of section (1) do not apply to:

(a) A transmission line routed within 500 feet of an existing utility right-of-way containing at least one transmission line with a voltage rating of 115 kilovolts or higher; or

(b) A natural gas pipeline routed within 500 feet of an existing utility right of way containing at least one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of 125 psig.

(4) The Council shall apply the version of this rule adopted under Administrative Order EFSC 1-2007, filed and effective May 15, 2007, to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.[94]

IV.F.1. Findings of Fact

The analysis area for protected areas is the area within and extending 20 miles from the proposed site boundary.[95]

IV.F.1.a Protected Areas in the Analysis Area

As presented in ASC Exhibit L, the applicant reviewed various sources and available information to identify protected areas per OAR 345-001-0010(26)(a)-(r) within the analysis area. There are no protected areas within the site boundary. The certificate holder identified a total of 10 protected areas in the analysis area (See Figure 3 below). The Department reviewed the information provided in Exhibit L and available sources and based upon the Department's review, the Department identified additional protected areas: The Oregon National Historic Trail (ONHT), and the Wells Springs ONHT Interpretive Site are both protected areas per OAR 345-001-0010(26)(a).[96] For this reason, the Department recommends that Council find there are here are 12 protected areas within the analysis area. They are presented in order of proximity to the proposed site boundary (closest to farthest) in Table 6 below.

[94] OAR 345-022-0040, effective December 19, 2022.

[95] OAR 345-001-0010(35)(e).

[96] The ONHT and the Wells Springs ONHT Interpretive Site are also evaluated under the Scenic Resources and Recreational Opportunities Standards in this order. See Figure T-2 under Recreational Opportunities for visual impact assessment results on these 2 resources.

1

Figure 3: Protected Areas in Analysis Area

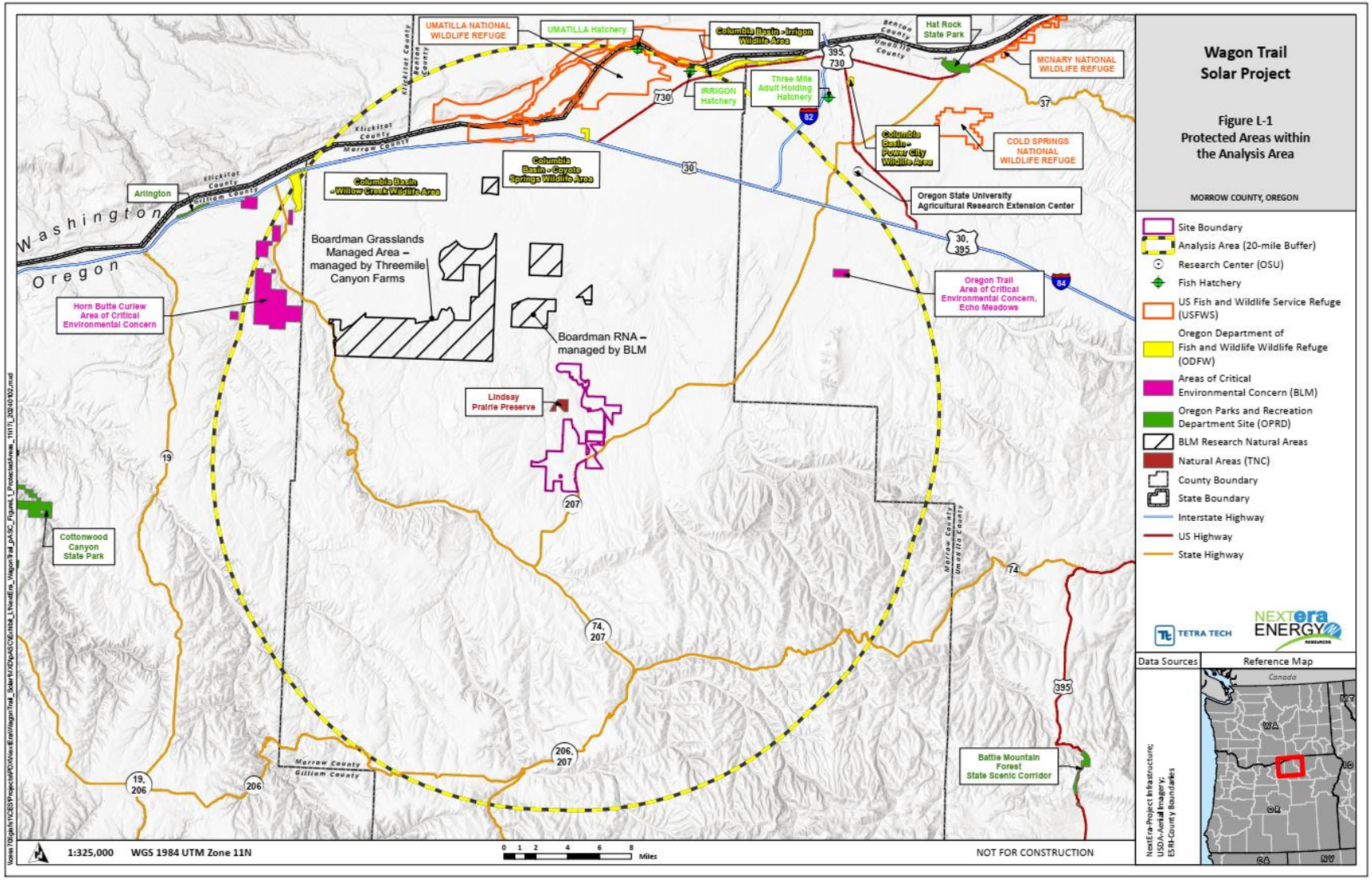


Table 6: Protected Areas in Analysis Area and Potential Impacts

Protected Area Category	Protected Area Name	Closest Distance from Solar Area Boundary	Direction from Solar Area Boundary	Potential Noise Audible from Facility?	Potential Traffic Impacts from Facility?	Potential Visual Impacts from Facility?
Oregon Register of Natural Areas Designated Natural Areas *OAR 345-001-0010(26)(L)*	Lindsay Prairie Preserve/State Natural Heritage Area	0.5 miles	West	Yes – see evaluation below	Yes- see evaluation below	Yes – see evaluation below
National Park Service *OAR 345-001-0010(26)(a)*	Wells Springs ONHT Interpretive Site	1.4 miles	North	Yes – see evaluation below	Yes – see evaluation below	Yes* – see evaluation below
National Park Service *OAR 345-001-0010(26)(a)*	Oregon National Historic Trail	1.9 miles	North	Yes – see evaluation below	Yes – see evaluation below	Yes* – see evaluation below
Federal Land Management Plan Designated Lands *OAR 345-001-0010(26)(i)*	Boardman Research Natural Area (RNA)	2.1 miles	Northwest	Yes- see evaluation below	Yes – see evaluation below	Yes – see evaluation below
Federal Land Management Plan Designated Lands *OAR 345-001-0010(26)(i)*	Boardman Grasslands Managed Area	4.0 miles	Northwest	No	No	Yes – see evaluation below
State Wildlife Refuges or Management Areas *OAR 345-001-0010(26)(o)*	Columbia Basin-Coyote Springs Wildlife Area	14 miles	North	No	No	Yes- see evaluation below
National Wildlife Refuges *OAR 345-001-0010(26)(e)*	Umatilla National Wildlife Refuge	14 miles	North	No	No	Yes- see evaluation below
National Park Service	Oregon Trail ACEC, Echo Meadows	15.6 miles	Northeast	No	No	No

Table 6: Protected Areas in Analysis Area and Potential Impacts

Protected Area Category	Protected Area Name	Closest Distance from Solar Area Boundary	Direction from Solar Area Boundary	Potential Noise Audible from Facility?	Potential Traffic Impacts from Facility?	Potential Visual Impacts from Facility?
OAR 345-001-0010(26)(a); and Federal Land Management Plan Designated Lands OAR 345-001-0010(26)(i)						
Federal Land Management Plan Designated Lands *OAR 345-001-0010(26)(i)*	Horn Butte Curlew Area of Critical Environmental Concern (ACEC)	16.3 miles	Northwest	No	No	Yes – see evaluation below
State Wildlife Areas *OAR 345-001-0010(26)(p)*	Columbia Basin-Willow Creek Wildlife Area	18.8 miles	Northwest	No	No	No
State Fish Hatcheries *OAR 345-001-0010(26)(p)*	Irrigon Hatchery	19.5 miles	North	No	No	Yes- see evaluation below
State Wildlife Areas *OAR 345-001-0010(26)(p)*	Columbia Basin-Irrigon Wildlife Area	19.8 miles	North	No	No	No
*ONHT and Wells Creek Interpretive Site visual impacts are shown on Figure T-1, under Recreational Opportunities						

IV.F.1.b *Potential Impacts to Protected Areas*

The protected areas nearest to the facility are the Lindsay Prairie Preserve State Natural Heritage Area, at approximate distance of 0.5 miles and the Oregon National Historic Trail (ONHT) Boardman Segment and the Wells Springs ONHT Interpretive Site, at 1.4 and 1.9 miles, respectively. The Department presents potential impacts to protected areas based on their vicinity to the site boundary and the potential to have an impact from noise, construction traffic, water or waste water use and potential visual impacts.

Noise Impacts

Noise associated with construction will be primarily from the use of heavy equipment and construction activities such as excavating, pile driving, post setting, and building of structures for the facility.

Construction noise will not likely be distinguishable from background noise levels at any of the protected areas except Lindsay Prairie Preserve. Noise from facility construction will be audible at the Lindsay Prairie Preserve, may reach up to 50 A-weighted decibels (dBA), at the loudest. This sound level is approximately equivalent to light auto traffic at 100 feet.[97] At a distance of greater than 2 miles, sound levels are expected to attenuate to be indistinguishable from background noise levels (30 dBA). For this reason, the Department recommends that Council find that construction noise will not have a significant impact on the Lindsay Prairie Preserve, and by extrapolation it will not a significant impact on any protected areas located further away from the site boundary.

The principal sources of noise during operations will be from the BESS heating, ventilation, and air conditioning units, the electrical components of the inverters, the step-up transformer associated with each power conversion station, and the main power transformer at the collector substation. Based on the noise assessment submitted in ASC Exhibit Y, it is predicted that at a distance of approximately 2 miles from the site boundary, operational noise from facility operations will attenuate to be indistinguishable from the background noise level of less than 30 dBA.

At approximately 0.5 miles from the proposed site boundary, Lindsay Prairie Preserve noise modeling results predict the facility will be audible during operations but that potential noise impacts of 30 dBA are possible, comparable to a quiet conversation and not likely a significant impact.[98] Because all of the other protected areas are at a distance further that 0.5 miles the Department recommends that the Council find that the operational noise from facility is not likely to have a significant impact on any protected areas in the analysis area.

[97] WTSAPPDoc2-25 Exhibit Y. Noise compiled Updated_2024-01-03, Table Y-1.

[98] WTSAPPDoc2-12 Exhibit L. Protected Areas compiled_2024-01-03, Section 4.1.

Based on the results of the noise modeling as presented in Exhibit Y, and noise attenuation reducing the audibility of facility noise impacts, the Department recommends Council find that the proposed operational noise is not likely to result in significant adverse noise impacts to any protected area within the analysis area.

Potential Traffic Impacts

ASC Exhibit U, and Section IV.M.1., *Public Services*, of this order evaluates the potential traffic impacts resulting from the construction and operations of the facility. In Exhibit L, for protected areas, the applicant relies on the results of Exhibit U to evaluate the potential for traffic-related impacts on access to protected areas within the analysis area as a result of facility construction or operations. The applicant has identified that the primary routes to access the facility during construction and operations will utilize Interstate 84 (I-84). Four of the protected areas are located north of Interstate 84 (I-84) and will be virtually unaffected by facility traffic, which will be concentrated on a small number of roads south of I-84. No truck traffic associated with the facility will occur north of I-84. Of the seven protected areas located south of I-84, the Horn Butte Curlew Area of Critical Environmental Concern (ACEC), Willow Creek Wildlife Area, and the Oregon Trail ACEC are not likely to be impacted because they are accessed by routes that will not carry facility-related truck traffic. The Lindsay Prairie Preserve, the ONHT Boardman Segment, and the Wells Springs ONHT Interpretive Site, the Boardman Research Natural Area (RNA), and the Boardman Grasslands Managed Area and may experience minor impacts from facility traffic.

Construction traffic

Potential traffic impacts on access to or from protected areas will be based upon the level of construction activities at the facility, the number of workers required during different phases of construction, and the season during which construction activities involving worker transport to the site, transport of facility components to the site, and the delivery of equipment to construct the facility. Peak construction period estimates that approximately 200 workers will be onsite. Most workers would drive alone; vehicle trips per day are based on an assumed 1.5 occupancy rate. Estimated maximum worker daily trip rate is 50 round trips and 100 one-way trips. Estimated peak haul and delivery trip rate is 67 round trips and 134 one-way trips per day.

Some of construction-related traffic may occur on roads that also provide access to the following protected areas nearest to the facility: Lindsay Prairie Preserve, the ONHT Boardman Segment, and the Wells Springs ONHT Interpretive Site, the Boardman Research Natural Area (RNA), and the Boardman Grasslands Managed Area. The Lindsay Prairie Preserve receives no known public use, and public access is restricted in the Boardman RNA and Boardman Grasslands Managed Area. Access to the ONHT Boardman Segment and the Wells Springs ONHT Interpretive Site may also experience some construction traffic impacts, however the usage of these areas is low, and also access to the Wells Springs ONHT Interpretive Site is via a remote road not likely to be used for construction traffic. Because these protected areas are primarily

accessed by roads that will not carry substantial amounts of construction traffic, they are unlikely to experience any traffic impacts. Because workers are expected to commute to the site from a variety of locations and directions, it is expected that worker traffic to and from the site will be dispersed along various access roads to the facility.

The applicant plans to construct the facility in phases, in order to minimize potential traffic impacts, and will develop a Construction Traffic Management Plan (TMP) as part of the Road Use Agreement coordinated with the Morrow County Road Department and Oregon Department of Transportation (ODOT) in consideration of impacts to the local road network. Public Services Recommended Site Certificate Conditions 1 and 2, will require the finalization of the TMP, submission of final road use agreements, and adherence to the final TMP during construction (See Section IV.M of this order).

Based upon the Department's review of potential construction-related traffic impacts as assessed in Exhibit U, and the location and access to the protected areas in the analysis area, the Department recommends that Council find that with proposed Public Services Conditions 1 and 2, the facility can be constructed in a manner that minimizes potential impacts to protected areas.

Traffic during operations

During facility operations, solar and BESS-related equipment will require periodic maintenance, but traffic associated with repair or maintenance visits will be low. The operation of the facility is expected to only employ up to three individuals. Accordingly, facility operations will not generate amounts of traffic that would have a significant impact on any protected areas. For this reason, the Department recommends that Council find that traffic associated with facility operations will not have a significant impacts on access to any protected areas in the analysis area.

Water Use and Wastewater Disposal (Construction and Operation)

Water and Wastewater Use

During construction, the facility will not withdraw any ground or surface water from a protected area. During operation, the facility's minimal water needs will be fulfilled using exempt wells at the operations and maintenance building or through another licensed water source. Therefore, the Department recommends Council find that water use during construction and operation of the proposed facility would not have a significant adverse impact on water availability or use at protected areas.

Wastewater

During construction, wastewater generated by the facility would include sanitary wastewater, stormwater, equipment wash water and concrete washout water. Small amounts of

wastewater will be generated from washdown of concrete trucks and their chutes after concrete loads have been emptied. Washdown methods will be determined by the contractor in compliance with the concrete washout requirements in the Oregon Department of Environmental Quality National Pollutant Discharge Elimination System (NPDES) 1200-C Construction Stormwater Discharge General permit, required under Recommended Soil Protection Condition 2. No wastewater from the facility will be discharged into any protected area.

During operations, wastewater sources will include the O&M building, handled by an on-site septic system to be permitted prior to construction. During operation wastewater will also be generated via periodic washing of the solar modules to minimize the effects of dust and dirt on energy production. The water used for array cleaning is not expected to require off-site disposal due to high evaporation rates and expected infiltration into the ground at the site and will not be discharged into any protected area.

For these reasons, the Department recommends Council find the wastewater that would be generated during construction and operation of the proposed facility would not have a significant adverse impact on protected areas.

Potential Visual Impacts

The proposed facility will not generate or result in any air emissions or plumes. While fugitive dust during construction may cause some temporary visual impacts, these will be minimize through the implementation of dust control measures required in the NPDES 1200-C permit and its accompanying best management practices (BMPs), see Section IV.D., *Soil Protection*, of this order. Visual impacts from facility components will occur, but will attenuate with distance from the facility. The two most potentially visible components are the solar arrays and the aboveground 230-kV transmission lines.

In order to identify and assess potential visual impacts as part of ASC, the certificate holder submitted the results of a Zone of Visual Impact (ZVI) analysis completed for the analysis area using Esri geographic information system software and a bare-earth 30-meter digital elevation model to identify those protected areas where the facility might be visible. The ZVI analysis assumed a maximum height of 16 feet for the solar modules and a maximum height of 180 feet for the aboveground 230-kVtransmission lines.

The ZVI analysis indicated that solar arrays will potentially be visible from portions of 9 of the 12 protected areas. Due to distance and underlying topography, the ZVI results indicate that the facility will not be visible from 3 protected areas: ONHT Echo Meadows ACEC, Columbia Basin – Willow Creek Wildlife Area, and the Columbia Basin – Irrigon Wildlife Area. The nine protected areas where facility components are potentially visible are:

- Lindsay Prairie Preserve
- Wells Springs ONHT Interpretive Site

- ONHT – Boardman Segment
- Boardman RNA
- Boardman Grasslands Managed Area
- Columbia Basin – Coyote Springs Wildlife Area
- Irrigon Fish Hatchery
- Horn Butte Curlew ACEC
- Umatilla National Wildlife Refuge

Based on the results of the ZVI analysis, the visibility of facility components will vary from these 9 protected areas, with the solar arrays being the most visible component (See Figures 4 & 5 below). The Department presents the results of the ZVI on these 9 protected areas in Table 7 below:

Figure 4: Potential Visual Impacts on Exhibit L Protected Areas in Analysis Area

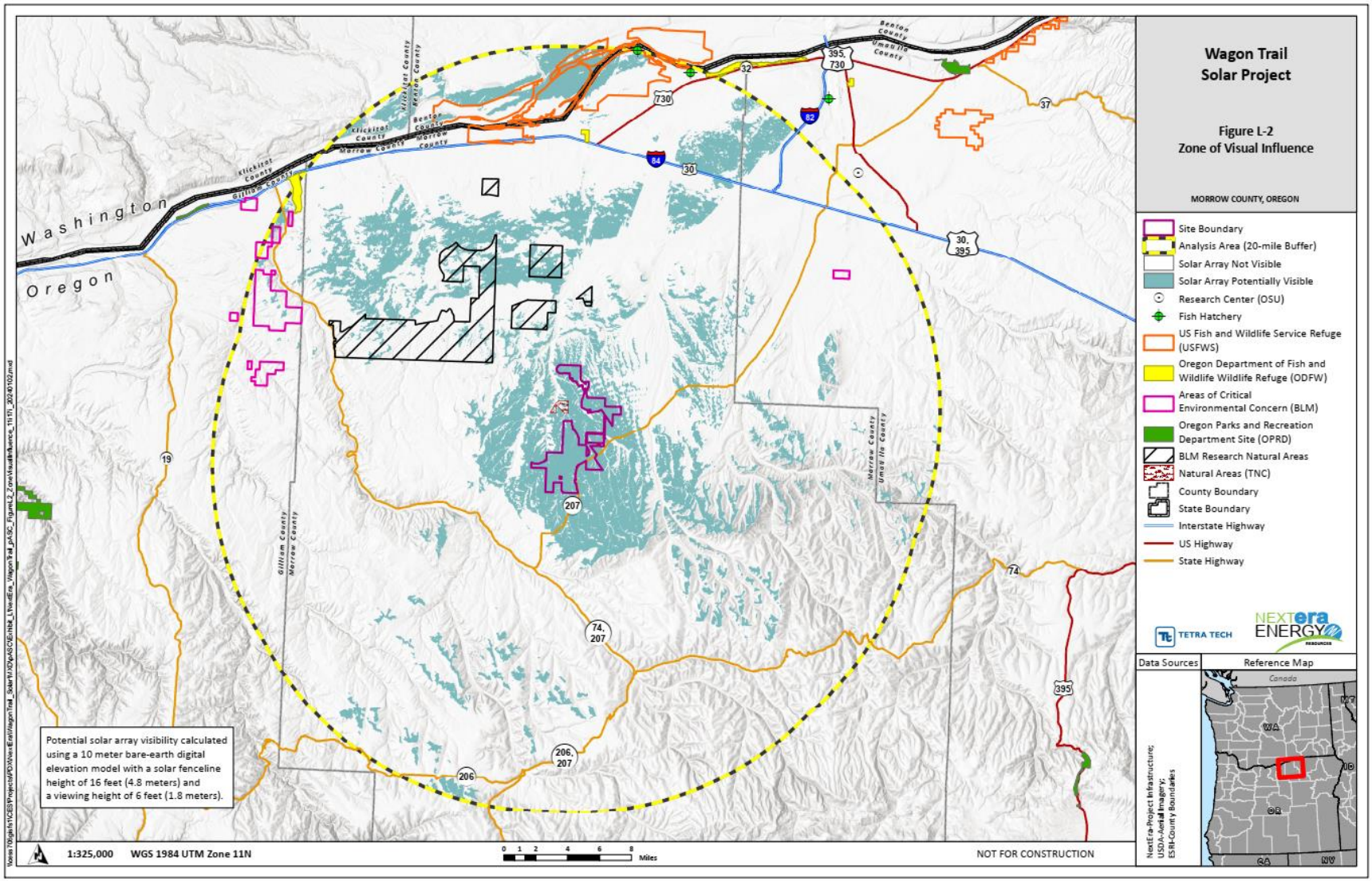


Figure 5: Potential Visual Impacts on the ONHT Boardman Segment and the Wells Springs ONHT Interpretive Site Protected Areas

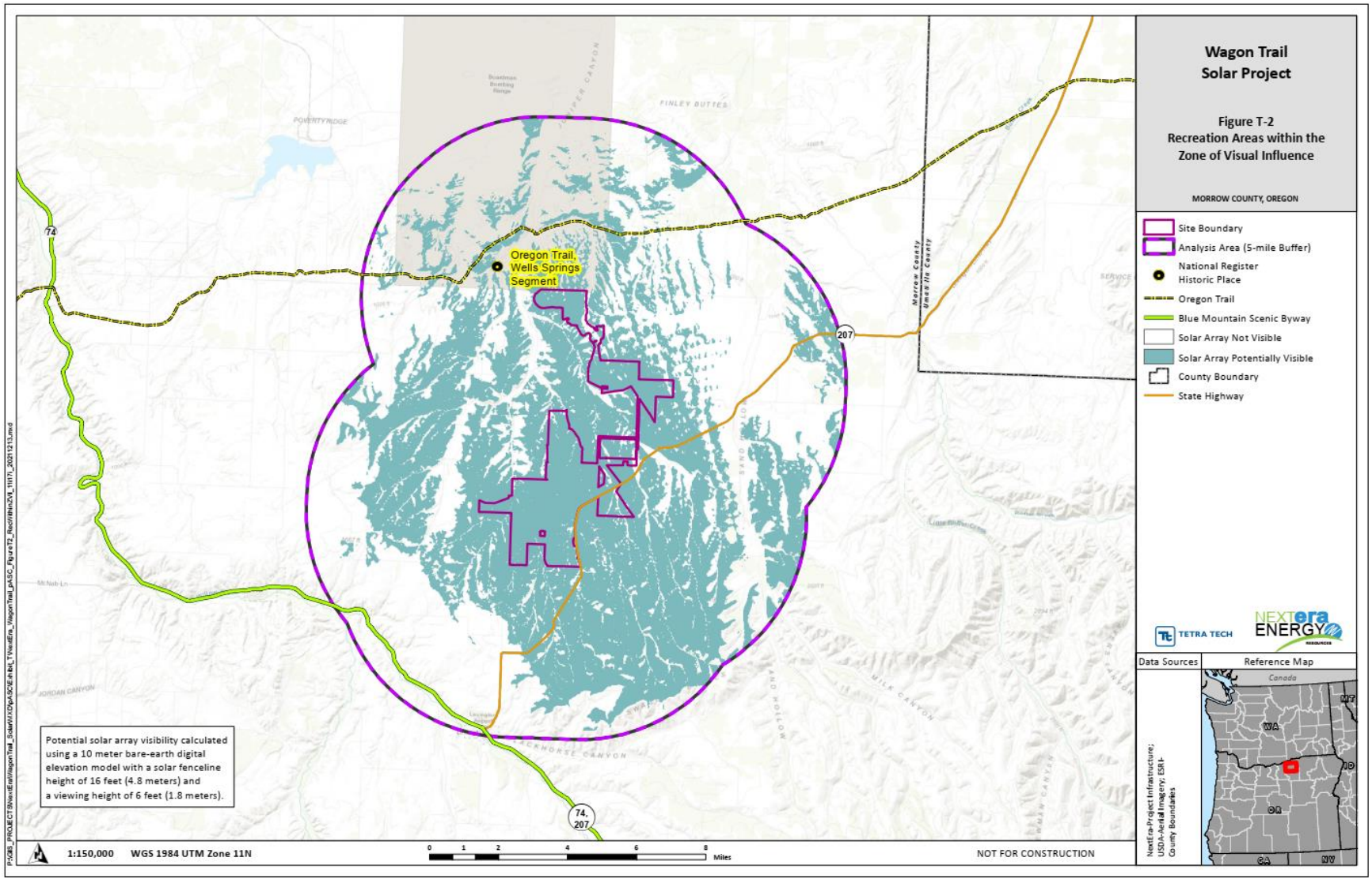


Table 7: Visual Impacts of Proposed Facility Where Visible from Protected Areas

Protected Area	Transmission Line		Solar Array		Visual Analysis Results
	Distance to Site Boundary	Potentially Visible?	Distance to Site Boundary	Potentially Visible?	
Lindsay Prairie Preserve	2.2 miles	Yes	0.5 miles	Yes	Low impact. Viewshed analysis indicates potential relatively close visibility of solar panels in portions of the eastern part of the preserve. At a viewing distance of 0.5 miles or greater, the solar arrays will not create a prominent feature in the viewshed. The up to 0.6-mile transmission line may be visible in the middleground from the eastern portion of the preserve.
Wells Creek ONHT Interpretive Site*	6.3 miles	Unlikely	1.4 miles	No	Low impact. Viewshed analysis indicates no potential visibility of solar arrays, therefore no visual impact; if visible at a background distance of 6.3 miles, the 0.6 transmission line would introduce weak contrast with negligible impact.
ONHT – Boardman Segment*	6.4 miles	Unlikely	1.9 miles	Yes	Viewshed analysis indicates potential visibility of solar arrays along limited portions of the trail route within the Boardman Bombing Range, at a distance of 1.9 miles or more; if visible at a background distance of 6.4 miles or more. The 0.6-mile transmission line would introduce weak contrast with negligible impact
Boardman RNA	3.0 miles	Yes	2.1 miles	Yes	Low impact. Viewshed analysis indicates potential relatively close visibility of solar panels in portions of the southern part of the RNA. At a viewing distance of 2.1 miles or greater, the solar arrays will not create a prominent feature in the viewshed. The up to 0.6-mile transmission line may be visible in the middleground from the southern portion of the RNA.
Boardman Grasslands Managed Area	5.8 miles	Yes	4.0 miles	Yes	Low impact. Viewshed analysis indicates potential relatively close visibility of solar panels in portions of the northeastern and western parts of the resource. At a viewing distance of 4.0 miles or greater, the solar arrays will not create a prominent

Protected Area	Transmission Line		Solar Array		Visual Analysis Results
	Distance to Site Boundary	Potentially Visible?	Distance to Site Boundary	Potentially Visible?	
					feature in the viewshed. The up to 0.6-mile transmission line may be visible in the background.
Columbia Basin-Coyote Springs Wildlife Area	19.0 miles	Unlikely	14.0 miles	Yes	Negligible impact. Viewshed analysis indicates limited potential visibility of solar facilities from 14 miles or greater distance from this area. The up to 0.6-mile transmission line is highly unlikely to be visible or otherwise discernible at the far background viewing distance of 19 miles or greater, and therefore will not contribute to visual contrast from this location.
Umatilla National Wildlife Refuge	19.2 miles	Yes	14.0 miles	Yes	Low impact. Viewshed analysis indicates potentially relatively close visibility of solar panels in portions of the eastern part of the preserve. At a viewing distance of 0.5 mile or greater, the solar arrays will not create a prominent feature in the viewshed. The up to 0.6-mile transmission line may be visible in the middleground from the eastern portion of the preserve.
Horn Butte Curlew ACEC	19.2 miles	Unlikely	16.3 miles	Yes	Negligible impact. Viewshed analysis indicates limited potential visibility from small portions of the ACEC. If any solar arrays were visible, at over 16 miles they are unlikely to be detected or identified by viewers. The up to 0.6-mile transmission line is highly unlikely to be visible or otherwise discernible at the far background viewing distance of over 19 miles, and therefore will not contribute to visual contrast from this location.
Columbia Basin-Willow Creek Wildlife Area	22.9 miles	Unlikely	18.8 miles	No	No impact. Viewshed analysis indicates no visibility of solar facilities from this area. The up to 0.6-mile transmission line is highly unlikely to be visible or otherwise discernible at the far background viewing distance of over 22 miles.

Protected Area	Transmission Line		Solar Array		Visual Analysis Results
	Distance to Site Boundary	Potentially Visible?	Distance to Site Boundary	Potentially Visible?	
Columbia Basin-Irrigon Wildlife Area	24.3 miles	Unlikely	19.8 miles	No	No impact. Viewshed analysis indicates no visibility of solar facilities from this area. The up to 0.6-mile transmission line is highly unlikely to be visible or otherwise discernible at the far background viewing distance of over 24 miles.
Irrigon Hatchery	24.2 miles	Unlikely	19.5 miles	Yes	Negligible impact. Viewshed analysis indicates limited potential visibility of solar facilities at the hatchery location. At a viewing distance of 19.5 miles or greater, it is highly unlikely that solar arrays could be detected or identified by viewers. The up to 0.6-mile transmission line is highly unlikely to be visible or otherwise discernible at the far background viewing distance of over 24 miles.
*ZVI results for these 2 protected areas are included in Recreational Opportunities, Section IV.L and Exhibit T of the ASC.					

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As shown in the table above and Figures 4 and 5, the ZVI results predict no impact or a negligible visual impact from most of the 9 protected areas, primarily due to their distance from the site boundary, underlying topography, and vegetative screening. Because of the low profile of the solar arrays and the terrain conditions in the area, the solar arrays will be blocked from view at many locations within the analysis area. Locations of potential visibility of any part of the solar arrays are concentrated in the central part of the analysis area, primarily within a radius of approximately 2 to 4 miles of the arrays. For instance, the ZVI results predict potential visibility of the solar arrays at 0.5 miles or greater in portions of the Lindsay Prairie Preserve, primarily within the eastern section. Because the solar arrays will have a maximum height of 16 feet, they will not appear as a prominent feature to viewers at this distance. The ZVI results predict that the facility's associated 0.6-mile transmission line may also be visible at a distance of 2.2 miles or greater from portions of the Preserve, primarily in the eastern half. To the extent the solar arrays are visible, they would appear as a dark line on the horizon and would create minimal visual contrast, which would be seen in context with existing landscape modifications, including existing wind turbines and other electrical infrastructure. To the extent it is visible, the transmission lines will introduce vertical structures that would create minimal visual contrast in context with substantially taller existing wind turbines as well as other existing similar electrical infrastructure in the viewshed (e.g., the existing Umatilla Electric Cooperative transmission line). Any visual impacts to this protected area would be less than significant due to the screening of topography and already existing developments on the landscape. Further, Lindsay Prairie is managed by the Nature Conservancy (TNC), for the preservation of habitat, and not managed for its scenic qualities.

Patches of potential visibility are also located at greater distances to the facility, except for the southwest where the solar arrays will be largely blocked from view by the terrain. Antireflective coating will be used to reduce glare, and the surface of the panels will have high transmittance to increase the amount of light reaching the photovoltaic cells. With these methods, the panels will be less reflective than a natural water body or a coated glass surface that is not antireflective. Potential visibility of the 0.6-mile above ground 230 kV transmission line is considered to be minimal from any protected area due to existing built infrastructure, including other energy infrastructure, highways, roads, agricultural infrastructure, and residences in the surrounding landscape and unlikely to have a significant visual impact from any protected area. Based on this assessment, the Department further recommends that Council find that at a distance beyond 0.5 miles, the facility is unlikely to have a significant visual impact on any protected areas within the analysis area.

The Department has reviewed the ZVI results and the assumptions in the visual impacts assessment included in Exhibits L and T to identify and evaluate potential visual impacts from the facility on the 12 protected areas identified within the analysis area. Based upon this evaluation, the Department recommends that Council find that the potential visual impacts of the proposed facility on the 12 protected areas within the analysis area will be less than significant.

IV.F.2. Conclusions of Law

For the reasons discussed above, the Department recommends Council find that the construction and operation of the proposed facility is not likely to result in a significant adverse impact to a protected area designated on or before the date the application for site certificate.

IV.G. RETIREMENT AND FINANCIAL ASSURANCE: OAR 345-022-0050

To issue a site certificate, the Council must find that:

(1) The site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.

(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.[99]

IV.G.1. Findings of Fact

Restoration of the Site Following Cessation of Construction or Operation

OAR 345-022-0050(1) requires the Council to find that the proposed facility site can be restored to a useful non-hazardous condition at the end of the proposed facility's useful life, or if construction of the facility were to be halted prior to completion. The proposed facility's estimated useful life is 35 years.[100] The proposed facility site is within EFU zoned land, therefore the site must be restored in a manner to allow continued use of the land for agricultural or other purposes, such as agreements with the landowner, as deemed appropriate at the time of decommissioning. The proposed facility must be retired upon permanent cessation of construction or operation (or upon retirement). Below, the Department provides decommissioning tasks and actions by facility component, that the applicant is anticipated to include in their final retirement plan, to restore the site to a useful, non-hazardous condition:[101]

Foundation Removal: Most facility components have an associated foundation or underground components. Concrete foundations for transformers, inverters, and battery storage systems are assumed to be slab on grade; thus, they will be removed in their entirety. For all foundation

[99] OAR 345-022-0050, effective April 3, 2002.

[100] ASC Exhibit X, Section 2.0. The proposed solar panels and supporting equipment are designed to have a useful life of at least 35 years, and the useful life of could be extended if equipment continues to function well with routine maintenance; or if the facility is repowered with newer-generation equipment. Any major repowering may be subject to an amendment determination and the EFSC amendment process under OAR Chapter 345, Division 27.

[101] The tasks and actions that the Department describes were derived from Section 3.0 of ASC Exhibit X.

areas, the area will be filled with soil or gravel as part of site restoration. Applicant explains that underground electrical cables will be removed to its lateral depth; lateral runs are assumed to be a minimum of 3 feet deep and will be abandoned in place.[102] Poles will be removed from the ground. If poles are encased in concrete foundations, foundations will be removed from the ground at a depth of 4-feet below grade. Concrete foundations constructed at grade will be fully removed; and other foundations will be removed to a depth of 4 feet below grade. [103]

Substation: Disconnect/deenergize all electrical equipment. Oil from transformers will be drained prior to removal, and the oil will be disposed of following state and federal regulations. Transformers will be dismantled and disposed of off-site. Control building demolished. Underground utilities removed.[104] Foundation removed to a depth of 4 feet below grade and concrete transported and disposed of. Fence will be removed, recycled or disposed of.

Transmission Line: Deenergize transmission lines, unstring and remove conductors, remove/cut and lower transmission line structures. For estimating purposes, the 230-kilovolt transmission line was assumed to be composed of steel monopoles and cable. Towers were assumed to be recyclable and will be disassembled on-site and shipped off-site. Foundations removed to a depth of 4 feet below grade and concrete transported and disposed of.

O&M Building Removal: O&M building emptied and disconnected. Building structure demolished, loaded, and disposed of. Foundation removed to a depth of 4 feet below grade.

Solar Array: Disconnect/deenergize all electrical equipment. Inverter and transformer oil will be drained and separated, packed and removed. Structure and components will be removed including arrays, electrical equipment and tracker. Poles will be removed from the ground. If poles are encased in concrete foundations, foundations will be removed from the ground at a depth of 4-feet below grade, and concrete will be transported offsite. Fence will be removed, recycled or disposed of.

Battery Storage: Disconnect/deenergize all electrical equipment. Self-contained Li-ion battery components will be removed, transported, and disposed of or recycled by a qualified vendor. Battery containers and associated components will be disassembled and transported off-site via truck for disposal or recycling. Materials which cannot be salvaged will be disposed of at authorized sites. Containers removed and recycled if possible. Gravel pad removed or foundations removed. Fence will be removed, recycled or disposed of.

Met Towers: Demo structure Foundation removed to a depth of 4 feet below grade.

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[102] WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Section 4.2 and WTSAPPDoc13 Applicant Response to RAI 1 and 2 2023-10-13.

[103] WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Section 4.2 and WTSAPPDoc13 Applicant Response to RAI 1 and 2 2023-10-13.

[104] Underground electrical cable will be removed to its lateral depth; lateral runs are assumed to be a minimum of 3 feet deep and will be abandoned in place. WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Section 4.2 and WTSAPPDoc13 Applicant Response to RAI 1 and 2 2023-10-13.

Roads: Facility service roads will be used to allow the deconstruction contractor to separate the solar modules from the poles and load the modules into a truck or roll-off container for off-site disposal or recycling. Thus, most roads will be used for decommissioning activities and restored after the other facility components are removed. Decommissioned roads will be decompacted, regraded to restore the surface soil to a useful condition consistent with site zoning. Alternatively, roads may be left in place based on landowner preference. It is expected that improved, pre-existing roads will not be decommissioned, but new access roads built for the facility will be decommissioned. Roads will be restored pursuant to the Council-approved Retirement Plan so that they become a part of the natural surroundings and are no longer recognizable or usable as a road. On private lands, roads will be restored at the request of the current landowner.

Site Restoration and Revegetation: Vegetation will be restored to the maximum extent practicable, and all areas disturbed by construction associated with retirement activities shall be landscaped in a manner compatible with the surroundings and proposed use. Site restoration will include the placement of approximately 5,000 cubic yards of topsoil on disturbed areas, with a final seeding utilizing a mix of native grasses.[105] Disturbed areas, including area where facility components were removed, may be regraded and reseeded with native plant seed mixes, consistent with the Draft Reclamation and Revegetation Plan.

The Department reviewed the above-summarized tasks and actions and compared the details against the information presented in ASC Exhibit B, C, and G. The Department also verified that all tasks and action summaries involved in removing and restoring each type of facility components were represented in the ASC. Based on this review and comparison, the Department affirms that the information is consistent across relevant exhibits, and recommends Council find that the tasks and actions accurately represent facility decommissioning and site restoration.

The Council's rules include several mandatory site certificate conditions, which are addressed below. The conditions relate to the obligation of a certificate holder to prevent the development of conditions on the site that would preclude restoration of the site and require the certificate holder to obtain Council approval of a retirement plan if the facility ceases construction or operation:

> **Recommended Retirement and Financial Assurance Condition 1 (GEN):** The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder. [GEN-RF-01; Mandatory Condition OAR 345-025-0006(7)]

[105] WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Section 4.2.

Recommended Retirement and Financial Assurance Condition 2 (RET): The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, nonhazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.
[RET-RF-01; Mandatory Condition OAR 345-025-0006(9)]

Recommended Retirement and Financial Assurance Condition 3 (RET): If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval.

Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-025-0006(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.
[RET-RF-02; Mandatory Condition OAR 345-025-0006(16)]

In Section IV.B., *Organizational Expertise* of this order, the Department recommends Council find that the applicant has the organizational expertise to construct, operate, and retire the facility, in compliance with the standard. In addition, the Department recommends Council find that the applicant would satisfy the requirements of the Soil Protection, Fish and Wildlife Habitat, and Waste Minimization standards (Sections IV.D., IV.H., and IV.N. of this order, respectively). Each of those sections describe conditions designed to minimize adverse impacts on the surrounding land from construction, operation, and retirement activities from the facility.

Based on the recommended findings of fact presented above, and compliance with the Council's mandatory site certificate conditions, the Department recommends Council find that the site of the proposed facility could be restored adequately to a useful, non- hazardous condition following permanent cessation of construction or operation.

Methods and Assumptions for Decommissioning Cost Estimate

ASC Exhibit X, Attachment X-1, details the applicant's cost estimate to restore the site to a useful, nonhazardous condition. The decommissioning cost estimate was generated by Mr. Gary Murdock a Project Estimator/Electrical Estimator at Tetra Tech 13 years of experience in developing cost estimates with Tetra Tech, and 28 years of experience in cost estimation prior to his time with Tetra Tech. Oregon EFSC projects that he has provided cost estimation services for include the Wheatridge Wind Facilities, the Bakeoven Solar Project, and the Nolin Hills Wind Power Project. [106] The methods and assumptions that the applicant relied on to generate the decommissioning estimate are:

Labor, Equipment, and Unit Cost Rate Methods and Assumptions:

- Labor costs developed by reviewing U.S. Department of Labor wage determinations prevalent to the geographic area of the proposed facility and rates published by RS Means data.[107] An average rate includes base wage, fringe, and payroll tax liability. The final rate used in the estimate is an average of 40 hours of standard time and 10 hours of overtime per week, assuming a 50-hour work week during construction activities.
- Production rates established using applied professional experience and published standards including RS Means data.
- Equipment rates developed by reviewing rates published by RS Means and historical vendor quotes associated with the location of the proposed facility. Rates include fuel, maintenance, and wear and tear of ground-engaging components. Rates utilized assume the use of rental equipment, which is generally more expensive than contractor-owned equipment.
- Unit costs developed by establishing the labor, equipment, and production rate required for each individual task using RS Means and the estimator's experience.[108]

Decommissioning Task Methods and Assumptions:

- Mobilization and demobilization costs reflect the anticipated cost to mobilize equipment, facilities and workers to the facility site, assuming the work would performed by local contractors. This amount does not include the frontloading of costs from other tasks.
- Project Site Support incudes costs for field management during construction/decommissioning activities which includes a Superintendent, a Health and Safety Representative, and two Field Engineers. Costs for temporary facilities includes

[106] WTSAPPDoc13 Applicant Response to RAI 1 and 2 2023-10-13.

[107] RS Means provides cost estimating software for the construction industry where construction costs are comprised of material, labor and/or equipment prices with more than 92,000-line items and cost engineers spend more than 30,000 hours researching and validating the costs every year. https://www.rsmeans.com/info/contact/about-us.

[108] The applicant provided different unit rates for the removal of the solar racking posts – one where posts have concrete backfill and one where there is no concrete backfill in Attachment W-1. To generate a more conservative estimate, the applicant applied the higher unit rate (where concrete must be removed at each post) was applied to all racking posts but one.

one office trailer and two Conex storage units, along with portable toilets, first aid supplies, and utilities.[109]

- The contractor's Home Office, Project Management, Overhead, and Fee costs developed based on an average and applied to the estimate; these include 5 percent for Home Office and Project Management, 5 percent Contingency, and 15 percent for Overhead and Fee.[110]
- The cost for restoration of roads assumes that all roads would be decompacted and reseeded.

Estimated Cost of Site Restoration

Applicant used the above described tasks, actions, and assumptions to generate its cost estimate, included as Attachment X-1 to this order, details the applicant's cost estimate to determine the amount necessary to restore the site to a useful, nonhazardous condition, under OAR 345-022-0050(2).

As presented in Table 8 below, the estimated decommissioning cost is approximately $25.2 million (Q2 2024 Dollars), prior to application of the Department's recommended contingencies. The Applicant proposes ODOE contingencies in the event where, the applicant is unable to manage the decommissioning process; this includes 1 percent Performance Bond, 10 percent Administrative and Project Management fee, and 10 percent Future Development contingency. These contingencies are reflected in Table 8 below under ODOE contingencies, and discussed further below the table. The total, adjusted cost estimate, including applicant and ODOE contingencies is $30.3 million (Q2 2024 Dollars).

Table 8: Proposed Facility Decommissioning Tasks and Cost Estimate

Task or Component	Quantity	Unit Cost ($)[1]	Unit	Estimate ($)
Mobilization / Demobilization [1.1]				
Equipment Mob	1	122,400.00	Lump Sum[3]	$122,400.00
Site Facilities	1	4,400.00	Lump Sum[3]	$4,400.00
Crew Mob & Site Setup	3	28,623.67	Day	$85,871.01
Crew Demob & Site Cleanup	2	28,623.67	Day	$57,247.34
			[1.1] Subtotal =	***$269,918.35***
Project Site Support [1.2]				
Site Facilities	12	3,510.00	Month	$42,120.00
Field Management	12	107,894.57	Month	$1,294,734.84

[109] WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Section 4.2.

[110] Applicant proposed ODOE contingencies discussed further in this section and reflected as an "ODOE Contingency" rather than an "Applicant Contingency," the applicant's cost estimate total in Attachment X-1 does include these costs.

Table 8: Proposed Facility Decommissioning Tasks and Cost Estimate

Task or Component	Quantity	Unit Cost ($)[1]	Unit	Estimate ($)
			[1.2] Subtotal =	***$1,336,854.84***
Substation [1.3.1]				
Fence Removal	1	1,354.33	Day	$1,354.33
Transformer & Switchyard Equip Removal	1	282,148.74	Each	$282,148.74
Remove Control Building	1	2,508.66	Each	$2,508.66
UG Utility & Ground Removal	3	1,354.33	Day	$4,062.99
Remove Foundations to Subgrade[2]	1,000	27.85	Cubic Yd.	$27,850.00
Misc. Material Disposal	1	1,975.00	Lump Sum[3]	$1,975.00
Restore Yard	1	173,786.17	Lump Sum[3]	$173,786.17
			Subtotal =	***$493,685.89***
Transmission Line Removal (230 KV Overhead) [1.3.2]				
Structure Removal	20	4,978.95	Each	$99,579.00
Remove Foundations To Subgrade2	20	4,925.29	Each	$98,505.80
			Subtotal =	***$198,084.80***
O&M Building Removal [1.4]				
Structure Demo	40	514.43	Ton	$20,577.20
Remove Foundations To Subgrade2	50	35.74	Cubic Yd.	$1,787.00
Material Transport & Disposal	40.00	95	Ton	$3,800.00
			Subtotal =	***$26,164.20***
Met Tower Removal [1.5]				
Structural Demo	4	2,572.13	Each	$10,288.52
Remove Foundation	60	48.47	Cubic Yd.	$2,908.20
Concrete Transport Offsite	60	12.25	Cubic Yd.	$735.00
Structure Salvage & Recovery	40	45.00	ton	$1,800.00
			Subtotal =	***$15,731.72***
DC Storage System Removal [1.6]				
*Fence Removal**	4936	1.32	Linear Feet	$6,515.52
Battery Removal & Disposal	500	1,984.51	MW	$992,255.00
Structure & Components Removal	500	1,116.76	MW	$558,380.00
*Remove Foundations To Subgrade[2]**	165	891.09	Each	$147,029.85
			Subtotal =	***$1,704,180.37***
Solar Array Removal [1.7]				

Table 8: Proposed Facility Decommissioning Tasks and Cost Estimate

Task or Component	Quantity	Unit Cost ($)[1]	Unit	Estimate ($)
Fence Removal	243,236	1.32	Linear Feet	$321,071.52
Inverter / Transformer Removal	142	5,616.16	Each	$797,494.72
Remove Foundations To Subgrade[2]	142	891.09	Each	$126,534.78
Solar Panel Removal & Disposal	965,007	5.84	Each	$5,635,640.88
Solar Rack (Trackers) & Post Removal	1	6,234,272.27	Lump Sum[3]	$6,234,272.27
			Subtotal =	***$13,115,014.17***
Site Restoration (Grading and Reseeding) [1.8]				
Decompact Roads	248,160.00	0.92	Linear Feet	$228,307.20
Spot Grade Disturbed Areas	910	287.72	Acres	$261,825.20
Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction	910	500.00	Acres	$455,000.00
			Subtotal =	***$945,132.40***
Wagon Trail Solar Facility Max Potential Decommissioning Cost **(Cost)** *Subtotal =*				***$18,130,930.94***
Decommissioning Subtotal for Solar (91% of Total Cost)				***$16,426,750.57***
Decommissioning Total for Battery (BESS) (9% of Total Cost)				***$1,704,180.37***
Applicant Applied Contingencies [1.9]				
Home Office, Project Management (5% Of Cost)	5		Percent	$906,546.55
Contractor Contingency (5% Of Cost)	5		Percent	$906,546.55
Contractor OH & Fee (15% Of Cost)	15		Percent	$2,719,639.64
			Applicant **Contingency** *Subtotal =*	***$4,532,732.74***
			Total Applicant Contingencies for Wind and Solar (91% of total contingencies)	***$4,124,786.79***
			Total Applicant Contingencies for Battery (BESS) (9% of total contingencies)	***$4,079,459.46***
			Subtotal of Cost and Applicant Contingencies (Q4 2021 Dollars) - *Rounded to nearest $1*	**$22,663,664**
			Total Applicant Contingencies for Solar (91% of total contingencies)	**$20,551,537**
			Total Applicant Contingencies for Battery (BESS) (9% of total contingencies)	**$5,783,640**
			Subtotal of Cost and Applicant Contingencies (Adjusted Q2 2024 Dollars)[4]	**$24,975,357.37**
Performance Bond	1		Percent	**$249,753.57**
			Adjusted Gross Cost	**$25,225,110.94**
Department Applied Contingencies				
Department Administration and Project Management	10		Percent	$2,522,511.09
Future Development Contingency	10		percent	$2,472,060.87

Table 8: Proposed Facility Decommissioning Tasks and Cost Estimate

Task or Component	Quantity	Unit Cost ($)[1]	Unit	Estimate ($)
	20 (BESS)		percent	$100,900.44
	subtotal			$2,572,961.32
ODOE **Contingency** *Subtotal* =				***$5,095,472.41***
Total Site Restoration Cost with Department Adjusted Contingencies (Q2 2024 Dollars) *Rounded to nearest $1*				**$30,320,583**

1. All unit costs are in Q4 2021 Dollars.
2. To allow continued use of the land for agricultural or other purposes deemed appropriate at the time of decommissioning purposes, all subsurface features including underground collector lines and concrete foundations associated with the O&M, Substation, Solar, Battery, Transmission Line, and Met towers will be removed under the Final Order on ASC, or as agreed with the landowner, in a final Retirement Plan.
3. Tasks associated with a Lump Sum unit cost may be calculated using a fraction (in decimal form) of the actual quantities constructed or by using the more detailed breakdown of unit costs associated with the Lump Sum task identified in the cost estimating worksheet in ASC Exhibit X, Attachment X-1.
4. Adjustment factor from Q4 2021 to Q2 2024 is 1.102.
* Added by ODOE

As presented in Table 8: *Proposed Facility Decommissioning Tasks and Cost Estimate*, the Council reflects the 10 percent contingency cost for both the administrative and project management expenses, and a future development contingency (less the decommissioning estimate of the Battery Storage System, including an applied 20 percent contingency). A performance bond of 1 percent is also applied. For all types of energy facilities, the subtotal of line-item costs, including contractor's overhead, profit and insurance costs, and specialty contract costs is increased by one percent to account for the cost of a performance bond that would be posted by the contractor as assurance that the work would be completed as agreed, if the facility needed to be retired absent the applicant.

The 10 percent contingency for administrative and management expenses would cover the anticipated direct costs borne by the State in the course of managing site restoration and would include the preparation and approval of a final retirement plan, obtaining legal permission to proceed with demolition of the facility, legal expenses for protecting the State's interest, preparing specification bid documents and contracts for demolition work, managing the bidding process, negotiations of contracts, and other tasks. Consistent with recommended conditions below, the Council reserves the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate to maintain health and safety of the public and environment, consistent with Council standards.

The 10 percent future development contingency Council applies to all tasks, actions and applicant contingencies, with the exception of the cost of the ESS conclude that a 20 percent future development contingent is necessary to be applied to account for uncertainty in the decommissioning estimate of the Battery Storage System because, if site restoration becomes necessary, it might be many years in the future where there is uncertainty of continued

adequacy of the retirement cost estimate. For all types of energy facilities, the subtotal of line-item costs, including contractor's overhead, profit and insurance costs, and specialty contract costs is increased by one percent to account for the cost of a performance bond that would be posted by the contractor as assurance that the work will be completed as agreed.

Therefore, the Department recommends the Council find that $30,320,583.00 million (Q2 2024 dollars) is a reasonable estimate of an amount satisfactory to restore the site to a useful, nonhazardous condition.

Applicant proposes to construct, operate, and retire an O&M building with the facility, however, applicant also indicates that it may share an O&M building with the Wheatridge Renewable Energy Facilities (Wheatridge Renewable Energy Facility I, II, III, and/or East). Applicant indicates that it would provide a shared facilities agreement or other real estate rights at the time of decommissioning to demonstrate remaining components will be used for other facilities. To capture this representation and to ensure that, if the applicant shares the O&M building with another facility/certificate holder, that O&M building would be addressed in one or both of the retirement obligations for the facility, the Department recommends the Council adopt a new site certificate condition Retirement and Financial Assurance Condition 4, requiring the certificate holder to provide evidence of a shared use agreement for the O&M building and provide full coverage for the O&M building at the time of decommissioning:

Recommended Retirement and Financial Assurance Condition 4 (GEN):
The certificate holder may utilize the O&M Building constructed and operated under the site certificate for Wheatridge Renewable Energy Facility I, II, III, and East, subject to the following:

a. Within 30 days of use by both certificate holders of the shared facilities, the certificate holder must provide evidence to the Department that the certificate holders of the shared facilities have an executed agreement for shared use of any constructed shared facilities.
b. If certificate holder proposes to substantially modify any of the shared facilities listed in this condition, each certificate holder shall submit an amendment determination request or request for site certificate amendment to obtain a determination from the Department on whether a site certificate amendment is required or to process an amendment for both site certificates in order to accurately account for any significant change in the decommissioning amount required under Condition PRE-RT-01.
c. Prior to facility decommissioning or if facility operations cease, each certificate holder shall submit an amendment determination request or request for site certificate amendment to document continued ownership and full responsibility, including coverage of full decommissioning amount of the shared facilities in the bond or letter of credit pursuant to Condition PRE-RT-01, for the operational facility, if facilities are decommissioned at different times.

[GEN-RF-02]

Ability of the Applicant to Obtain a Bond or Letter of Credit

OAR 345-022-0050(2) requires the Council to find that the applicant has demonstrated a reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to restore the site of the proposed facility to a useful non-hazardous condition. A bond or letter of credit in a form and amount satisfactory to Council provides a site restoration remedy to protect the State of Oregon and its citizens if the applicant (certificate holder) fails to perform its obligation to restore the site. The bond or letter of credit must remain in force until the applicant (certificate holder) has fully restored the site. OAR 345-025-0006(8) establishes a mandatory condition, which ensures compliance with this requirement (see Recommended Retirement and Financial Assurance Condition 5 below).

Section IV.B *Organizational Expertise* of this order describes the relationship between the applicant (Wagon Trail Energy Center, LLC) and its parent company (NextEra Energy Resources, LLC). NextEra Energy Resources, is a certificate holder to EFSC energy facilities which are under construction, operational, as well as proposed. For an EFSC energy facility to be constructed, similar to discussed in this section and OAR 345-025-0006(8), a certificate holder must submit a bond or letter of credit in an amount estimated to retore the facility prior to construction. So, for other EFSC energy facilities constructed or operated by NextEra and project-specific subsidiaries, the parent company has demonstrated its ability to provide bonds and letters of credit. Further, ASC Exhibit M, Attachment M-1, includes a January 14, 2022 letter from Wells Fargo Bank, which indicates that NextEra Energy Capital Holdings, Inc.[111] has an existing revolving credit and letter of credit facility in the aggregate amount of $4,256,850,000 (i.e., just under $4.3 billion). Wells Fargo is an EFSC approved financial institution. The bank letter continues by stating that the lenders party thereto have agreed to make loans to Capital Holdings and provide for the issuance of letters of credit for the account of Capital Holdings, and that the proceeds of such loans and letters of credit may be used for general corporate purposes (which shall include funding for Capital Holdings' operating subsidiaries). Finally, the letter indicates that the commitment termination date of the revolving credit facility is February 8, 2025 for $182.675 million and February 8, 2026 for $3,889.375 million.

Based on the recommends findings of fact in this Section and in Section IV.B., of this order, the Department recommends Council find that the applicant has demonstrated a reasonable likelihood of obtaining a bond or letter of credit in an amount satisfactory to the Council.

OAR 345-025-0006(8) establishes a mandatory condition that must be imposed in all site certificates. This recommended condition is provided below, based on the decommissioning amount recommended by the Department to be considered satisfactory by Council:

> **Retirement and Financial Assurance Condition 5 [PRE]:** Before beginning construction of the facility or a facility component, the certificate holder shall submit to the State of

[111] The bank letter then refers to the parent company as Capital Holdings rather than NextEra.

Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The total bond or letter of credit amount for the facility is $30.3 million dollars (Q2 2024 dollars), to be adjusted to the effective date, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) of this condition:

a. The certificate holder may adjust the amount of the bond or letter of credit based on the design configuration of the facility, or any phase of the facility, by applying the unit costs presented in Table 8 of the Final Order on the ASC, and the contingencies illustrated in Table 8 of the Final Order on the ASC and may further make adjustments based on unit costs for task and actions presented in Attachment X-1 of the Final Order on ASC. Any revision to the restoration costs should be adjusted to the effective date as described in (b). Any modification to the unit costs presented in Table 8 of the Final Order on the ASC are subject to review and approval by the Council. The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate to maintain health and safety of the public and environment.
b. The certificate holder shall adjust the amount of the bond or letter of credit using the following calculation:
    i. Adjust the amount of the bond or letter of credit (expressed in Q2 2024 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency and using the second quarter 2024 index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust second quarter 2024 dollars to present value.
    ii. Round the result total to the nearest $1,000 to determine the financial assurance amount.
c. The financial institution issuing of the bond or letter of credit must be on the Council's pre-approved financial institution list. The bond or letter of credit shall be in a form approved by the Council.

[PRE-RF-01; Mandatory Condition OAR 345-025-0006(8)]

IV.G.2. <u>Conclusions of Law</u>

Based on the foregoing recommended findings of fact, and subject to compliance with the mandatory and recommended site certificate conditions described above, the Department recommends the Council find that the proposed facility can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the proposed facility, and that the applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to restore the site to a useful, non-hazardous condition.

IV.H. FISH AND WILDLIFE HABITAT: OAR 345-022-0060

To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with:

(1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025(1) through (6) in effect as of February 24, 2017, and

(2) For energy facilities that impact sage-grouse habitat, the sage-grouse specific habitat mitigation requirements of the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-0000 through -0025 in effect as of February 24, 2017.[112]

IV.H.1. Findings of Fact

The Fish and Wildlife Habitat standard requires the Council to find that the design, construction and operation of a proposed facility is consistent with the Oregon Department of Fish and Wildlife's (ODFW) habitat mitigation goals and standards, as set forth in OAR 635-415-0025. This rule creates requirements to mitigate impacts to fish and wildlife habitat, based on the quantity and quality of the habitat impacted as well as the nature, extent, and duration of the potential impacts to the habitat (see Table 9 below).

The Second Amended Project Order establishes the analysis area for the Fish and Wildlife Habitat standard as the area within and extending 0.5 of a mile from the proposed site boundary.

ODFW Mitigation Goals by Habitat Category

The ODFW Policy under OAR Chapter 635, Division 415 identifies six habitat categories and establishes a mitigation goal for each category. Category 1 is the most valuable and Category 6 is the least valuable.

Table 9 below explains both the definition and mitigation goals for each of the six habitat categories, as implemented under the Council's standard.

Table 9: ODFW Habitat Categorization, Mitigation Goals and Types

Habitat Category	Definition	Mitigation Goals and Types
1	Irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is	No loss of either habitat quantity or quality.

[112] OAR 345-022-0060, effective Mar. 8, 2017.

Table 9: ODFW Habitat Categorization, Mitigation Goals and Types

Habitat Category	Definition	Mitigation Goals and Types
	limited on either a physiographic province or site-specific basis, depending on the individual species, population or unique assemblage.	
2	Essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage.	No net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality. Mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality.
3	Essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.	No net loss of either habitat quantity or quality. Mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.
4	Important habitat for fish and wildlife species.	No net loss in either existing habitat quantity or quality. Mitigation of impacts, if unavoidable, through reliable in-kind or out-of-kind, in-proximity or off-proximity habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.
5	Habitat for fish and wildlife having high potential to become either essential or important habitat.	Provide a net benefit in habitat quantity or quality. Mitigation of impacts, if unavoidable, through actions that contribute to essential or important habitat.
6	Habitat that has low potential to become essential or important habitat for fish and wildlife.	Minimize impacts.

OAR 635-415-0005 Definitions:
"Reliable Method" means a mitigation method that has been tested in areas with site factors similar to those affected by a development action and the area in which the mitigation action is being proposed and that has been found (e.g., through field trials, demonstration projects or scientific studies) to produce the habitat effects required to meet the mitigation goal for that action.

"In-kind Habitat Mitigation" means habitat mitigation measures which recreate similar habitat structure and function to that existing prior to the development action.

"In-proximity Habitat Mitigation" means habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, "in proximity to" means within the same home

Table 9: ODFW Habitat Categorization, Mitigation Goals and Types

Habitat Category	Definition	Mitigation Goals and Types
range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development. "Off-proximity Habitat Mitigation" means habitat mitigation measures undertaken outside the area that would constitute "in-proximity mitigation" but within the same physiographic province as the development action.		

Discovery Measures

To identify habitat category and type within the analysis area, desktop surveys (or literature review) were conducted using information obtained from the Oregon Biodiversity Information Center (ORBIC), aerial photographs, National Wetlands Inventory data, the National Hydrography Dataset, Big game winter range spatial data, and habitat mapping/surveys conducted at the three adjacent EFSC-jurisdictional facilities (Wheatridge Renewable Energy Facility I, II and III). Prior to conducting field surveys, preliminary habitat polygons using aerial photography, previous habitat assessments, and United States Department of Agriculture CropScape Cropland Geographic Information System data were mapped to identify the range of habitat types within the analysis area.[113]

Biological and botanical surveys were conducted within the analysis area in 2011, 2020 and 2021. Wildlife habitat mapping surveys were conducted May 12-13, 2020 and from May 25 to 28, 2020, concurrent with special status wildlife and T&E species surveys. Wildlife surveys were conducted within the analysis area in 2019, 2020, and 2021 and included raptor nest surveys, raptor nest monitoring and special status wildlife species surveys.

Habitat Categories within the Analysis Area

Based on the literature and field surveys, habitat categories and type were delineated within the analysis area, as presented in Table 10 and in Figure 6 below.

Table 10: Habitat Categories, Types, and Acres within the Site Boundary and the Analysis Area

Habitat Category	Habitat Type	Acres within Analysis Area	Acres within Site Boundary
1	Grassland-Exotic Annual	13.5	0.0
	Grassland-Native Perennial	29.7	0.0
	Shrub-steppe-Rabbitbrush/Snakeweed	17.6	0.0
	Category 1 Total	**60.8**	**0.0**

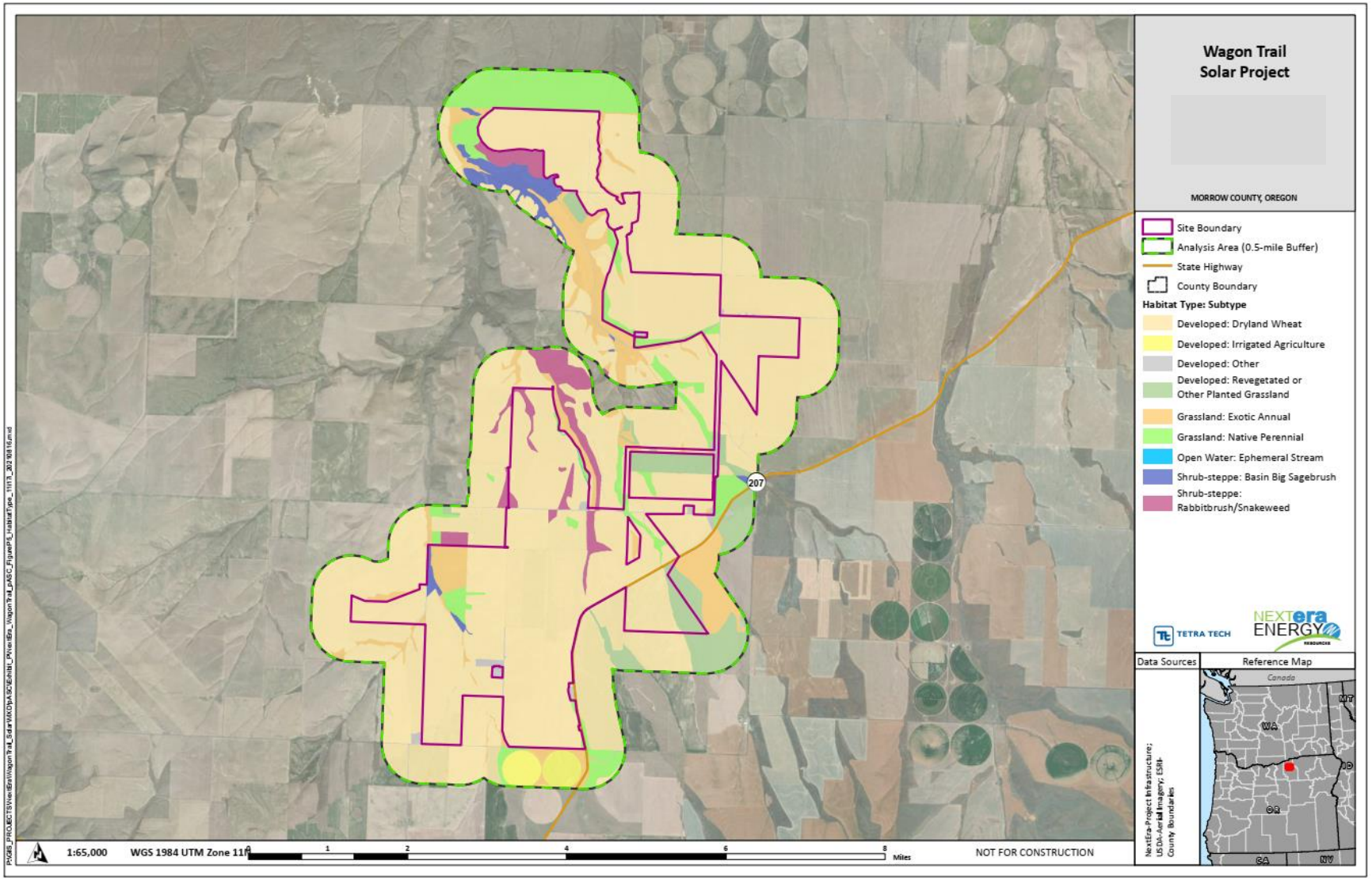
[113] WTSAPPDoc2-16 Exhibit P. Wildlife Habitat compiled Updated_2024-01-03. Section 4.2.1

Table 10: Habitat Categories, Types, and Acres within the Site Boundary and the Analysis Area

Habitat Category	Habitat Type	Acres within Analysis Area	Acres within Site Boundary
2	Grassland-Exotic Annual	54.0	1.0
	Grassland-Native Perennial	81.4	16.3
	Shrub-steppe-Rabbitbrush/Snakeweed	64.7	0.9
	Shrub-steppe-Basin Big Sagebrush	0.5	0.3
	Category 2 Total	**200.6**	**18.4**
3	Grassland-Native Perennial	1,344.6	223.5
	Developed-Revegetated or Other Planted Grassland	950.8	119.4
	Shrub-steppe-Basin Big Sagebrush	447.6	104.5
	Shrub-steppe-Rabbitbrush/Snakeweed	314.2	42.1
	Category 3 Total	**3,057.2**	**489.5**
4	Grassland-Exotic Annual	1,381.5	188.4
	Shrub-steppe-Rabbitbrush/Snakeweed	50.4	41.3
	Category 4 Total	**1,431.9**	**229.7**
5	Open Water-Ephemeral Stream	4.5	4.5
	Category 5 Total	4.5	**4.5**
6	Developed-Dryland Wheat	14,586.1	6,609.5
	Developed-Irrigated Agriculture	240.0	0.0
	Developed-Other	262.4	88.5
	Category 6 Total	**15,088.5**	**6,698.0**
	Grand Total =	**19,843.4**	**7,449.5**

1

Figure 6: Habitat Categories Within Analysis Area



Habitat Impacts and Mitigation

Proposed facility construction and operation would result in temporary, temporal and permanent habitat impacts, as presented in Table 11 below.

Table 11: Estimated Temporary and Permanent Impacts by Habitat Type and Category

Habitat Category	Habitat Subtype	Permanent	Temporary
2	Shrub-steppe-Rabbitbrush/Snakeweed	0.0001	0.04
	Total	**0.0001**	**0.04**
3	Developed-Revegetated or Other Planted Grassland	0.0	0.2
	Grassland-Native Perennial	7.0	2.0
	Shrub-steppe-Rabbitbrush/Snakeweed	0.0	4.3
	Total	**7.0**	**6.5**
4	Grassland-Exotic Annual	0.0	0.1
	Shrub-steppe-Rabbitbrush/Snakeweed	0.0	0.25
	Total	0.0	**0.35**
5	Wetlands/Waters-Ephemeral Stream	0.0	0.01
	Total	0.0	**0.1**
6	Developed-Dryland Wheat	3,653.9	159.9
	Developed-Other	11.1	2.5
	Total	**3,667.9**	**162.6**
	Approx. Total, Habitat Categories 1-5	**7.0**	**7.1**

Totals in this table may not sum due to rounding.
Source: WTSAPPDoc2-16 Exhibit P. Wildlife Habitat compiled Updated_2024-01-03. Table P-7 and Attachment P-3, Table 2.

Temporary Habitat Impacts and Mitigation

Proposed facility construction will result in temporary habitat impacts. The duration of temporary habitat impacts is variable, based on vegetation type and extent – e.g., native grasslands generally recover within 3 to 7 years, while shrublands take as long as 10 to 50 years to recover. Temporary impacts with longer duration temporal[114] loss require additional mitigation. As presented in Table 11, proposed facility construction will result in approximately 7 acres of predominately Category 3 grasslands and shrub-steppe-Rabbitbrush snakeweed habitat impacts. Temporary impacts will be mitigated through the implementation of a

[114] Temporal loss refers to loss of habitat function and values from the time an impact occurs to the time when the restored habitat provides a pre-impact level of habitat function. Habitat subtypes identified within the survey area, including Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass are reasonably expected to require a longer restoration timeframe (5+ years) and therefore would be expected to result in temporal loss requiring compensatory mitigation beyond the certificate holder's revegetation obligation.

Reclamation and Revegetation Plan supported by the measures required under a Noxious Weed Control Plan, both plans to be finalized and submitted to the Department for review and approval prior to facility construction. The requirements of the Noxious Weed Plan, and Department's recommended condition imposing the Noxious Weed Plan, are presented in Section IV.E1.b Land Use.

The mitigation goal for Category 3 habitat impacts is "no net loss in habitat quantity or quality." A draft Reclamation and Revegetation Plan is included as Attachment P-4 of this order. The draft Reclamation and Revegetation Plan includes requirements for habitat restoration through reseeding with a mix of native or non-invasive, non-persistent, non-native grasses and/or shrubs. Seeding methods may include one or a combination of the following seeding methods: broadcast seeding, hydroseeding and drill seeding. The final seed mix will be determined based on consultation with ODFW and the Department. Success of habitat restoration will be determined through short- and long-term monitoring at the site, combined with long-term noxious weed monitoring. The applicant will be required to establish paired monitoring and reference sites for each habitat subtype temporarily impacted during construction. Reference sites will be of similar habitat quality to impacted habitat areas.

The success of habitat restoration will be evaluated against the following criteria:

- average percent cover of the shrub component should be at least 50% of the reference site within 5 years;
- grass species percent cover and richness should be at least 85% similar to reference sites; and,
- non-native weed cover should be equal or less than reference sites.

The above-described monitoring approach, with paired monitoring and reference sites, and success criteria represent a robust, quantitative approach consistent with ODFW guidance for evaluating the success of temporary habitat restoration. The Department therefore recommends Council find that the revegetation methods, monitoring and success criteria are adequate to achieve restoration success, consistent with habitat Categories 2, 3 and 4.

The Department recommends Council impose the following condition requiring that, prior to construction, the applicant submit to the Department, for review and approval, a draft Final Reclamation and Revegetation Plan. The finalization of the draft Final Reclamation and Revegetation Plan includes determining final estimated temporary habitat disturbance based on final facility design or phase, by habitat type and category. Based on the final estimated temporary habitat impacts, plan finalization then includes establishing the number and location of reference sites to be utilized during short- and long-term monitoring and conducting preconstruction surveys for collection of baseline quantitative data (vascular plant species present, native/non-native species present, percent cover of dominant species, percent cover of state and county listed noxious weed, and evidence of disturbance) for the reference sites. The recommended condition is as follows:

Recommended Fish and Wildlife Habitat Condition 1 [PRE]: Prior to construction of the facility, facility component or phase as applicable, the certificate holder shall finalize the Reclamation and Revegetation Plan, based on Attachment P-4 of the Final Order on the ASC, and submit to the Department for review and approval.
[PRE-FW-01]

The Department recommends Council impose the following two conditions requiring that the Reclamation and Revegetation Plan, as finalized per the recommended condition above, be implemented and adhered to during construction, as applicable, and during operations.

Recommended Fish and Wildlife Habitat Condition 2 [CON]: During construction, the certificate holder shall implement and adhere to the Reclamation and Revegetation Plan, as applicable.
[CON-FW-1]

Recommended Fish and Wildlife Habitat Condition 3 [OPR]: During operation, the certificate holder shall implement and adhere to the Reclamation and Revegetation Plan, as applicable.
[OPR-FW-01]

Permanent Habitat Impacts and Mitigation

Permanent impacts to habitat will result from the loss of habitat due to the placement of facility structures and components, construction of permanent access and facility roads, and will require off-site mitigation in an approved habitat mitigation area (HMA). As shown in Table 11, approximately 7 acres of Category 2, 3 and 4 grassland habitat will be permanently impacted; approximately 4.6 acres of Category 2, 3 and 4 shrub-steppe-Rabbitbrush snakeweed habitat will be temporarily impacted but with a temporal (10 to 50 year restoration duration) loss. Permanent and temporal habitat impacts require long-term mitigation.

As presented in Table 9 above, the mitigation goal for Category 2 is, “no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.” To achieve the Category 2 mitigation goal for no net loss and a net benefit in habitat quantity, the proposed HMA will include 2 acres for every 1 acre permanently impacted (2:1 ratio) and 1 acre for every 1 acre of temporary impacts to habitat with a temporal loss (1:1 ratio), as presented in Table 12. Approximately 0.04 acres of Category 2 Shrub-steppe-Rabbitbrush/Snakeweed habitat would be permanently or temporally impacted. Based on the mitigation ratios, the HMA will include approximately 0.04 acres to address Category 2 impacts. To achieve a no net loss and a net benefit in habitat quality, enhancement actions are proposed at the HMA. The enhancement actions are evaluated below.

The mitigation goal for Categories 3 and 4 is, “no net loss of either habitat quantity or quality.” To achieve the Category 3 and 4 mitigation goal of no net loss of habitat quantity, the proposed HMA will include 1 acre for every 1 acre permanently impacted (1:1 ratio), as presented in

Table 12. Based on the mitigation ratios, the HMA will include approximately 9.3 acres to address Category 3 and 4 impacts. To achieve a no net loss in habitat quality, enhancement actions are proposed at the HMA. The enhancement actions are evaluated below.
As presented in Table 12 below, the maximum impact from the proposed facility would require an HMA to include a minimum of 9.3 acres to address permanent and temporal impacts to Category 2, 3 and 4 habitat.

Table 12: Estimated Mitigation by Habitat Category and Habitat Subtype

Habitat Category	Habitat Subtype	Permanent or Temporal Impact	Acres	Mitigation Ratio[1]	Estimated Mitigation	Mitigation Subtotal by Habitat Category[1]
2	Shrub-steppe-Rabbitbrush/Snakeweed	Temp	0.04	1:1	0.04	0.04
		Perm	.0001	2:1	0.0002	
3	Shrub-steppe-Rabbitbrush/Snakeweed	Temp	4.3	0.5:1	2.15	9.15
		Perm	7.0	1:1	7.0	
4	Shrub-steppe-Rabbitbrush/Snakeweed	Temp	0.25	0.5:1	0.13	0.125
					TOTALS	**9.3**

* Only habitats that would result in temporal impacts, and require compensatory mitigation, are included.
Note: Totals in this table may not be precise due to rounding.
1. Acres of mitigation: acres impact.

A 2:1 mitigation ratio is consistent with the Category 2 mitigation goal to achieve no net loss and a net benefit in habitat quantity. A 1:1 mitigation ratio is consistent with goals to achieve no net loss in habitat quantity. The mitigation ratios for temporal loss, when combined with the requirements of the Reclamation and Revegetation Plan, are also consistent with the referenced goals (1:1 mitigation ratio + Revegetation requirements = no net loss + net benefit in habitat quantity; 0.5:1 mitigation ratio + Revegetation requirement = no net loss in habitat quantity). Therefore, the Department recommends Council find that the mitigation ratios for permanent impacts are consistent with Category 2, 3 and 4 mitigation goals for habitat quantity.

ASC Exhibit P Attachment P-3 includes a draft Habitat Mitigation Plan (HMP) for an HMA located within an existing 200-acre area secured by the applicant under conservation easement.[115] The proposed HMA is located on private land west of the proposed facility in Gilliam County. The HMA includes two primary habitat subtypes: 1 - Native Perennial Grassland and Shrub-steppe Mosaic; and 2 - Revegetated or Other Planted Grassland.

The draft Habitat Mitigation Plan proposes examples of potential enhancements at the HMA including planting of up 2.5 acres of Shrub-steppe-Rabbitbrush/Snakeweed habitat; treatment of approximately 7 acres of annual grass; grazing restriction and noxious weed monitoring and

[115] WTSAPPDoc2-16 Exhibit P Wildlife Habitat 2024-01-03. Attachment P-3, Attachment 1.

treatment. The Department, in consultation with ODFW, agree that the proposed enhancement actions would provide uplift to the existing habitat quality, consistent with Category 2, 3 and 4 mitigation goals.[116] The plan needs to be finalized, prior to construction, to determine the final enhancements to be implemented at the HMA, commensurate with the scope of the enhancement provided as example projects, and to ensure that the legal instrument for the HMA acknowledges the requirements of the final HMP and provides a legally binding agreement to conserve, enhance and maintain the HMA for the life of the facility.

> **Recommended Fish and Wildlife Habitat Condition 4 [PRE]:** Prior to construction of the facility, or any phase of the facility, the certificate holder shall submit a final Habitat Mitigation Plan to the Department for review and approval, in consultation with ODFW. The final plan shall be substantially similar to the draft plan provided in Attachment P-3 of the Final Order on the ASC.
> [PRE-FW-02]
>
> **Recommended Fish and Wildlife Habitat Condition 5 [OPR]:** During operation, the certificate holder shall implement and adhere to the requirements of the Habitat Mitigation Plan.
> [OPR-FW-02]

State Sensitive Species within the Analysis Area and Potential Impacts

The proposed site boundary contains suitable habitat for 15 state sensitive species (birds, mammals and reptiles) and two eagle species. Potential impacts to state-sensitive species from proposed facility construction include injury to or loss (fatality) due to collision with or crushing from construction equipment vehicles; and, general disturbance (noise and visual), which can interrupt wildlife behavior. In addition, there are risks to wildlife species during proposed facility operations from potential nesting and breeding disturbance, electrocution, powerline collision, structure collision, vehicle collision, disturbance related to artificial lighting and introduction or spread of noxious weeds. To minimize impacts to wildlife species, the applicant proposes to implement numerous design measures, construction restrictions and a long-term wildlife monitoring plan. Some of these design measures and construction restrictions include:

- Access to solar arrays and associated infrastructure will primarily involve the use and improvement of existing roads.
- Bury collector lines to the extent feasible in the temporarily disturbed road shoulders.
- Overhead transmission lines designed in compliance with Avian Power Line Interaction Committee standards (APLIC 2012), to minimize the risk of electrocution to eagles and other raptors generally, and to Swainson's hawk and ferruginous hawk in particular.
- The applicant will implement down-shield lighting for permanent lighting at the substation and operations and maintenance building. Outdoor lighting will be sited,

[116] WTSAPPDoc8 pASC Reviewing Agency Comments ODFW 2022-10-14; WTSAPPDoc5-2 Reviewing Agency ASC Comment (ODFW) 2024-01-18.

limited in intensity, shielded, and hooded in a manner that prevents the lighting from projecting onto adjacent properties and roadways. This will be done to minimize the risk of avian collision with facility infrastructure for all birds and bats in general, and to nocturnal migrant species (including Brewer's sparrows and grasshopper sparrows) and to the crepuscular, insectivorous common nighthawk in particular. Down-shield lighting will be in place year-round, mitigating impacts to birds and bats both during migration and while foraging for insects at any time of the year.

- The applicant will cap or otherwise modify vertical pipes and piles to prevent cavity dwelling and nesting birds from entering. This also prevents any perching bird from inadvertently falling into pipes. These caps are expected to minimize the risk of fatalities to all birds, as well as small mammals and lizards.

In addition to the above-representations, the Department recommends Council impose the following conditions to minimize direct impacts to state-sensitive species:

Recommended Fish and Wildlife Habitat Condition 6 [PRE]: Prior to construction, the certificate holder shall develop a construction plan that demonstrates construction activities will not occur within the buffer zones (Fish and Wildlife Habitat Condition 7) established for previously identified active nest sites during the sensitive nesting and breeding season.
[PRE-FW-03]

Recommended Fish and Wildlife Habitat Condition 7 [CON]: During construction within the time periods listed below, the certificate holder shall implement buffer zones around active or previously identified active nest sites. No ground-disturbing activities within the buffer zone of active or previously identified active nest sites shall occur during the seasonal restrictions unless a qualified biologist determines the nest site is unoccupied for the season on or after May 31.

Sensitive Status Species	Buffer Size (Radius Around Nest Site):	Sensitive Nesting and Breeding Season :
Western burrowing owl	0.25 mile	April 1 to August 15
Ferruginous hawk	0.50 mile	March 15 to August 15
Swainson's hawk	0.25 mile	April 1 to August 15

If avoidance within the buffer restrictions cannot be maintained, the certificate holder may request approval from the Department, in consultation with ODFW, on a mitigation and conservation strategy for condition compliance.
[CON-FW-02]

Recommended Fish and Wildlife Condition 8 [CON]: During construction, the certificate holder shall develop and implement a facility-specific worker environmental training program. All employees and contractors working in the field will be required to attend

the environmental training session prior to working on-site. Training will include information on sensitive species potentially present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues.
[CON-FW-03]

Recommended Fish and Wildlife Condition 9 [CON]: The certificate holder shall require onsite vehicular traffic to be limited to a 20 mile per hour speed limit.
[CON-FW-04]

ASC Exhibit P Attachment P-2 includes a Wildlife Monitoring and Mitigation Plan (WMMP). The WMMP includes the following components:

- Wildlife Response and Reporting System (WRRS) - method of monitoring and recording wildlife found incidentally during the operation of the facility.
- Raptor nest monitoring
- Washington ground squirrel monitoring
- Post-construction fatality monitoring, and
- Data reporting.

However, the draft WMMP does not include raptor nest monitoring or monitoring for WGS, nor does it include details on the PCFM program. The Department does not agree that raptor nest monitoring, long-term WGS monitoring or post-construction fatality monitoring are necessary or warranted given the results of the raptor nest surveys and the limited evidence that solar facility operations results in impacts to avian species. To reduce confusion, the Department recommends Council amend the draft WMMP to remove the subheaders for components that are not actually detailed in the WMMP. This results in a WMMP that requires WRRS and data reporting.

Recommended Fish and Wildlife Habitat Condition 10 [OPR]: During operation, the certificate holder shall adhere to the requirements of the Wildlife Monitoring and Mitigation Plan, as provided in Attachment P-5 of the Final Order on the ASC.
[OPR-FW-03]

IV.H.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended site certificate conditions described above, the Department recommends the Council find that the design, construction and operation of the proposed facility are consistent with the mitigation goals and requirements of the Oregon Department of Fish and Wildlife's Fish and Wildlife Habitat Mitigation Policy under OAR 635-415-0025.

IV.I. THREATENED AND ENDANGERED SPECIES: OAR 345-022-0070

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

(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:

(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or

(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.[117]

IV.I.1. Findings of Fact

The Threatened and Endangered Species standard requires the Council to find that the design, construction, and operation of the proposed facility are not likely to cause a significant reduction in the likelihood of survival or recovery of a wildlife species listed as threatened or endangered by Oregon Department of Fish and Wildlife (ODFW). For threatened and endangered plant species, the Council must also find that the proposed facility is consistent with any protection and conservation program the Oregon Department of Agriculture (ODA) has adopted for the species. If ODA has not adopted such a program, Council must find that the design, construction, and operation of the proposed facility are not likely to cause a significant reduction in the likelihood of survival or recovery of listed species. Threatened and endangered species are those listed pursuant to ORS 564.105(2) for plant species and ORS 496.172(2) for fish and wildlife species. For the purposes of this standard, threatened and endangered species are those identified as such by either ODA or the Oregon Fish and Wildlife Commission.

The Second Amended Project Order establishes the analysis area for the Threatened and Endangered Species standard as the area within and extending 5-miles from the proposed site boundary.

Threatened and Endangered Species within the Analysis Area

[117] OAR 345-022-0070, effective May 15, 2007.

To identify threatened and endangered species that might occur within the analysis area, the applicant conducted desktop analysis with literature review, based on information provided by the Oregon Biodiversity Information Center (ORBIC)[118] and the Oregon Department of Fish and Wildlife (ODFW)[119] and Oregon Department of Agriculture (ODAg) Native Plant Program[120]. Additional sources of information regarding threatened and endangered species included the U.S. Fish and Wildlife Service (USFWS)[121], and information presented in the Application for Site Certificate (ASC) and Exhibit Q, and during pre-construction compliance surveys for the adjacent Wheatridge Renewable Energy Facilities I, II, and III (WREFI, WREFII, and WREFIII, respectively).[122,123]

The results of the applicant's literature review identified six state-threatened, endangered, and candidate species (one mammal and five plants) with the potential to occur within the analysis

[118] ORBIC. 2019. Rare, Threatened and Endangered Species of Oregon. Institute for Natural Resources, Portland State University, Portland, Oregon. 133 pp.; 2020. Element Occurrence Record Digital Data Set for rare, threatened or endangered species for Project Area. ORBIC, Institute for Natural Resources, Portland State University. Portland, OR. Received December 4, 2020.

[119] ODFW. 2021. Oregon Department of Fish and Wildlife Sensitive Species List. Available at: http://www.dfw.state.or.us/wildlife/diversity/species/docs/Sensitive_Species_List.pdf Accessed July, 2021.; Threatened, Endangered and Candidate Fish and Wildlife Species. Available at: https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened_and_Endangered_Species.pdf Accessed September 24, 2020.

[120] ODAg. 2020. Oregon Listed and Candidate Plants. Available online at: https://www.oregon.gov/ODA/programs/PlantConservation/Pages/AboutPlants.aspx. Accessed December 2020; Lawrence's milkvetch (*Astragalus collinus* var. *laurentii*) Fact Sheet. Available online at: https://www.oregon.gov/oda/shared/Documents/Publications/PlantConservation/AstragalusCollinusLaurentiiProfile.pdf

[121] USFWS. 2016. Endangered and Threatened Wildlife and Plants; 12-Month Findings on Petitions To List Nine Species as Endangered or Threatened Species. *Federal Register* 81(183): 64843- 64857; 2021. Federally Listed, Proposed, Candidate, Delisted Species and Species of Concern Under the Jurisdiction of the Fish and Wildlife Service which May Occur in Oregon. Available at: https://www.fws.gov/oregonfwo/Documents/OregonSpeciesStateList.pdf Accessed July 2021; Oregon's Endangered Species – Plants. Oregon Fish and Wildlife Office. Accessed at: https://www.fws.gov/oregonfwo/promo.cfm?id=177175701 Accessed July 2021; IPaC (Information for Planning and Consultation). Endangered Species in Morrow County. Available at: https://ecos.fws.gov/ipac/ Accessed July 2021; Birds of Conservation Concern 2021. United States Department of Interior, Fish and Wildlife Service, Migratory Birds Program, Washington, D.C. 48 pp. Available at: Birds of Conservation Concern 2021. United States Department of Interior, Fish and Wildlife Service, Migratory Birds Program, Washington, D.C. 48 pp. Available at: https://www.fws.gov/birds/management/managed-species/birds-of-conservationconcern.php Accessed July 2021.

[122] Wheatridge Wind Energy, LLC. 2015. Wheatridge Wind Energy Facility Application for Site Certificate. Prepared by Tetra Tech, Inc. July 2015; Wheatridge. 2019. Final Request for Amendment #4 for the Wheatridge Wind Energy Facility. Prepared by Tetra Tech, Inc. June 2019;

[123] Tetra Tech Inc. 2019 Rare Plant Survey Report – Wheatridge Wind Energy Facility. Prepared for NextEra Energy Resources. September 2019; 2019 Washington Ground Squirrel Survey Report – Wheatridge Wind Energy Facility. Prepared for NextEra Energy Resources. September 2019.

area[124]. Of the six state-threatened, endangered, and candidate species identified as having potential to occur within the analysis area, two are known to occur within the analysis area – the Washington Ground Squirrel (*Urocitellus washingtoni or WGS*), and one of the five state threatened plants, Lawrence's milkvetch (*Astragalus collinus var. laurentii*). (See Table 13 below)

Table 13: Potential State Listed and Candidate T&E Species in Analysis Area

Scientific Name (synonym)	Common Name	Federal Status[1]	State Status[2]	Known Occurrence within Analysis Area	Potential Habitat within the Site Boundary
Mammals					
Urocitellus washingtoni	Washington ground squirrel	–	E	Yes	Yes
Plants					
Achnatherum hendersonii	Henderson's ricegrass	SOC	C	No	Yes
Astragalus collinus var. *laurentii*	Laurence's milkvetch	SOC	T	Yes	Yes
Eremothera (Camissonia) pygmaea	Dwarf evening-primrose	–	C	No	No
Erythranthe (Mimulus) inflatula (evanescens)	Disappearing monkeyflower	–	C	No	No
Myosurus sessilis	Sessile mousetail	SOC	C	No	No

Sources: Burke Museum 2020; OCS 2016; ODA 2020a; ODFW 2021b, 2021c; OFP 2011, 2019; ORBIC 2019, 2020; OregonFlora 2021; USFWS 2021a, 2021b, 2021c; WDNR 2020; Wheatridge 2015, 2019; Tetra Tech 2019a, 2019b.

1. SOC = Species of Concern.

2. T = Threatened, E = Endangered, C = Candidate for Listing.

The Department reviewed the information and sources relied upon to identify the potential for T&E species within the analysis area and based upon this information, recommends that Council find that the applicant has relied on current information and ODFW and ODAg recommended sources to identify the T&E species with potential to occur within the analysis area. The Department further recommends that Council find that WGS and Lawrence's milkvetch are the T&E species likely and known to occur within the analysis area.

Field Surveys

ODFW comments on the applicant's Notice of Intent[125], included in the Project Order, recommended that the applicant conduct field surveys for WGS within 1,000 feet of all ground

[124] The desktop results also indicated that there were two federally-listed fish species with suitable habitat within the analysis area, however, there is not suitable habitat for these species within the proposed facility site boundary (i.e., there are no waters or wetlands within the site boundary).

[125] WTSNOI Reviewing Agency Comment (ODFW-Cherry) Letter 2021-01-08.

disturbing activities. ODFW comments on the pASC identified 2 known WGS colonies within the analysis area and recommended protocol level field surveys for WGS within all areas of suitable habitat within the site boundary.[126] Comments received from ODAg on the pASC identified the high potential for Lawrence's milkvetch, with 2 known populations mapped in the ORBIC database as occurring within 2 miles of the proposed site boundary within the site boundary of the nearby Wheatridge Wind Energy Facility.[127] For these reasons, field surveys completed for the ASC in 2019, 2020 and 2021 focused on these two T&E species, however they were not conducted in areas that are currently Category 6 habitat used for dryland wheat cultivation because Category 6 dryland wheat is not considered suitable habitat for WGS or Lawrence's milkvetch.

Wildlife Field Surveys (WGS)

The applicant completed field surveys for WGS in areas of suitable habitat (except for one area not accessible for survey) in 2019, 2020 and 2021 (See Figure 6 below). During surveys conducted in 2019 and 2020, zero detections of WGS were identified and recorded. In 2021, one WGS colony was delineated just outside the site boundary but within the analysis area. As shown in Figure 6, the applicant was not able to survey all areas of potential habitat due to access constraints. No other threatened or endangered wildlife species were observed within the site boundary during wildlife surveys conducted in 2019, 2020, and 2021.

Rare Plant Surveys (Lawrence's milkvetch)

Based on the results of the desktop analysis and ODAg comments on the NOI and the pASC, T&E rare plant field surveys conducted by Tetra Tech in 2019, 2020, and 2021 focused only on Lawrence's milkvetch in areas not otherwise designated as Category 6 habitat used for dryland wheat cultivation (See Figure 7 below). Field surveys were conducted between June and July each survey year, the months when the plant is easiest to identify. No populations of Lawrence's milkvetch (or the four other candidate plant species) were identified within the portions of the site boundary surveyed in 2019, 2020, or 2021 however, portions of the analysis area and site boundary were not accessible for field surveys and included areas of potential suitable habitat for Lawrence's milkvetch. As shown in Figure 7, the applicant was not able to survey all areas of potential habitat due to access constraints.

The Department reviewed the wildlife and rare plant survey reports and comments received from ODFW and ODAg on survey methods, protocol and findings presented in Exhibit Q. Both ODFW and ODAg concurred with the desktop analysis, survey protocols used, and the findings from the 2019, 2020 and 2021 field surveys for WGS and Lawrence's milkvetch.[128] However, both ODFW and ODAg noted that potentially suitable habitat may exist within the areas unsurveyed, due to lack of access within the site boundary as shown in Figure 8 below, and that

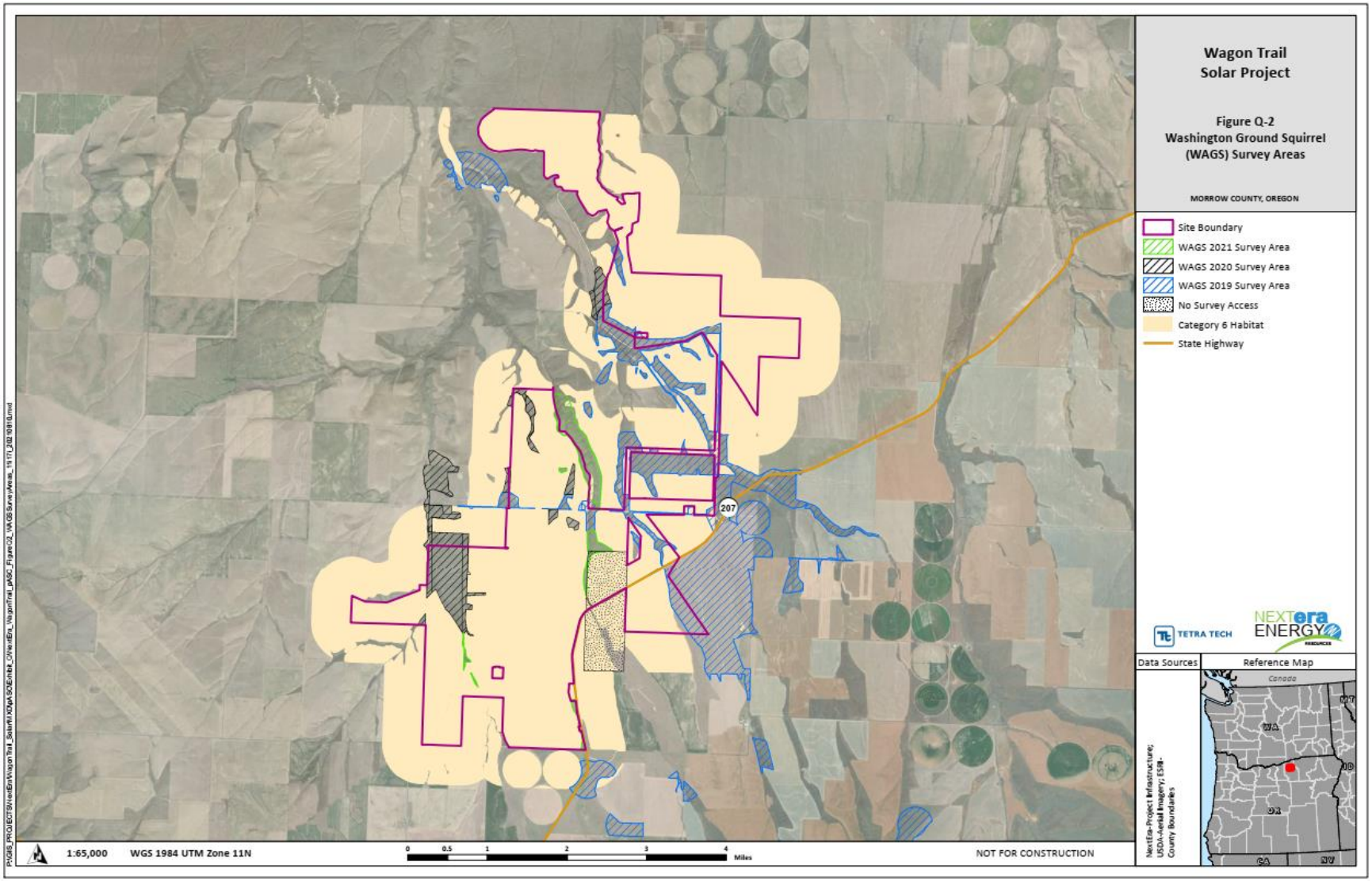
[126] WTSAPP pASC Comments (ODFW) 2022-10-14.

[127] WTSAPP pASC Comments (ODAg) 2022-10-21.

[128] WTSAPP pASC Comments (ODFW) 2022-10-14; WTSAPP pASC Comments (ODAg) 2022-10-21.

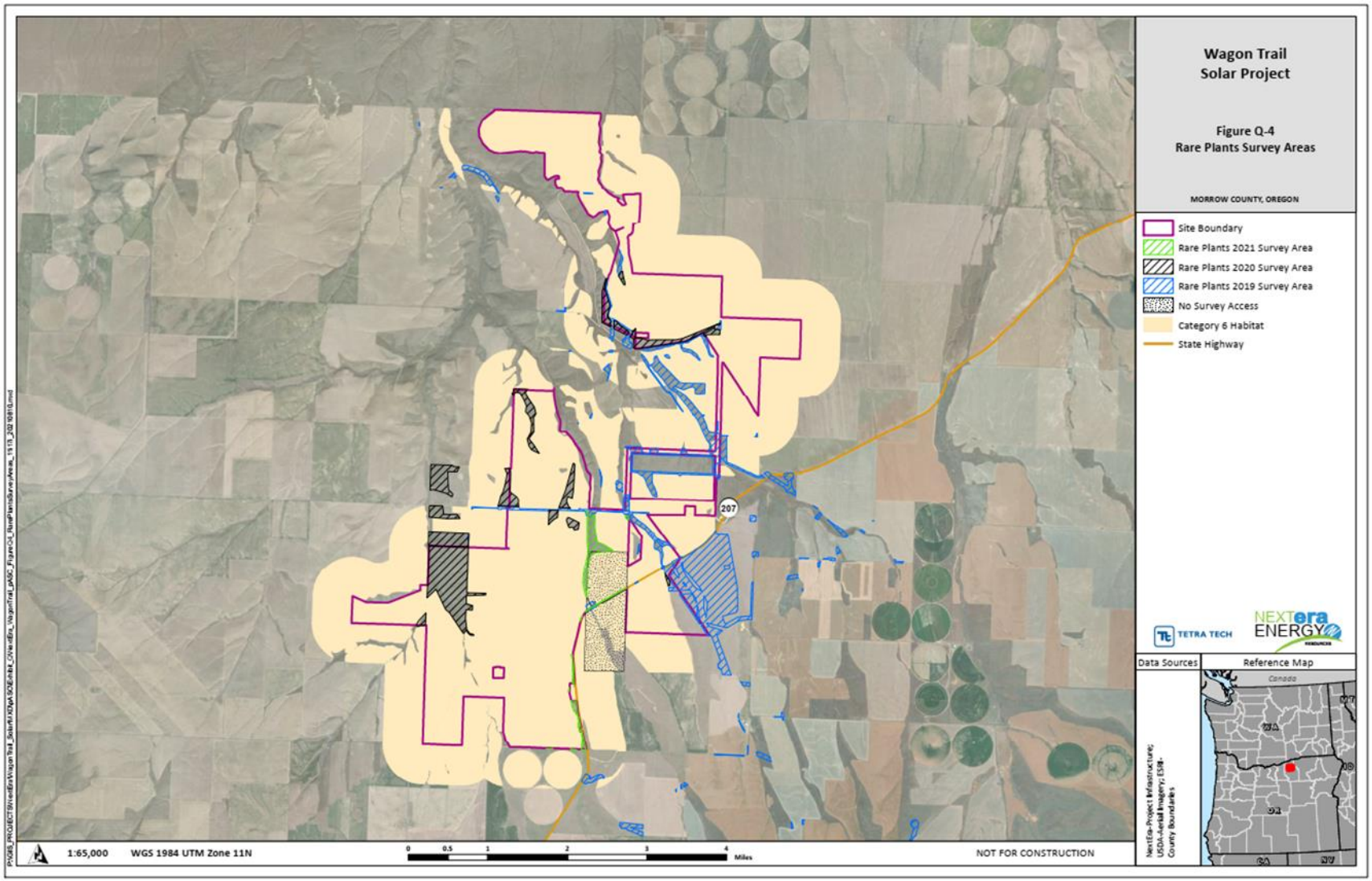
these areas should be surveyed, at a protocol-level, for these two T&E species, prior to construction of the facility.

Figure 7: Field Surveys Completed for WGS within the Analysis Area



1

Figure 8: Field Surveys Completed for Lawrence's Milkvetch within the Analysis Area



Potential Impacts to Identified Threatened and Endangered Species

Based upon the results of the surveys conducted to-date and included in Exhibit Q of the ASC, the facility construction and operations could have an adverse impact, if present, on WGS and Lawrence's milkvetch within the analysis area.

Washington Ground Squirrel

Potential impacts to WGS includes construction activities and potential for direct impacts on individual WGS and WGS colonies. The WGS colony identified as located outside the site boundary has a Category 1 habitat buffer of 785 feet that extends 17.6 acres into the site boundary for the facility. In order to avoid impacts to the WGS colony and associated Category 1 habitat, the applicant proposes to microsite facility components to ensure avoidance of all Category 1 WGS habitat during construction and operations.

Plants

Because no Lawrence's milkvetch was identified in previous field surveys, no adverse impacts on Lawrence's milkvetch are anticipated as a result of the construction or operation of the facility. However, not all suitable habitat within the analysis area was accessible for survey.

Mitigation of Potential Impacts

In Exhibit Q, the applicant commits it will ensure construction and operation of the facility does not cause any permanent or temporary disturbance in Category 1 WGS habitat by conducting pre-construction surveys to ensure that identified areas of WGS use have not expanded to areas where facilities are to be constructed and that no WGS colonies are located in areas where surveys were limited by access issues.[129] Consistent with this representation and applicant's proposal to survey the unsurveyed area, the Department recommends Council impose the following conditions:

Recommended Threatened & Endangered Species Condition 1 [PRE]: Prior to construction of facility components, the certificate holder shall:

a. Submit a protocol-level survey plan for surveys to be conducted within suitable habitat for Washington ground squirrel (WGS), for review and approval by the Department in consultation with ODFW. At a minimum, the survey plan shall specify the survey area (all areas of suitable habitat within 1,000 feet of ground disturbing activities except where there is a habitat barrier (e.g., a paved road)); survey timing

[129] Applicant will minimize impacts to any WGS Category 2 habitat (i.e.: suitable for WGS) in the final design and micrositing process; any unavoidable impacts to WGS Category 2 habitat will be mitigated for as described in the Draft Habitat Mitigation Plan (Exhibit P, to be finalized), and in accordance with the ODFW Fish and Wildlife Habitat Mitigation Policy. See Section IV.H Fish and Wildlife Habitat of this order.

(February 15 to May 31, unless otherwise approved by ODFW); and, land access restrictions and any justification for modified survey methods.

b. Complete protocol-level WGS surveys based on the protocol approved per (a).
c. Submit survey reports to the Department and ODFW. The certificate holder shall not begin construction within 1,000 feet of Category 1 or Category 2 WGS habitat until the identified boundaries of Category 1 WGS habitat have been approved by the Department, in consultation with ODFW. Category 1 habitat includes a 785-foot buffer from an identified active burrow, and also the area within the perimeter of multiple active burrows. Category 2 WGS habitat consists of a 4,136 foot buffer from the exterior boundary of all Category 1 WGS habitat. The survey results are valid for 3-years.
d. Develop maps and worker training materials to inform of sensitive Category 1 and Category 2 habitat. Submit to the Department final facility design maps demonstrating that Category 1 habitat, including 785-buffer from any colonies identified per (b), is avoided.
e. Install flagging or other demarcation, as appropriate, to inform workers of sensitive WGS habitat and of avoidance requirement.

[PRE-TE-01]

Impacts to Category 1 WAGS habitat shall be avoided. To ensure avoidance, the Department recommends Council impose the following condition in the site certificate:

Recommended Threatened and Endangered Species Condition 2 (CON): In years 1, 2 or 3 following the preconstruction protocol-level WGS surveys, in areas of ground disturbance within 1,000-feet of previously identified WGS colonies, the certificate holder shall:

a. Install and monitor flagging/temporary fencing to ensure avoidance of sensitive WGS habitat.
b. Perform WGS surveys (non-protocol, spot check) and update maps and flagging. Provide updated maps to the Department and ODFW and identify any significant change in previously identified WGS habitat.

[CON-TE-01]

The applicant has not proposed avoidance or mitigation measures for Lawrence's milkvetch because no populations were identified in its' surveys to-date. Based on the low likelihood Lawrence's milkvetch occurrences, ODAg has stated preconstruction surveys in the remaining unsurveyed areas are necessary only in areas of suitable habitat where there is a potential for disturbance.[130] While the 2019, 2020 and 2021 rare plant surveys did not identify any Lawrence's milkvetch in analysis area, not all suitable habitat was surveyed. In order to avoid any potential impacts to the survivability or recovery of the Lawrence's milkvetch, the Department recommends Council impose the following conditions:

[130] WTSAPP pASC Comments (ODAg) 2022-10-21.

Recommended Threatened or Endangered Species Condition 3 (PRE): Prior to construction of the facility, the certificate holder shall:

a. Submit a botanical survey protocol to the Department for review in consultation with the Oregon Department of Agriculture. The protocol shall apply to areas of suitable habitat for Laurence's milkvetch using current habitat classification data and areas of ground disturbance. Previous survey results may be relied upon if determined appropriate during review and approval of the protocol.
b. Conduct botanical surveys to confirm the presence or absence of Laurence's milkvetch, within suitable habitat in areas of permanent or temporary disturbance.
c. Survey results must be submitted to the Department and Oregon Department of Agriculture's Native Plant Conservation Division. If the pre-construction surveys identify these or any other state threatened or endangered plant species, the certificate holder shall complete an impact assessment to determine whether temporary or permanent impacts would significantly reduce the likelihood of survivability or recovery of the impacted species, and shall propose mitigation, as determined appropriate by the Department, in consultation with the Oregon Department of Agriculture or its third-party consultant, as necessary. These measures may include avoidance, or if avoidance is not possible, other measures such as seed collection may be considered. If rare plants are identified within a public right-of-way and cannot be avoided by construction, then in accordance with ORS 564, written permission from the landowner or lease holder must be obtained. If seed collection is determined to be feasible and warranted, a permit from the Oregon Department of Agriculture must be obtained in accordance with OAR 603-073-0100 (3).

[PRE-TE-02]

Proposed facility ground-disturbing activities could result in indirect impacts to Laurence's milkvetch from dust and noxious weeds. Oregon Department of Agriculture recommends that identified populations of Laurence's milkvetch be flagged to ensure avoidance using a 20-foot buffer. The Department recommends Council impose the following condition to ensure that all identified populations are flagged and avoided during proximate ground disturbing activities in accordance with ODAg's recommendation.

Recommended Threatened or Endangered Species Condition 5 (GEN): Certificate holder shall maintain a map of previously identified Laurence's milkvetch populations within the micrositing area. The map shall be used to inform flagging or other avoidance mechanism to ensure avoidance of ground disturbance within 20-feet of the populations. The avoidance flagging areas may be updated at any time based on more current survey results, if completed.

[GEN-TE-01]

IV.I.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended site certificate conditions described above, the Department recommends the Council find that the design, construction and operation of the proposed facility is not likely to cause a significant reduction in the likelihood of survival or recovery of species listed as threatened or endangered by the Oregon Department of Agriculture or Oregon Fish and Wildlife Commission.

IV.J. SCENIC RESOURCES: OAR 345-022-0080

(1) To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse visual impacts to significant or important scenic resources.

(2) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). In issuing such a site certificate, the Council may impose conditions of approval to minimize the potential significant adverse visual impacts from the design, construction, and operation of the facility on significant or important scenic resources.

(3) A scenic resource is considered to be significant or important if it is identified as significant or important in a current land use management plan adopted by one or more local, tribal, state, regional, or federal government or agency.

(4) The Council shall apply the version of this rule adopted under Administrative Order EFSC 1-2007, filed and effective May 15, 2007, to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.[131]

IV.J.1. Findings of Fact

The analysis area for the Scenic Resources standard is the area within and extending 10-miles from the site boundary.[132] The analysis area for the proposed facility includes parts of two Oregon counties (Morrow and Umatilla), two Oregon municipalities (Lexington and Ione), and lands administrated by federal agencies (Bureau of Land Management (BLM), National Park

[131] OAR 345-022-0080, effective December 19, 2022.

[132] OAR 345-001-0010(35)(b).

Service (NPS), Department of Defense and U.S. Forest Service). There are no tribal lands within the analysis area.

In applying the standard set forth in OAR 345-022-0080(1), the Council assesses the visual impacts of facility structures on significant or important scenic resources described in a current land use management plan adopted by a local, tribal, state, regional, or federal government agency. The applicant evaluated the following land use, land management and other plans to determine whether significant or important scenic resources are located within the analysis area:

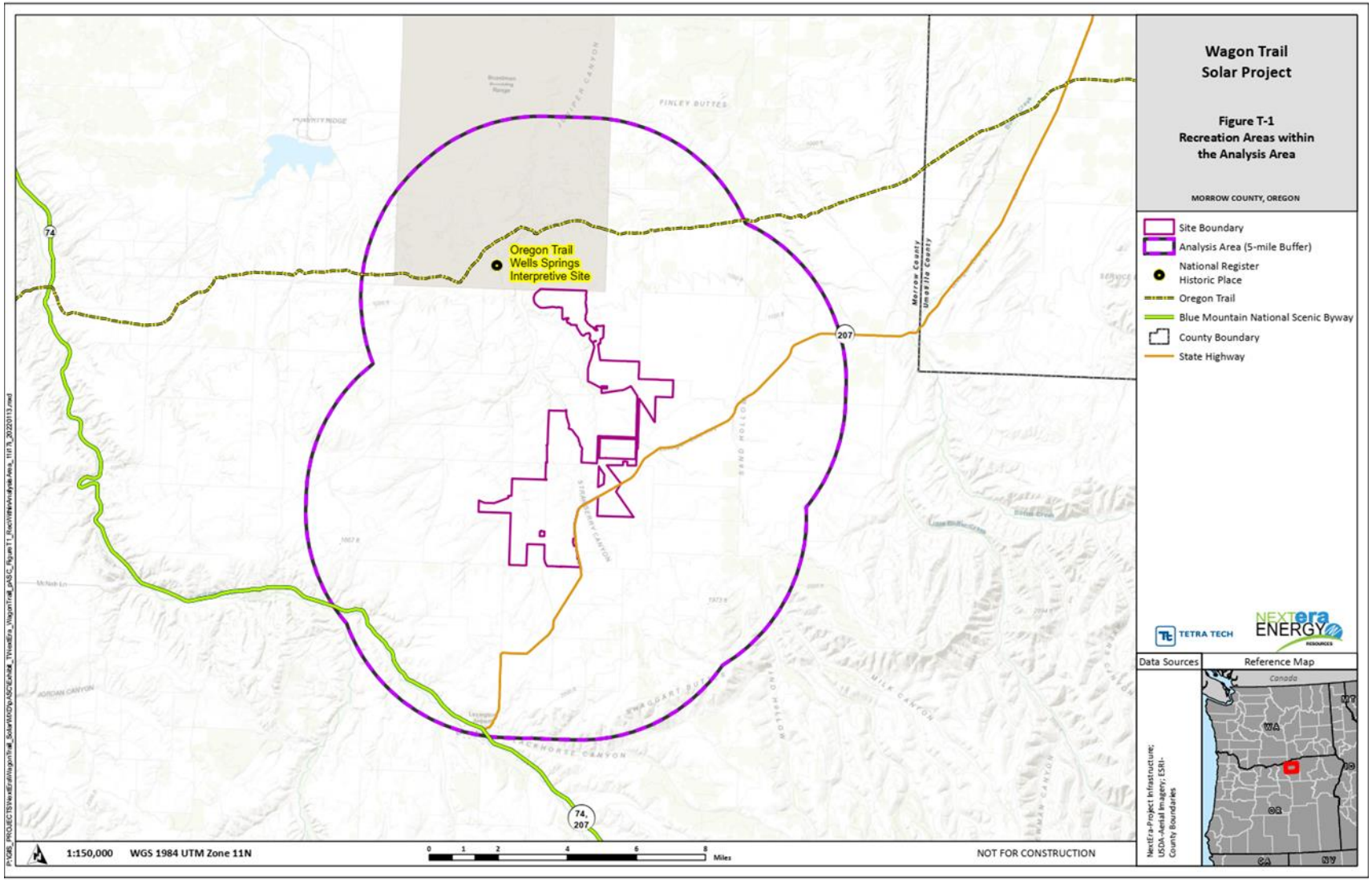
- Morrow County's 2018 Comprehensive Plan, Goal 5 Natural Resources Element
- City of Ione's Zoning Ordinance #158, Section 5
- City of Lexington's 1979 Comprehensive Plan, Section IV
- Oregon Department of State Land's 2012 Real Estate Asset Management Plan, Chapter 2
- The Nature Conservancy's 2020 Oregon Natural Heritage Areas Program, Chapter 3
- Bureau of Land Management's 1989 Baker Resource Management Plan
- U.S. Navy's 2012 Integrated Natural Resources Management Plan for Naval Weapons Systems Training Facility Boardman, Oregon Department of Energy
- National Park Service's 1999 Comprehensive Management and Use Plan for Final Environmental Impact Statement, California National Historic Trail, Pony Express National Historic Trail
- National Park Service's 1999 Management and Use Plan Update Final Environmental Impact Statement, Oregon National Historic Trail, Mormon Pioneer National Historic Trail.
- U.S. Forest Service's 1993 Blue Mountain Scenic Byway Interpretive Guide

As part of the Department's review, the Department included a review of Umatilla County's Comprehensive Plan[133].

The locations of the potential Scenic Resources identified by the applicant are shown in Figure 9 below:

[133] Umatilla County Comprehensive Plan, 1983 as amended 2022. Available at: https://umatillacounty.gov/fileadmin/user_upload/Planning/Umatilla_County_Comp_Plan_10-26-2022.pdf Accessed by the Department 2024-04-29.

Figure 9: Potential Scenic Resources within Analysis Area



Significant or Important Scenic Resources

Based on the Department's review of the plans listed above, the Department recommends that the Council find that there are two important and significant scenic resources per this standard in the analysis area: the ONHT Boardman Segment and the Wells Springs ONHT Interpretive site, located 1.4 and 1.9 miles, respectively, from the proposed site boundary. The Boardman segment of the ONHT, Well Springs Interpretive Site and the Fourmile Canyon Interpretive Site of the Oregon National Trail are each designated by the National Trails System Act as a high-potential segment and high-potential sites, respectively by the National Park Service (NPS 1999). "High-potential segments" are those meeting a criteria of a "high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the users of a historic route." High-potential sites are those meeting the criteria of "historic significance, the presence of visible historic remnants, scenic quality, and relative freedom from intrusion." The Department provides its evaluation below:

<u>ONHT</u>

The 12-mile Boardman segment of the ONHT is located approximately 1.4 miles north at its nearest point to the proposed facility. Approximately 7 miles of this segment are located within the Boardman Bombing Range and as a result, access is restricted. The Oregon Trail was a wagon road stretching 2170 miles from Missouri to Oregon's Willamette Valley. The NPS (1999) management plan identifies the 12-mile Boardman segment of the ONHT in Morrow County as a "high-potential" trail segment. The ONHT is managed to maintain historic value (i.e., view of visible trail remnants and ruts, along with the immediate surroundings) and there is no management direction for preservation of views or scenic quality related to the lands on which this segment of the ONHT is located.

<u>Wells Springs Interpretive Site</u>

The Wells Springs Interpretive Site is located approximately 1.9 miles north of the site boundary and is a designated viewing spot along the ONHT with an interpretive panels and a viewing area to look at the remains (ruts) of the ONHT. It is managed by the BLM as part of the National Historic Oregon Trail Interpretive Center, located in Baker City, Oregon and is focused on interpreting the history and significance of the ONHT. The Wells Springs Interpretive site also includes the historic remnants of a stage station, a pioneer cemetery, and part of upper Wells Springs.

Visual Impacts

The ONHT and the Wells Springs ONHT Interpretive site are also Protected Areas and the visual impacts to these two resources are evaluated in Section IV.E *Protected Areas* of this order. The results of the visual impacts assessment in Exhibit Y indicated that there will be no significant visual impacts from facility structures on these two locations. The facility will not result in a significant loss of vegetation that would significantly impact the visibility of the facility. And the facility will not result in plumes or emissions from operations. Potential fugitive dust during

construction will be minimized and mitigated through the implementation of the NPDES-1200 C permit required for construction.

For all of these reasons, the Department recommends that Council Find that there will be no significant adverse visual impacts on these to scenic resources within the analysis area.

Conclusions of Law

The Department recommends Council find the design, construction, and operation of the facility are not likely to result in significant adverse visual impacts to significant or important scenic resources.

IV.J.2. <u>Conclusions of Law</u>

Based on the foregoing analysis, and subject to compliance with the [existing and/or proposed] site certificate conditions described above, the Department recommends the Council find that the that the design, construction and operation of the facility, are not likely to result in significant adverse visual impacts to significant or important scenic resources.

IV.K. HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES: OAR 345-022-0090

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:

(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;

(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in 358.905(1)(c); and

(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1).

However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[134]

IV.K.1. Findings of Fact

The analysis area for the Historic, Cultural and Archeological Resources standard is the area within the site boundary for archeological resources (or approximately 7,450 acres); and the area within and extending 1-mile from the site boundary for historic buildings, and Traditional Cultural Properties, and Historic Properties of Religious and Cultural Significance to Indian Tribes (HPRCSITs).

Resources protected under the standard include archeological sites (ORS 358.905(1)(c)), archeological objects (ORS 358.905(1)(a)) and any historic, cultural or archeological resource listed or likely eligible for listing on the National Register of Historic Places (NRHP). Information on these resources is provided in ASC Exhibit S. Pursuant to OAR 345-021-0010(1)(s), information concerning the location of archaeological sites or objects may be exempt from public disclosure under ORS 192.502(4) or 192.501(11). Therefore, the applicant submitted confidential resource reports as Figure S-3. Cultural Resource Locations and Attachment S-1. Survey Reports, which the Department, its consultant Historic Research Associates Inc., (HRA), and the Oregon State Historic Preservation Office (SHPO), evaluated as part of the review of the ASC, as recommended in this order.

Department's Evaluation of Discovery Methods

Discovery measures to evaluate the presence of protected resources within the analysis area may include surveys, inventories and limited subsurface testing. An applicant's discovery measures must be based on recommendations from SHPO or the National Park Service (NPS) of the U.S. Department of Interior (OAR 345-021-0010(1)(s)(D)(i)); if the discovery measures are not based on the recommendations of SHPO or NPS, an applicant must provide an explanation (OAR 345-021-0010(1)(s)(D)(ii)). SHPO recommendations on discovery measures are provided in its *2011 Guidelines for Historic Resources Surveys in Oregon* and *2016 Guidelines for Conducting Field Archeology in Oregon*. If applicant's discovery measures follow SHPO's published guidelines, it can be applied that their discovery measures for historic and archaeological resources are based on SHPO recommendations, unless applicant seeks, or SHPO provides, more specific recommendations through the EFSC process.

Different discovery measures apply to the investigation for archeological sites, archeological objects, aboveground historic resources and tribal resources. For all of these resource types, an initial inventory was completed through literature/database review. The following databases and resources were reviewed to identify previous surveys and recorded resources within the analysis area:

[134] OAR 345-022-0090, effective May 15, 2007, amended by minor correction filed on July 31, 2019.

- SHPO's Oregon Archeological Records Remote Access
- SHPO's Oregon Historic Sites Database
- Historic maps and aerial photographs

Data from a prior traditional use survey (TUS)/oral history interview, applicable to portions of the analysis area, was identified through the records search.[135] The above-referenced databases, sources and availability of TUS/oral history interviews are consistent with SHPO's guidance for background research, per its *2016 Guidelines for Conducting Field Archeology in Oregon*.[136]

Non-collection pedestrian surveys were completed for archeological sites, objects and historic buildings and structures. For this review, previous survey investigation reports are applied to portions of the site boundary (approximately 1,550 acres), including a 2013 investigation and two 2018 investigations. The 2013 survey was conducted between October 28, 2013 and January 17, 2014, using 30-meter transects. The 2018-19 surveys were conducted between August 21 and 29, 2018; and May 1-2, 2019, using 20-meter transects.

In 2020-21, the remaining 5,900 acres within the proposed site boundary were surveyed between August 19 and 29, 2020; April 19 and 23, 2021; and November 16 and 18, 2021. Pedestrian surveys were conducted in 20-meter transects, using Global Positioning System units with sub-meter accuracy to maintain special control. This survey design is consistent with the *2016 Guidelines for Conducting Field Archeology in Oregon - Standard Field Methodology for Surface Surveys*.[137]

From the 5 investigations relied upon to inform the inventory of resources within the analysis area, poor ground surface visibility (less than 30 percent) was identified in in the 2013 survey area in areas with heavy stubble. Subsurface probing is typically only recommended for areas of poor ground surface visibility *and* high probability for buried resources or in areas where resources have been identified but cannot be avoided. None of the survey reports, including the 2013 report, identify any areas within the site boundary as "high probability." Therefore, further evaluation using subsurface testing was not conducted.

For aboveground, historic resources, an architectural reconnaissance survey was conducted based on SHPO's *2011 Guidelines for Historic Resources Surveys in Oregon.*

[135] WTSAPPDoc2-19 Exhibit S Cultural 2024-01-03, p.3. Engum (2013)

[136] SHPO's guidelines establish that background research should include a search of the Oregon Archeological Resources, relevant past relevant past archaeological study reports, Oregon Historic Sites and Structures Survey, National Register files, relevant historic contexts, historic maps and photographs (including General Land Office Survey maps and notes and Sanborn insurance maps) and any other pertinent publications, documents, records, and files. Accessed on May 1, 2024 by the Department: https://www.oregon.gov/oprd/OH/Documents/FieldGuidelines.pdf

[137] *Ibid.* Page 32.

Evaluation, Avoidance, and Mitigation for Impacts to Historic, Cultural, and Archeological Resources

Results of the applicant's discovery measures identified 11 archeological sites, five archeological objects, 17 aboveground, potential historic sites, and two historic properties of religious and cultural significance to Indian Tribes (HPRCSIT) within the analysis area. ASC Exhibit S, provides the applicant recommendations for eligibility on the NRHP.[138] Table 14, below, lists all archeological sites and objects, regardless of the eligibility recommendations, and the potentially eligible aboveground, historic sites. A resource designation of "unevaluated" indicates that the resource may have been investigated, however, additional investigations or evaluations are recommended so the resource is assumed to be likely eligible for listing on the NRHP. Table 14, also includes management recommendations for potential impacts to resources, as well as a summary of the resource description. A discussion of the NRHP eligibility recommendations and evaluation of OAR 345-022-0090(1)(b) is provided below the Table.

Table 14: Historic, Cultural and Archeological Resources within Analysis Area and Management Recommendation

Resource	Description	Proposed Eligibility Recommendation	Management Requirement
Historic Property of Religious and Cultural Significance to Indian Tribes (HPRCSIT)			
Sand Hollow Battleground	Site of the largest battle of the Cayuse War	Eligible	Monitoring within HPRCSIT boundary during ground disturbance at minimum depths of 3 feet
Sisupa	Campsite	Eligible	
Aboveground Historic Sites			
WT-H-10	Historic grain elevator	Eligible	No further mgmt. required
WT-H-13	Historic residences (70575 Bombing Range Road)	Potentially Eligible	
Archeological Sites			
WRII-DM-04	Abandoned historic agricultural access road	Not Eligible	Flagging of 100 foot buffer and impact avoidance
WT-BB-01	Historic refuse scatter	Not Eligible	
WT-BB-02	Historic refuse scatter	Not Eligible	
WT-BB-03	Historic refuse scatter	Not Eligible	
WT-BB-04	Historic refuse scatter	Not Eligible	
WT-BB-05	Abandoned historic cistern	Unevaluated	
WT-BB-06	Historic refuse scatter	Unevaluated	
WT-BB-07	Historic road sign	Not Eligible	
WT-BB-08	Historic refuse scatter	Unevaluated	
WT-BB-09	Historic refuse scatter	Not Eligible	

[138] WTSAPPDoc2-19 Exhibit S. Cultural compiled Updated_2024-01-03, Section 4.2.

Table 14: Historic, Cultural and Archeological Resources within Analysis Area and Management Recommendation

Resource	Description	Proposed Eligibility Recommendation	Management Requirement
WT-BB-10	Historic refuse scatter	Unevaluated	
Archeological Objects			
WRII-BB-ISO-01	Historic refuse	Not Eligible	Flagging of 100 foot buffer and impact avoidance
WT-BB-ISO-02	Historic refuse	Not Eligible	
WT-BB-ISO-03	Historic refuse	Not Eligible	
WT-BB-ISO-04	Historic refuse	Not Eligible	
WT-BB-ISO-05	Historic refuse	Not Eligible	

The applicant's preliminary recommendations for eligibility NRHP are based on the criteria codified in Federal Title 36 CFR Part 60.4.[139] Eligible sites are those that meet one or more of the criteria for eligibility. In addition, sites evaluated as eligible must retain physical integrity, where eroded or otherwise heavily disturbed sites are generally not considered eligible.[140] Applicant further evaluates the resources Under OAR 345-022-0090(1)(b), for a proposed facility located on private land, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to archaeological objects, as defined in ORS 358.905(1)(a)[141], or archaeological sites, as defined in 358.905(1)(c).[142]

Applicant recommends that all of the archaeological objects, 15 of the historic sites, and seven of the archaeological sites are considered not eligible for listing on the NRHP. Two historic sites (WT-H-10 and WT-H-13) are within the aboveground analysis area but outside the site

[139] The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
B. that are associated with the lives of persons significant in the past; or
C. that embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possess high artistic value, or that represent a significant or distinguishable entity whose components may lack individual distinction; or
D. that have yielded, or are likely to yield, information important in prehistory or history…

[140] 2021 Cultural Resources Pedestrian Survey Report for the Wagon Trail Solar Project; King and Berger.

[141] ORS 358.905(1)(a) states ""Archaeological object" means an object that: (A) Is at least 75 years old; (B) Is part of the physical record of an indigenous or other culture found in the state or waters of the state; and (C) Is material remains of past human life or activity that are of archaeological significance including, but not limited to, monuments, symbols, tools, facilities, technological by-products and dietary by-products."

[142] ORS 358.905(1)(c) states "(A) "Archaeological site" means a geographic locality in Oregon, including but not limited to submerged and submersible lands and the bed of the sea within the state's jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with: (i) Each other; or (ii) Biotic or geological remains or deposits. (B) Examples of archaeological sites described in subparagraph (A) of this paragraph include but are not limited to shipwrecks, lithic quarries, house pit villages, camps, burials, lithic scatters, homesteads and townsites.

boundary and are considered eligible for listing on the NRHP, and presented in Table 14 above. Two of the HPRCSITs are NRHP-eligible and partially within the site boundary, but also partially within the 1- mile buffer of the aboveground analysis area. SHPO confirmed the ineligibility status of four of the historic sites (Lexington-Echo Highway/OR 207, Bombing Range Road, Strawberry Lane, and Starvation Farms/72967 Strawberry Lane) identified in King and Cody (2019; see Attachment S-2) and the NRHP-eligibility of the HPRCSITs.[143]

As noted above, and as described by the applicant in ASC Exhibit S, the eligibility and impact evaluation for the aboveground, historic resources includes an evaluation of the setting (or existing landscape character and developments). The setting in the analysis area of the facility includes roads, highways, exiting transmission lines, substations, wind energy facilities, as well as agricultural and residential structures. Therefore, for the recommended ineligible and potentially eligible resources, the physical integrity of the surrounding landscape is eroded or otherwise heavily disturbed. Therefore, absent concurrence of eligibility, the Department recommends Council find that potential indirect impacts to the above ground, historic resources is less than significant due to the already developed surrounding landscape. Further, the Department recommends that the recordation conducted for this and other facilities, listed in the preceding subsection, can be considered mitigation for any potential impacts to historic resources if protected under Councils standard.

Four archaeological sites (WT-BB-05, WT-BB-06, WT-BB-08, and WT-BB-10) are within the site boundary and unevaluated for NRHP eligibility, which as noted above, mean that eligibility is assumed. All of the 11 archaeological sites and 5 archaeological objects identified in the archaeological analysis area are located on private lands and are subject to the Council Siting Standard OAR 345- 022-0090(1)(B) (archaeological objects and sites on private lands). As indicated above, 4 of the archaeological sites (WT-BB-05, WT-BB-06, WT-BB-08, and WT-BB-10) are unevaluated for listing on the NRHP and are treated as NRHP-eligible. Applicant indicates that direct impacts on these potentially significant archaeological resources will be avoided by the facility. The remaining 7 archaeological sites (WRII-DM-04, WT-BB-01, WT-BB-02, WT-BB-03, WT-BB-04, WT-BB-07, and WT-BB-09) and all 5 archaeological objects (WRII-BB-ISO-01, WT-BB-ISO-02, WT-BB-ISO-03, WT-BB-ISO-04, and WT-BB-ISO-05) are recommended as not eligible for listing on the NRHP; and applicant indicates that impacts on these resources would not be considered significant, although as noted below, the applicant nevertheless represents avoidance of direct impacts to these resources. The Department has reviewed the confidential technical reports and ASC Exhibit S, and concurs with the applicants' evaluation of NRHP eligibility and the evaluation under OAR 345-022-0090(1)(b), a summary of which is provided below. However, because the applicant represents avoidance of impacts to these resources, and absent SHPO or HRA concurrence that the resources would not likely be eligible, the Department does not make formal NRHP eligibility recommendations to Council. However, as addressed below in Recommended Historic, Cultural and Archeological Condition 1 and in Attachment S-1, prior to construction the applicant may re-submit the technical survey reports

[143] WTSAPPDoc4 pASC Reviewing Agency Comment SHPO Gabriel 2022-02-09 and WTSAPPDoc2-19 Exhibit S. Cultural compiled Updated_2024-01-03, Attachment S-2. SHPO NRHP Eligibility Concurrence.

and information to the Department and HRA or SHPO for concurrence of likely eligible or not likely eligible on the NRHP (or protected under OAR 345-022-0090(1)(b)), an upon written agreement of not likely eligible, the resource may be impacted.

NRHP-ineligible archaeological sites and objects are not considered significant archaeological resources as they do not meet the NRHP-eligibility criteria. The NRHP recordings and evaluations conclude and recommend that resources cannot be significantly associated with the prominent historic themes, persons, or events that have been identified for the area, nor are they representative of a unique type, period, or method of construction. The evaluation conducted for NRHP eligibility supports the evaluation and conclusions under the state's definition of a "site of archaeological significance" under ORS 358.905(1)(b).[144] Because these resources are not eligible for listing on the NRHP and cannot provide significant information pertaining to national or local prehistory or history, beyond that already documented in the associated survey reports, the resources would not be considered of "archaeological significance," and thus not protected under Council's standard. The Department concurs that, based on this reasoning, impacts on NRHP-ineligible archaeological sites and objects protected by OAR 345-022-0090(1)(b) would not be considered significant impacts, no mitigation of these nonsignificant resources would be necessary, and the resources may be impacted. Further, if a resource was determined to be ineligible for listed on the NRHP but would be protected OAR 345-022-0090(1)(b), the recordation and evaluation of NRHP status is sufficient mitigation for potential impacts to resources under the Council's standard.

As highlighted in this evaluation, regardless of the NRHP eligibility recommendations and evaluation under OAR 345-022-0090(1)(b), the applicant commits to avoiding all resources by a 100-foot avoidance buffer and monitoring at the HPRCSIT locations if ground disturbing activities (at minimum depths of 3 feet) are planned within 100-feet. To impose this representation, the Department has drafted a Draft Historic and Archaeological Resources Mitigation and Monitoring Plan (Attachment D to this order), which would be required under Recommended Historic, Cultural and Archeological Condition 1 Recommended Historic, Cultural and Archeological Condition 1 below. The Historic and Archaeological Resources Mitigation and Monitoring Plan includes Table 14 above, which indicates the management and avoidance buffers for resources. However, prior to construction, the applicant could also resubmit the cultural reports to the Department and/or SHPO for an evaluation of likeliness of NRHP eligibility and, upon written approval of the Department that resources may not likely be eligible for listing on the NRHP, the resources may be impacted by the facility.

[144] ORS 358.905(1)(b): Site of archaeological significance" means:
(A)Any archaeological site on, or eligible for inclusion on, the National Register of Historic Places as determined in writing by the State Historic Preservation Officer; or
(B)Any archaeological site that has been determined significant in writing by an Indian tribe.

Recommended Historic, Cultural and Archeological Condition 1 (PRE): Prior to construction, the certificate holder shall finalize the Draft Historic and Archaeological Resources Mitigation and Monitoring Plan, Attachment S-1 to the Final Order on ASC. [PRE-HC-01]

Applicant includes a Draft Inadvertent Discovery Plan or IDP in ASC Exhibit S as Attachment S-3, and is also attached to this order as Attachment E. The IDP is a plan outlining the procedures for inadvertent discoveries during construction or operation. Attachment E to this order also includes the current SHPO template for IDPs. The Department recommends Council impose Historic, Cultural, and Archaeological Resources Condition 2 to require that, prior to construction, the applicant submit to the Department the final IPD with the most current agency and tribal government contacts at the time as well as using the most current version of the SHPO template at that time. Further, to ensure that the IDP is implemented during construction and during any ground disturbing operational activities, the Council also imposes Historic, Cultural, and Archaeological Resources Conditions 2 and 3.

Recommended Historic, Cultural and Archeological Condition 2 (PRE): Prior to construction, the certificate holder shall update the contact information provided in the Final Order on ASC Attachment E, Inadvertent Discovery Plan.
[PRE-HC-02]

Recommended Historic, Cultural and Archeological Condition 3 (CON): During construction, the certificate holder shall require all onsite employees and contractors to implement and adhere to the requirements of the Inadvertent Discovery Plan, as submitted to the Department under Historic, Cultural and Archeological Condition 2. [CON-HC-01]

Recommended Historic, Cultural and Archeological Condition 4 (OPR): During operations, the certificate holder shall require all onsite employees and contractors to implement and adhere to the requirements of the Inadvertent Discovery Plan (IDP), as provided for Historic, Cultural and Archeological Condition 2. The IDP shall be reviewed and updated annually for current contact information.
[OPR-HC-01]

IV.K.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended site certificate conditions described above, the Department recommends the Council find construction and operation of the facility, is not likely to result in significant adverse impacts to historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places or other archaeological objects or sites identified under OAR 345-022-0090.

IV.L. RECREATION: OAR 345-022-0100

(1) To issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities.

(2) The Council must consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location;

(b) The degree of demand;

(c) Outstanding or unusual qualities;

(d) Availability or rareness;

(e) Irreplaceability or irretrievability of the opportunity.

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). In issuing such a site certificate, the Council may impose conditions of approval to minimize the potential significant adverse impacts from the design, construction, and operation of the facility on important recreational opportunities.

(4) The Council must apply the version of this rule adopted under Administrative Order EFSC 1-2002, filed and effective April 3, 2002, to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.[145]

IV.L.1. Findings of Fact

The analysis area for recreational opportunities is the area within and extending 5 miles from the site boundary.

[145] OAR 345-022-0100, effective December 19, 2022.

Methodology for Identifying Recreational Opportunities in the Analysis Area

Recreational opportunities within the analysis area were identified through review of the following sources:

- Geographic Information System files documenting recreational resources obtained from the Bureau of Land Management (BLM 2018)[146], Oregon Department of Fish and Wildlife (ODFW 2015)[147], United States Forest Service (USFS 2019)[148], United States Geological Survey (USGS 2018)[149], and Oregon Parks and Recreation Department (OPRD 2023[150]; OPRD 2018)[151];
- Land management agency planning documents from the USFS (1993, 2019)[152];US Navy (2012)[153]; National Park Service (1999)[154];
- Comprehensive plans, park and recreation plans: Morrow County (2020)[155].

Recreational Opportunities in the Analysis Area

Based on the above review, the applicant evaluated 3 potential recreational opportunities were identified within the analysis area – the Blue Mountain Scenic Byway, a portion of the Oregon National Historic Trail (ONHT) and the Oregon Trail Well Spring Interpretive Site. Figure 10 below shows these recreational opportunities in relation to the proposed site boundary.

Blue Mountain Scenic Byway

[146] BLM OR Recreation Site Polygon. Available at: https://www.blm.gov/or/gis/data.php/

[147] Oregon Hunting Map website. Available at: http://oregonhuntingmap.com/

[148] National Wild and Scenic Rivers. Available at: https://data.fs.usda.gov/geodata/edw/datasets.php?xmlKeyword=Wild+and+Scenic+River

[149] Protected Areas Database of the United States. Available at: https://maps.usgs.gov/padus/

[150] Find a Park. Available at: https://stateparks.oregon.gov/index.cfm?do=visit.find ; Scenic Bikeways. Available at: https://stateparks.oregon.gov/index.cfm?do=things-to-do.scenicbikeways

[151] Oregon State Parks. Available at: http://spatialdata.oregonexplorer.info/geoportal/details;id=6609864428db4afd9d5a202c 090a6eb0

[152] Umatilla National Forest, Blue Mountain Scenic Byway. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd637923.pdf; National Wild and Scenic Rivers. Available at: https://data.fs.usda.gov/geodata/edw/datasets.php?xmlKeyword=Wild+and+Scenic+River

[153] Naval Weapons Systems Training Facility Boardman Environmental Impact Statement; Environmental Assessment, Integrated Natural Resources Management Plan for Naval Weapons Systems Training Facility Boardman, Boardman, Oregon. U.S. Navy, naval Facilities Engineering Command Northwest and Naval Air Station Whidbey Island.

[154] Management and Use Plan Update and Final Environmental Impact Statement, Oregon National Historic Trail and Mormon Pioneer National Historic Trail. US Department of the Interior, National Park Service, Long Distance Trails Office. Washington, D.C. Available at: https://www.nps.gov/oreg/getinvolved/upload/Comprehensive_Management_Plan-508.pdf

[155] Morrow County Parks. Available online at: http://morrowcountyparks.org/home

The Blue Mountain Scenic Byway covers 130 miles of paved, two-lane road, crossing Morrow and Umatilla counties in northeast Oregon. There is a variety of scenery along with stops at various points along the byway.[156]Approximately 6.2 miles of the Blue Mountain Scenic Byway is within the analysis area, but it falls outside the management area for the US Forest Service and the Oregon Department of Transportation does not have an active management plan for this scenic byway, nor does it identify it as a recreational opportunity, For these reasons, based upon the Department's review of the Blue Mountain Scenic Byway, the Department recommends that Council find that it is not a recreational opportunity under this Council standard because it is not managed as a recreational opportunity.

Oregon National Historic Trail – Boardman Segment

The ONHT is one of nineteen national historic trails in the United States. National historic trails recognize original trails or routes of travel of national historic significance including past routes of exploration, migration, and military action. The ONHT marks the route of one of the nation's largest mass migrations. According to historians, from 300,000 to 400,000 travelers used the 2,000-mile overland route to reach destinations in present-day Oregon, Washington, Utah, and California between 1840 and 1860. In Oregon, the trail passed through the Powder River and Grande Ronde Valleys, over the Blue Mountains, and down the Columbia River to The Dalles.[157] The trail route passes approximately 1.9 miles north of the site boundary.

The National Trails System Act identifies "high potential historic sites" and "high potential route segments" along the trails. High potential route segments are portions of a trail route that afford high-quality recreational experiences in areas that have greater than average scenic values or afford the opportunity to vicariously share the experience of the original trail users, while high-potential historic sites are specific locations which provide opportunity to interpret the historic significance of the trail during the period of its major use.[158]

The National Park Service (1999) management plan identifies a 12-mile segment of the ONHT in Morrow County (the "Boardman Segment") as a high-potential trail segment. This segment stretches from the eastern edge of the Boardman Bombing Range in a southwest direction to Immigrant Lane and includes traces of the Oregon Trail (*i.e.*, wagon ruts).[159] However, approximately 7 miles of this segment are within the Boardman Bombing Range and inaccessible to the public except for a small area surrounding the Oregon Trail Wells Spring Interpretive Site; the remainder of the high potential segment is on private lands to the west of

[156] United States Department of Agriculture, Umatilla National Forest Blue Mountain Scenic Byway https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd637923.pdf

[157] This description of the ONHT is taken from a Bureau of Land Management website: Oregon National Historic Trail | Oregon-Washington Bureau of Land Management (blm.gov)

[158] 16 U.S.C. §1251(1) and (2).

[159] U.S. Department of Interior National Park Service Comprehensive Management and Use Plan / Final Environmental Impact Statement for the California, Pony Express, Oregon and Mormon Pioneer and National Historic Trails, Map 9, and Appendix G, p. 287. https://cdn2.assets-servd.host/material-civet/production/images/documents/Comprehensive_Management_Plan-508.pdf?dm=1620062838

the Bombing Range (most of which is managed by The Nature Conservancy as part of the Boardman Conservation Area) and is also not open to the public.

Wells Springs ONHT Interpretive Site

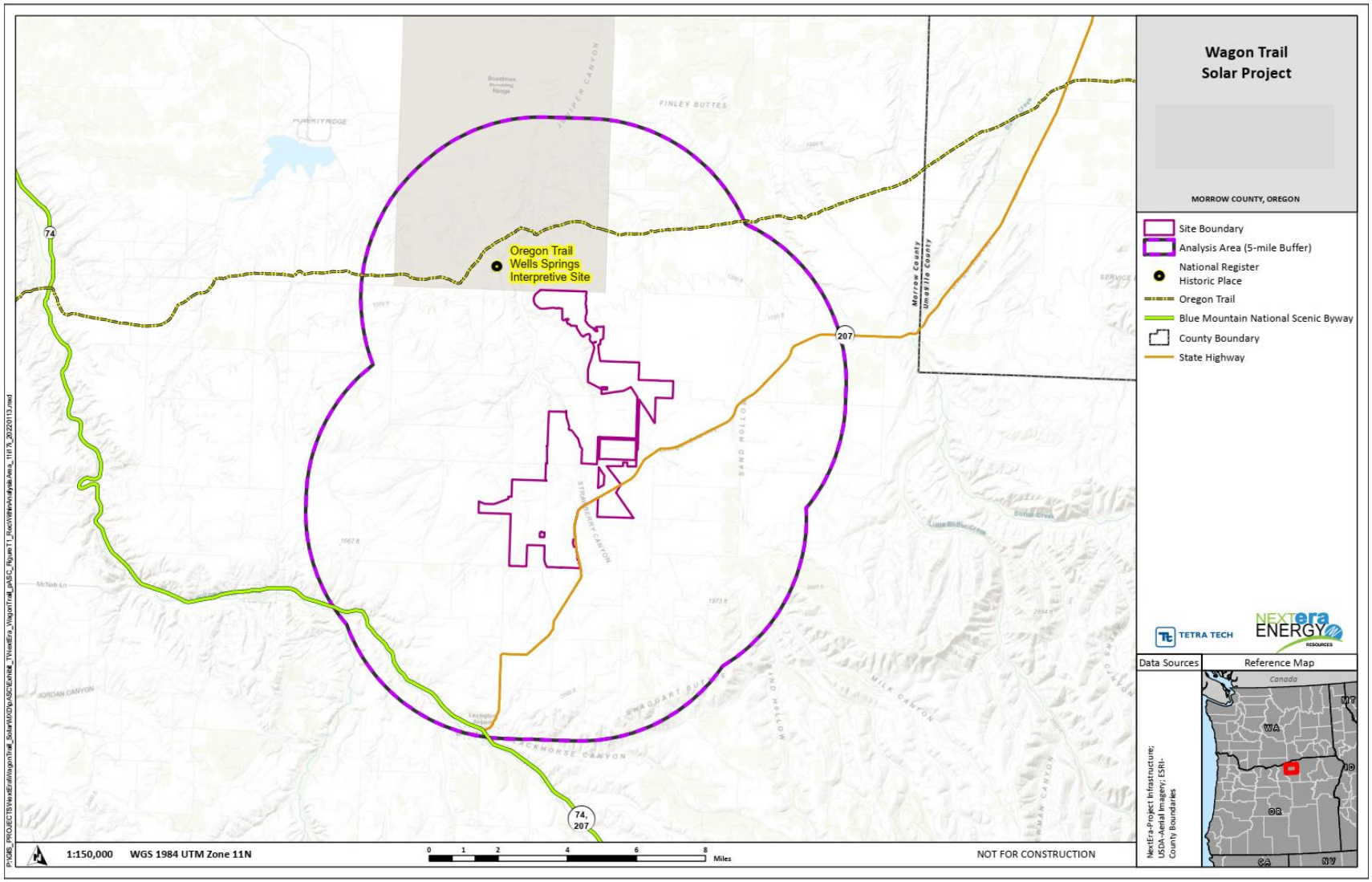
The Oregon Trail Wells Spring Interpretive Site is within a segment of the ONHT that crosses the Boardman Bombing Range south of Boardman. The management plan identifies Wells Spring as a high potential site, and notes it was "an important emigrant campsite and water source, made travel possible for weary emigrants and their worn-out teams across this dry stretch of the Columbia Plateau" and that "remains of a stage station, a graveyard which dates from the emigration era, and trail ruts can be found nearby.

The Department has reviewed the plans and information submitted by the applicant in ASC Exhibit T, and based upon that review, the Department recommends that Council find that applicant has adequately identified the recreational opportunities within the analysis area. While the applicant identified the Blue Mountain Scenic Byway as a recreational Opportunity, it is not rare or irreplaceable and therefore not an important recreational resource under this standard. For this reason, the Department recommends that Council find that there are 2 recreational opportunities in the analysis area the ONHT Boardman Segment and the Wells Springs ONHT Interpretive Site. Potential impacts on these 2 recreational opportunities is evaluated below.

Figure 10: Important Recreational Opportunities in the Analysis Area

1

2



Direct vs. indirect loss of recreational opportunities

The proposed facility would not directly impact any of the identified recreational opportunities because it would not be located within or physically disturb them. Energy facilities can indirectly impact recreational resources through noise, traffic and visual impacts. The Department evaluated the potential impacts on these recreational opportunities.

Noise impacts

Noise associated with construction of the proposed facility will be temporary and will results from the use of heavy equipment to construct the facility and deliver facility components. The Oregon Trail Wells Spring Interpretive Site and the high-potential ONHT segment (1.4 miles and 1.9 miles from the site boundary, respectively). Based upon the noise analysis included in Exhibit Y, at a distance of greater than 2 miles, construction sound levels are expected to attenuate to be indistinguishable from background noise levels (30 dBA).

Exhibit Y evaluated potential noise impacts at approximately 0.5 miles from the proposed site boundary (for Lindsay Prairie Preserve under Protected Areas) and based upon noise modeling results, predict that at a distance of 0.5 miles, the noise from facility construction could be could reach 50 dBA, a sound level comparable to a quiet conversation. At a distance of 1.4 and 1.9 miles from the site boundary, the operational noise at the ONHT Boardman Segment and the Wells Springs Interpretive Site will be further attenuated by distance and for this reason, the Department recommends Council find that construction noise is not expected to have a significant impact.

The principal sources of noise during operations will be from the BESS heating, ventilation, and air conditioning units, the electrical components of the inverters, the step-up transformer associated with each power conversion station, and the main power transformer at the collector substation. Based on the noise assessment submitted in Exhibit Y, it is predicted that at a distance of approximately 2 miles from the site boundary, operational noise from facility operations will attenuate to be indistinguishable from the background noise level of less than 30 dBA. Exhibit Y evaluated potential noise impacts at approximately 0.5 miles from the proposed site boundary (for Lindsay Prairie Preserve under Protected Areas) and based upon noise modeling results, predict that at a distance of 0.5 miles, the facility will be audible during operations with potential noise impacts of 50 dBA are possible, comparable to a quiet conversation. At a distance of 1.4 and 1.9 miles from the site boundary, the operational noise at the ONHT Boardman Segment and the Wells Springs Interpretive Site will be further attenuated by distance and for this reason should not have a significant impact.

For these reasons, the Department recommends that Council find that the noise from facility construction or operations will not have a significant impact on these 2 recreational opportunities.

Traffic impacts

The Oregon Trail Wells Spring Interpretive Site is the only recreational site in the analysis area that facility-related traffic may impact. It may experience minor traffic impacts during construction because it is accessed by roads to the east that will also carry facility construction traffic. The Interpretive Site is also accessed from the west, via roads that will not carry facility construction traffic. Therefore, visitors will be able to use an alternative route that will not be affected by facility construction traffic. commonly take place, the likelihood of significant delays for visitors is very low.

While access to the Wells Springs ONHT Interpretive Site may also experience some construction traffic impacts, the usage of these areas is low, and also access to the Wells Springs ONHT Interpretive Site is via a remote road not likely to be used for construction traffic. Because these protected areas are primarily accessed by roads that will not carry substantial amounts of construction traffic, they are unlikely to experience any traffic impacts. Because workers are expected to commute to the site from a variety of locations and directions, it is expected that worker traffic to and from the site will be dispersed along various access roads to the facility.

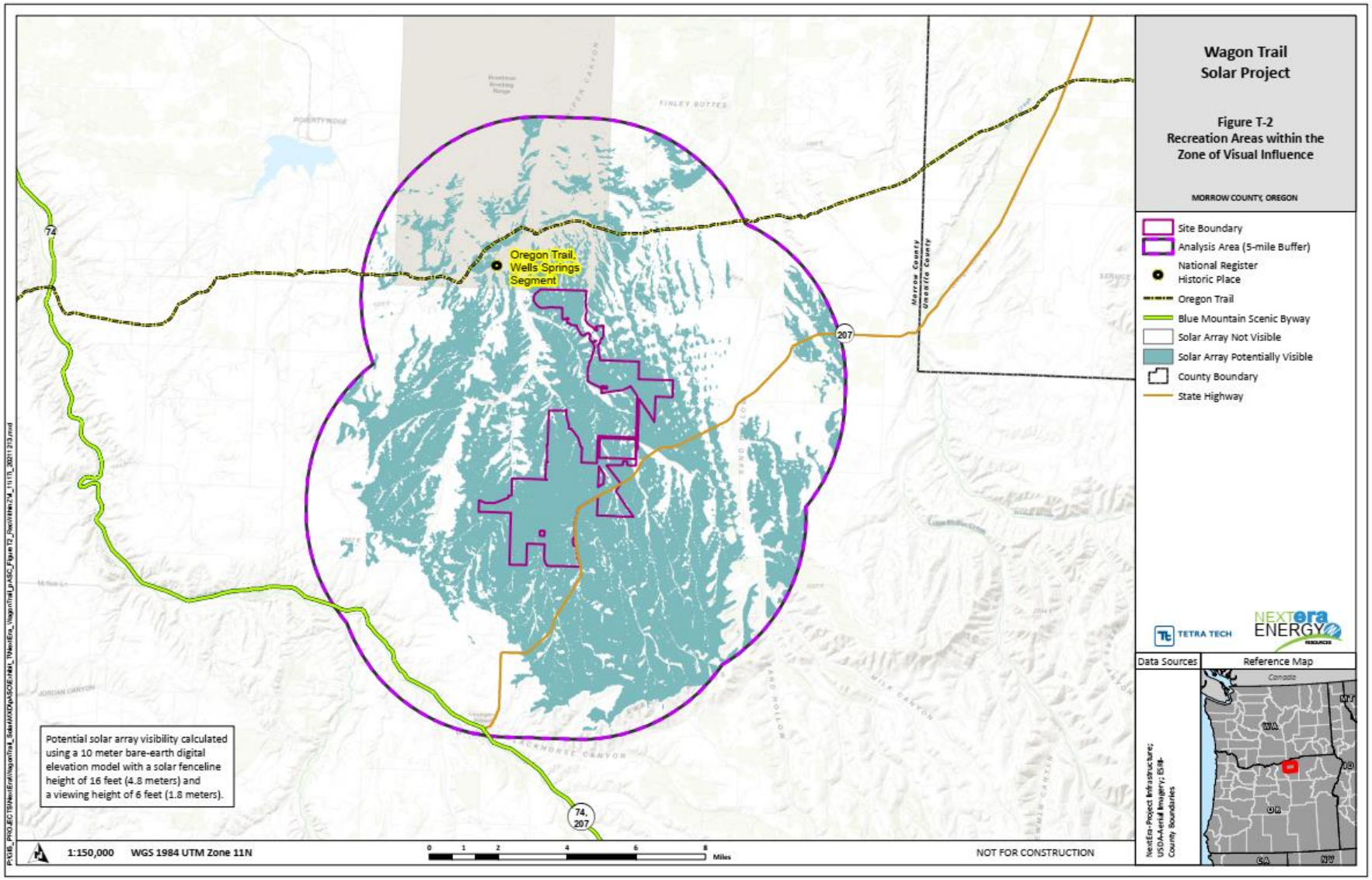
The applicant plans to construct the facility in phases, in order to minimize potential traffic impacts, and will develop a Construction Traffic Management Plan (TMP) as part of the Road Use Agreement coordinated with the Morrow County Road Department and Oregon Department of Transportation (ODOT) in consideration of impacts to the local road network. Public Services recommended site certificate Conditions 1 and 2, will require the finalization of the TMP, submission of final road use agreements, and adherence to the final TMP during construction (See Section IV.M of this order).

For these reasons, the Department recommends that, with the above noted conditions, Council find that facility traffic, from construction or operations, is not likely to have a significant impact on these two recreational opportunities.

Visual impacts

The applicant's Exhibit Y assessed the potential visual impacts on these two recreational; opportunities, that included the results of a Zone of Visual Impact (ZVI) analysis completed for the analysis area. The Exhibit Y relied upon Esri geographic information system software and a bare-earth 30-meter digital elevation model to identify where the facility might be visible. The ZVI analysis assumed a maximum height of 16 feet for the solar modules and a maximum height of 180 feet for the aboveground 230-kVtransmission lines. These results of the ZVI on these recreational opportunities are shown in Figure 11 below:

Figure 11: Visual Impacts on Recreational Opportunities in Analysis Area



Oregon National Historic Trail

ZVI results indicate that there is potential visibility of the solar arrays from some locations along the Oregon Trail Route within the Boardman Bombing Range. Visual impact of the facility on the ONHT would be negligible because the solar arrays would be potentially visible along limited portions of the high-potential ONHT segment within the Boardman Bombing Range, which is not accessible to the public; therefore, there are virtually no viewers to be affected. Further, the existing viewshed contains wind turbines and other industrial infrastructure. Thus, to the extent parts of the proposed facility are visible, the visual impact would be negligible because existing wind turbines and other industrial infrastructure would dominate any visual contrast that might be created by the solar facility or associated transmission line.

Wells Springs ONHT Interpretive Site

The ZVI results indicate that the solar arrays will not be visible from the Oregon Trail Wells Spring Interpretive Site, but there may be limited views of the transmission line from the site, however it will be surrounded by other visible energy infrastructure such as wind turbines and other existing transmission lines in the viewshed and vicinity and comparable distances.

Based upon these results, the Department recommends that Council find that the facility will not have a significant visual impact on these two recreational opportunities.

Based upon the above recommended findings of fact and analysis, the Department recommends Council find that the proposed facility will have no significant impact on any recreational opportunities in the analysis area.

IV.L.2. Conclusions of Law

Based on the foregoing analysis, the Department recommends the Council find that the design, construction and operation of a facility are not likely to result in a significant adverse impact to important recreational opportunities.

IV.M. PUBLIC SERVICES: OAR 345-022-0110

> *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.*
>
> *(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings*

described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[160]

IV.M.1. Findings of Fact

The Council's Public Services standard requires the Council to find that the proposed facility is not likely to result in significant adverse impacts on the ability of public and private service providers to supply sewer and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care, and schools. Pursuant to OAR 345-022-0110(2), the Council may issue a site certificate for a facility that would produce power from solar energy without making findings regarding the Public Services standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

The analysis area for potential impacts to public and private service providers from construction and operation of the proposed facility is the area within and extending 15-miles from the site boundary. Based on the analysis area, the following evaluation assesses potential impacts to public and private providers within Morrow County and the cities of Boardman, Heppner, Ione and Lexington.

Impact Assessment Assumptions

Assumptions relied upon by the applicant to evaluate potential impacts from proposed facility construction and operation to private and public service providers are summarized below:

Construction Assumptions[161]

- Facility construction of any phase is assumed to take approximately 12 months from the time of permit approval to commercial operation.
- Average number of construction workers would be 150 people, while the maximum number of workers during peak construction months would not be more than 200 people.
- Construction Workers:

[160] OAR 345-022-0110, effective April 3, 2002.

[161] Applicant details assumptions about the labor force that includes its assessment under the Public Services standard. The Department notes that these assumptions do not guarantee the assumptions are correct.

    - The applicant assumes that approximately 30 percent of the construction workers are expected to be local residents (from Morrow, Umatilla, Gilliam, Klickitat, and Benton counties).[162]
    - The remaining 70 percent of workers would be in-migrants and would require temporary housing in the analysis area.[163] Short-term housing may include hotels, motels, recreational vehicles parks, and houses located within the commutable distance from the facility (30 miles).
- Applicant assumes an average of 100 truck trips per day (including all estimated delivery trips; 50 roundtrips, i.e., including return trips), with a peak of 134 trips per day (67 roundtrips), will be needed over approximately 250 construction workdays (about 12 months). This is based on the estimated average and maximum peak workforce, with a carpool factor of 1.5 persons per vehicle.

Operation Assumptions[164]

- Three workers would be deployed to the site when necessary for maintenance.
- Workers needed for specialized construction (e.g., substation and electrical transmission construction, solar and battery storage installation) may originate from areas outside the commutable distance (i.e., 30 miles).

IV.M.1.a. Sewers and Sewage Treatment

Construction and operation of the proposed facility will generate sanitary waste. During construction, sanitary waste will be collected on-site in portable toilets that will be provided and maintained by a licensed subcontractor. During operation, sanitary waste will be limited to domestic wastewater from the existing Wheatridge Facilities O&M building or a new O&M building, which will be discharged to licensed on-site septic systems located within the site boundary.

No community in the analysis area provides sewers or sewage treatment to the facility site. Sewage treatment in this rural area is limited to on-site private septic systems. Due to the distance to the nearest developed sewer system, the facility will not connect to any existing sewers or sewage treatment facilities. Based on these recommended facts, the Department recommends the Council find that the proposed facility will not have any significant adverse impact on the ability of any community in the area to provide sewers or sewage treatment.

IV.M.1.b. Water Service

[162] 30 percent of average workforce hired locally would be 45 people and maximum workers would be 60.
[163] 70 percent of average workforce needing temporary housing would be 105 workers and the maximum would be 140 workers.
[164] Applicant details assumptions about the labor force that includes its assessment under the Public Services standard. The Department notes that these assumptions do not guarantee the assumptions are correct.

Proposed facility construction would use approximately 40.2 million gallons of water for dust suppression, road compaction, site preparation, mixing concrete for foundations, fire prevention, and on-site worker drinking and sanitation use.[165] Construction water will be obtained from the Hermiston Water Department, Stanfield Public Works, Boardman Public Works, and/or the Port of Morrow under an existing municipal water right. The applicant provides correspondence from the ASC Exhibit O Attachment O-2 which is a letter from the City's Water Superintendent stating that, under normal conditions, the City would be able to provide water for the proposed facility construction and operation.

Proposed facility operations will use approximately 965,008 gallons per year for solar module (panels) washing. Operational water will be trucked in and retained from Hermiston Water Department, Stanfield Public Works, Boardman Public Works, Port of Morrow, or from an existing or newly construction on-site well, described further in Section IV.R.3., *Water Rights*, of this order. Employee drinking water would be supplied by a new exempt well located near the O&M building (or an existing well at the O&M building for Wheatridge Renewable Energy Facilities I, II, and III may be used), and portable toilets would be used for sanitation during operations. Therefore, these water uses would not impact public or private service providers of water.

Based upon review of the correspondence from the City affirming its ability to meet proposed facility construction and operational water demand under its existing water permits, the Department recommends that the Council find that the construction and operation of the proposed facility are not likely to result in significant adverse impacts to the ability of public or private providers to provide water service.

IV.M.1.c. <u>Stormwater Drainage</u>

Construction and operation of the proposed facility could potentially impact rural stormwater management systems. The site boundary is in a rural area where existing stormwater infrastructure is limited to minimal facilities associated with public roads. Erosion control BMPs used during construction will not affect the provision of stormwater management services by any public agency and facility components will be designed to maintain existing stormwater drainage patterns. The site boundary is not within a designated drainage district or urban area and is mostly vegetated, which serves as a buffer to promote infiltration and minimize erosion. The proposed facility is not within the city limits of the surrounding communities, which may have more complex stormwater systems and stormwater management plans, therefore, the Department concurs with the applicant's statement that the proposed facility would not have an adverse impact on stormwater drainage services to these communities because construction, operation, and decommissioning of the facility would not require modification or expansion of these public stormwater drainage facilities.

[165] WTSAPPDoc2-15 Exhibit O. Water Req 2024-01-03, Section 2.1.

During facility construction, stormwater drainage impacts could occur because of constructing new and improved roads, temporary construction areas, and concrete foundations. As further discussed in Section IV.D., *Soil Protection*, applicant will obtain a NPDES 1200-C permit prior to construction. The Department recommends under Recommended Soil Protection Condition 1 and 2, the applicant consult with the Department and Oregon Department of Quality on the Erosion and Sediment Control Plan (ESCP) to be included in the NPDES 1200-C permit. Erosion and sediment control best management practices (BMPs), which are included in the draft ESCP included in Attachment I-1, should include measures such as mulch, soil tackier, erosion control blankets, gravel, and swales and check dam installation based on site-specific information obtained during the preconstruction, geotechnical investigation, final facility design limits of disturbance, grading plan (see requirements in the Revegetation and Noxious Weed Plan) and seasonal conditions at the time of disturbance. These BMPs would help reduce stormwater runoff.

The applicant states stormwater management infrastructure put in place during construction will be left in place as needed, to continue functioning throughout the life of the proposed facility where impermeable or semi-impermeable surfaces (e.g., access roads) remain to support operational activities. Such features may include roadside ditches, infiltration swales, or retention basins. These facilities will be located on private land and will not affect the provision of stormwater management services by any public agency.

Operational activities associated with maintaining the proposed facility are not anticipated to cause stormwater runoff because permanent roads would be used for vehicle access and the site is anticipated to maintain existing drainage patterns.

Because the proposed facility would not interconnect to or require use of existing public or private stormwater drainage systems and the applicant will be utilizing BMPs to mitigate potential impacts to existing stormwater drainage and erosion, the Department recommends Council find that construction and operation of the proposed facility would not be likely to result in significant adverse impacts to the ability of stormwater drainage service providers to provide service.

IV.M.1.d. Solid Waste Management

Proposed facility construction and operation would result in the generation of solid waste. Potential impacts on the ability of communities to provide solid waste management services could occur if the solid waste management needs from the proposed facility during construction or operations cannot be met through existing facilities or if meeting those demands interferes with the ability of service providers to meet other community waste management needs (e.g., if local landfill capacity is inadequate to handle the needs of the proposed facility). Construction-related solid waste would include approximately 2,000 cubic yards per phase during active construction, comprised of discarded construction materials, packaging materials, and spent erosion control materials. Construction material and office recycling programs would be implemented to the extent practical to reduce the volume of

material that would be disposed of as solid waste, which is discussed further in Section IV.O., *Waste Minimization* of this order. Any non-recyclable waste would be disposed of offsite, hauled by a licensed sanitary service provider and disposed of in a landfill, discussed below.

During operations, the primary waste generated would be solid waste from maintenance and ongoing operational activities. The applicant estimates that no more than 2 cubic yards of solid waste would be generated per month. Waste such as universal waste (for example, lightbulbs and batteries) would be recycled according to applicable regulations. The solar panels would be replaced on an ongoing and as-needed basis depending on any operational issues incurred. The lithium-ion batteries would need to be changed approximately every 3 years, where the self-contained battery components would be removed and disposed of or recycled by a qualified vendor or contractor.

The public landfill closest to the proposed facility is the Finley Buttes Regional Landfill, located approximately 10 miles south of Boardman, Oregon and 4 miles north of the site Boundary. The incorporated communities near the proposed facility will provide solid waste management services to their respective incorporated areas. Solid waste disposal for the proposed facility will be provided through a private contract with local commercial haulers. Solid waste generated at the proposed facility will ultimately be disposed of at the Finley Butte Landfill in Morrow County. According to Clark County Washington data, the Finley Buttes Landfill has a capacity of 131,895,000 tons of municipal solid waste and receives approximately 500,000 tons of municipal soil waste a year.

ASC Exhibit U, Attachment U-1 provides correspondence with the Finley Buttes Regional Landfill, in which representatives from the landfill indicate that they have adequate capacity to serve the proposed facility and does not anticipate reaching full capacity for another 110 years. The Finley Buttes Regional Landfill would be used for frequent disposal of waste, and as the second largest landfill in Oregon, receiving 500,000 tons of waste per year, the Department recommends Council find that the ability of this waste service provider would not be impacted by construction and operation of the proposed facility.

The Department recommends Council impose Waste Minimization Conditions 1 under the Waste Minimization standard (see Section IV.O., *Waste Minimization*, of this order), which would require the applicant to implement plans that would reduce waste and that would encourage the reuse and recycling of waste generated during construction and operation of the proposed facility. These conditions would lessen the waste that would be disposed of at the regional landfills. Therefore, based on the quantity and type of solid waste generated by the proposed facility, existing and long-term capacity of the Finley Buttes Regional Landfill, and compliance with the recommended waste minimization conditions, the Department recommends Council find that construction and operation of the proposed facility would not be likely to result in significant adverse impacts to the ability of solid waste disposal providers to dispose generated waste.

IV.M.1.e. Traffic Safety

Construction of the proposed facility would result in traffic impacts from the increased traffic and congestion resulting from delivery trucks, equipment, and workers travelling to and from the proposed facility site. Approximately 47 miles of new roads will be constructed to access proposed facility infrastructure in areas not previously reviewed through the Council. The provider of transportation services in Morrow County is the Morrow County Road Department within the Public Works Department. The state transportation system in the proposed facility vicinity is provided and maintained by the Oregon Department of Transportation (ODOT).

Peak construction periods would result in approximately 200 workers onsite. Most workers would drive alone; vehicle trips per day are based on an assumed 1.5 occupancy rate. Estimated maximum worker daily trip rate would be 50 round trips and 100 one-way trips. Estimated peak haul and delivery trip rate would be 67 round trips and 134 one-way trips per day. The majority of these trips are commuting trips by the workforce followed by material deliveries and construction equipment deliveries.

Throughout construction the 134 one-way truck trip and deliveries would include the following activities:

- Delivery of aggregate, concrete, steel, water, and assorted electrical equipment;
- Heavy duty trucks to deliver solar modules and related equipment delivery, including racking system structure, transmission line poles, electrical wiring/cabling and equipment, steel posts, inverters, and transformers;
- Substation component delivery, including the main power transformer, circuit-breakers, electrical buses and insulators, disconnect switches, control enclosure, metering and control equipment, grounding, and associated control wiring, and all related equipment based on the final design;
- Energy Storage System (ESS) delivery, including containers, battery modules, and related equipment;
- Delivery of on-site construction equipment such as cranes, dozers, graders, compactors, forklifts, etc.; and
- Light-duty delivery trucks would deliver water and would be used to apply water for dust suppression as well as delivering electrical equipment and materials required for solar panel construction and power transmission.
- Heavy-duty trucks carry gravel and other materials required for site grading and to construct the new site access road segments.

The primary transportation route for construction vehicles and some workforce traffic will be via I-84 to OR-207 near Hermiston, continuing southwest to exit onto Bombing Range Road (then traveling east/west on Grieb-Wood Road, Little Juniper Lane, or Grieb Lane) to access the northern site boundary, or exit west off of OR-207 onto either Base Line Lane, Barak Martin Road, or Strawberry East Road (then traveling north/south on Juniper Canyon Road, Lindsay Road, or Barak Martin Road) to access the southern site boundary. The roads in the primary

transportation route include interstate, state, and county roadways. I-84, also known as the Old Oregon Trail Number 6, serves as the primary east-west route through Morrow County. I-84 is a four-lane divided highway, with two lanes traveling in each direction and 6-foot paved shoulders. OR-207 is a two-lane highway, undivided, and is classified as a regional highway and minor arterial road.[166] County roadways on the primary transportation route include Bombing Range Road, a two-lane highway, and graveled Strawberry East Road, Grieb-Wood Road, Little Juniper Lane, Grieb Lane, Base Line Lane, Barak Martin Road, Juniper Canyon Road, and Lindsay Road. Bombing Range Road is considered a major collector road, and all the remaining county roads are not classified.

According to ODOT, interstate highways (e.g., I-84) are designated as freight routes by the Amended Oregon Freight Plan, which have specific standards for roadway section widths, median barriers, and intersection design and there are no weight restricted bridges along the two primary transportation routes. The majority of the state highway transportation routes are in good condition. There are two segments on OR-207 with a fair rating, from approximately MP 12.59 to 17.81 and MP 19.53 to 27.24, between I-84 to the Oregon Trail Road/Echo junction and south to Butter Creek Road. A fair rating indicates minor or low severity pavement deficiencies that typically lead to treatment such as chip seal or light resurfacing (ODOT 2021b); however, fair conditions do not indicate a safety hazard. Local county roadways are either paved or graveled, with Bombing Range Road being paved, and all the remaining county roads being graveled.

The Oregon Department of Transportation (ODOT) estimates that the average daily traffic (ADT) volumes for local roads increased by approximately 11 percent on average for I-84, while volumes for OR-207 and OR-74 roadway segments increased by approximately 25 and 27 percent, respectively, on average, over the same time periods. OR-207 and OR-74, which generally carry much lower volumes than I-84 (1,602 and 2,194 average trips per day, respectively, compared to 17,843 average trips per day on I-84, as of 2021), saw an increase of 266 and 534 average trips per day, respectively, between 2017 and 2021. I-84 saw an increase of 1,726 average trips per day between 2017 and 2021.

County and local roadways are expected to safely accommodate proposed facility construction traffic. Note that no county or local roadways are anticipated to require improvement prior to construction. Note that road conditions could change, thus the Road Use Agreement will reflect what is needed at the time of preconstruction compliance for the proposed facility. To ensure the integrity of local roads, the applicant will coordinate with local transportation officials to make improvements where necessary to accommodate proposed facility construction traffic, and improvements will be restricted to areas within the respective rights-of-way. The applicant will work with ODOT and the Morrow County Road Department to ensure that any unusual damage or wear to state or county roads that is caused by proposed facility construction is repaired by the Applicant. All county roads on the primary transportation route will be evaluated prior to and after construction of the proposed facility to determine what, if any,

[166] WTSAPPDoc2-21 Exhibit U. Public Services compiled_2024-01-03, Section 2.3.2.6.

degradation has occurred. In addition, the applicant will use the detailed traffic count estimates described above to develop a Construction Traffic Management Plan as part of a Road Use Agreement in consultation with the Morrow County Road Department. The Road Use Agreement will ensure that public roads impacted by proposed facility construction and operation will be left in "as good or better" condition than that which existed prior to the start of construction.

Based on other road use agreements reviewed by EFSC and the Department, the Department understands that provisions typical of road use agreements between an applicant and a County or its Public Works Department include, but are not limited to:

- Ensuring that any unusual damage or wear to state or county roads that is caused by proposed facility construction is repaired by the applicant/certificate holder;
- Evaluating all county roads on the primary transportation route prior to and after construction of the proposed facility to determine what, if any, degradation has occurred;
- Monitoring roadway conditions after completion of construction activities using video footage, photographs, and engineer field notes to document road conditions;
- Obtaining authorization from ODOT and Morrow County before proceeding with overweight loads on state- or county-maintained roadways;
- Abiding by travel conditions and transportation equipment requirements enforced by either ODOT or Morrow County;
- Restoring county roads to their pre-construction condition or better upon completion of construction;
- Reviewing roadway segments prior to any added construction traffic, regardless of existing pavement conditions, and implement a system for monitoring safety or degradation to pavement for necessary roadways; and
- Ensuring that the construction and operation of the proposed facility will maintain ODOT's and Morrow County's road systems in as good or better quality than prior to proposed facility construction.

The applicant states that a component of road use agreements would be a traffic management plan which would be employed by its construction contractor and would provide best management practices (BMP's) to minimize traffic impacts due to construction traffic congestion, flagging needs, road closures, and large equipment and deliveries. Best Management Practices may include:

- Consulting with and notifying the landowners prior to the start of construction to minimize disruptions to ranching and farming operations (e.g., harvest time activities requiring tractor movement between fields or trucks delivering agricultural products to market) due to construction activities such as equipment delivery.
- Coordinating the timing and locations of road closures or oversize load movements in advance with emergency services such as fire, paramedics, and essential services such as mail delivery and school buses.

- Posting signs on county- and state-maintained roads, where appropriate, to alert motorists of construction and warn them of slow, merging, or oversize traffic.
- Using traffic control measures such as traffic control flaggers, warning signs, lights, and barriers during construction to ensure safety and to minimize localized traffic congestion. These measures will be required at locations and during times when trucks will be entering or exiting highways frequently.
- Maintaining emergency vehicle access to private property.
- Developing plans as required by county or state permit to accommodate traffic where construction would require closures of state- or county-maintained roads for longer periods.

To ensure that construction and operation of the proposed facility is not likely to result in significant adverse impacts on the ability of public and private service providers for traffic safety including impacts to roads and traffic flow, the Department recommends Public Services Conditions 1 and 2, which require the finalization of the Plan, submission of final road use agreements, and adherence to the final Traffic Management Plan during construction. The Department understands that it is likely that the applicant or its construction contractor may have its own Traffic Management Plan, which may be provided if it, at a minimum, includes the provisions in the draft Traffic Management Plan.

Recommended Public Services Condition 1 (PRE): Prior to construction of the facility, or facility component, as applicable, the certificate holder shall:

a. Submit to the Department executed road use agreements between Morrow County and the certificate holder or its contractor. Any Final Traffic Management Plan that is part of the road use agreements shall include, at a minimum, the provisions designated in ASC Exhibit U.
b. If a Final Traffic Management Plan designated in sub (a) is not included in road use agreements executed with Morrow County, then submit a Final Traffic Management Plan. A copy of the Final Traffic Management Plan shall be provided to the Department and Morrow County Public Works Department. The Construction Traffic Management Plan shall, at a minimum, include the provisions in ASC Exhibit U.

[PRE-PS-01]

Recommended Public Services Condition 2 (CON): During construction of the facility, or facility component, the certificate holder shall ensure that construction contractors adhere to the requirements of any Road Use Agreement and Traffic Management Plans. [CON-PS-01]

Proposed facility operation may require three employees to be periodically onsite for operation and maintenance activities. Operational trips would include employees traveling to work in their personal vehicles, as well as specialized personnel who may travel in light-duty trucks. The occasional delivery truck may also access the site during operations. Daily traffic generated by this proposed facility is not expected to affect operations on any of the state or county roads, since operations vehicles will constitute a tiny fraction of the daily traffic. Thus, adverse

operational impacts to traffic safety or travel times from the proposed facility are not anticipated. Therefore, The Department recommends Council find that adverse impacts to the transportation network are not anticipated during proposed facility operations.

IV.M.1.f. Air Traffic

Proposed facility construction and operation could result in impacts to navigable airspace from taller structures located in proximity to public and private airports, potential solar panel glare, and outdoor light illumination. The tallest facility structures would be the collector substation and switchyard substation which both would be approximately 10 feet high. The 230-kV overhead line will be supported either by H-frame structures with two galvanized steel or wood poles, or by galvanized steel or wood monopole structures. The structures will rise to a height of approximately 70 to 180 feet above grade depending on design and terrain. The O&M building would be approximately 20 feet high and the solar arrays, at maximum tilt would be 16 feet tall. The nearest public airport is the Lexington Airport, located 4.4 miles south southwest of the proposed facility.[167]

The proposed facility does not meet the notice criteria based on FAA-identified impact areas, and therefore formal submission of a Form 7460-1 to the FAA under Code of Federal Regulations Title 14 Part 77.9 (Safe, Efficient Use, and Preservation of the Navigable Airspace) is not anticipated. The proposed facility does not meet the first threshold for notice. No airports (or their adjoined runways) are within 3.8 miles of the site boundary (per the second threshold for notice to the FAA, 14 Code of Federal Regulations Subpart B Section 77.9). The FAA has developed Technical Guidance for Evaluating Selected Solar Technologies on Airports (FAA 2018), in addition to FAA regulatory guidance under 78 Federal Register 63276 Interim Policy, FAA Review of Solar Energy System Projects on Federally Obligated Airports (collectively referred to as FAA Guidance). The FAA Guidance recommends that glare analyses should be performed on a site-specific basis using the Sandia Laboratories Solar Glare Hazard Analysis Tool. This guidance applies to solar facilities located on federally obligated airport property; it is not mandatory for a proposed solar installation that is not on an airport, such as the proposed facility.

ODA provides an airspace review and determination letter following review of Form 7460-1 for structures greater than 200 feet above ground surface or within the distances from airports listed in OAR 738-70-0110. No permit is issued by the ODA. The airports within 3 nautical miles of the proposed facility are Lexington Airport (4.4 miles S SW), West Buttercreek Airport (10.3 miles NE), and the Portland General Electric Boardman Airport (14.6 miles N NW). Airspace review is useful in understanding the 7460-1 process but is outside the Council jurisdiction. Therefore, this permit should not be included in and governed by the site certificate.

Federal Aviation Administration (FAA) and Oregon Department of Aviation (ODA) notification will occur prior to beginning construction of the proposed facility. The applicant will use the

[167] The nearest public airport is the Lexington Airport, located 4.4 miles south southwest from the proposal facility.

FAA Notice Criteria Tool to identify if a Form 7460-1 is required. If required for the facility, the applicant will submit FAA Form 7460-1 to the FAA and the Oregon Department of Aviation (ODA) in accordance with ORS 836.535(2)(a) requesting a determination of No Hazard to allow the agency to evaluate the effect of the proposed construction on air safety and navigable airspace.

Following applicant submittal of notice to the FAA and ODA, if required, the agency will conduct an aeronautical study in coordination with the DoD "clearing house" process. The DoD conducts formal reviews of projects for which the FAA conducts aeronautical analyses. The DoD provides information regarding FAA analyses to potentially affected military departments and DoD components and reports back to FAA and the project proponents if unacceptable impacts to national security could occur because of implementation of a project. Proponents then can explore potential mitigation options that ensure continued DoD operations, testing, and training as well as energy development.

A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but will not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include conditional provisions, limitations to minimize potential problems, supplemental notice requirements, or requirements for marking and lighting, as appropriate. The applicant will provide a record of all correspondence with FAA and ODA to the Oregon Energy Facility Siting Council no less than 30 days prior to construction.

To ensure that, based on final design, proposed facility construction and operation would not be likely to impact private and public air traffic (airport) providers from impacts to navigable airspace, as well as to reflect the applicant-representations for FAA and ODA coordination, and to ensure that valid ODA and FAA determinations are obtained prior to construction, the Department recommends Council impose the following condition:

> **Recommended Public Services Condition 3 (PRE)**: If prior to construction, the Oregon Department of Aviation's (ODA) Determinations for the facility expire and are necessary, the certificate holder shall:
>
> a. First, submit to and receive responses from the ODA of 7460-1 Notice of Proposed Construction or Alteration Forms for all aboveground facility components. The certificate holder shall provide copies of ODA's responses, which must be consistent with ORS 836.535(2), to the Department. Certificate holder shall respond to ODA recommendations, if applicable.
> b. Second, once ODA responses on the 7460-1 forms are received and if the FAA determinations have expired, submit to and receive determinations from the Federal Aviation Administration (FAA) for all aboveground facility components. The certificate holder shall provide copies of FAA determinations to the Department.

c. Within 5-days of construction, certificate holder shall submit 7460-2 forms to FAA and ODA and shall report both timing of submission and any results to the Department.

[PRE-PS-02]

Measures the applicant would employ to minimize potential glare and lighting from the operation of the proposed facility would be to use solar modules with an antireflective coating to minimize the potential for glare which is a typical design feature for solar panels and permanent lighting fixtures would be directed down, shielding light to limit off-site lighting.

Based on compliance with the above recommended condition, the Department recommends Council find that the proposed facility would not be likely to result in significant adverse impacts on the ability of air traffic service providers to provide service.

IV.M.1.g. Police Protection

Proposed facility construction could result in impacts to police protection providers due to the increased possibility of theft at the proposed site, safety issues associated with the increased population from temporary workers, and increased traffic on roads around the proposed facility. However, the additional temporary and permanent workforce is not expected to create any significant concerns. The estimated maximum 140 new temporary residents and 3 new permanent residents are not expected to place significant new demands on police in the area.

The Morrow County Sheriff's Office (located in Heppner, Oregon) is the law enforcement provider that would serve the proposed facility site. ASC Exhibit U, Attachment U-2, provides applicant correspondence with the Morrow County Sheriff's Office which indicates that the proposed facility site is in an area that has low to medium crime. The letter also indicates that the Sheriff's Office will respond appropriately and as necessary to all complaints, but they do not expect the project to adversely affect their Office in terms of workload. No statements were made regarding their response times.

As discussed further under the evaluation for impacts to fire service providers and in Section IV.N., *Wildfire Prevention and Risk Mitigation* and in Section III.A.,, *Proposed Facility Components*, access roads would be sized for emergency vehicle access which would allow emergency vehicles to navigate onsite. One of the Preventative Programs within the Wildfire Mitigation Plan (Attachment V-1) requires the applicant to submit and implement an Emergency Management Plan – EMP, during construction and operation. The EMP will be prepared prior to construction by the applicant and construction contractor and will contain policies and procedures for preparing for and responding to a range of potential emergencies, including fires. Implementation of the EMP will ensure risks to public health and safety and risks to emergency responders are minimized.

The applicant will provide 24-hour on-site security such as cameras with remote monitoring during construction and effective communications will be established between on-site security

personnel and the Morrow County Sheriff's Office. As necessary, back-up law enforcement will be available from the Oregon State Police, with offices in Hermiston and Pendleton.

The southern collector substation will be located on an approximately 5-acre site and the northern collector substation will be located on an approximately 11-acre site, enclosed by a locked 6- to 8-foot tall wire mesh fence; both areas will be fenced separately from the solar array areas. In addition, chain link perimeter fencing, 6 to 8 feet in height, will enclose the solar arrays, O&M building, and the battery storage system. The perimeter fencing will have lockable vehicle and pedestrian access gates. These fences will deter persons from accessing the proposed facility site during construction and operation, which would minimize theft and potential impacts to law enforcement. Further, as discussed under the traffic safety section under this standard, and as recommended under Public Services Condition 2, the applicant proposes, and Department recommends the implementation of a Construction Traffic Management Plan as part of the road use agreement with the county which would include measures to reduce safety issues associated with construction traffic such as timing deliveries and using flagging and pilot vehicles.

Based on the above reasoning analysis, the Department recommends Council find that the construction and operation of the proposed facility would not be likely to impact law enforcement providers from providing service within the analysis area.

IV.M.1.h. Fire Protection

Potential adverse impacts on fire protection services could result if proposed facility construction or operation or the increased population associated with either caused an increase in fires or other needs for fire protection services beyond the ability of local fire departments to provide those services. During proposed facility construction, there could be some risk of accidental grass fires on the site due to metal cutting, welding, smoking, refueling vehicles and equipment, and operating or parking vehicles and other equipment off roadways in areas of tall dry grass. Solar panels contain several safety features designed to provide increased fire protection. The battery storage system also introduces an element that could pose a fire hazard. Lithium-ion batteries must be kept in a temperature-controlled facility with individual battery modules isolated to prevent the spread of fire if it were to occur.

Findings of compliance of how the applicant characterized wildfire risk within the analysis area and how the proposed facility will be designed, constructed, and operated in compliance with the Wildfire Mitigation Plans (WMP), which are discussed further in Section IV.N., *Wildfire Prevention and Risk Mitigation*, of this order. The WMP describes the procedures and standards that the applicant will use to inspect proposed facility components and manage vegetation as well as identify preventative actions and programs that the applicant will carry out to minimize the risk of proposed facility components causing wildfire.

Fire protection service in the analysis area will be provided by the Ione Rural Fire Protection District and the Heppner Volunteer Fire Department. Attachment U-3 is a record of

correspondence with the Ione Rural Fire Protection District confirming that the construction and operation of the proposed facility will not impede their abilities to provide emergency services. The Heppner Volunteer Fire Department was contacted multiple times, but no response has been received to date. As the site boundary is completely within the fire protection districts of Ione and Heppner, any emergency fire response would be by one of these rural fire protection districts, and any assistance by another fire department would be in the service of one of these rural fire protection districts.

Construction-related fire hazards could result from workers smoking and vehicle and equipment refueling, and operating equipment off roadways in areas of tall dry grass that could ignite upon contact with hot vehicle parts, particularly in dry seasons. ASC Exhibit U provides a summary of the measures that would be implemented during construction to reduce the potential for construction-related fires, which include:

- Keeping water trucks on-site to keep the ground and vegetation moist during extreme fire conditions.
- Plan and manage the work and the movement of vehicles. No off-road driving would be done while working alone. Vehicles will avoid idling in grassy areas; and cutting torches and similar equipment will be kept away from grass.
- Smoking would only be allowed in designated smoking areas in the site boundary.
- Each vehicle used on-site would have a shovel and fire extinguisher of sufficient type and capacity to suppress small fires around vehicles.
- Prior to start of construction work activities, contact local fire department(s) and advise them of work type, location, and probable duration.
- Vehicles and equipment will drive and park on maintained graveled areas and roads to the extent practicable; roads will be established before accessing the site to keep vehicles away from grass.
- Proposed facility roads will be sufficiently sized for emergency vehicle access.
- Fire prevention and response training will be administered to all on-site employees.
- A Facility Site Plan will be submitted to fire protection officials including current contact information for personnel.
- A Health and Safety Plan as well as an Emergency Response Plan will be developed with response procedures in the event of an emergency, such as a fire.
- The portions of the proposed facility that will be graded will be replanted with a low-growing mix of grasses.
- The site will be mowed as needed for fire safety requirements and to keep vegetation from interfering with O&M activities.
- Diesel vehicles will be used whenever possible to prevent potential ignition by catalytic converters.
- The collector system and substations will have redundant surge arrestors to deactivate the proposed facility during unusual operational events that could start fires.
- Proposed facility infrastructure will be spaced sufficiently to prevent the spread of fire.

- All electrical equipment will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards.
- Smoke/fire detectors will be placed around the site that will be tied to the Supervisory Control and Data Acquisition system and will contact local firefighting services.

The risks of fires igniting during operation of the proposed facility would vary depending on the type of operating facility component and depending on climatic conditions. There could be the potential for electrical fires from electrical equipment associated with solar modules, substation components, and the lithium-ion batteries associated with the Energy Storage System (ESS). Electrical equipment associated with solar panels and cabling, substations, and the ESS could short-circuit and generate sparking, which could cause fires. Electrical equipment associated with the sub and switchyard stations such as the connection lines and transformers could spark, especially if there is contact with foreign objects such as an animal. The chemicals used in lithium-ion batteries are generally nontoxic but do present a flammability hazard because these batteries are susceptible to overheating and typically require cooling systems dedicated to each ESS enclosure, especially at the utility scale such as the proposed facility.

The applicant provides measures to avoid, minimize and mitigate the potential for fires and other safety risks during proposed facility operation are discussed in ASC Exhibits B, U, and V.

As discussed in Section XIII.A.2., *Related or Supporting Facilities* and in Section IV.N., *Wildfire Prevention and Risk Mitigation,* approximately 47 miles of new roads will be constructed to access proposed facility infrastructure in areas not previously reviewed through the Council. Service roads located within the solar array site would be approximately 12 feet wide (20 feet wide outside the solar array fence line), depending on location, with an internal turning radius of likely up to 28 feet in accordance with 2019 Oregon Fire Code requirements, including Section 503 and Appendix D - Fire Apparatus Access Roads. Unless already paved, access roads will be graveled. The fenced areas around the collector substation, operations and maintenance (O&M) building, met stations, and energy storage system will be graveled, with no vegetation present.

Smoke/fire detectors will be placed around the site that will be tied to the supervisory, control, and data acquisition (SCADA) system and will contact local firefighting services. The SCADA system collects operating and performance data from the solar array and from the proposed facility as a whole and allows remote operation from the O&M building.

Solar panels and BESS:

- Proper installation and maintenance of electrical equipment would prevent short-circuits and consequent sparking.
- Vegetation management and low growing to reduce the chance of fire.
- The solar array would have shielded electrical cabling, as required by applicable code, to prevent electrical fire.

- The areas immediately around the O&M Building, substations, and BESS would be graveled, with no vegetation present.
- The battery systems will be stored in completely contained, leak-proof modules, and O&M staff will conduct frequent inspections of the battery storage systems according to the manufacturer's recommendations.
- Transportation of lithium-ion batteries is subject to 49 CFR 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. This regulation contains requirements for prevention of a dangerous evolution of heat; prevention of short circuits; prevention of damage to the terminals; and prevention of batteries coming into contact with other batteries or conductive materials.
- Adherence to the requirements and regulations, personnel training, safe interim storage, and segregation from other potential waste streams will minimize any public hazard related to transport, use, or disposal of batteries.

ASC Exhibit U, Attachment U-3 includes a letter from the Ione Rural Fire Protection District which confirms that the proposed facility site is within the boundaries of the Fire District who provides protection to the area. In addition, the Ione Rural Fire Protection District finds that the proposed facilities will not have a significant impact on their ability to fight wildfires.

To minimize the impacts to fire protection service providers that would serve the proposed facility site, all operational workers will be trained in electrical safety and the specific hazards of the proposed facility (see Electrical Safety Program in Attachment V-1). In addition, all workers, contracting employees, and other personnel performing official duties at the proposed facility will conduct work under an OSHA-Compliant Fire Prevention Plan. Furthermore, the Applicant will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires at the proposed facility should focus on controlling spread to adjacent lands. Operational staff will be trained in the use of fire extinguishers for responding to incipient stage fires on site.

Based on the findings of fact and analysis provided above and compliance with the above-recommended guidelines, the Department recommends Council find that the construction and operation of the proposed facility is not likely to result in significant adverse impacts to the ability of fire protection service providers to provide fire protection services.

IV.M.1.i. <u>Housing</u>

Potential impacts to housing could result if there were an inadequate supply of housing in relation to the demand from the new temporary and permanent residents (workers) associated with the construction and operation of the proposed facility. However, many additional workers are likely to commute daily from communities outside the analysis area (e.g., Heppner, Boardman, Irrigon, Hermiston, Echo, Stanfield, Umatilla, Lexington, and Ione), which would lessen impacts to housing associated with the in-migration of outside workers.

Housing options are provided in incorporated and unincorporated communities within the analysis area, and within a commutable distance from the proposed facility (30 miles) outside of the analysis area. Typical housing options for temporary workers include hotels or motels, apartments, short-term rental homes, RV parks, and public or private campgrounds. Note that no RV usage is proposed at the facility itself but rather at existing RV parks and campgrounds.

Based on the projected employment and population amounts, additional temporary housing could be required for up to 200 new households during the peak construction period and about 150 (I think) new households on average during the 12-month construction period. A 30-mile commute distance includes the communities of Heppner, Boardman, Irrigon, Hermiston, Echo, Stanfield, Umatilla, Arlington, Lexington, and Ione, all of which have greater housing availability, as well as other amenities when compared to options within 15 miles, which would attract workers in need of temporary housing.

Hotels, motels, and trailer or RV parks will likely be the most viable available housing option for temporary residents. ASC Exhibit U details that there are approximately 800 hotel or motel rooms in communities within a commutable distance (30 miles) to the proposed facility. The nearby communities of Heppner (12.0 miles away), Boardman (14.5 miles away), Hermiston (21.9 miles away), Umatilla (24.1 miles away), Arlington (26.7 miles away), Irrigon (19.4 miles away), Echo (21.1 miles away), and Stanfield (21.6 miles away) also have campground and RV park options available. Publicly available hotel and motel occupancy data show an estimated statewide year-to-date occupancy rate of 46.3 percent in December from 2022 (OTC 2022). Hotel and motel occupancy rates also vary by region, with occupancy rates in Oregon generally higher in the Portland Metro area. The Department recommends that Council find that this availability of temporary housing would be able to accommodate the estimated maximum of 200 in-migrant temporary workers in the analysis area during construction, and that construction of the proposed facility would not adversely impact their ability to provide temporary housing.

An estimated three staff will be employed at the proposed facility for O&M. Some O&M staff may be hired locally, and some may be hired from outside the area. It is assumed that these permanent O&M workers will live locally. Making the conservative assumption that 100 percent (three) of the O&M positions are filled from outside the analysis area and the average household size is three (higher than for temporary employees), approximately nine new residents could be added to the local population. Thus, it is not anticipated that the proposed facility will cause adverse impacts to communities within the analysis area. Therefore, the Department recommends that Council find that the construction and operation of the proposed facility is unlikely to cause significant adverse impacts to the ability of communities to provide housing.

IV.M.1.j. <u>Schools and Healthcare</u>

Because population density in the analysis area is relatively low, hospitals and health care services tend to be regional. There is one hospital within the analysis area, the Pioneer

Memorial Hospital located 12 miles south in Heppner. The next nearest hospital to the proposed facility is the Good Shepherd Medical Center, located approximately 25 miles northeast in Hermiston. This hospital is considered a Level III trauma center. Ambulance service in the area is provided by the Morrow County Health District's Emergency Medical Services. Some of the nearby fire districts also have First Response Vehicles, with equipment and crew trained to stabilize a patient until the arrival of an ambulance for transport. In the event of a serious injury during construction or operation of the proposed facility, the patient may be flown by helicopter (operated by Life Flight) to one of the two Level 1 hospitals located in Portland: Oregon Health & Science University Hospital or Legacy Emmanuel Medical Center.

Impacts to health care could occur if proposed facility construction activities or increases in temporary residents (during construction) and permanent residents (during operations) resulted in an increase in the use of emergency and routine health care services that exceeded the current capacity of local providers. Potential impacts could include accidents on-site during construction or traffic-related incidents from the increased traffic. As discussed in Section IV.N., *Wildfire Prevention and Risk Mitigation,* and as recommended Wildfire Prevention and Risk Mitigation Conditions 1-3, the applicant would submit and implement Wildfire Mitigation Plans, during construction and operation. The WMPs include training, emergency preparation and response procedures which would reduce emergency incidents related to construction and operation of the proposed facility. These measures would help avoid impacts to health care providers and responders. Due to the relatively small number of new temporary residents and new permanent residents, the Department recommends that the Council find that the proposed facility is not likely to cause significant adverse impact on the ability of communities to provide health care.

There are little to no anticipated construction-related impacts on schools because the proposed facility construction will be short-term and peak construction will take place over the summer. The applicant estimates that during operations, up to three new permanent households, with an estimated maximum of three new schoolchildren could move to the analysis area. Due to the relatively small number of new temporary residents and new permanent residents, as well as the dispersed area in which new residents are likely to settle, significant new demands are not expected from schools that serve the area. Therefore, the Department recommends that Council find that the construction and operation of the proposed facility are not likely to impact the ability of communities to provide school services.

IV.M.2. Conclusions of Law

Based on the foregoing analysis, finding of facts, and recommended site certificate conditions, the Department recommends that the Council find that the construction and operation of the proposed facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area to provide their services.

IV.N. WILDFIRE PREVENTION AND RISK MITIGATION: OAR 345-022-0115

(1) To issue a site certificate, the Council must find that:

(a) The applicant has adequately characterized wildfire risk within the analysis area using current data from reputable sources, by identifying:

(A) Baseline wildfire risk, based on factors that are expected to remain fixed for multiple years, including but not limited to topography, vegetation, existing infrastructure, and climate;

(B) Seasonal wildfire risk, based on factors that are expected to remain fixed for multiple months but may be dynamic throughout the year, including but not limited to, cumulative precipitation and fuel moisture content;

(C) Areas subject to a heightened risk of wildfire, based on the information provided under paragraphs (A) and (B) of this subsection;

(D) High-fire consequence areas, including but not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat; and

(E) All data sources and methods used to model and identify risks and areas under paragraphs (A) through (D) of this subsection.

(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:

(A) Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by

Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and

(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.

(2) The Council may issue a site certificate without making the findings under section (1) if it finds that the facility is subject to a Wildfire Protection Plan that has been approved in compliance with OAR chapter 860, division 300.

(3) This Standard does not apply to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 on or before the effective date of this rule.[168]

IV.N.1. Findings of Fact

The Wildfire Prevention and Risk Mitigation standard requires the Council to find the applicant has adequately characterized wildfire risk associated with a proposed facility using reputable data sources; and that the proposed facility would be operated in compliance with a Council-approved wildfire mitigation plan. The analysis area to evaluate potential wildfire risks is the site boundary and one-half mile from the site boundary.[169] The proposed facility site boundary is approximately 7,450 acres, and the analysis area is approximately 19,843 acres.

Characterization of Wildfire Risk within Analysis Area

Under OAR 345-022-0115(1)(a), an applicant must adequately characterize the wildfire risk within the analysis area using reputable sources to describe Baseline Wildfire Risk, Seasonal Wildfire Risk, Areas Subject to Heightened Risk of Wildfire, and High-fire Consequence Areas. Each of these are discussed in detail in this section with a description of the data source, as necessary to support the findings and recommended conclusions. The data sources the applicant used to evaluate wildfire risk include:

- National Oceanic & Atmospheric Administration precipitation data; Summary of Monthly Normals 1991 – 2020, Heppner weather station;
- Morrow County Planning Department;
- NRCS 2021 Web Soil Survey data;
- U.S. National Park Service, 2019 Arid and Semi-Arid Region Landforms – Geology;
- National Landcover Dataset data for vegetation;

[168] OAR 345-022-0115, effective July 29, 2022.

[169] OAR 345-001-0010(35)(c).

- U.S. Forest Service 1970 A Guide for Application of Meteorological Information to Forest Fire Control Operations, and 2012 Information from LANDFIRE on fire regimes of Columbia Plateau grasslands and steppe communities;
- National Wildfire Coordinating Group (NWCG) 2021 Fire Behavior Field Reference Guide;
- Oregon Community Wildfire Protection Plans (CWPP) Planning Tool;
- Oregon Explorer 2018 Quantitative Wildfire Risk Assessment;
- Pyrologix 2018 Pacific Northwest Quantitative Wildfire Risk Assessment: Methods and Results. Prepared for the U.S. Forest Service by Pyrologix LLC;
- National Interagency Fire Center 2019-2022 Wildfire Perimeter Data;
- Conservation Biology Institute, 2020 Wildfire Risk Assessment Data Layer Descriptions Spreadsheet.

Based upon the analysis provided below of the applicant and Department evaluation of baseline and seasonal fire risk, areas subject to heightened fire risk, and high-fire consequence areas using current and reputable data sources and methods, the Department recommends Council find that the wildfire risk within the analysis area is low, except in areas in the south and centralized site boundary along agricultural and residential areas, transmission and transportation corridors. For these areas, the Department recommends Council find that the wildfire risk in these areas is moderate.

IV.N.1.a Baseline Wildfire Risk

Baseline wildfire risk within the analysis area is evaluated based on factors expected to remain fixed for multiple years, including topography of the site, vegetation, existing infrastructure, regional climate, and burn probability.

Topography

The analysis area is in Morrow County where the topography varies from gently rolling plains adjoining the Columbia River to broad plateaus and rounded ridges in the central part of the county, which merges with the more rugged terrain of a forested spur of the Blue Mountains in the southern part of the county. Potential wildfires could travel quicker on steeper slopes and slower on the flatter portions of land within the analysis area. Slopes within the site boundary range from approximately zero to 24 percent, with an average slope of 5.5 percent, and elevations within the site boundary range from approximately 879 feet above mean sea level to 1,440 feet above mean sea level.[170] As illustrated in ASC Exhibit V, Figure V-1, there are no areas within the analysis area that have slopes steeper than 25 percent, which includes Juniper Canyon, Strawberry Canyon, and Little Juniper Canyon, which are within the analysis area.

Vegetation

[170] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.1.

ASC Exhibit P indicates that 76 percent of the analysis area and 90 percent of the site boundary is mapped Category 6 Habitat.[171,172] Under the Oregon Department of Fish and Wildlife (ODFW) rules, Category 6 Habitat has low potential to become essential or important habitat for fish and wildlife. For this proposed facility, the Category 6 habitat includes developed areas, revegetated or other planted grasslands, dryland wheat, and irrigated agriculture. More specifically, the site boundary is primarily irrigated agriculture (89 percent) with portions of shrub/scrub (5 percent) and herbaceous (4 percent) land covers.[173]

The Oregon Explorer CWPP Planning Tool offers a data layer that provides Fuel Models which describe the composition and characteristics of fire fuels. The models are specific categories of burnable fuels based on descriptions of live and dead vegetation. The two fuel models that make up the area within the site boundary and analysis area are Fuel Model 93 and Fuel Model 102. Fuel Model 93 constitutes agricultural land maintained in a non-burnable condition such as irrigated annual crops and make up 49 percent of the site boundary and 37 percent of the analysis area. Fuel Model 102 is primarily grassy areas with some small amounts of fine, dead fuel, where any shrubs present do not affect fire behavior and makes up 45 percent of the site boundary and 54 percent of the analysis area.[174] Typical fire regimes in grassland and steppes of the Columbia River Plateau are characterized by a fire return interval (the number of years expected between fires) of 40 to 81 years.[175] Fuel Models are also used to describe the composition and characteristics of fire fuels is provided below in Section under Seasonal Wildfire Risk.

Existing Infrastructure

Understanding the type and location of existing infrastructure for baseline fire risk is important because overall wildfire risk for an area is based, in part, on wildfire risk to assets, people and property which includes where people live, critical infrastructure, developed recreation, housing unit density, and other factors discussed later in this section. Although the proposed facility site is within a rural agricultural area, this area of Morrow County also hosts operational and approved yet not yet constructed energy generation and transmission line facilities. A summary of existing infrastructure within the analysis area is provided below from the northern portion of the facility to the southern portion. A representative view of the proposed facility site with roads, transmission lines, and other energy facilities can be found in ASC Exhibit C, Figure C-3. Following the summary of existing infrastructure below is Figure 12: *Slope within Wildfire Analysis Area*. Figure 12 illustrates the facility site boundary, wildfire analysis area, roads, and highways in and around the site where existing infrastructure is adjacent to. The

[171] WTSAPPDoc2-16 Exhibit P. Wildlife Habitat compiled Updated_2024-01-03, Table P-4.

[172] The analysis area for fish and wildlife habitat is the same as the analysis area for the wildfire risk assessment. OAR 345-001-0010(1) and 345-001-0010(35)(c).

[173] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.1.

[174] https://tools.oregonexplorer.info/OE_HtmlViewer/Index.html?viewer=wildfireplanning. Accessed by Department 11-03-2023.

[175] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.1.

Department emphasizes that these areas are also the areas that have higher wildfire risk, which is discussed later in this Section.

Northern Site Boundary – Grieb-Wood Road:

There are wind turbines associated with the Wheatridge Renewable Energy Facility I site boundary near Grieb-Wood Road in the northernmost portion of the site boundary. An operational transmission line extending from the central portion of the facility on Strawberry East Road extends north to Little Juniper Lane north to Grieb-Wood Road. There is also a transmission line at the northern edge of the facility site boundary which extends east and west within the analysis area.

Western Site Boundary – Little Juniper Lane, Lindsay Road:

Operational transmission lines cross Juniper Canyon Road in the north and southwestern portion of the site boundary.

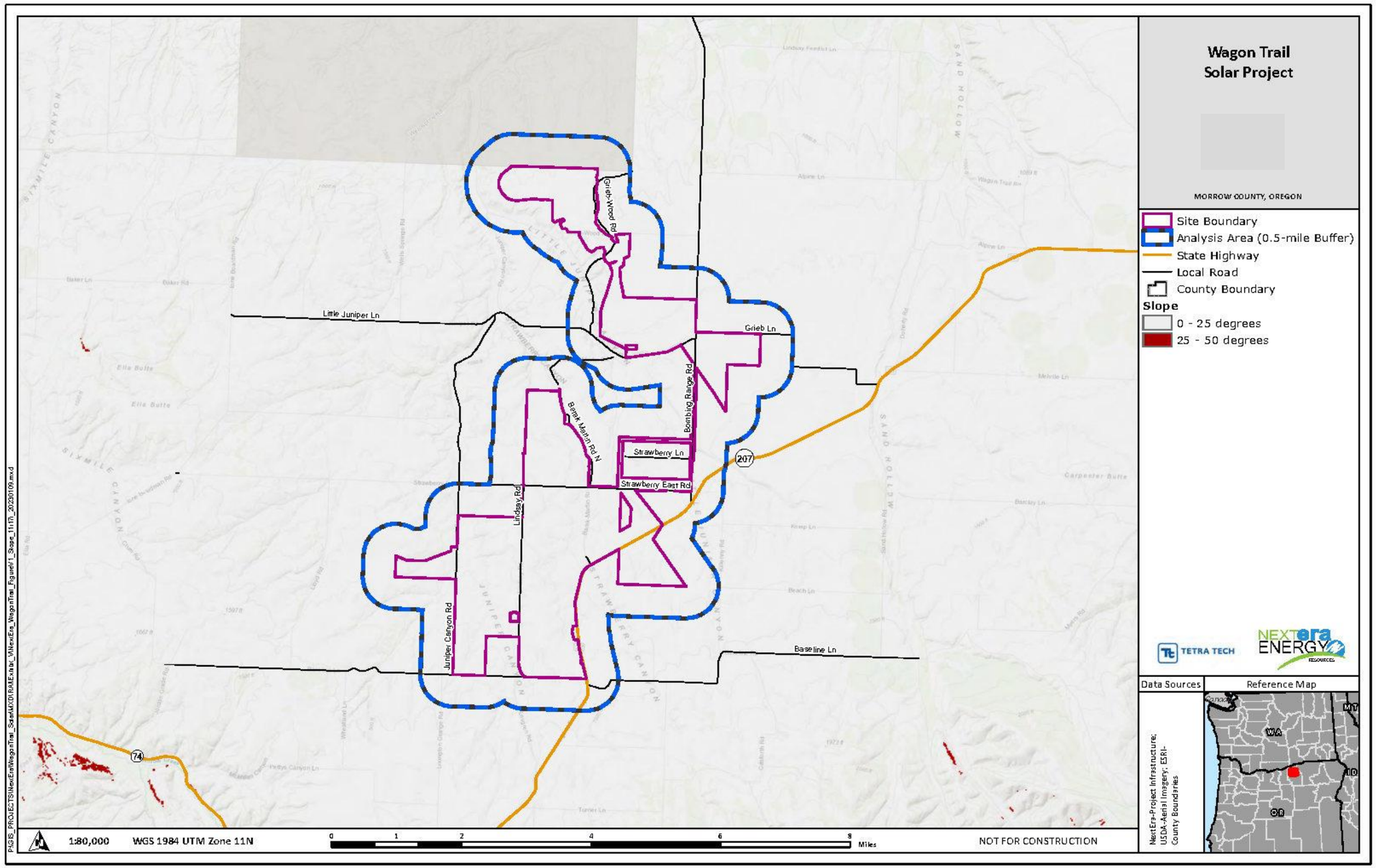
Central/Central Eastern Site Boundary – Highway 207, Grieb Lane, Bombing Range Road, Barak Martin Road North, Strawberry Lane, Strawberry East Road, Lindsay Lane:

Existing infrastructure in the centralized area of the site boundary includes farm and ranch buildings and power distribution lines along transportation corridors including Lexington-Echo Highway (OR-207), Bombing Range Road, and Strawberry East Road. Along Strawberry East Road there are residential properties, solar arrays, distribution lines, wind turbines, Wheatridge Renewable Energy Facility I, II, and III site boundaries. There is an operational transmission line extending from Strawberry East Road north to Little Juniper Lane north to Grieb-Wood Road, as well as approved yet not yet constructed transmission lines that would cross the central and north portions of the site boundary. The existing Blue Ridge substation is also located within the central eastern part of the site boundary of Strawberry East Road.

Southern Site Boundary - Highway 207, Juniper Canyon Road:

In the southern and eastern areas of the site boundary existing infrastructure includes residential properties, the Lexington Pump south off Juniper Canyon Road, and distribution lines along Lexington-Echo Highway, Lindsay Road, and Juniper Canyon Road, as well as the Wheatridge Renewable Energy Facility II site boundary.

Figure 12: Slope within Wildfire Analysis Area



1

Climate

The Columbia Plateau ecoregion made up of lowlands, with an arid climate, cool winters, and hot summers.[176] Where arid regions receive little precipitation, less than 10 inches of rain per year, and semi-arid regions receive 10 to 20 inches of rain per year.[177] The total average annual precipitation for the area is 13 inches per year which is indicative of a semi-arid climate. The driest months on average are July, August, and September which have averages of 0.31, 0.28, and 0.43 inches per month, respectively; these summer months are also the hottest months, which increase fire risk. Table 15 below summarizes average normal precipitation and temperatures in the area.

Table 15: Summary of Monthly Normal Temperature and Precipitation at Heppner Station (1991 – 2020)

Month	Max Temperature (°F)	Avg Temperature (°F)	Avg Precipitation (inch)
January	43.6	35.6	1.32
February	47.4	38.3	1.07
March	54.7	44.2	1.36
April	60.8	49.3	1.46
May	69.4	56.9	1.71
June	76.6	63.1	1.35
July	86.8	71	0.31
August	86.1	70.4	0.28
September	77.3	62.8	0.43
October	63.8	51.7	1.17
November	51.0	41.6	1.37
December	42.5	34.9	1.26
Source: WTSAPP ASC Exhibit V, Table 2. Heppner Station, OR US USC00353827 (NOAA 2023)			

Burn Probability

Burn Probability shows the likelihood of a wildfire greater than 250 acres burning in each location, based on wildfire simulation modeling. This is an annual burn probability, adjusted to be consistent with the historical annual area burned. The burn probability classes within the Site Boundary range from nonburnable (most non-burnable fuel types such as water,

[176] https://oregonconservationstrategy.org/ecoregion/columbia-plateau/. Accessed 11-03-2023.
[177] https://www.nps.gov/subjects/geology/arid-landforms.htm. Accessed 11-03-2023.

agriculture, or urban areas) to high burn probability, which indicates up to a 1-in-100 chance of a wildfire >250 acres in a single year. ASC Exhibit V, Figure V-3 illustrates the areas within the analysis area and site boundary that have been mapped for burn probabilities. Applicant indicates that 37 percent of the site boundary and 45 percent of the analysis area, which are mapped, are high (1-in-500 to 1-in-100) burn probability.[178] Department highlights that 52 percent of the site boundary is not mapped or does not have data associated with this data layer. There are no areas of high (up to 1-in-50 chance) or very high (up to 1-in-25 chance) burn probability within the analysis area.

IV.N.1.b Seasonal Wildfire Risk

Seasonal wildfire risk within the analysis area is expected to remain fixed for multiple months but may be dynamic throughout the year, including cumulative annual and monthly precipitation, weather advisories which include precipitation, fuel moisture content data, and Flame Length which is the average length of flames expected during a fire, given local fuel and weather conditions discussed below.

Precipitation

As discussed above, under baseline climatic conditions and provided in Table 15: *Summary of Monthly Normal Temperature and Precipitation at Heppner Station (1991 – 2020)*, the total average annual precipitation for the area is 13 inches per year which is indicative of a semi-arid climate.

Fuel Moisture Content

Fuel moisture content varies depending on changes in weather (both seasonally and during short periods) and determination of exact fuel-moisture values at any time is complicated by both the nature of the fuels and their responses to the environment. Therefore, fuel moisture content is dynamic throughout the year.[179] The higher the fuel moisture content, the more difficult it is for fires to ignite and propagate. Living plants and dead fuels respond differently to weather changes and the nature of the drying and wetting processes of dead fuels is such that the moisture content of these fuels is strongly affected by weather changes. For example, annual grasses may reach a highly flammable stage while broadleaf vegetation is still in prime growth and not in a peak flammable stage. Additionally, living foliage of evergreen trees and shrubs can burn even with moisture contents over 100 percent. Current conditions such as precipitation to-date, current fuel moisture data, and local weather may increase or decrease seasonal fire risk. Therefore, like using the Fuel Models from the Oregon Explorer CWPP Planning Tool to map and describe the baseline vegetation at the site and analysis area, these Fuel Models also can inform the Fuel Moisture Content at the site, based on the type of predominant vegetation. The analysis area is primarily grassland (Fuel Model 102 - fire is

[178] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.1.

[179] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.2.

carried by grasses and shrubs) and irrigated agriculture (Fuel Model 93) with smaller areas of grassland mixed with shrubland (Fuel Model 122 - primary fuel is grass, with shrub cover not contributing to the flaming front).

The Northwest Interagency Coordination Center (NWCC) Predictive Services group provides fire weather advisories (such as Red Flag Warnings) and fuel and fire behavior advisories (including fuel status reports and fuel moisture content predictions) for each predictive service area (PSA) in the northwest. The site boundary is located within PSA E3. The Applicant indicates that during construction and operation, fire danger forecasts, such as Red Flag Warnings, would be monitored and facility activities and mitigation measures would be adjusted based on their annual variations under the methods and measures identified in both the Construction and Operational Wildfire Mitigation Plans (Attachments F-1 and F-2 respectively), as discussed further below.

Flame Length

According to the 2018 Oregon Wildfire Risk Explorer, Average Flame Length shows the average length of flames expected, given local fuel and weather conditions. Flame lengths have potential to exceed the mapped values shown, even under normal weather conditions. Flame length is commonly used as a direct visual indication of fire intensity and is a primary factor to consider for firefighter safety and for gauging potential impacts to resources and assets.[180] It can also guide mitigation work to reduce the potential for catastrophic fires by showing where work can be done to reduce higher potential flame lengths/fire intensities to lower flame lengths/fire intensities. Approximately 80 percent of the site boundary has a modeled average flame length of 0 to 4 feet, and 17 percent modeled at 4 to 8 feet. The analysis area has 25 percent modeled average flame length of 4 to 8 feet, with less than 1 percent of the analysis area modeled with average flame length 8 to 11 feet.[181] ASC Exhibit V, Figure V-4 illustrates the areas within the site boundary and analysis area that have lower and higher average flame lengths. Fires with a flame length of 4 to 8 feet can be expected to have moderate intensity under normal weather conditions and fires with a flame length of below four feet are expected to be low intensity under normal weather conditions.

<u>IV.N.1.c Areas Subject to Heightened Risk of Wildfire and High-Fire Consequence Areas</u>

Under OAR 345-022-0115(1)(a)(C), the Council must find that the applicant has adequately characterized wildfire risk within the site boundary and analysis area by identifying areas subject to a heightened risk of wildfire, using the information provided in support of the baseline and seasonal wildfire risk evaluation under OAR 345-022-0115(1)(a)(A) and (B) as well as additional information to model wildfire risk, discussed below. Under OAR 345-022-0115(1)(a)(D), the Council must find that the applicant has adequately characterized wildfire risk within the analysis area by identifying high-fire consequence areas, which include but are

[180] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.2.

[181] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Table 4.

not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat. The data inputs and resulting maps used for modeling Areas Subject to Heightened Risk of Wildfire and High-Fire Consequence Areas are similar because they include the areas where there is infrastructure. Therefore, the Department combines the assessment of both in this section.

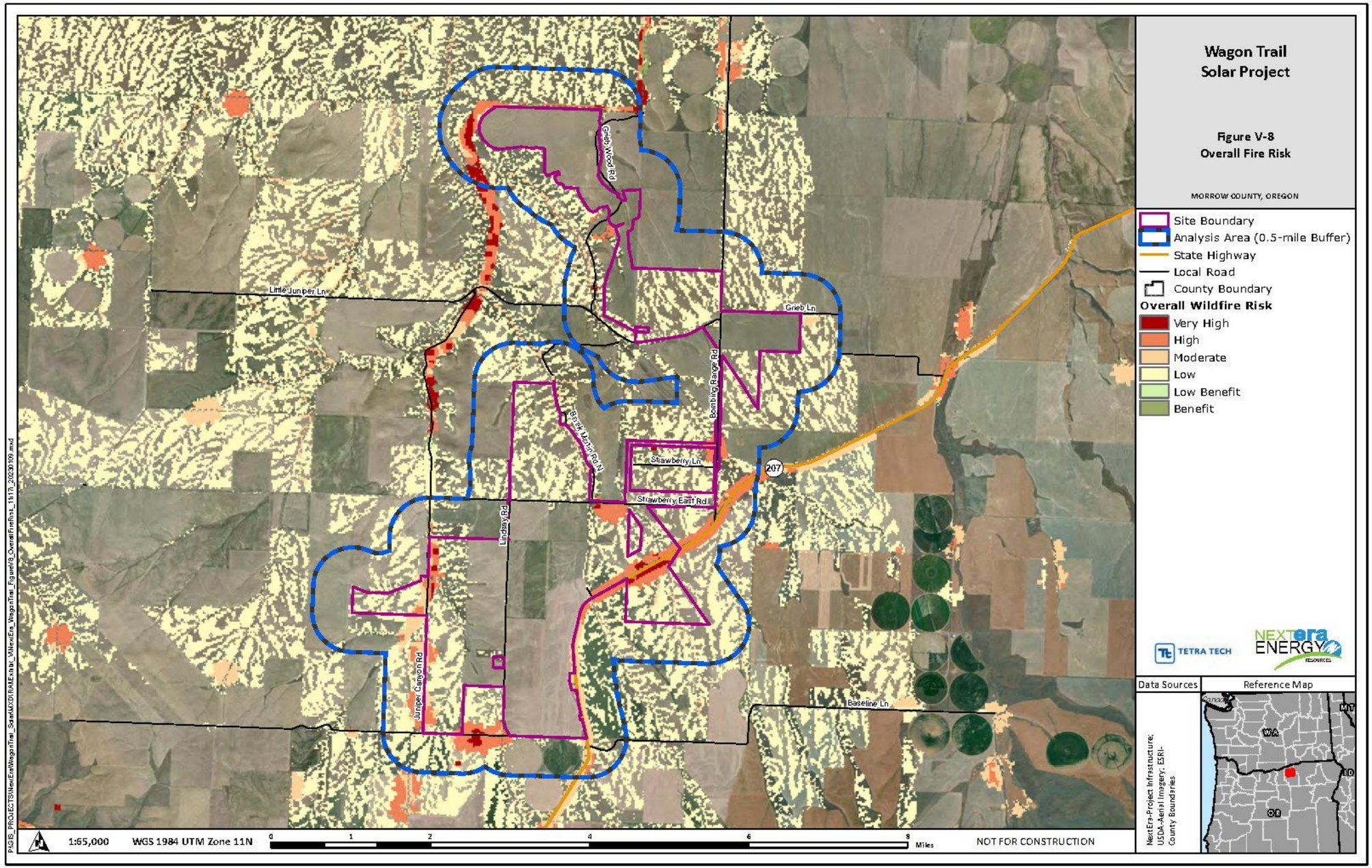
Wildfire risk is fire hazard multiplied by the vulnerability of assets in a fire's path. The hazard side of the equation includes both the likelihood of a wildfire ignition and its expected intensity. The vulnerability side includes the assets (human life and property) in the path of the fire and the susceptibility of those assets to the fire.[182] The applicant uses the following data layers from Oregon CWPP Planning Tool to identify the areas subject to heightened wildfire risk and high-fire consequence areas. Because each of these data sets takes into consideration assets, like infrastructure, and people and property, such as residential areas, the corresponding maps and figures largely identify the same areas for higher wildfire risk. The areas within the site boundary and analysis area for the proposed facility that have higher wildfire risk are the areas described above under *Baseline Risk for Existing Infrastructure* Section.

- Wildfire Risk to Assets - The product of the likelihood and consequence of wildfire on mapped highly valued assets: critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures.
- Potential Impact to People and Property - Represents the consequence of wildfire, if it occurs, on mapped highly valued assets: housing unit density and USFS private inholdings.
- Potential Impact to Infrastructure - Represents the consequence of wildfire, if it occurs, on mapped highly valued assets: critical infrastructure, developed recreation, housing unit density, seed orchards (agriculture), sawmills, and historic structures.
- Overall Wildfire Risk - The product of the likelihood and consequence of wildfire on all mapped highly valued resources and assets combined: critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, historic structures, timber, municipal watersheds, vegetation condition, and terrestrial and aquatic wildlife habitat.

Figure 13: *Areas of Heightened Risk and Overall Wildfire Risk*, below, illustrates the areas with higher wildfire risk, which generally follow highways, transmission lines, residential areas, as described further below.

[182] WTSAPPDoc2-22 Exhibit V. Wildfire compiled Updated_2024-01-03, Section 2.4.

Figure 13: Areas of Heightened Risk and Overall Wildfire Risk



1

Northern Site Boundary – Grieb-Wood Road:

There is moderate to high risk to assets north along Juniper Canyon Road and where the analysis area meets the southern edge of the Boardman Bombing Range because of the existing transmission line that follows the roadway. There is one small area within the northern site boundary which has a low potential for wildfire potential to people and property and most of the northern site boundary has unmapped data. There is low to moderate potential impact to infrastructure north of the site boundary but within the analysis area, which follows the same transmission line corridor. The areas with high to very high overall wildfire risk within the analysis area immediately outside of the site boundary include in the same areas discussed above, north along Juniper Canyon Road and where the analysis area meets the southern edge of the Boardman Bombing Range.

Central/Central Eastern Site Boundary – Highway 207, Grieb Lane, Bombing Range Road, Barak Martin Road North, Strawberry Lane, Strawberry East Road, Lindsay Lane:

There is a high risk to assets within the central eastern area of the site boundary along Bombing Range Road and Strawberry Lane across the middle of the site boundary. Assets include farm and ranch buildings, power distribution lines along transportation corridors which include Lexington-Echo Highway (OR-207), Bombing Range Road, and Strawberry East Road. Along Strawberry East Road there are residential properties, solar arrays, distribution lines, and wind turbines. These same areas have a low to moderate wildfire risk potential to people and property. There is also low to moderate potential impact to infrastructure in the east and along Juniper Canyon Road, with pockets of higher risk that follow the existing transmission line. The areas with high to very high overall wildfire risk are along Bombing Range Road along the Highway 207 corridor, and Strawberry Lane across the middle of the site boundary.

Southern Site Boundary - Highway 207/ Lexington-Echo Highway, Juniper Canyon Road:

There is high risk to assets in the southwestern corner of the site boundary along Juniper Canyon Road where the exiting transmission line and residential structures are located would be considered areas of high fire consequence. There are minimal locations where there are mapped resources for potential impacts to people and property in the southern site boundary; mapped areas include low risk around farm and ranch buildings and infrastructure along Juniper Canyon Road. These are the same areas that have low to moderate risk of wildfire to infrastructure, as well as along Lexington-Echo Highway (Highway 207).

<u>Overall Wildfire Risk</u>

The Overall Fire Risk Rating measures vulnerability of assets by the presence of the assets within the fires path, and the likelihood of that asset being harmed. This data layer maps highly valued resources and assets combined: critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, historic structures, timber, municipal watersheds,

vegetation condition, and terrestrial and aquatic wildlife habitat.[183] Overall Risk ratings range from very high wherein many resources are vulnerable, to beneficial, where fires may improve resources such as timber stands or wildlife habitat. The percent of the site boundary and analysis area that falls into each Overall Fire Risk Rating is provided in Table 16: *Overall Wildfire Risk in Site Boundary and Analysis Area*, where most of the site boundary is unmapped or no data is available, which is common in agricultural areas. Based on the evaluation provided above, the Department recommends Council find that the wildfire risk within the site boundary and analysis area is low, except in areas in the south and centralized site boundary along agricultural and residential areas, and transmission and transportation corridors, the Department recommends Council find that the wildfire risk in these areas is moderate.

Table 16: Overall Wildfire Risk in Site Boundary and Analysis Area

Overall Wildfire Risk Rating	Percent of the Site Boundary	Percent of the Analysis Area
Very High	1%	1%
High	3%	4%
Moderate	2%	2%
Low	21%	27%
Low Benefit	0%	4%
Benefit	<0.5%	<0.5%
No Data*	73%	62%
Total	**100% (7,450 acres)**	**100% (19,843 acres)**

* There are no highly valued resources or assets (such as critical infrastructure, developed recreation, housing unit density) mapped in the area, or simulated wildfires did not burn the area due to low historical occurrence/absence of burnable fuel.

Source: WTSAPP ASC Exhibit V, Table 7; (Pyrologix 2018; CWPP 2018).

With the addition of infrastructure that will result from proposed facility construction, it is expected that more of the area would fall into moderate to high categories for wildfire risk to assets.

IV.N.2 Wildfire Mitigation Plan

[183] This data layer contains all the resources required under OAR 345-022-0115(1)(D); High-fire consequence areas, including but not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat.

Under OAR 345-022-0115(1)(b), the Council must find that the proposed facility will be designed, constructed, and operated in compliance with a WMP approved by the Council. The applicant's Draft WMP is included in ASC Exhibit V, as discussed in this subsection, the Department recommends Council amend the applicant's WMP to add additional fire-prevention and safety measures as well as separate the measures into a construction WMP and operational WMP. These two plans are attached to this order as Attachments F-1 and F-2.

IV.N.2.a Facility Design:

Proposed facility design standards and measures that would minimize wildfire risk to and from the facility includes, but is not limited to:

- A 5-foot noncombustible, defensible space clearance along the fenced perimeter of the site boundary will be maintained;
- Vegetation will be removed and gravel/noncombustible base within 10-foot perimeter of inverter, transformer and BESS pads;
- The collector substation area, transformer pads, and the permanent, fenced parking and storage area will have reduced risk for fire since these areas will have a gravel base with no vegetation within a 10-foot perimeter;
- Service roads, approximately 12 feet wide, will be constructed within the solar array fence line, to facilitate access for construction and maintenance purposes.
- Approximately 20-foot-wide service roads will be constructed outside the solar array fence line to reach the separately fenced substations. Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety.
- BESS will be stored in completely contained, leak-proof modules;
- SCADA system will provide 24 hour, off-site monitoring of all electrical equipment and allows for control and shut down;
- Facility components will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards;
- Solar array will have shielded electrical cabling, as required by applicable code, to minimize electrical fires;
- Collector system and substation will have redundant surge arrestors to deactivate the facility during unusual operational events that could start fires.

IV.N.2.b Facility Construction:

The Council's Wildfire Prevention standard and Wildfire Mitigation Plan requirements apply to construction and operation of the proposed facility. The applicant's WMP, ASC Exhibit V, Attachment V-1 predominantly addresses operational wildfire risk and prevention measures, however, multiple safety measures and best management practices (BMPs) apply to both construction and operation of the facility. Applicant WMP also states they or their construction contractor will develop an Emergency Response Plan for construction and identifies fire-related safety measures that would apply. The Department has modified the applicant WMP to include their proposed fire prevention measures that apply to construction (Attachment F-1 of this

order) as well as added additional protocols, BMPs, and fire prevention measures that have been raised by Council in its review of other EFSC energy facilities, these changes are shown inn redline track changes. In Attachment F-1, the Department also removed provisions that are specific to operation, which are included in the operational WMP (Attachment F-2 of this order). Additional fire prevention measures added by the Department include details regarding measures to follow during Red Flag weather events including specifications for "hot work," such as a fire watch during and after hot work. Additions also include coordinating with local fire districts, emergency managers, and utilities to receive their feedback on areas where fire breaks may help prevent the spread to and from the facility. The Department recommends Council impose the following two conditions which would require the finalization of the construction WMP prior to construction, and then that WMP be implemented by the certificate holder and its contractors during construction of the facility:

> **Recommended Wildfire Prevention and Risk Mitigation Condition 1 (PRE):** Prior to construction of the facility, the certificate holder shall finalize the Construction Wildfire Mitigation Plan, as provided in Attachment F-1 to the Final Order on ASC. [PRE-WF-01]
>
> **Recommended Wildfire Prevention and Risk Mitigation Condition 2 (CON):** During construction of the facility, the certificate holder shall implement and require all onsite contractors and employees to adhere to, the Construction Wildfire Mitigation Plan finalized as part of PRE-WF-01. Updates to the Wildfire Mitigation Plan may be required if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department to address wildfire hazard to public health and safety. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard. [CON-WF-01]

IV.N.2.c Facility Operation:

Facility Component Inspections and Vegetation Management

OAR 345-022-0115(1)(b)(A) requires the WMP to identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis. Section 2 of the WMP, and Section IV.N.1.c *Areas Subject to Heightened Risk of Wildfire and High-Fire Consequence Areas*, of this order identify these areas, which are the areas where there is existing infrastructure, people, and property, as discussed above.

The Applicant provides its WMP in ASC Exhibit V, and as noted above, the Department recommends dividing their WMP into a construction and operational WMP (Attachments F-1 and F-2 of this Order). The Department recommends editing the operational WMP to remove

the summary of wildfire risk at the site and designate that to be updated prior to operation to capture changes from Council approval and operation of the facility.

OAR 345-022-0115(1)(b)(B) requires the description of procedures, standards, and time frames that the applicant will use to inspect proposed facility components. Table 17: *Operational Inspections for Electrical Components,* as provided in the WMP describes the inspection type and schedule for proposed facility components.

Table 17: Operational Inspections for Electrical Components

Inspection	Procedure	Standard	Time frame
Solar Inverter	Visual inspection of inverter and surrounding area.	SPCC Plan[1] Manufacturer's maintenance recommendations	Monthly SPCC Bi-annual Preventative Maintenance
Substation	Visual inspection of MPT, APLIC measures, and surrounding area.	Manufacturer's maintenance recommendations APLIC[2,3]	Monthly Yearly (APLIC)
BESS	Visual inspection of BESS, PCS, and surrounding areas	SPCC Plan Manufacturer's maintenance recommendations	Monthly
Overhead electrical lines	Visual inspection of components, grounding, APLIC measures, vertical clearance distance between conductor and vegetation.	NERC[4] APLIC	Bi-annual

[1] The Operational Spill Prevention, Control, and Countermeasure Plan for the facility will require these components to be inspected monthly for spills. During these inspections, Operational Staff will also visually inspect the component and surrounding area.
[2] Applicant will develop an inspection checklist and program of electrical equipment based on manufacturer's recommendations for individual components.
[3] APLIC.
[4] National Energy reliability Corporation, vegetation maintenance standard FAC-003-0.

OAR 345-022-0115(1)(b)(B) also requires the description of the procedures, standards, and time frames that the applicant will use to manage vegetation. Table 18: *Vegetation Management Procedures by Facility Component*, derived from the WMP outlines the procedure and schedule for vegetation management.

Physical vegetation survey assessments of the fenced area will be completed at least twice a year to monitor for vegetation clearances, maintenance of fire breaks, and monitor for wildfire

hazards. One of the vegetation survey assessments will occur in May or June, prior to the start of the dry season, a time when wildfire risk is heightened. The survey will be conducted by the Site Operations Manager and will be used to assess the frequency of upcoming vegetation maintenance and identify areas that may need additional attention. Applicant proposes to take this information and create a Vegetation Maintenance Work Plan. However, the Department proposed revision to the operational WMP, requires the surveys notes and vegetative maintenance BMPs in the WMP to be the vegetative maintenance BMPs. Observations in the vegetation survey will include:

- Location
- Species
- Estimated growth rate
- Abundance
- Clearance / Setbacks
- Risk of fire hazard

The Department compiled from the WMP the below Table 18: *Vegetation Management Procedures by Facility Component*, which describes the vegetation management standards for each type of facility component.

Table 18: Vegetation Management Procedures by Facility Component

Facility Component	Vegetation Management Procedure	Standard	Time frame
Solar Inverters and Panels	Herbicide application on gravel pad around inverter to prevent vegetation growth. Mowing or introduction of a non-invasive species that is low growing.	IEEE 80 NEC 70 Under panels, vegetation will be maintained approx. 18-inches and provide a minimum of 24-inch clear distance to any exposed electrical cables.	Yearly, depending on vegetation condition.
Substation	Herbicide application on substation gravel pad. Highly compacted gravel foundations of substation are not suitable for vegetation ground. Mowing or introduction of a non-invasive species that is low growing.	IEEE 80 NEC 70	Yearly, depending on vegetation condition.

Table 18: Vegetation Management Procedures by Facility Component

Facility Component	Vegetation Management Procedure	Standard	Time frame
BESS	Herbicide application on gravel pad surrounding BESS. Highly compacted gravel foundations of BESS are not suitable for vegetation. Mowing or introduction of a non-invasive species that is low growing.	IEEE 80 NEC 70	Yearly, depending on vegetation condition.
Overhead electrical lines	Mow vegetation to achieve clearance requirements between conductor and ground.	NERC	Yearly, depending on vegetation condition.

Preventative Actions and Programs and Mitigation of Wildfire Risks

OAR 345-022-0115(1)(b)(C) requires the identification of preventative actions that the applicant will carry out to minimize the risk of proposed facility components causing wildfire. Table 19: *Design Considerations for Fire Safety by Facility Component*, from the WMP outlines these actions.

Table 19: Design Considerations for Fire Safety by Facility Component

Consideration	Solar Inverter	Substation	BESS	Overhead Lines
Electrical connections by qualified electricians	X	X	X	X
Inspections for mechanical integrity prior to energizations	X	X	X	X
Lighting protection	X	X	X	X
Corrosion protection	X	X	X	X
Strain relief of connecting cabling	X	X	X	X
Protection against moisture	X	X	X	X
Grounding systems	X	X	X	X
Limits on input voltage and power	X	X	X	X
Safety setback from structures	X[1]	X[1]	X[1]	X[2]
Technology specific design standards	X[3]	X[4]	X[5]	X[3]

[1.] 50-foot setback from structures.
[2.] Vertical and horizontal clearances from structures depend on voltage of conductor.
[3.] NFPA 70.

Table 19: Design Considerations for Fire Safety by Facility Component

Consideration	Solar Inverter	Substation	BESS	Overhead Lines
[4.] IEEE 979. [5.] NFPA 1, Chapter 52.				

OAR 345-022-0115(1)(b)(C) requires the identification of preventative programs that the applicant will carry out to minimize the risk of proposed facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk.

Both of the Draft Wildfire Mitigation Plans (Attachments F-1 and F-2) lists the programs that the applicant will implement at the proposed facility, which include:

OHSA-Compliant Fire Prevention Plan[184]: All workers, contracting employees, and other personnel performing official duties at the proposed facility will conduct work under a Fire Prevention Plan (or WMP) that meets applicable portions of 29 CFR 1910.39, 29 CFR 1910.155, 29 CFR 1910, subpart L. The Fire Prevention Plan will ensure that:

- Workers are trained in fire prevention and use of a fire extinguisher;
- Necessary equipment is available to fight incipient stage fires. Fire beyond incipient stage shall be managed using local fire response organizations;
- Provide necessary safety equipment for handling and storing combustible and flammable material;
- Implement a Hot Work Procedure and permit program.

Electrical Safety Program: All operational workers will be trained in electrical safety and the specific hazards of the facility.
This training will address:

- Minimum experience requirements to work on different types of electrical components;
- Electrical equipment testing and troubleshooting;
- Switching system;
- Provisions for entering high voltage areas (e.g., substation);
- Minimum approach distances;
- Required personal protective equipment.

Lock Out/Tag Out Program: During maintenance activities on electrical equipment, personnel will be required to ensure that the equipment is de-energized and physically locked or tagged in the de-energized positions to prevent inadvertent events that could result in arc flash.

Fire Weather Monitoring: Personnel on site will monitor Fire Weather Watches and Red Flag Warnings. The Department recommends adding revisions that require personnel monitoring

[184] The Department notes that these measures are presented as safety and fire prevention measures that will be implemented by the applicant and its contractor on site, however, are not within Council jurisdiction.

these conditions to halt work in high risk locations and employ additional mitigation measures, especially related to hot work and a fire watch.

Safety Procedures: Personnel will be trained in the RACE procedure to implement in the event of a fire start. RACE procedure includes:

- Rescue anyone in danger (if safe to do so);
- Alarm – call the control room, who will then determine if 911 should be alerted;
- Contain the fire (if safe to do so); and
- Extinguish the incipient fire stage (if safe to do so).

OAR 345-022-0115(1)(b)(D) requires the identification of procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards if a wildfire occurs at the proposed facility site, regardless of ignition source. Table 4 in Attachment F-2 (WMP) describes these procedures which includes excluding the public from the site with fencing and gates, training personnel and designing the proposed facility act as a fire break.

Plan Updates

Section 6.0 of the Attachment F-2, the applicant states that it will update the WMP every five years. Updates to the WMP will account for changes in local fire protection agency personnel and changes in best practices for minimizing and mitigating fire risk. After each five-year review, a copy of the updated plan will be provided to the Department with the annual compliance report required under OAR 345-026-008(2), imposed under General Standard of Review Condition 11. If after the 5-year review of the WMP, a determination is made that no updates are required, an explanation of this determination will be provided in the annual compliance report. As required under OAR 345-022-0115(1)(b), because the proposed facility site has a low to moderate wildfire risk, and to reflect the applicant representations to evaluate and reduce the risk of wildfire during the design, construction, and operation of the facility in compliance with the WMP, the Department recommends Council impose the following conditions:

Recommended Wildfire Prevention and Risk Mitigation Condition 3 (PRO): Prior to operation, the certificate holder shall finalize the operational Wildfire Mitigation Plan (WMP), included as Attachment F-2 to the Final Order on ASC.
[PRO-WF-01]

Recommended Wildfire Prevention and Risk Mitigation Condition 4 (OPR): During operation, the certificate holder shall:

a. Implement the Operational Wildfire Mitigation Plan (Attachment F-2), finalized under PRO-WF-01.
b. Every 5 years after the first operational year, review and update the evaluation of wildfire risk under OAR 345-022-0115(1)(b) and submit the results in the annual report required under General Standard of Review Condition 11 for that year.

c. Submit an updated Operational Wildfire Mitigation Plan to the Department if substantive changes are made to the plan because of the review under sub (b) of this condition, or at any other time substantiative revisions are made to Attachment F-2. [OPR-WF-01]

IV.N.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the recommended site certificate conditions and proposed revisions to the WMPs described above, the Department recommends the Council find that the certificate holder has adequately characterized wildfire risk within the analysis area using current data from reputable sources, and that, subject to Council approval, the facility will be designed, constructed, and operated in compliance with Wildfire Mitigation Plans.

IV.O. WASTE MINIMIZATION: OAR 345-022-0120

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that, to the extent reasonably practicable:

(a) The applicant's solid waste and wastewater plans are likely to minimize generation of solid waste and wastewater in the construction and operation of the facility, and when solid waste or wastewater is generated, to result in recycling and reuse of such wastes;

(b) The applicant's plans to manage the accumulation, storage, disposal and transportation of waste generated by the construction and operation of the facility are likely to result in minimal adverse impact on surrounding and adjacent areas.

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[185]

IV.O.1. Findings of Fact

The Waste Minimization Standard requires the Council to find that the applicant would minimize the generation of solid waste and wastewater, and that the waste generated would

[185] OAR 345-022-0120, effective May 15, 2007.

be managed to minimally impact surrounding and adjacent areas. Additional discussion of waste disposal and recycling facility capacity within the analysis area, see Section IV.M., Public Services.

Construction

Solid Waste

The applicant explains that facility construction would generate nonhazardous solid waste requiring off-site disposal, and could include, but is not limited to; discarded construction materials (including scrap metal from damaged pilings or racking equipment, or unused wiring), packaging materials, and spent erosion control materials. Wood form work used for cast-in-place foundations for the substations, inverter pads, operations and maintenance (O&M) pad, meteorological station pads, and battery pads will also be discarded.[186] An estimated 2,000 cubic yards of non-hazardous solid waste is anticipated to be produced for each phase of the facility construction. Nonhazardous wastes would be stored in standard construction waste bins on-site until it is hauled off-site by a licensed waste hauler.[187]

The applicant indicates that most construction solid waste removed from the site would be reused or recycled when feasible, but the construction solid waste requiring off-site disposal, would be disposed of at the Finley Buttes Regional Landfill. Correspondence between the applicant and Finley Buttes Landfill, indicates capacity at the landfill for approximately another 110 years.[188]

The applicant expects the construction and grading of access roads to produce negligible amounts of dirt and rock spoils that will need disposal, since cut and fill measures are expected to balance the need for and use of soils.[189] Dirt and rock spoils material will be spread over areas of previously disturbed construction, and will only be spread as appropriate, as required by the Erosion and Sediment Control Plan (ESCP). When spreading materials isn't appropriate, the dirt and rock spoils material will be hauled to an appropriate disposal site on participating landowner property.[190]

Construction would also generate small quantities of hazardous materials, such as oily rags or contained soil from minor spills. The hazardous materials will be kept in separate containers according to the contractor's Spill Prevention, Control, and Countermeasure Plan.[191] In Section IV.D. *Soil Protection* above, the Department recommends Council impose Soil Protection Conditions 4 and 5, which would require the certificate holder to develop, maintain, and

[186] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 2.1.1.
[187] Id.
[188] WTSAPPDoc2-21 Exhibit U Public Services 2024-01-03, Attachment U-1.
[189] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 2.1.1.
[190] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 2.1.1.
[191] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 3.1.

conduct all work in compliance with a SPCC Plan, which would include measures to manage, prevent, contain, and control potential releases, and provide provisions for quick and safe cleanup of hazardous materials.

Wastewater

Wastewater generated from facility construction will result from construction personnel using portable toilets, and from the washdown of concrete trucks. The construction contractor will provide an adequate number of portable toilets to accommodate construction staff on site and will be responsible for servicing the toilets at regular intervals, and disposing of wastewater in accordance with local jurisdictional regulations.[192]

Wastewater associated with concrete truck washdown will either be emptied and washed down at each foundation site, or may occur at a contractor-owned batch plant, or a designated concrete washout.[193] The applicant will implement erosion control measures required by its NPDES Construction Stormwater Discharge General Permit 1200-C and its associated ESCP to control stormwater runoff, to ensure that no water used for construction will be discharged into wetlands, streams, or other waterway.[194]

Operation

Solid Waste

Facility operations and maintenance activities, including equipment and component replacement, will generate nonhazardous solid waste. The applicant estimates that no more than 2 cubic yards of solid waste would be produced monthly at the O&M building and would include waste typical of a small office employing up to three people; paper, and food packaging scraps. The waste would be disposed of at the Finnley Butte Landfill and would be handled consistent with the Morrow County Solid Waste Management Ordinance and according to the Operations Waste Management Plan.[195]

The applicant explains that repair or replacement of solar array and associated electrical equipment could generate incidental solid waste. However, a solar array is forecasted to last more than 30 years without significant degradation in function and will be replaced infrequently…not resulting in a significant amount of solid waste.[196]

[192] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 2.2.1.
[193] Id.
[194] Id.
[195] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 2.1.2.
[196] Id.

The battery energy storage system may also generate incidental waste during operations, from repair or replacement of electrical equipment. Battery replacement would be regular (replaced every 3 years for the estimated 50 year life of the facility), dependent on usage.

In ASC Exhibit W, the applicant indicates that "used Li-ion batteries are not considered hazardous waste by the EPA; at present, there are optional EPA guidelines (EPA's Universal Waste Regulations) that address the responsible disposal and recycling of these batteries."

Spent batteries will be transported by a licensed third-party battery supply and disposed of at a facility permitted to handle them, in compliance with applicable Resource Conservation and Recovery Act and Toxic Substances Control Act regulations administered by the U.S. Environmental Protection Agency (EPA) or the ODEQ. The following battery replacement procedures would be implemented during both operations and retirement:[197]

- The Facility operator will disconnect and de-energize the battery system prior to removal from the installed racks, and package the batteries for transport to an approved facility.
- At the recycling facility, the qualified contractor will dismantle battery modules and prepare individual cells for metals recovery.
- Individual cells will be processed in a furnace to recover metals. Recovered metals may include aluminum, calcium, lithium, and a metal alloy comprising cobalt, copper, nickel, and iron.
- Recovered metals will be recycled or separated to recover individual metals where economically viable.

In Section IV.B. *Organizational Expertise* of this order, the Department recommends Council impose Organizational Expertise Condition 8 to minimize potential risks from the handling and transport of spent or damaged battery and battery waste during facility construction, operation, and retirement. Subject to compliance with this condition, and recommended Waste Minimization Condition 1 below, the Department recommends the Council find that the applicant potential risks from handling and transport of spent or damaged battery and battery waste would be minimized during facility operations and retirement.

In ASC Exhibit W, the applicant states that "all operational waste will be handled according to an Operations Waste Management Plan, which will be drafted ding construction prior to operations." [198]

To require the applicant to draft and implement the Operational Waste Management Plan, the Department recommends Council impose the following Condition:

[197] WTSAPPDoc2-23 Exhibit W Waste 2024-01-03, Section 3.2.

[198] WTSAPPDoc2-23 Exhibit W. Waste 2024-01-03. Section 5.0.

Recommended Waste Minimization Condition 1 [PRO]: Prior to facility operation, the certificate holder shall submit to the Department, for review and approval, an Operational Waste Management Plan. The Operational Waste Management Plan shall at a minimum include the following:

a. All sources and quantities of operational waste and wastewater, including damaged or dysfunctional energy facility components, and where feasible, estimated quantities that can be recycled.
b. A description of the battery replacement procedures.
c. Identification of the availability of programs or licensed facilities that recycle solar panels and lithium-ion batteries and their capacity to accept materials.
d. Identification of final recycling destination facility or program for recycling solar panels and lithium-ion batteries.
e. If recycling programs or facilities are not available, the identification of final disposal destination facility or program for disposed solar panels and lithium-ion batteries and their capacity to accept waste.

[PRO-WM-01]

Wastewater

During operations, wastewater would be generated by solar module washing and domestic and incidental uses at the O&M building. The minimal wastewater generated at the O&M building will be discharged to a county-approved septic system located near the O&M building.[199]

Solar modules may require periodic washing to minimize the effects of solar module dust and dirt on energy production for which the applicant conservatively estimates that all modules will be washed twice per year and require 482,504 gallons per wash, for a total of approximately 965,008 gallons per year.[200] Water will be applied via robotic panel cleaners which will not include any cleaning solvents. Wash water will be discharged by evaporation and seepage into the ground.[201]

Decomissioning/Retirement

Solid Waste

Waste produced from decommissioning activities will be managed in a similar manner to the waste produced during construction and operation. As discussed further in Section IV.G. *Retirement and Financial Assurance* of this order, aboveground components will be disassembled and the materials will be recycled or reused, sold for scrap, or taken to a landfill following the requirements of the Operations Waste Management Plan. To the extent practicable, facility components will be sold for reuse or scrap, which will minimize the amount

[199] WTSAPPDoc2-23 Exhibit O. Water Req 2024-01-03. Section 4.2.
[200] WTSAPPDoc2-23 Exhibit M. Materials Analysis 2024-01-03. Section 3.1.
[201] Id.

of waste requiring disposal at a solid waste facility.[202] When the facility is decommissioned, and the site is restored to a useful, nonhazardous condition for other planned uses, the amount of solid waste can be inferred from the materials inventory provided in Exhibit G.[203] As an alternative to demolition, the applicant explains that the landowner may opt to use the Facility's O&M building for agricultural purposes. Internal roads, fences, and gates will be removed, and the area revegetated unless otherwise requested or agreed to by the landowner. Ancillary components, such as the buried collector line, concrete pads, and gravel, will be removed to a minimum depth of 3 feet below grade but left in place below that point. To allow for agricultural activities, concrete foundations will be removed, recycled, and replaced by suitable clean fill.[204]

The decommissioning of the battery energy storage system will involve disposing of battery components at an off-site facility designed and approved for disposal or recycling of batteries by licensed third-party battery suppliers, who will be responsible for transporting batteries to and from the Facility in accordance with applicable regulations, as required through their licensure. The batteries will be disposed of at decommissioning in the same manner described above for operational replacement. Ancillary components of the battery energy storage system will also be removed in a manner similar to the methodology of the other concrete pads.[205]

The applicant represents that it will attempt to reuse the Facility's components including solar modules, collector substations and transmission line for another use. However, it is difficult to forecast the future energy materials and infrastructure needs; therefore, it is uncertain if the Facility collector substations and transmission line will be reused.[206]

Wastewater

Minimal wastewater will be generated during decommissioning activities, likely limited to sanitation and construction uses.

IV.O.2. Conclusions of Law

Based on the foregoing analysis and recommended site certificate condition, and in compliance with OAR 345-022-0120(2), the Department recommends that the Council find that, based upon negligible sources of facility-related wastewater and compliance with the recommended Waste Minimization condition, waste would be minimized during proposed facility construction, operation and decommissioning and therefore the applicant has sufficiently addressed the Council's Waste Minimization Standard.

[202] WTSAPPDoc2-23 Exhibit M. Materials Analysis 2024-01-03. Section 5.0.
[203] WTSAPPDoc2-23 Exhibit W. Waste 2024-01-03. Section 2.1.3.
[204] Id.
[205] Id.
[206] WTSAPPDoc2-23 Exhibit W. Waste 2024-01-03. Section 5.0

IV.P. SITING STANDARDS FOR TRANSMISSION LINES – OAR 345-024-0090

To issue a site certificate for a facility that includes any transmission line under Council jurisdiction, the Council must find that the applicant:

(1) Can design, construct and operate the proposed transmission line so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public;

(2) Can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable.[207]

IV.P.1. Findings of Fact

The proposed facility includes one 230 kV overhead transmission line and over 67.9 miles of buried, underground 34.5 kV collector lines.

The 34.5 kV collector lines will carry power from the solar arrays to the substation. The entire 34.5-kV underground collector system will be insulated and is rated for a nominal voltage of 34.5-kV measured phase to phase. The peak line loading value assumed for each circuit is 50 megavolt amperes, or approximately 836 amperes per phase cable for each underground collector circuit. The analysis results of the Southern California Edison FIELDS Model for the underground collector lines are provided in Exhibit AA, Attachment AA-2

The 230 kV overhead transmission line that will be approximately 0.6 miles in length, running east along Strawberry East Road to connect the southern collector substation to the existing Blue Ridge Substation.[208] The line will be supported either by H-frame structures with two galvanized steel or wood poles, or by galvanized steel or wood monopole structures. The structures will rise to a height of approximately 70 to 180 feet above grade depending on design and terrain. The transmission line will be within the site boundary but outside the solar array fence line. The analysis results of the Bonneville Power Administration Corona and Field Effect Program, Version 3 (CAFE) model for the overhead transmission line configurations are provided in Exhibit AA, Attachment AA-1

Electric and Magnetic Fields

Electric fields around transmission lines are produced by the presence of an electric charge, measured as voltage, on the energized conductor. Electric field strength is directly proportional to the line's voltage; increased voltage produces a stronger electric field. The strength of the electric field is inversely proportional to the distance from the conductors; the electric field declines as the distance from the conductor increases.

[207] OAR 345-024-0090, effective May 15, 2007.

[208] WTSAPPDoc2-03 Exhibit C Project Location Figure C-2. 2024-01-03.

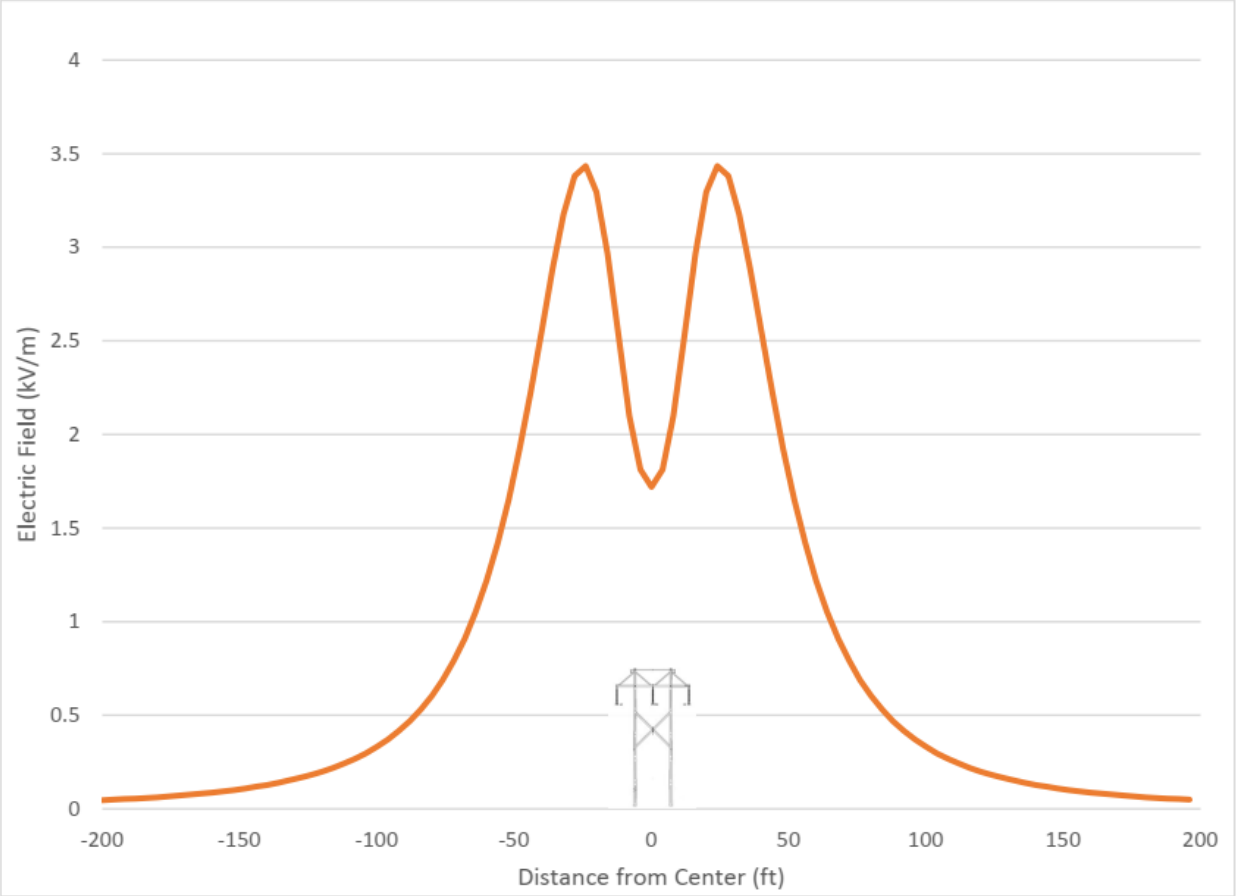
The certificate holder relied on the modelling results of the Bonneville Power Administration Corona and Field Effect Program, Version 3 (CAFE) model for the overhead transmission line configurations and the analysis results of the Southern California Edison FIELDS Model for the underground collector lines were used because the Bonneville Power Administration CAFE model is not capable of modeling underground lines. As shown in Exhibit AA, Table AA-2, the modeling assumptions for both assumed a 1-meter (3.28 feet) height for taking measurements of both electrical and magnetic fields. The results are shown in Tables 20 and 21, and Figures 14-16 below:

Table 20: Modeling Results for Electrical Fields[209]

Line Description[1, 2]	Exhibit AA Figure	Electric Field (kV/m)		
		200 feet Left	Peak Value	200 feet Right
230-kV Overhead Transmission Line	AA-2 AA-3	0.046	3.434 (24 feet left and right of centerline)	0.049
1. 230-kV overhead transmission line is located within the boundaries of the Facility. 2. Underground cable configuration such that all electric fields are shielded within the cable and by the surrounding soil and therefore are not externally detectable.				

[209] WTSAPP ASC Exhibit AA 2024-01-03. Section 2.3, Table AA-3. Calculated Electric Field Values

Figure 14: Electrical Field Profile for 230 kV Overhead Transmission Line



Calculated electric field (0.046 kV/m and 0.049 kV/m for the 230-kV H-frame transmission line) at the ROW edges and beyond will be sufficiently low enough that nuisance shocks should not occur.[210]

Table 21: Modeling Results for Magnetic Field Values

Line Description	Exhibit AA Figure	Magnetic Field (mG)		
		200 feet Left	Peak Value	200 feet Right
34.5-kV Underground Collector Line	AA-1 AA-4	0.01	9.542 (on centerline)	0.01
230-kV Overhead Transmission Line	AA-2 AA-5	6.90	254.19 (on centerline)	7.19
Note: 34.5-kV underground collector lines and 230-kV overhead transmission line are located within the boundaries of the Facility.				

[210] ASC Ex. DD, p. 2.

The results of the CAFE model presented above demonstrate that the proposed 230-kV overhead transmission line can be constructed and operated such that the AC electric field would not exceed 9 kV/m at 1 meter above the ground surface, as required by OAR 345-024-0090(1).

Figure 15: Magnetic Field Profile for 34.5 kV Underground Collector Line

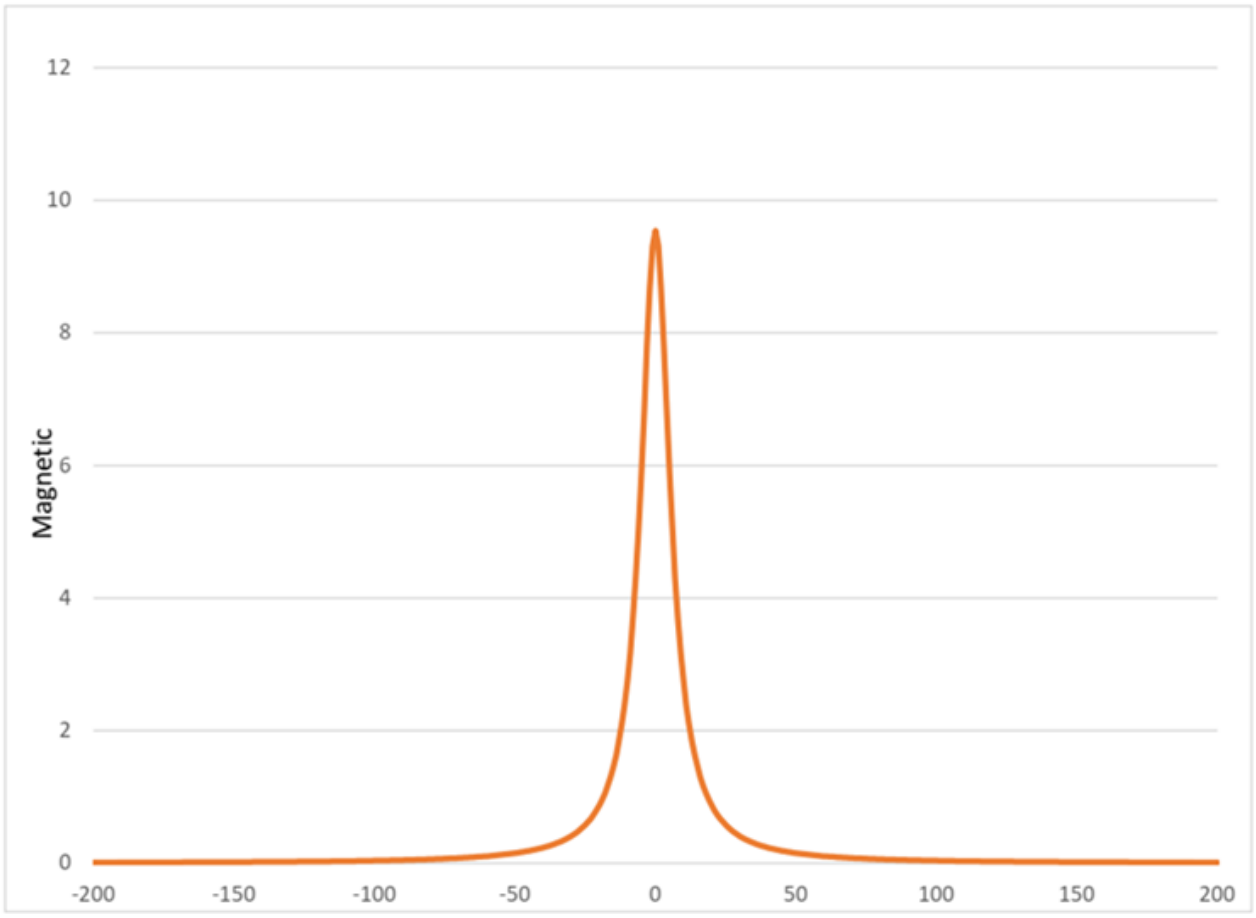
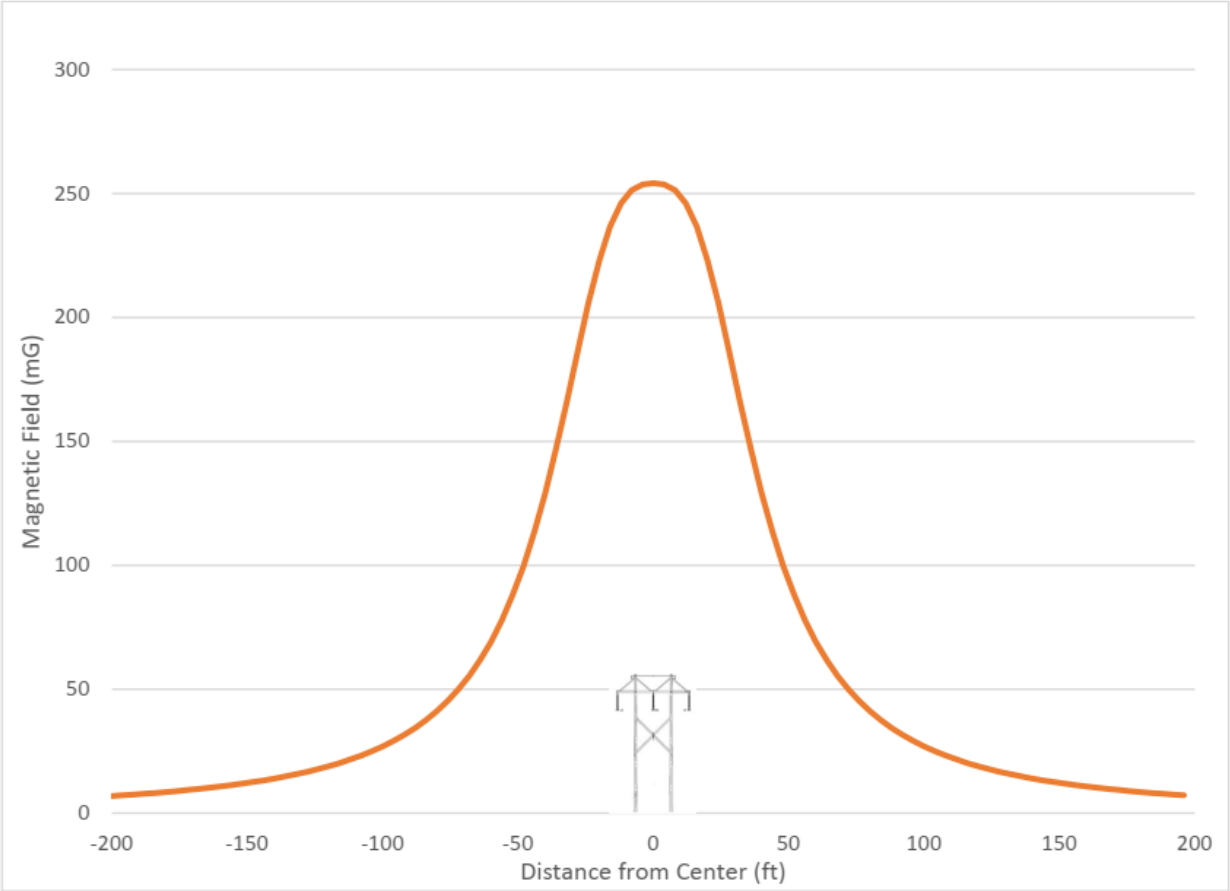


Figure 16: Magnetic Field Profile for 230 kV Overhead Transmission Line



Based upon review of the applicant's modeling results presented in ASC Exhibit AA, the Department recommends Council finds that the proposed 230 kV transmission line would not exceed 9 kV per meter at one meter above ground level.

Induced Voltage and Current

Modeling results, as shown in Table 20 above, the maximum magnetic field (254.19 milligauss within the right-of-way of the 230-kV transmission line, and 9.54 milligauss within the right-of-way of the 34.5-kV underground collector line) is sufficiently low that induced current in a metallic object should not occur.

The Siting Standards for Transmission Lines requires the Council to find that the applicant "can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable." General Standard Condition 8 [based on the mandatory condition contained in OAR 345-025-0010(4)], presented in Section IV.A. *General Standard of Review* requires, in part, the applicant to develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that

could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. To ensure that induced currents are minimized based on applicant's representations, consistent with Council's Site-Specific Condition under OAR 345-025-0010(4), the Council imposes the following condition:

Recommended Siting Standards for Transmission Lines Condition 1 [GEN]:

a. The certificate holder must design, construct and operate the transmission lines in accordance with the requirements of the National Electrical Safety Code as approved by the American National Standards Institute; and
b. The certificate holder must develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line.

[GEN-TL-01]

There are no known occupied buildings, residences, or other sensitive receptors within 200 feet of either the collector lines or the 230-kV overhead transmission line. The nearest residence is located over 1,000 feet from both underground collector lines and the 230-kV overhead transmission line. To further reduce the risk of induced current and nuisance shocks, the Department recommends Council adopt the following condition:

Recommended Siting Standards for Transmission Lines Condition 2 [PRO]:
Prior to operation of the facility, the certificate holder shall provide landowners within 500 feet of the site boundary a map of the 230-kV transmission line and inform landowners of possible health and safety risks from induced currents caused by electric and magnetic fields.
[PRO-TL-01]

IV.P.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the proposed site certificate conditions described above, the Department recommends the Council find that the Certificate Holder can design, construct, and operate the facility, with proposed changes, so that alternating current electric fields do not exceed 9-kV per meter at one meter above the ground surface in areas accessible to the public and that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable.

IV.R Other Applicable Regulatory Requirements Under Council Jurisdiction

Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-0000), the Council must determine whether the facility complies with "all other Oregon statutes and administrative rules…as applicable to the issuance of a site certificate for the proposed facility." This section addresses the applicable Oregon statutes and administrative rules that are

not otherwise addressed in Council standards, including noise control regulations, regulations for removal or fill of material affecting waters of the state, and regulations for water rights.

IV.R.1. Noise Control Regulations: OAR 340-035-0035

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules.

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies.

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)–(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility's turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

(V) For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility's nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the wind speed corresponding to the maximum sound power level and no turbine that could contribute to the

noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of wind speeds.

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level. [Table not included. See ED. NOTE.]

(VII) For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility's nearest wind turbine is operating at the wind speed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled.

(c) Quiet Areas. No person owning or controlling an industrial or commercial noise source located either within the boundaries of a quiet area or outside its boundaries shall cause or permit the operation of that noise source if the statistical noise levels generated by that source exceed the levels specified in Table 9 as measured within the quiet area and not less than 400 feet (122 meters) from the noise source.

(d) Impulse Sound. Notwithstanding the noise rules in Tables 7 through 9, no person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if an impulsive sound is emitted in air by that source which exceeds the sound pressure levels specified below, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule:

(A) Blasting. 98 dBC, slow response, between the hours of 7 a.m. and 10 p.m. and 93 dBC, slow response, between the hours of 10 p.m. and 7 a.m.

(B) All Other Impulse Sounds. 100 dB, peak response, between the hours of 7 a.m. and 10 p.m. and 80 dB, peak response, between the hours of 10 p.m. and 7 a.m.

(e) Octave Bands and Audible Discrete Tones. When the Director has reasonable cause to believe that the requirements of subsection (1)(a), (b), or

(c) of this rule do not adequately protect the health, safety, or welfare of the public as provided for in ORS Chapter 467, the Department may require the noise source to meet the following rules:

(A) Octave Bands. No person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if such operation generates a median octave band sound pressure level which, as measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceeds applicable levels specified in Table 10.

(B) One-third Octave Band. No person owning or controlling an industrial or commercial noise source shall cause or permit the operation of that noise source if such operation generates a median one-third octave band sound pressure level which, as measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, and in a one-third octave band at a preferred frequency, exceeds the arithmetic average of the median sound pressure levels of the two adjacent one-third octave bands by:

(i) 5 dB for such one-third octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive. Provided: Such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band; or

(ii) 8 dB for such one-third octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive. Provided: Such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band; or

(iii) 15 dB for such one-third octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive. Provided: Such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band;

(iv) This rule shall not apply to audible discrete tones having a one-third octave band sound pressure level 10 dB or more below the allowable sound pressure levels specified in Table 10 for the octave band which contains such one-third octave band.

(2) Compliance. Upon written notification from the Director, the owner or controller of an industrial or commercial noise source operating in violation of the adopted rules shall submit a compliance schedule acceptable to the Department. The schedule will set forth the dates, terms, and conditions by which the person responsible for the noise source shall comply with the adopted rules.

(3) Measurement:

(a) Sound measurements procedures shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1), or to such other procedures as are approved in writing by the Department;

(b) Unless otherwise specified, the appropriate measurement point shall be that point on the noise sensitive property, described below, which is further from the noise source:

(A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;

(B) That point on the noise sensitive property line nearest the noise source.

(4) Monitoring and Reporting:

(a) Upon written notification from the Department, persons owning or controlling an industrial or commercial noise source shall monitor and record the statistical noise levels and operating times of equipment, facilities, operations, and activities, and shall submit such data to the Department in the form and on the schedule requested by the Department. Procedures for such measurements shall conform to those procedures which are adopted by the Commission and set forth in Sound Measurement Procedures Manual (NPCS-1);

(b) Nothing in this rule shall preclude the Department from conducting separate or additional noise tests and measurements. Therefore, when requested by the Department, the owner or operator of an industrial or commercial noise source shall provide the following:

(A) Access to the site;

(B) Reasonable facilities, where available, including but not limited to, electric power and ladders adequate to perform the testing;

(C) Cooperation in the reasonable operation, manipulation, or shutdown of various equipment or operations as needed to ascertain the source of sound and measure its emission.

(5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule, the rules in section (1) of this rule shall not apply to:

(a) Emergency equipment not operated on a regular or scheduled basis;

(b) Warning devices not operating continuously for more than 5 minutes;

(c) Sounds created by the tires or motor used to propel any road vehicle complying with the noise standards for road vehicles;

(d) Sounds resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad only to the extent that such equipment or facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

(k) Sounds created by the operation of road vehicle auxiliary equipment complying with the noise rules for such equipment as specified in OAR 340-035-0030(1)(e);

(l) Sounds created by agricultural activities;

(m) Sounds created by activities related to the growing or harvesting of forest tree species on forest land as defined in subsection (1) of ORS 526.324.

(6) Exceptions: Upon written request from the owner or controller of an industrial or commercial noise source, the Department may authorize exceptions to section (1) of this rule, pursuant to rule 340-035-0010, for:

(a) Unusual and/or infrequent events;

(b) Industrial or commercial facilities previously established in areas of new development of noise sensitive property;

(c) Those industrial or commercial noise sources whose statistical noise levels at the appropriate measurement point are exceeded by any noise source external to the industrial or commercial noise source in question;

(d) Noise sensitive property owned or controlled by the person who controls or owns the noise source;

(e) Noise sensitive property located on land zoned exclusively for industrial or commercial use.[211]

IV.R.1.a Findings of Fact

Noise limits

OAR 345-035-0035(1)(b)(B)(i) establishes noise limits for a new industrial or commercial noise source located on a previously unused industrial or commercial site. Pursuant to OAR 340-035-0015(47), a "previously unused industrial or commercial site" is defined as property which has not been used by any industrial or commercial noise source during the 20 years immediately preceding commencement of construction of a new industrial or commercial source on that property. There is no evidence in the record that the proposed facility site has been in industrial or commercial use at any time during the last 20 years and in ASC Exhibit Y, the applicant acknowledges that the noise rules governing a previously unused site apply to the proposed facility.

Noise generated by a new industrial or commercial source located on a previously unused site must comply with two standards: the "ambient noise degradation standard" addressed in OAR

[211] DEQ 23-2018, minor correction filed 04/02/2018, effective 04/02/2018
DEQ 24-2017, minor correction filed 11/08/2017, effective 11/08/2017
DEQ 14-2017, amend filed 10/30/2017, effective 11/02/2017

340-035-0035(1)(b)(B)(i) and (ii) and the "maximum allowable noise standard" in OAR 340-035-0035(1)(b)(B)(i). Both of these standards address allowable noise levels at "noise sensitive properties."[212]

These rules establish that the applicant may not increase ambient statistical noise levels L10 or L50 by more than 10 dBA, or exceed the levels provided in Table 22 below.

Table 22: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical Descriptor	Maximum Permissible Hourly Statistical Noise Levels (dBA)	
	Daytime (7:00 AM – 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
L50	55	50
L10	60	55
L1	75	60
Note: The hourly L50, L10, and L1 noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent, and 1 percent of the hour, respectively. Source: OAR 345-035-0035, Table 8.		

Construction exemption. Under OAR 340-035-0035(5), noise generated during construction of the facility, or during maintenance activities on facility components are exempt from the requirement to meet DEQ's noise standards.

Ambient Noise Measurements

OAR 340-035-0035(1)(b)(B)(i) restricts noise levels of new industrial or commercial noise sources located on a previously unused industrial or commercial site from increasing the ambient statistical noise level, L10 or L50, by more than 10 dBA in any one hour. Ambient noise levels must be measured based on procedures in the Sound Measurement Procedure Manual (NPCS-1) adopted by the DEQ Commission in the 1970's, or as otherwise approved by the Department and measured at one of the following points on a noise sensitive property or receptor (NSR)whichever is further from the noise source:

- 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source;
- that point on the noise sensitive property line nearest the noise source.

Within the analysis area, the applicant identified 33 NSRs, all of which are identified as single-family residential structures. The applicant took measurements at five locations within the

[212] OAR 340-035-0015(38) defines "noise sensitive property" as, "real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it meets the above criteria in more than an incidental manner." Noise sensitive properties are also referred to as "noise sensitive receptors" or "NSRs."

analysis area on publicly accessible land in proximity to NSRs. These measurement locations ("MLs") were selected to represent the nearest NSRs to the Facility within the analysis area and were at the following distances from the nearest facility fence line: ML-1: 648 feet, ML-2: 88 feet, ML-3: 1,337 feet, ML-4: 672 feet and ML-5: 689 feet.

The applicant does not state that it followed the measurement procedures in NPCS-1. However, the applicant notes that:

- Sound levels were measured for 30 minutes at each NSR during both the daytime and nighttime periods. (OAR 340-035-0035(1)(b)(A) defines daytime as 7:00 a.m. – 10:00 p.m. and nighttime as 10:00 p.m. – 7:00 a.m.)
- All measurements were taken with a Larson Davis 831 real-time sound level analyzer, equipped with a PCB model 377B02 ½-inch precision condenser microphone. Per the applicant, this instrument has an operating range of 5 decibels (dB) to 140 dB, and an overall frequency range of 8 to 20,000 hertz (Hz) and meets or exceeds all requirements set forth in the American National Standards Institute standards for Type 1 sound level meters for quality and accuracy. The applicant also noted that all test equipment was field calibrated with an American National Standards Institute Type 1 calibrator that has accuracy traceable to the National Institute of Standards and Technology.

The results of the ambient noise measurements are presented in Table 23: *Summary of Ambient Measurement Results* below.

Table 23: Summary of Ambient Measurement Results

Noise Sensitive Location ID	UTM Coordinates (meters)		Distance to Nearest Facility Fence line (feet/meters)	Time period	Baseline L_{eq} Sound Level (dBA)
	Easting	Northing			
ML-1	291060	5043878	648/197	Day	44
				Night	38
ML-2	292744	5045433	88/27	Day	38
				Night	32
ML-3	294193	5044858	1,337/407	Day	61
				Night	31
ML-4	294392	5048547	672/205	Day	42
				Night	40
ML-5	295248	5052070	689/210	Day	39
				Night	36

Potential Noise Impacts

The applicant's evaluation of compliance with DEQ's noise rules is presented in ASC Exhibit Y. Based upon review of ASC Exhibit Y, the Department presents its assessment for Council review of the applicant's ability to comply with the noise requirements.

Predicted Noise Levels - Construction

As noted above, OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities from the DEQ noise rules. Nevertheless, a summary of anticipated construction-related noise is presented here, in accordance with OAR Chapter 345 Division 21 information requirements and to inform the construction-related noise analysis required under the Council's Protected Areas and Recreation standards, found in Sections IV.F., Protected Areas, and IV.L., Recreation, of this Order.

Per the applicant, construction activities at the proposed facility can be generally divided into five phases:

1. Preparation of the site and staging areas, including grading and on-site access roads;
2. Installation of array foundations, conductors, the operations and maintenance building, and the control enclosure;
3. Assembly of solar panels and electrical connection components;
4. Construction of the inverter pad, substation, cabling, terminations, and transmission lines; and
5. Commissioning of the array and interconnection, revegetation, and waste removal and recycling facilities.

The applicant expects that sound generated by Facility construction will vary depending on the construction phase. Table 24 below, provided by the applicant, lists the typical sound levels associated with equipment the applicant expects to use during construction of the solar farm. The applicant notes that sound levels may periodically be higher or lower; however, the applicant expects that overall sound levels should generally be lower due to excess attenuation.

Table 24: Summary of Projected Noise from Solar Farm Construction Equipment by Phase

Phase No.	Construction Phase	Construction Equipment	Usage Factor %	Maximum L_{max} Equipment Noise Level at 50 ft (15 m) dBA	Composite Maximum L_{max} Equipment Noise Level at Nearest NSR 88 ft (27 m) dBA
1	Demolition	Excavators (168 horsepower [hp]) Tractors/Loaders/Backhoes (108 hp) Rough Terrain Forklifts (93 hp) Dump Truck	40 40 40 40	85 80 85 85	81
2	Site Preparation and Grading	Graders (174 hp) Rubber Tired Loaders (164 hp) Scrapers (313 hp) Water Trucks (189 hp) Generator Sets	40 40 40 40 50	85 85 85 88 82	84
3	Trenching and Road Construction	Excavators (168 hp) Graders (174 hp) Water Trucks (189 hp) Trencher (63 hp) Rubber Tired Loaders (164 hp) Generator Sets	40 40 40 40 40 50	85 85 88 85 80 82	84
4	Equipment Installation	Crane (399 hp) Forklifts (145 hp) Pile drivers Pickup Trucks/ATVs Water Trucks (189 hp) Generator Sets	16 40 20 40 40 50	85 85 95 55 88 82	86
5	Commissioning	Pickup Trucks/ATVs	40	55	46

Table 25 is the applicant's summary of noise levels it projects will be generated during construction of the overhead transmission line.

Table 25: Estimated Construction Phase Noise Levels for Overhead Line Construction

Phase No.	Construction Phase	Example Construction Equipment	Equipment Noise Level at 50 feet, dBA	Composite Noise Level at 50 feet, dBA	Composite Leq Noise Level at 1000 feet, dBA
1	Site Access and Preparation	Bulldozer Grader Roller – Compactor Loader Water Truck Dump Truck	86 82 73 78 80 80	85	51
2	Installation of Structure Foundations	Bulldozer Loader Backhoe-Loader Fork Lift Mobile Crane Mobile Crane Auger Rig Drill Rig Compressor Pump Portable Mixer Jackhammer Cement Mixer Truck Dump Truck Slurry Truck Specialty Truck Water Truck	86 78 80 80 82 82 85 87 81 83 82 90 80 80 80 75 80	91	56
3	Erecting of Support Structures	Forklift Mobile Crane Compressor Flatbed Truck Flatbed Truck Water Truck Heavy Lift Helicopter	80 82 81 75 75 80 95	95	60
4	Stringing of Conductors, Shield Wire and Fiber Optic Ground Wire	Tracked Dozer Backhoe-Loader Compressor Line Puller Mixed Trucks Specialty Truck Specialty Truck Water Truck Light Helicopter	86 80 81 81 80 75 75 80 92	93	58

Data compiled in part from the following sources: FHWA, 1992, 2006; Bolt, Beranek and Newman, Inc., 1977.

Note: Table of results is subject to revision. Data are provided for illustrative purposes only and may not be representative of final equipment used during Facility construction.

Predicted Noise Levels - Operations

As noted above, OAR 340-035-0035(1)(b)(B)(i) requires a demonstration that noise generated during proposed facility operation will not cause the ambient hourly L10 and L50 noise levels at any noise-sensitive property to exceed 10 dBA above ambient, with ambient noise levels measured at the noise sensitive properties. OAR 340-035-0035(1)(b)(B)(iii) applies to noise levels generated by a "wind energy facility." The two primary differences between (i) and (iii) of the DEQ noise rules is that (iii) allows for the noise evaluation of a "wind energy facility" to be based on an assumed 26 dBA ambient noise level rather than the actual ambient background level, and (iii) also allows impacted property owners to execute a legally effective easement or real covenant that benefits the property on which the wind energy facility is located (a "noise waiver").

The analysis area for evaluating compliance with the DEQ noise rules includes the area within and extending 1-mile from the proposed site boundary.

Proposed facility components that would generate noise during operations include the battery storage heating, ventilation, and air conditioning units, the electrical components of the inverters, the step-up transformer associated with each power conversion station, the main power transformer at the collector substation and the transmission line.

Acoustic modeling – solar facility

The applicant used the CadnaA® (Computer-Aided Noise Abatement) computer noise model to calculate sound pressure levels from the operation of the proposed facility equipment in the vicinity of the facility site. Reference sound power levels input to CadnaA were provided by equipment manufacturers, based on information contained in reference documents or developed using empirical methods. Per the applicant, the information used in the acoustic modeling is based on current equipment specifications and the source levels used in the predictive modeling are based on estimated sound power levels that are generally deemed to be conservative. In ASC Exhibit Y, the applicant projects operational noise for proposed facility components, as listed below:

- 142 Inverter/ Step-up Transformers, each at 99 broadband dBA
- 695 Battery Energy Storage Unit/Inverters, each at 100 broadband dBA
- 3 substation main power transformers, each at 98 broadband dBA

Table 26 below provides the estimated sound level at NSRs within 1 mile of the facility site boundary.

Table 26: Estimated sound level at NSRs within 1 mile of the Facility site boundary

NSR ID	Time Period	Background Noise (dBA, L_{eq})	Solar Facility Noise (dBA)	Combined Noise (Background/Solar Facility) (dBA)	Change in Noise (dBA)
1	Day	39	29	39	0
	Night	36	29	37	1
2	Day	39	29	39	0
	Night	36	29	37	1
3	Day	39	26	39	0
	Night	36	26	36	0

1

4	Day	44	30	44	0
	Night	38	30	39	1
5	Day	44	45	47	3
	Night	38	45	46	8
6	Day	44	47	49	5
	Night	38	47	47	9
7	Day	38	53	53	15
	Night	32	53	53	21
8	Day	38	52	53	15
	Night	32	52	52	20
9	Day	38	51	51	13
	Night	32	51	51	19
10	Day	61	36	61	0
	Night	31	36	37	6
11	Day	61	43	61	0
	Night	31	43	43	12
12	Day	61	44	61	0
	Night	31	44	44	13
13	Day	61	43	61	0
	Night	31	43	43	12
14	Day	44	30	44	0
	Night	38	30	39	1
15	Day	44	30	44	0
	Night	38	30	39	1
16	Day	61	33	61	0
	Night	31	33	35	4
17	Day	44	27	44	0
	Night	38	27	38	0
18	Day	42	41	45	3
	Night	40	41	44	4
19	Day	42	45	47	5
	Night	40	45	46	6
20	Day	42	40	44	2
	Night	40	40	43	3
21	Day	42	40	44	2

1

	Night	40	40	43	3
22	Day	42	55	56	14
	Night	40	55	56	16
23	Day	39	23	39	0
	Night	36	23	36	0
24	Day	39	23	39	0
	Night	36	23	36	0
25	Day	39	53	53	14
	Night	36	53	53	17
26	Day	61	29	61	0
	Night	31	29	33	2
27	Day	39	47	47	8
	Night	36	47	47	11
28	Day	39	47	48	9
	Night	36	47	48	12
29	Day	44	32	44	0
	Night	38	32	39	1
30	Day	44	32	44	0
	Night	38	32	39	1
31	Day	44	32	44	0
	Night	38	32	39	1
32	Day	44	32	44	0
	Night	38	32	39	1
33	Day	44	24	44	0
	Night	38	24	38	0
dBA = A-weighted decibels; NSR = noise sensitive receptor					

The applicant's noise modeling results show that noise generated during proposed facility operation would exceed the maximum allowable standard of 55 dBA (daytime) at seven NSRs and 50 dBA (nightime) at four NSRs within the analysis area.

The ambient noise degradation standard requires a demonstration that noise generated during proposed facility operation must not cause the hourly L50 noise level at any noise-sensitive property to exceed 10 dBA above measured ambient conditions or, in this case, ambient conditions ranging from 31 to 61 dBA. Based upon the applicant's noise analysis presented in Table 26 above, maximum increases in ambient noise level from proposed facility operation are projected to exceed 10 dBA at ten NSRs.

Given these projected exceedances, the applicant represents that it will take measures to ensure the facility will meet maximum allowable noise and ambient noise degradation requirements at the appropriate measurement point for all potentially affected noise sensitive properties or obtain legally effective easements or real covenants for expected exceedances of

the ambient degradation standard from the owners of the impacted noise sensitive properties. Easements would only suffice regarding the ambient degradation standard; if the applicant cannot meet the maximum allowable noise standard, it may not construct the facility. As explained above, the option for property owners to obtain a noise waiver for expected noise level exceedances, is not available for new industrial or commercial noise sources that are not wind energy facilities. Therefore, the Department recommends that Council find that the facility, as proposed, would not comply with the requirements of OAR 340-035-0035 without additional mitigation, including but not limited to, changes in the final facility design.

The applicant does not estimate the noise levels that would be generated by the transmission line but notes that, while the transmission line route is still in the process of being finalized, the transmission line will be sited such that received sound levels at NSRs will adhere to the applicable ODEQ Noise Rules.

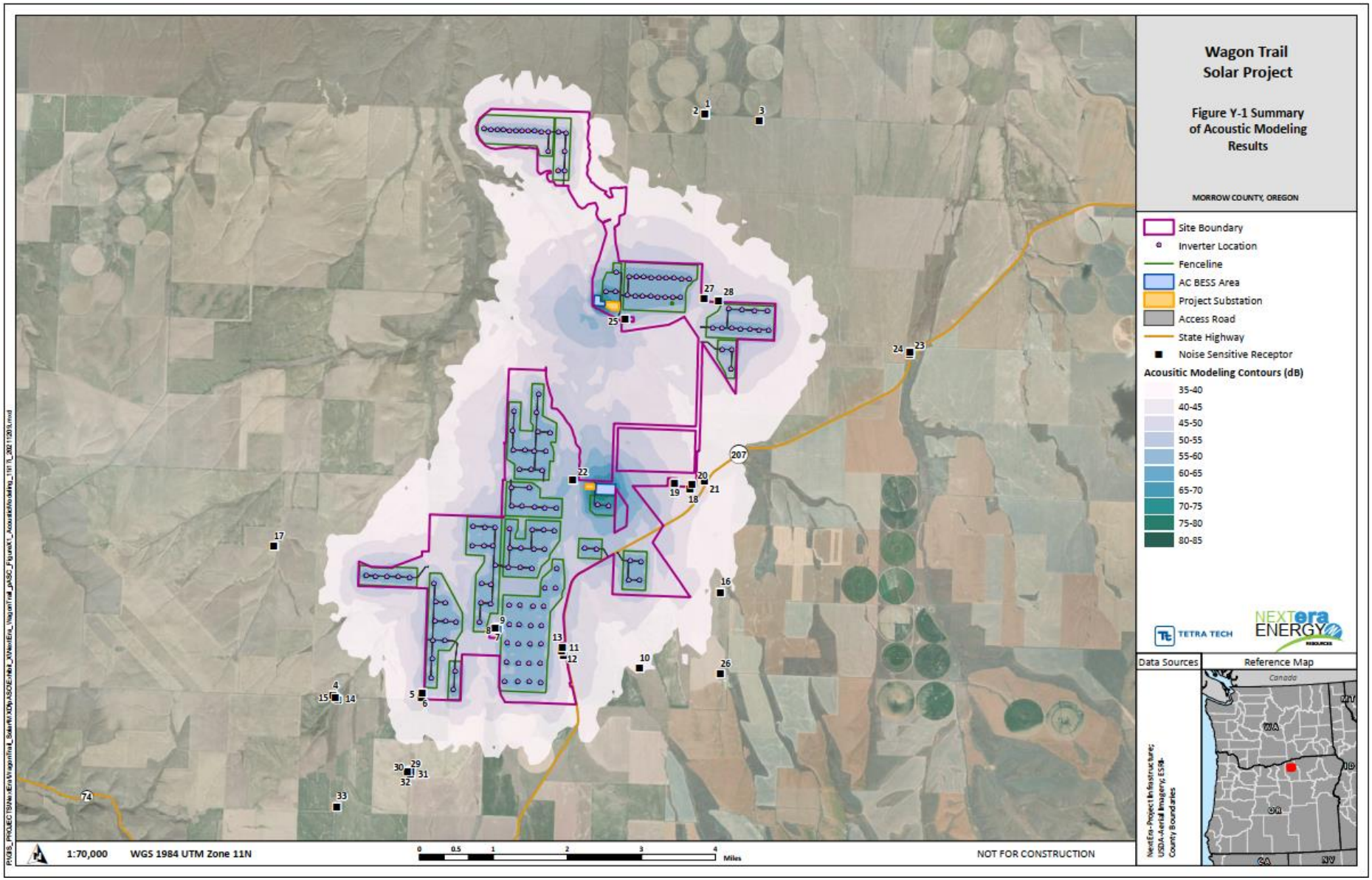
Consistent with the foregoing representations, the Department recommends Council impose the following condition:

Recommended Noise Control Condition 1 (PRE):
Prior to construction of the facility, facility component or phase, the applicant shall provide the Department the following:

a. Information that identifies the final design locations of all facility components to be built at the phase of development.
b. The maximum sound power level data for the facility components based on manufacturers' warranties or confirmed by other means accept; and
c. The results of the noise analysis of the final facility design performed in a manner consistent with the requirements of OAR 340-035- 0035(1)(b)(B)(iii)(IV) and (VI). The analysis will demonstrate, by phase of development, prior to construction that the total noise generated by the facility, including the transmission line, will meet the "ambient noise degradation standard" in OAR 340-035-0035(1)(b)(B)(i) and (ii) and not exceed the "maximum allowable noise standard" in OAR 340-035-0035(1)(b)(B)(i) at the appropriate measurement point for all potentially-affected noise sensitive properties.

[PRE-NC-01]

Figure 17: Noise Sensitive Receptors Within Analysis Area



IV.R.1.b Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the [existing and/or proposed] site certificate conditions described above, the Department recommends the Council find that the facility, with proposed changes, will comply with the applicable Noise Control Regulations in OAR 340-035-0035.

IV.R.2. Removal-Fill

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any "waters of the state."[213] The Council, in consultation with DSL, must determine whether a removal-fill permit is needed and if so, whether a removal-fill permit should be issued. The analysis area for wetlands and other waters of the state is the area within the site boundary.

IV.R.2.a Findings of Fact

The analysis area for wetlands and other nonwetland water of the state is the area within the proposed site boundary, or 7,450 acres.

To inform the analysis, the applicant conducted literature and desktop reviews as well as field studies. The literature review included an evaluation of the following sources:[214]

- National Wetland Inventory (NWI) maps (USFWS 2020);
- Hydric Soils List for Morrow County, Oregon
- The Natural Resources Conservation Service (NRCS 2020a);
- NRCS Soil Surveys of Morrow County in Oregon (NRCS 2020b);
- United States Geological Survey National Hydrography Dataset (NHD) (USGS 2020), which provided the location of potential streams; and
- Google Earth (2020), Morrow County, Oregon.

The applicant's consultant, Tetra Tech, and the Department reviewed the National Wetlands Inventory (NWI) database for the presence of mapped wetland and waterways and the National Hydrologic Database (NHD) which provides data about known hydrology. The review of NWI and NHD data and aerial imagery did not identify any wetlands mapped within the site boundary.

[213] ORS 196.800(15) defines "Waters of this state," (WOS). The term includes wetlands and certain other waterbodies.

[214] WTSAPPDoc2-10 Exhibit J. Wetlands 2024-01-03, Section 3.3.1.

To confirm the absence of wetland and water features, Tetra Tech conducted field surveys for wetlands and WOS following the methods in the 1987 *Wetlands Delineation Manual, Technical Report Y-87-1* and *the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West*, which are the industry and DSL standard manuals directing on-site delineation surveys as designated in OAR 141-090-0030.[215] As recommended in these manuals, three field indicators of wetlands (hydrophytic vegetation, hydric soils, and wetland hydrology) must be present to make a positive wetland determination. Field surveys focused on documenting the presence/absence of each of these indicators in order to conclude if wetlands or other waters of the state were present in the analysis area.

Based on the results of site investigations conducted, the applicant indicates that no wetlands were present within the site boundary, and five ephemeral streams were delineated within the site boundary. On January 13, 2022, the applicant submitted its wetland delineation report to DSL for written concurrence.[216] In a July 6, 2023 letter of concurrence from DSL, they indicate that, based upon the information presented in the report and additional information submitted by the applicant in response to DSL requests, DSL concurs that there are no jurisdictional wetlands or other waters of the state within the study area.[217] The letter continues by explaining that 5 ephemeral streams (EPH-01 through EPH-05) were identified, however, ephemeral streams do not meet the criteria for a jurisdictional waterway per OAR 141-085-0515(3) and therefore, are not subject to these state permit requirements.

Because there are no jurisdictional wetlands or WOS within the site boundary, the Department recommends Council find that the facility will not impact wetlands or WOS and will not require a removal fill permit.

IV.R.2.b Conclusions of Law

Based on the foregoing analysis, the Department recommends the Council find that the facility does not need a removal fill permit as designated under ORS 196.795 through 196.990.

IV.R.3. Water Rights

Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources Department (OWRD) administers water rights for appropriation and use of the water resources of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility, with proposed changes, would comply with the statutes and administrative rules identified in the project order. The Second Amended Project Order identifies OAR 690, Divisions 310 and 380 (Water Resources Department permitting requirements) as the administrative rules

[215] OAR 141-090-0030 (1) Wetland determinations and delineations shall be conducted in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual ("the manual"), including regional supplements and applicable guidance, and any supporting technical or guidance documents issued by the Department.
[216] DSL file number 2022-0023.
[217] WTSAPPDoc15 DSL Concurrence on Wetland Delineation 2023-07-06.

governing use of water resources and water rights as applicable to the facility. OAR 345-021-0010(1)(o)(F) requires that if a facility needs a groundwater permit, surface water permit, or water right transfer, that a decision on authorizing such a permit, rests with the Council.

IV.R.3.a Findings of Fact

As described in ASC Exhibit O and also in Section IV.M. *Public Services* of this order, construction related water use would include dust suppression, road compaction, site preparation, mixing concrete for foundations, fire prevention, and on-site worker drinking and sanitation use.[218] The applicant estimates that approximately 40.2 million gallons (Mgal) to 71.4 Mgal of water would be used during any construction phase, and assumes a 12 month period per phase. The applicant explains that one of the primary drivers for water use is to control dust. Dust is generated from the construction equipment that would cut, move, and compact the subgrade surface; as well as decompaction and final grading for site revegetation. Water trucks would be used to control dust generation in all disturbed areas during road construction, foundation installation, final cleanup, reclamation, and restoration by patrolling the site to control dust multiple times each day, even in portions of the proposed Facility where no construction is underway.[219] Estimated water use from the proposed facility construction and operation is presented in Table 27: *Estimated Water Use from Construction and Operation* below.

Table 27: Estimated Water Use from Construction and Operation

Water Use	**Quantity/Units**
Construction (per Phase)	Gallons/Phase (Year)
Dust control (average annual)	31,200,000
Dust Control (Worst Case)	62,400,000
Road Compaction	6,200,000
Concrete Mixing	-
Tracker post foundations	2,200,000
Inverter/transformer pad foundations	78,000
Battery pad foundations	179,820
Collector substation foundations	157,650
O&M Building foundation	210
Drinking water/sanitation	140,400
Average Annual Estimated Construction Use	40,156,080 (Approximately 40,200,000)
Worst Case Estimated Construction Use	71,356,080 (Approximately 71,400,000)
Operation	Gallons/Year
O&M Building	7,500
Solar Panel Washing (Worst case – twice a year)	965,008
Average Annual Estimated Operational Use	972,508
Notes:	

[218] WTSAPPDoc2-15 Exhibit O. Water Req 2024-01-03, Section 2.4.3.

[219] WTSAPPDoc2-15 Exhibit O. Water Req 2024-01-03, Section 2.1.

Table 27: Estimated Water Use from Construction and Operation

Water Use	Quantity/Units
1. The proposed Facility will either utilize the existing operations and maintenance (O&M) building for the Wheatridge Renewable Energy Facilities I, II, and III or a new O&M building. Material amounts provided assume a new O&M building will be constructed for worst-case scenario estimates.	

Source: WTSAPPDoc2-15 Exhibit O. Water Req 2024-01-03, Table O-1 and Section 2.2.

During facility operation, water would be used for solar module washing, approximately twice a year amounting to approximately 965,008 gallons per year.[220] Water for the module washing will not have any cleaning solvents in it, would be applied via robotic panel cleaners, and will be discharged by evaporation and seepage into the ground.[221] The applicant expects to rely on an exempt well to provide water to the O&M building during operations. Under OWRD rules, wells that use less than 5,000 gallons of water per day for a single industrial or commercial purpose are exempt from registration, permits, or ground water right certificates.[222] The provisions of ORS 537.545 require the owner of the land on which an exempt well is drilled provide to the OWRD a map showing the exact location of the well, as well as pay a recording fee to OWRD. ORS 537.765 requires a well log containing specific information described in ORS 537.765 to be filed with the Water Resources Commission when a new exempt well is drilled, or an existing well is altered, converted, or abandoned. These OWRD requirements are not permits or other approvals included in or governed by the site certificate, therefore the applicant must independently comply with the provisions of ORS 537.454 and ORS 537.765 outside of the site certificate process.

The applicant maintains that no groundwater permit, surface water permit, or water right transfer is needed for the construction and operation of the proposed facility because water for facility construction and operation would be obtained either be obtained from Boardman Public Works, Hermiston Water Department, Stanfield Public Works, the Port of Morrow, or another municipal source under an existing municipal water right.[223] Under OWRD rules, examples of municipal water use include but are not limited to domestic water use, irrigation of lawns and gardens, commercial water use, industrial water use, fire protection, irrigation, and other water uses.[224] Council has previously found, and affirmed by OWRD that water use for the construction and operation for the proposed facility qualifies under OAR 690-300-0010(25) as "industrial water use", which includes the use of water associated with the processing or manufacture of a product, such as the construction, operation, and maintenance of an industrial site like a solar facility. The Department recommends Council continues to find that the solar facility, as an industrial or commercial use, qualifies as a municipal use under OWRD rules.

[220] WTSAPPDoc2-07 Exhibit G. Materials Analysis 2024-01-03, Section 3.1

[221] Id.

[222] ORS 537.545(1)(f).

[223] WTSAPPDoc2-15 Exhibit O. Water Req 2024-01-03, Section 5.0

[224] OAR 690-300-0010(29)

To affirm the facility's water use during construction, and the applicant's ability to obtain water for facility construction and operation from Boardman Public Works, Hermiston Water Department, Stanfield Public Works, the Port of Morrow, or another municipal source, the Department recommends Council impose the following conditions:

Recommended Water Rights Condition 1 [PRE]: Prior to construction of the facility, facility component or phase, as applicable, the certificate holder shall:

a. Identify all water-related needs and estimate daily and annual water demand for each construction phase, as applicable.
b. Provide excerpts of agreements or other similar conveyance from the water providing entity to the Department demonstrating that construction activities will be adequately and legally served by service providers or third-party permits.

[PRE-WR-01]

Recommended Water Rights Condition 2 [CON]: During construction of the facility, facility component or phase, as applicable, if a water right, limited water use license or water rights transfer is needed and would not be obtained by a third-party, submit and obtain approval of the applicable water permit through the site certificate amendment process.
[CON-WR-01]

The Department recommends Council find that because the applicant has estimated maximum water use during facility construction and operation, and demonstrated that with conditions, it has an ability to obtain an adequate supply of water, that neither the applicant nor a third-party contractor will require a groundwater permit, surface water permit, or water right transfer for construction or operation of the facility.

IV.R.3.b Conclusions of Law

Based on the foregoing -analysis, and subject to compliance with the proposed site certificate conditions described above, the Department recommends Council find that the facility does not need a groundwater permit, surface water permit, or water right transfer.

V. PROPOSED CONCLUSIONS AND ORDER

Wagon Trail Energy Center, LLC submitted an ASC to construct and operate approximately 500 MWs of solar photovoltaic energy generation equipment and its related or supporting facilities (a 500 MW lithium-ion BESS, two collector substations, a 34.5-kV collector line system, SCADA System, driveway and access roads, an O&M Building, 0.6 miles of 230 kV transmission line, four meteorological stations and four construction staging areas) to be located in Morrow County. Subject to the representations in the ASC, compliance with the recommended site certificate conditions and based on the preponderance of evidence on the record, the Department recommends Council find that:

1. The proposed Wagon Trail Solar Project complies with the requirements of the Oregon Energy Facility Siting Statutes, ORS 469.300 to 469.520.

2. The proposed Wagon Trail Solar Project complies with the standards adopted by the Council pursuant to ORS 469.501.

3. The proposed Wagon Trail Solar Project complies with all other Oregon statutes and administrative rules identified in the Project Order as applicable to the issuance of a site certificate for the proposed facility.

Based on the recommended findings of facts, reasoning, recommended conditions and conclusions of law in this DPO, the Department recommends that Council conclude that the applicant has satisfied the requirements for issuance of a site certificate for the proposed Wagon Trail Solar Project. The Department further recommends that, pursuant to ORS 469.401, the Chairperson execute the site certificate authorizing the applicant to construct, operate and retire the facility subject to the conditions set forth in the site certificate.

Issued May 7, 2024

OREGON DEPARTMENT OF ENERGY

By: _____
Todd Cornett, Assistant Director
Oregon Department of Energy, Energy Facility Siting Division

ATTACHMENTS

Attachment A: Draft Site Certificate
Attachment B: Reviewing Agency Comments on pASC/ASC
Attachment P-2: Draft Wildlife Monitoring and Mitigation Plan
Attachment P-3: Draft Habitat Mitigation Plan
Attachment P-4: Draft Reclamation and Revegetation Plan
Attachment P-5: Draft Noxious Weed Control Plan
Attachment D: Draft Historic and Archaeological Resources Mitigation and Monitoring Plan
Attachment E: Draft Inadvertent Discovery Plan
Attachment F-1: Draft Construction Wildfire Mitigation Plan
Attachment F-2: Draft Operational Wildfire Mitigation Plan
Attachment X-1: Retirement and Restoration Cost Estimate

Attachment A: Draft Site Certificate

ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

Site Certificate for the Wagon Trail Solar Project

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1.0 Introduction and Site Certification

This site certificate is a binding agreement between the State of Oregon (State), acting through the Energy Facility Siting Council (EFSC or Council), and Wagon Trail Energy Center, LLC (certificate holder), a wholly owned subsidiary of NextEra Energy Resources, LLC (parent company). Both the State and certificate holder must abide by local ordinances, state law, and the rules of the Council in effect on the date this site certificate is executed. However, upon a clear showing of a significant threat to public health, safety, or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules (ORS 469.401(2)). As authorized under Oregon Revised Statute (ORS) Chapter 469, the Council issues this site certificate authorizing the certificate holder to construct, operate, and retire the Wagon Trail Solar Project (facility) within the below described approved site boundary in Morrow County, subject to the conditions set forth herein.

This site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation, and retirement of the facility as to matters that are addressed in and governed by this site certificate (ORS 469.401(3)). Each affected state agency, county, city, and political subdivision in Oregon with authority to issue a permit, license, or other approval addressed in or governed by this site certificate, shall upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. In addition, each state agency or local government agency that issues a permit, license or other approval for this facility shall continue to exercise enforcement authority over such permit, license or other approval (ORS 469.401(3)). For those permits, licenses, or other approvals addressed in and governed by this site certificate, the certificate holder shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules (ORS 469.401(2)).

This site certificate does not address, and is not binding with respect to, matters that are not included in and governed by this site certificate, and such matters include, but are not limited to: employee health and safety; building code compliance; wage and hour or other labor regulations; local government fees and charges; other design or operational issues that do not relate to siting the facility (ORS 469.401(4)); and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council (ORS 469.503(3)).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate is subject to the provisions of ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the Council will not publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the

exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

The Council shall have continuing authority over the site and may inspect or direct the Oregon Department of Energy (Department) to inspect or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate (ORS 469.430).

The duration of this site certificate shall be the life of the facility, subject to termination pursuant to OAR 345-027-0110 or the rules in effect on the date that termination is sought, or revocation under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. The Council shall not change the conditions of this site certificate except as provided for in OAR Chapter 345, Division 27.

In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order, incorporated herein by this reference: 1) *Final Order on the Application for Site Certificate for the Wagon Trail Solar Project* issued on [DATE] (hereafter, *Final Order on the ASC*) 2) the record of the proceedings that led to the Final Order on the ASC.

The definitions in ORS 469.300 and OAR 345-001-0010 apply to the terms used in this site certificate, except where otherwise stated, or where the context clearly indicates otherwise.

2.0 Facility Location, Site Boundary and Micrositing Areas

This facility site is located in Morrow County, Oregon, approximately 6 miles north of Lexington, Oregon and 6 miles northeast of Ione, Oregon, as presented in Attachment 1 Figure 1: *Facility Regional Location*. The facility site boundary covers approximately 7,450 acres. The certificate holder is approved to have flexibility for micrositing the facility and related or supporting facilities within the site boundary which may permanently disturb 3,684 and temporarily disturbing 167.5 acres. The approved micrositing area within the 7,450-acre site boundary would be up to 3,852.5 acres.

A micrositing corridor, by definition, means a continuous area of land within which construction of facility components may occur, subject to site certificate conditions.[1] Micrositing corridors or areas are intended to allow some flexibility in specific component locations and design in response to site-specific conditions and engineering requirements to be determined prior to construction.

[1] OAR 345-001-0010(21)

3.0 Facility Description

The approved facility is a solar photovoltaic (PV) energy generation facility and related or supporting facilities[2] with an approved nominal and average generating capacity of up to 500 megawatts (MW). Related or supporting facilities components include a 500 MW lithium-ion energy storage system, two collector substations, a 34.5 kilovolt (kV) collection system, Supervisory Control and Data Acquisition (SCADA) System, driveway and access roads, an Operation and Maintenance (O&M) Building, 0.6 miles of 230 kV transmission line, four meteorological stations and four construction staging areas.

The approximate dimensions and specifications of energy facility and related or supporting facility components approved to be constructed and operated are presented in Table 1 below. The final design of the energy facility and related or supporting facility components must substantially comply with these dimensions and specifications.

Table 1: Facility Component Summary

Component and Design Standard	No.	Unit
Site Boundary		
Site Boundary/Micrositing Area	7,450	acres
Permanent Impacts	3,685	acres
Temporary Impacts	168	acres
Solar Components		
PV Solar Modules		
Approx. Total number	965,007	modules
Max Height at full-tilt	16	feet
Posts		
Approx. Total number	213,585	posts
Inverters/Transformer Units		
Approx. total number	142	each
Noise level	99	dBA
Transformer oil-containing capacity	244	gallons
Related or Supporting Facility Components		
34.5 kV Collection System		
Collector line length, belowground	67.9	miles
Collector Substations		
Substations; Transformers per each	2; 3	each
Site size (northern; southern)	11; 5	acres
Transformer oil-containing capacity	263,387	gallons
Transformer noise level	98	dBA
Height of dead-end structures	65	feet
230 kV Transmission Line		

[2] OAR 345-001-0010(21) and – (50)

Table 1: Facility Component Summary

Component and Design Standard	No.	Unit
Length	0.6	miles
Structures: Type; quantity	H-frame; 20	each
Height of structures	70- 180	feet
Solar/Substation/O&M Perimeter Fence		
Length	60,192	linear feet
Height	6-8	feet
Facility Roads		
New roads (length, width)	47	miles
Width (within solar fence line; outside solar fence line/between solar and substation)	12; 20	feet
Battery Energy Storage System (Lithium-ion)		
Approx. total batteries	604	each
Site size (northern; southern)	10; 25	acres
Approx. total containers	604	each
Approx. container dimensions	8 x 9.5 x 20	H x W x L, feet
Noise level (broadband)	100	dBA
Meteorological Stations		
Quantity	4	each
Met pad dimensions	8 x 8 x 6	W x L x H
Height	8.5	feet
O&M Building		
Site size	0.2	acres
Size	6,000 x 9,000	square feet
Height	20	feet
Appurtenances	On-site well, septic system	
Temporary Construction Areas		
Quantity	4	each
Site size	10	each
Source: WTSAPPDoc2-02 Exhibit B. Project Desc compiled_2024-01-03, Section 3.0, WTSAPPDoc2-03 Exhibit C. Project Location compiled_2024-01-03, Table C-2, WTSAPPDoc2-07 Exhibit G. Materials Analysis_2024-01-03, Section 3.0, WTSAPPDoc2-24 Exhibit X. Retirement compiled_2024-01-03, Attachment X-1. Estimated Retirementand Restoration Cost, and WTSAPPDoc2-25 Exhibit Y. Noise compiled Updated_2024-01-03, Section 5.0.		

3.A.1. Energy Facility

The solar energy facility is comprised of approximately 965,007 solar modules that would use either mono- or poly-crystalline cells contained within antireflective glass panels linked together with wire connectors. The modules are connected in series to form long rows, where rows of modules are then connected via combiners, cables, and switchboards. The

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configuration of multiple rows (also referred to as an "array") can vary depending on the module technology, spacing, mounting equipment, and other design criteria, which are subject to change during final design. Each row will be spaced approximately 24.67 feet.

Strings of these solar modules would be mounted on single-axis tracker systems that rotate the modules to follow the path of the sun throughout the day. The length of each tracker row may vary by topography and the number of modules that the tracker can hold. Each set of approximately 54 racked modules will be mounted approximately 5 feet off the ground on a single-axis tracker that rotates 60 degrees to the east and west, at its steepest tilt the modules can be 16 feet tall. The tracker system is supported by approximately 213,585 steel posts, which could be round hollow posts or pile-type posts (i.e., H-pile, C-pile, S-pile) or helical, and the applicant assumes that all posts will need concrete foundations.

Low-voltage cabling will connect the solar modules of each tracker string in series and combine two strings to a single combiner box. Cabling from multiple combiner boxes will connect to a single inverter, which will convert the DC to AC and connect to the buried collection system. A larger DC cable will run between each combiner box and then to the module block inverter. This cable will hang underneath the modules. Cabling can be mounted to the tracker system, placed in cable trays, or buried.

The type of post and post depth may vary depending on soil conditions, but the posts would typically be installed 5 to 20 feet below the surface and protrude approximately 5 feet above grade. Posts at the end of tracker rows are usually installed to greater depth to withstand wind uplift. In some soil conditions, concrete backfill would be required for each post, which would be determined by geotechnical investigations conducted prior to construction. The solar array and related or supporting facilities would be within a 6 to 8-foot-tall chain link perimeter fence line.

Approximately 142 inverters serve the function of converting DC power supply to an AC power supply in accordance with electrical regulatory requirements. Low-voltage cabling will link each solar module to inverters to convert panel output from 400-watt DC to 1,500-volt. The AC from the inverters will be routed to approximately 142 transformers (at inverter/transformer stations) that will increase the output voltage from the inverter (1,500 volts) to the desired substation feed voltage (34.5 kV). The transformers will contain up to 244 gallons of oil and may be mounted on concrete pads with secondary spill containment traps designed to minimize the possibility of accidental leakage. From the inverters, the AC electricity is aggregated via approximately 67.9 miles of underground 34.5-kV cables to the collector transmission lines.

3.A.2. Related or Supporting Facilities

Related or supporting facilities, as further described below, include:

- Battery storage system
- Collector substations
- 230-kV Transmission Line

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- SCADA System
- O&M Building
- Meteorological Stations
- Security fencing and gates
- Site access and service roads
- Construction staging areas
-

3.A.2.a Battery storage system

The lithium ion (li-ion) battery energy storage system would be capable of storing and later deploying approximately 500 MW of energy generated by the solar facility. Li-ion battery systems are modular systems in which each module contains multiple smaller battery cells, each measuring up to 3.2 by 7 centimeters. The cells are the primary containment for the gel or liquid electrolyte materials. The module containing the cells is relatively small and serves as leak-proof secondary containment. Modules are placed in anchored racks within the concrete containers; typically, each rack houses 8 to 15 battery modules along with a switchgear assembly depending on the configuration chosen. Cooling units will be placed either on top of the concrete containers or along the side. There are two approved locations for the battery storage units, one of the AC coupled battery storage sites would consist of up to 182 battery storage units located adjacent to the northern substation, occupying approximately 10 acres. The second of the two AC coupled battery storage sites would consist of up to 422 battery storage units and would be collocated with the southern substation, occupying approximately 25 acres. Both sites will be fenced separately from the solar array. The battery storage systems as a whole may use a series of self-contained containers located within a fenced area or would be located within a single warehouse-type enclosure of a similar scale and size. Each battery container would be placed on a concrete foundation (9.5 feet wide, 20 feet long, and 8 feet tall). Each container holds the batteries, a supervisory and power management system, and a fire prevention system.

If selected for construction, the warehouse-type enclosure will be designed generally consistent with the character of similar buildings and painted in a low-reflectivity, neutral color to blend with the surrounding landscape. The enclosure will be constructed in compliance with State of Oregon structural and electrical code requirements, to the extent applicable, and in compliance with applicable site certificate conditions. The DC units would have comparable characteristics to the AC units except that the DC units would be distributed and collocated with the solar array inverters/transformer stations, located within the solar array area fence line.

Li-ion batteries have a typical lifespan of 5 to 10 years and will experience a consistent degradation of performance over that time.

III.A.2.b Collector substation

The facility incudes up to two collector substations which would combine and step up the voltage of energy generated by the solar facility to the desired transmission voltage to connect to the transmission grid. The southern collector substation would be located on an

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approximately 5-acre site and the northern (alternate) collector substation would be located on an approximately 11-acre site, enclosed by a locked 6- to 8-foot-tall wire mesh fence; both areas will be fenced separately from the solar array areas. Additional substation equipment may include circuit-breakers and fuses, power transformer(s), bus bar and insulators, disconnect switches, relaying, battery and charger, surge arresters, AC and DC supplies, control systems, metering equipment, grounding, and associated control wiring. Transformers would be non-PCB oil–filled types and would be up to 25 feet tall. Dead end structures at the substation will be a maximum of 65 feet tall.

III.A.2.c 230-kV Transmission Line

To connect the southern solar array areas to the regional grid, the facility will require construction of an associated transmission line. The associated transmission line will be approximately 0.6 miles of 230-kV overhead line, running east along Strawberry East Road to connect the southern collector substation to the existing Blue Ridge Substation. The 230-kV overhead line will be supported either by H-frame structures with two galvanized steel or wood poles, or by galvanized steel or wood monopole structures; a maximum of four poles will be used. The structures would be approximately 70 to 180 feet tall, above grade depending on design and terrain. The transmission line would be within the site boundary but outside the solar array fence line. The northern substation (and in turn the northern solar array areas) would interconnect with the directly adjacent, existing Umatilla Electric Cooperative/Columbia Basin Electric Cooperative 230-kV transmission line adjacent to the facility, running north to south through the northern solar array areas; there will be no interconnection line required for this facility component.

III.A.2.d SCADA System

SCADA systems provide for remote operation of the facility from the O&M building. The SCADA system is installed to collect operating and performance data from the solar array, batteries and associated electrical equipment. Fiber optic cables for the SCADA system will be installed with the collection system. In areas where the collection system is buried, the fiber cables will be installed in the same trench. Where the collection system is above ground, the fiber cables will be mounted on overhead poles along with conductors.

III.A.2.e O&M Building

The O&M building may be shared with the Wheatridge Wind Energy Facility II, however, if not, an approved operation and maintenance (O&M) building would be located within an approximately 0.2 acre fenced area outside the fence line of the solar facility and near the norther substation. The O&M building would be one-story, prefabricated, and approximately 6,000 to 9,000 square feet in size, and include an office, break room, kitchen, lavatory with shower, utility room, covered vehicle parking, storage for maintenance supplies and equipment, and SCADA system. A permanent, fenced, graveled parking and storage area for employees, visitors, and equipment will be located adjacent to the O&M building. The building will be served by an exempt, on-site groundwater well or wells, which allows the use of up to

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5,000 gallons per day of groundwater for industrial and commercial applications, and septic system and power would be supplied by a local service provider using overhead and/or underground lines.

III.A.2.f Meteorological Stations

The facility includes four permanent met stations. Each permanent met station would have a met sensor support tower, support enclosure, datalogger enclosure (mounts above support enclosure), AC/ethernet pull box, soiling station, and met station pull box, and would be installed on a met station pad, approximately 8 by 8 feet and will have a minimum thickness of 6 inches. The height of each permanent met station will be approximately 8.5 feet at the tallest point (met sensor support tower). The met stations will each require a 30- by 30-foot temporary disturbance area. All permanent met stations will be within the solar array fence line.

III.A.2.g Access Roads, security fencing and gates

Approximately 47 miles of new roads are approved for access to facility infrastructure in areas not previously approved through the Council for other energy facilities. These roads include access roads to the site, access roads within the solar micrositing areas, as well as roads outside the solar areas that would connect facility components such as the substations. All newly constructed roads would be graded and graveled to meet load requirements for all equipment. Service roads, approximately 12 feet wide, would be constructed within the solar array fence line, to facilitate access for construction and maintenance purposes. Approximately 20-footwide service roads would be constructed outside the solar array fence line to reach the separately fenced substations. Service roads will be all-weather, compacted soil or gravel, with an internal turning radius of 28 feet. Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety. Use of the roads may continue after construction, or new roads may be removed and the land reclaimed to pre-construction conditions. The locations of specific access points and gates will depend on the final configuration of the solar array and related infrastructure. Chain-link perimeter fencing, 6 to 8 feet in height, will enclose the solar arrays, O&M building, and the battery storage system; the substations will be enclosed by a 6- to 8-foot-high wire mesh fence. The perimeter fencing will have lockable vehicle and pedestrian access gates.

III.A.2.h Construction staging areas

Up to four temporary construction areas (laydown areas) are approved to support construction, store supplies and equipment, and facilitate the delivery and assembly of materials and equipment. Temporary construction areas would be up to 10 acres each and will consist of crushed gravel surface that will be removed following construction. These construction areas

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may contain temporary storage of diesel and gasoline fuels, located in an aboveground 1,000-gallon diesel and 500-gallon gasoline tanks, within designated secondary containment areas.

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4.0 Facility Development

4.1 Construction

Construction of the facility is anticipated to take 12 months and shall commence on or before [DATE]. Construction shall be completed within three years after construction commencement.

Construction Assumptions:

- Facility construction of any phase is assumed to take approximately 12 months from the time of permit approval to commercial operation.
- Average number of construction workers would be 150 people, while the maximum number of workers during peak construction months would not be more than 200 people.

Construction Worker Assumptions:

- Approximately 30 percent of the construction workers are expected to be local residents (from Morrow, Umatilla, Gilliam, Klickitat, and Benton counties).
- The remaining 70 percent of workers would be in-migrants and would require temporary housing in the analysis area. Short-term housing may include hotels, motels, recreational vehicles parks, and houses located within the commutable distance from the facility (30 miles).
- An average of 100 truck trips per day (including all estimated delivery trips; 50 roundtrips, i.e., including return trips), with a peak of 134 trips per day (67 roundtrips), will be needed over approximately 250 construction workdays (about 12 months).

If the facility is constructed in phases, in accordance with ORS 469.300(6), preconstruction conditions, if specified, may be satisfied for the applicable phase, facility component or for the facility, as applicable, based on final design and configuration.

4.2 Operations and Maintenance

The estimated life of the facility is 50 years. The facility would be remotely operated except for routine maintenance and facility repair activities. Repair activities would require approximately 3 workers to be deployed to the facility site. O&M activities would include routine inspections of the battery storage, transformers, and other electrical equipment, vegetation management, solar panel washing, and changing the lithium-ion batteries and solar panels. Operational water may be trucked in and stored in a water tank or trucked in for specific uses.

Inspections of the inverters, transformers, and battery system would be conducted according to the manufacturer's recommendations, which are assumed to be monthly inspections. Vegetation and weed management in areas not graveled, including under the solar arrays, would be implemented through manual, mechanical or chemical (i.e., herbicide) control measures. The solar panels may need to be washed up to twice per year and wash water would

be applied via tanker truck without any cleaning solvents added to the water so it may be absorbed into the ground after application. The lithium-ion batteries would need to be changed approximately every 10 years or two to three times throughout the life of the facility. The following procedures would be implemented for the battery replacement:

- Facility operator would disconnect and de-energy battery systems prior to removal from the installed racks and package the batteries for transport to a licensed recycling facility.
- At the recycling facility, the qualified contractor would dismantle the battery modules and prepare individual cells for metals recovery.
- Individual cells would be processed in a furnace to recover metals. Recovered metals may include aluminum, calcium, lithium, and a metal alloy comprising cobalt, copper, nickel, and iron.
- Recovered metals would be recycled or separated to recover individual metals where economically viable.

Solar modules and electrical equipment would need to be repaired or replaced over the lifetime of the facility. Solar panels that are nonfunctional or are retired would be recycled to the maximum extent feasible.

4.3 Retirement

Retirement of the facility must adhere to the requirement under OAR 345-027-0110 and OAR 345-025-0006(9). The description provided below is intended to address OAR 345-025-0006(3)(a) but is not intended to conflict with the previously mentioned rule requirements.

Retirement and decommissioning activities of the facility and site begins with disconnecting all electrical equipment disassembling equipment and components such as the battery storage units, solar panels and transformers. Larger containers and equipment would be removed, trucked off-site and recycled and disposed of. None of these materials are considered hazardous. Solar panels would be disconnected, and piles would be removed including the excavation of any concrete foundations. Gravel and foundations from the inverters and transformers, O&M structure, substations, and switching station would be removed by trenching and excavation a minimum depth of 3 to 4 feet below grade, depending on the type of facility component. The facility site would then be restored through minimal grading and revegetation with plants or seed mix consistent with the Draft Noxious Weed Plan (Attachment P-5 of the Final Order) or landowner interests.

Any hazardous material would be handled by a qualified contractor and adhere to applicable regulations for transport and disposal, including but not limited to 49 Code of Federal Regulations 173.159. The decommissioning of the ESS, if used, would involve disposing of battery components at an off-site facility approved for disposal or recycling of batteries, following the same process as replaced batteries during operations.

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Solar panels would be recycled to the greatest extent feasible at the time of facility retirement and solar panels not recycled would be disposed of at a certified disposal site or program for solar panels.

5.0 Site Certificate Conditions

5.1 Condition Format

The conditions in Sections 5.2 through 5.7 of this Site Certificate are organized and coded to indicate the phase of implementation, the standard the condition is required to satisfy, and an identification number (1, 2, 3, etc.).[3] The table below presents a "key" for phase of implementation:

Key	Type of Conditions/Phase of Implementation
GEN	General Conditions: Design, Construction and Operation
PRE	Pre-Construction Conditions
CON	Construction Conditions
PRO	Pre-Operational Conditions
OPR	Operational Conditions
RET	Retirement Conditions

5.2 General (GEN) Conditions: Design, Construction and Operations

Condition Number	General (GEN) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
GEN-GS-01	The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate. a. Construction of the facility or facility component(s) shall commence within three years after the date of Council action [DATE TO BE SPECIFIED]. Within 7 days of construction commencement, the certificate holder shall provide the Department written verification that it has met the construction commencement deadline by satisfying applicable preconstruction conditions and completing at least $250,000 work at the site.

[3] The identification number is not representative of an order that conditions must be implemented; it is intended only to represent a numerical value for identifying the condition.

Condition Number	General (GEN) Conditions
	b. Construction of the facility shall be completed within three years after the construction commencement date. Within 7 days of construction completion, the certificate holder shall provide the Department written verification that it has met the construction completion deadline. [General Standard Condition 1; Mandatory Condition OAR 345-025-0006(4)]
GEN-GS-02	The certificate holder shall submit a legal description of the site to the Oregon Department of Energy within 90 days after beginning operation of the facility or any phase of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identify the outer boundaries that contain all parts of the facility. [General Standard Condition 2; Mandatory Condition OAR 345-025-0006(2)]
GEN-GS-03	The certificate holder shall design, construct, operate and retire the facility substantially as described in the site certificate: a. Use or occupation of land by solar photovoltaic energy generation components, as described in the site certificate, not to exceed 3,641 permanent acres; b. In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; c. In compliance with all applicable permit requirements of other state agencies; and, d. In compliance with all applicable lawful rules and requirements of federal agencies. [General Standard Condition 3; Mandatory Condition OAR 345-025-0006(3); OAR 345-026-0015(3)]
GEN-GS-04	If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility or any phase of the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions. [General Standard Condition 5; Mandatory Condition OAR 345-025-0006(6)]
GEN-GS-05	Before any transfer of ownership of the facility, any phase of the facility, or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0400 apply to any transfer of ownership that requires a transfer of the site certificate. [General Standard Condition 7; Mandatory Condition OAR 345-025-0006(15)]
GEN-GS-06	The certificate holder shall: a. Design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code as approved by the American National Standards Institute; and b. The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other

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Condition Number	General (GEN) Conditions
	objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. c. Design the battery storage system in accordance with the requirements of the National Fire Protection Association's (NFPA) 855: Standard for the Installation of Stationary Energy Storage Systems (NFPA, 2020) or most current version. [General Standard Condition 8; Site Specific Condition OAR 345-025-0010(4)]
GEN-GS-07	The certificate holder is authorized to construct a 230 kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The approved corridor extends approximately 200 feet in length between the facility substation and the Point of Interconnect, and 0.5-of-a-mile in width. [General Standard Condition 9; Site Specific Condition OAR 345-025-0010(5)]
GEN-GS-08	The certificate holder shall: a. Within six months after beginning construction, and every six months thereafter during construction, submit a semiannual construction progress report to the Department. In each construction progress report, the certificate holder shall describe any significant changes to major milestones for construction. The certificate holder shall report on the progress of construction and shall address the subjects listed in (b). When the reporting date coincides, the certificate holder may include the construction progress report within the annual report described in this rule. b. After January 1 but no later than April 30 of each year after beginning operation of the facility, the certificate holder shall submit an annual report to the Department addressing the following for the calendar year preceding the date of the report: i. Facility Status: An overview of site conditions, the status of facilities under construction and a summary of the operating experience of facilities that are in operation. The certificate holder shall describe any unusual events, such as earthquakes, extraordinary windstorms, major accidents or the like that occurred during the year and that had a significant adverse impact on the facility. ii. Reliability and Efficiency of Power Production: For electric power plants, the plant availability and capacity factors for the reporting year. The certificate holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems. iii. Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period. iv. Monitoring Report: A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with

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Condition Number	General (GEN) Conditions
	site certificate terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes. v. Compliance Report: A report describing the certificate holder's compliance with all site certificate conditions that are applicable during the reporting period. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate. vi. Facility Modification Report: A summary of changes to the facility that the certificate holder has made during the reporting period without an amendment of the site certificate in accordance with OAR 345-027-0350. [General Standard Condition 11; OAR 345-026-0080]
STANDARD: Organizational Expertise (OE) [OAR 345-022-0010]	
GEN-OE-01	a. The certificate holder must notify the Department within 72 hours of any occurrence of the following: i. There is an attempt by anyone to interfere with the facility's safe operation. ii. There is a natural event such as a fire, earthquake, flood, or tornado, or a human-caused event such as a fire, explosion or change in market conditions that affects or could affect the certificate holder's ability to construct, operate or retire the facility in compliance with site certificate conditions and in a manner that protects public health and safety. iii. There is any fatal injury at the facility. b. If the Department or Council learn of an incident, either through the notification described in paragraph a. of this condition or in another manner, that the Department or Council determines impacts the adequacy of the facility decommissioning cost estimate / financial assurance amount, the Department or Council may adjust the contingencies identified in Final Order on ASC Retirement and Financial Assurance Section Table 3 and shall request and receive an updated bond or letter of credit from certificate holder in the adjusted amount. [Organizational Expertise Condition 1]
GEN-OE-02	The certificate holder shall, as soon as reasonably possible: a. Report incidents or circumstances that violate the terms or conditions of the site certificate, terms or conditions of any order of the Council, or the terms or conditions of any order issued under OAR 345-027-0230, to the Department. In the report to the Department, the certificate holder shall provide all pertinent facts including an estimate of how long the conditions or circumstances existed, how long they are expected to continue before they can be corrected, and whether the conditions or circumstances were discovered as a result of a regularly scheduled compliance audit; b. Initiate and complete appropriate action to correct the conditions or circumstances and to minimize the possibility of recurrence;

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Condition Number	General (GEN) Conditions
	c. Submit a written report within 30 days of discovery to the Department. The report must refer to the language in (d) of the condition and contain: i. A discussion of the cause of the reported conditions or circumstances; ii. The date of discovery of the conditions or circumstances by the responsible party; iii. A description of immediate actions taken to correct the reported conditions or circumstances; iv. A description of actions taken or planned to minimize the possibility of recurrence; and v. For conditions or circumstances that may violate the terms or conditions of a site certificate, an assessment of the impact on the resources considered under the standards of OAR Chapter 345 Divisions 22 and 24 as a result of the reported conditions or circumstances. d. Upon receipt of the written report in sub(c) of this condition, the Department may review the facility record for incidents or circumstances reported or reportable under sub(a) related to public health and safety, the environment, or other resources protected under Council standards. If these incidences are determined by the Department or Council to impact the adequacy of the facility decommissioning cost, the Department or Council may adjust the contingencies identified in Final Order on ASC Retirement and Financial Assurance Section Table 8 and shall request and receive an updated bond or letter of credit from certificate holder in the adjusted amount. [Organizational Expertise Condition 2]
GEN-OE-03	The certificate holder shall contractually require its third-party contractor used to transport and dispose battery and battery waste to comply with all applicable federal regulations and manufacturer recommendations related to the transport and handling of battery related waste. [Organizational Expertise Condition 8]
STANDARD: Structural Standard (SS) [OAR 345-022-0020]	
GEN-SS-01	The certificate holder must design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. [Structural Standard Condition 2; Mandatory Condition OAR 345-025-0006(12)]
GEN-SS-02	The certificate holder must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department

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Condition Number	General (GEN) Conditions
	receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [Structural Standard Condition 3; Mandatory Condition OAR 345-025-0006(13)]
GEN-SS-03	The certificate holder must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [Structural Standard Condition 4; Mandatory Condition OAR 345-025-0006(14)]
STANDARD: Land Use (LU) [OAR 345-022-0030]	
GEN-LU-01	Prior to construction, the certificate holder shall provide final facility design/layout maps to the Department and Morrow County Planning Department that demonstrate facility components, not including the perimeter fence, comply with the following yard setback requirements: a. Facility components shall be setback a minimum of 20 feet from any property line fronting Baseline Road or any other minor collector or marginal access street right of way; b. Facility components shall be setback a minimum of 30 feet from any property line fronting Bombing Range Road or any other major collector right of way; and c. Facility components shall be setback a minimum of 80 feet from any property line fronting Highway 207, or any other arterial right of way. [Land Use Condition 5]
STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]	
GEN-RF-01	The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder. [Retirement and Financial Assurance Condition 1; Mandatory Condition OAR 345-025-0006(7)]
GEN-RF-02	The certificate holder may utilize the O&M Building constructed and operated under the site certificate for Wheatridge Renewable Energy Facility I, II, III, and East, subject to the following: a. Within 30 days of use by both certificate holders of the shared facilities, the certificate holder must provide evidence to the Department that the certificate holders of the shared facilities have an executed agreement for shared use of any constructed shared facilities. b. If certificate holder proposes to substantially modify any of the shared facilities listed in this condition, each certificate holder shall submit an amendment determination request or request for site certificate amendment to obtain a

Condition Number	General (GEN) Conditions
	determination from the Department on whether a site certificate amendment is required or to process an amendment for both site certificates in order to accurately account for any significant change in the decommissioning amount required under Condition PRE-RT-01. c. Prior to facility decommissioning or if facility operations cease, each certificate holder shall submit an amendment determination request or request for site certificate amendment to document continued ownership and full responsibility, including coverage of full decommissioning amount of the shared facilities in the bond or letter of credit pursuant to Condition PRE-RT-01, for the operational facility, if facilities are decommissioned at different times. [Retirement and Financial Assurance Condition 4]
STANDARD: Threatened and Endangered Species (TE) [OAR 345-022-0070]	
GEN-TE-01	Certificate holder shall maintain a map of previously identified Laurence's milkvetch populations within the micrositing area. The map shall be used to inform flagging or other avoidance mechanism to ensure avoidance of ground disturbance within 20-feet of the populations. The avoidance flagging areas may be updated at any time based on more current survey results, if completed. [Threatened and Endangered Species Condition 5]
STANDARD: Siting Standard for Transmission Lines (TL) [OAR 345-024-0090]	
GEN-TL-01	a. The certificate holder must design, construct and operate the transmission lines in accordance with the requirements of the National Electrical Safety Code as approved by the American National Standards Institute; and b. The certificate holder must develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. [Siting Standard for Transmission Lines Condition 1]

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5.3 Pre-Construction (PRE) Conditions

Condition Number	Preconstruction (PRE) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
PRE-GS-01	Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under this section, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, "construction rights" means the legal right to engage in construction activities. For the transmission line associated with the energy facility if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of a transmission line occurs during the certificate holder's negotiations to acquire construction rights on another part of the site. [General Standard Condition 4; Mandatory Condition OAR 345-025-0006(5)]
PRE-GS-02	At least 90 days prior to beginning construction, (unless otherwise agreed to by the Department), the certificate holder shall submit to the Department a compliance plan documenting and demonstrating actions completed or to be completed to satisfy the requirements of all site certificate terms and conditions and applicable statutes and rules. The plan shall be provided to the Department for review and compliance determination for each requirement. The Department may request additional information or evaluation deemed necessary to demonstrate compliance. [General Standard Condition 10; OAR 345-026-0048]
STANDARD: Organizational Expertise (OE) [OAR 345-022-0010]	
PRE-OE-01	Prior to construction of the facility, facility component or phase, as applicable, the certificate holder shall select construction contractors with a low rate of past environmental and safety compliance incidents and citations. Certificate holder shall provide the following documentation to the Department: a. Qualifications and contact information of the major design, engineering and construction contractor(s) and subcontractors, as applicable, including but not limited to the contractor(s) hired to serve as the construction manager. b. Construction contractor compliance history. c. Copy of signature page(s) and excerpt from each contract with the aforementioned contractors affirming that the contractor is required to comply with the terms and conditions of the site certificate, including selecting design layout and construction materials that minimize impacts to resources protected under Council standards. [Organizational Expertise Condition 3]
PRE-OE-02	Prior to construction, the certificate holder shall:

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Condition Number	Preconstruction (PRE) Conditions
	a. Provide the Department a list of federal, state and local permits, including any third-party permits related to facility siting; and a schedule for obtaining identified permits. b. Once obtained, provide copies of all permits, including third-party permits, required for facility siting to the Department. [Organizational Expertise Condition 9]
STANDARD: Structural Standard (SS) [OAR 345-022-0020]	
PRE-SS-01	Before beginning construction, the certificate holder shall submit a site-specific geotechnical investigation report, consistent with the Oregon State Board of Geologist Examiners Guideline for Preparing Engineering Geologic Reports, or newer guidelines if available to the Department, for review in consultation with its third-party consultant or DOGAMI. The site-specific geotechnical investigation report shall include information on any potentially active faults within the site boundary, soil characteristic and Site Class determination, analysis of potential seismic and non-seismic hazards, and a site-specific probabilistic seismic hazards assessment to inform Site Class design. [Structural Standard Condition 1]
STANDARD: Soil Protection (SP) [OAR 345-022-0022]	
PRE-SP-01	Prior to construction of the facility, facility component or phase, the certificate holder shall: a. Consult with the Morrow Soil and Water Conservation District, Morrow County Planning Department and Department on layout and design methods that would minimize impacts to agricultural lands. b. Consult with the Department and Oregon Department of Environmental Quality on the Erosion and Sediment Control Plans (ESCP) to be included in the application for the National Pollutant Discharge Elimination System Construction Stormwater Discharge (NPDES) General Permit 1200-C. Consultation shall address erosion control measures and identify Best Management Practices (BMPs) such as mulch, soil tackier, erosion control blankets, gravel, and swales and check dam installation based on site-specific information obtained during the preconstruction, geotechnical investigation, final facility design limits of disturbance, phased grading plan and seasonal conditions at the time of disturbance. c. Obtain all foreseeable equipment and materials necessary to install and maintain BMPs. [Soil Protection Condition 1]
PRE-SP-02	Prior to construction, the certificate holder shall prepare and submit to the Department a Construction Spill Prevention Control and Countermeasure Plan (SPCC). [Soil Protection Condition 4]
STANDARD: Land Use (LU) [OAR 345-022-0030]	

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Condition Number	Preconstruction (PRE) Conditions
PRE-LU-01	Prior to construction of the facility, facility component or phase, as applicable, the certificate holder must remit requisite fee and completed forms to Morrow County for Zoning Permits per affected tax lot and Conditional Use Permit. [Land Use Condition 1]
PRE-LU-02	Prior to construction of the 230 kV transmission line, the certificate holder shall demonstrate to the Department that the transmission line will be sited within the exiting right-of-way of Strawberry East Road, unless Morrow County Public Works Department confirms that use of the existing county road right-of-way is not feasible. [Land Use Condition 2]
PRE-LU-03	Prior to construction, the certificate holder shall provide final facility design/layout maps to the Department and Morrow County Planning Department that demonstrate facility components, not including the perimeter fence, comply with the following yard setback requirements: a. Facility components shall be setback a minimum of 20 feet from any property line fronting Baseline Road or any other minor collector or marginal access street right of way; b. Facility components shall be setback a minimum of 30 feet from any property line fronting Bombing Range Road or any other major collector right of way; and c. Facility components shall be setback a minimum of 80 feet from any property line fronting Highway 207, or any other arterial right of way. [Land Use Condition 3]
PRE-LU-04	Prior to construction of the facility, facility component or phase, as applicable, the certificate holder must submit a final site plan that includes all information required by MCZO 4.165.E to the County and the Department. The final site plan must demonstrate compliance with all applicable site certificate conditions, and the criteria listed in MCZO 4.165.D, including but not limited to, the following: 1. The setback requirements established in Land Use Condition 3 (MCZO 3.010.M) 2. The emergency vehicle access standards established in MCZO 4.010.C. The final site plan must also be provided to the Fire Chief of the Ione Rural Fire District for comment on whether the facility provides appropriate access and turnaround facilities for emergency vehicles. 3. The access spacing standards and permitting requirements established in MCZO 4.010.E and H. The final site plan must also be provided to the Oregon Department of Transportation to ensure compliance with OAR 734-051-0135. 4. The sight distance requirements established in MCZO 4.020. 5. The off-street vehicle parking requirements established in MCZO 4.040. The certificate holder must provide at least 3 parking spaces at the site. Site access roads not used for emergency access may be used for parking. 6. The sign limitations and regulations established in MCZO 4.070.

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Condition Number	Preconstruction (PRE) Conditions
	7. The requirement for all outdoor lighting to be directed downward and sited, hooded and shielded in a manner that prevents the lighting from projecting on to adjacent properties under MCCEO 5.400.E. 8. The requirement to determine if all previous code enforcement violations have been cleared established under MCZO 4.165.D.11. [Land Use Condition 4]
PRE-LU-05	Prior to construction, the certificate holder shall submit a final Noxious Weed Plan, based on the draft plan provided in Attachment P-4 of the Final Order on the ASC to the Department for review and approval. [Land Use Condition 5]
PRE-LU-06	Prior to construction of the facility, facility component or phase, as applicable, the certificate holder shall submit to the Department: a. Evidence of consultation with landowners of farmland within and adjacent to the perimeter fenceline regarding the design of the facility, and what steps it has taken in facility layout/design to minimize any obstacles to farming practices on those lands. b. Final facility layout maps demonstrating that the perimeter fenceline is placed at the edge of existing agricultural fields or along property lines and is designed to minimize impacts to agricultural practices and based on landowner consultation; and, that any other facility components outside of the perimeter fenceline have been designed in a manner that minimizes unnecessary agricultural impacts (e.g. isolation of property or access impacts). [Land Use Condition 8]
PRE-LU-07	Prior to construction, the certificate holder shall record in the real property records of Morrow County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland. [Land Use Condition 11]
PRE-LU-08	Prior to construction, the certificate holder shall remit funding to the Oregon State Agricultural Research Program, Morrow County Extension Office, totaling up to $170,000, based on final acreage impacted by the facility. The certificate holder shall demonstrate that the funds will be used to purchase equipment needed to fund research on dryland winter wheat farming methods. [Land Use Condition 14]
PRE-LU-109	Prior to construction, the certificate holder shall remit funding to the Morrow County Grain Growers, totaling up to $300,000, based on final acreage impacted by the facility. The certificate holder shall demonstrate that the funds will be used for improvements to the North Lexington Grain Elevator. [Land Use Condition 15]
STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]	
PRE-RF-01	Before beginning construction of the facility or a facility component, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of

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Condition Number	Preconstruction (PRE) Conditions
	credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The total bond or letter of credit amount for the facility is $30.3 million dollars (Q2 2024 dollars), to be adjusted to the effective date, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) of this condition: a. The certificate holder may adjust the amount of the bond or letter of credit based on the design configuration of the facility, or any phase of the facility, by applying the unit costs presented in Table 8 of the Final Order on the ASC, and the contingencies illustrated in Table 8 of the Final Order on the ASC and may further make adjustments based on unit costs for task and actions presented in Attachment X-1 of the Final Order on ASC. Any revision to the restoration costs should be adjusted to the effective date as described in (b). Any modification to the unit costs presented in Table 8 of the Final Order on the ASC are subject to review and approval by the Council. The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate to maintain health and safety of the public and environment. b. The certificate holder shall adjust the amount of the bond or letter of credit using the following calculation: i. Adjust the amount of the bond or letter of credit (expressed in Q2 2024 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency and using the second quarter 2024 index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust second quarter 2024 dollars to present value. ii. Round the result total to the nearest $1,000 to determine the financial assurance amount. c. The financial institution issuing of the bond or letter of credit must be on the Council's pre-approved financial institution list. The bond or letter of credit shall be in a form approved by the Council. [Retirement and Financial Assurance Condition 5; Mandatory Condition OAR 345-025-0006(8)]
STANDARD: Fish and Wildlife Habitat (FW) [OAR 345-022-0060]	
PRE-FW-01	Prior to construction of the facility, facility component or phase as applicable, the certificate holder shall finalize the Reclamation and Revegetation Plan, based on Attachment P-4 of the Final Order on the ASC, and submit to the Department for review and approval. [Fish and Wildlife Habitat Condition 1]

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Condition Number	Preconstruction (PRE) Conditions
PRE-FW-02	Prior to construction of the facility, or any phase of the facility, the certificate holder shall submit a final Habitat Mitigation Plan to the Department for review and approval, in consultation with ODFW. The final plan shall be substantially similar to the draft plan provided in Attachment P-3 of the Final Order on the ASC. [Fish and Wildlife Habitat Condition 4]
PRE-FW-03	Prior to construction, the certificate holder shall develop a construction plan that demonstrates construction activities will not occur within the buffer zones (Fish and Wildlife Habitat Condition 7) established for previously identified active nest sites during the sensitive nesting and breeding season. [Fish and Wildlife Habitat Condition 6]
STANDARD: Threatened and Endangered Species (TE) [OAR 345-022-0070]	
PRE-TE-01	Prior to construction of facility components, the certificate holder shall: a. Submit a protocol-level survey plan for surveys to be conducted within suitable habitat for Washington ground squirrel (WGS), for review and approval by the Department in consultation with ODFW. At a minimum, the survey plan shall specify the survey area (all areas of suitable habitat within 1,000 feet of ground disturbing activities except where there is a habitat barrier (e.g., a paved road)); survey timing (February 15 to May 31, unless otherwise approved by ODFW); and, land access restrictions and any justification for modified survey methods. b. Complete protocol-level WGS surveys based on the protocol approved per (a). c. Submit survey reports to the Department and ODFW. The certificate holder shall not begin construction within 1,000 feet of Category 1 or Category 2 WGS habitat until the identified boundaries of Category 1 WGS habitat have been approved by the Department, in consultation with ODFW. Category 1 habitat includes a 785-foot buffer from an identified active burrow, and also the area within the perimeter of multiple active burrows. Category 2 WGS habitat consists of a 4,136 foot buffer from the exterior boundary of all Category 1 WGS habitat. The survey results are valid for 3-years. d. Develop maps and worker training materials to inform of sensitive Category 1 and Category 2 habitat. Submit to the Department final facility design maps demonstrating that Category 1 habitat, including 785-buffer from any colonies identified per (b), is avoided. e. Install flagging or other demarcation, as appropriate, to inform workers of sensitive WGS habitat and of avoidance requirement. [Threatened and Endangered Species Condition 1]
PRE-TE-02	Prior to construction of the facility, the certificate holder shall: a. Submit a botanical survey protocol to the Department for review in consultation with the Oregon Department of Agriculture. The protocol shall apply to areas of suitable habitat for Laurence's milkvetch using current habitat classification data and areas of ground disturbance. Previous survey results may be relied upon if determined appropriate during review and approval of the protocol.

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Condition Number	Preconstruction (PRE) Conditions
	b. Conduct botanical surveys to confirm the presence or absence of Laurence's milkvetch, within suitable habitat in areas of permanent or temporary disturbance. c. Survey results must be submitted to the Department and Oregon Department of Agriculture's Native Plant Conservation Division. If the pre-construction surveys identify these or any other state threatened or endangered plant species, the certificate holder shall complete an impact assessment to determine whether temporary or permanent impacts would significantly reduce the likelihood of survivability or recovery of the impacted species, and shall propose mitigation, as determined appropriate by the Department, in consultation with the Oregon Department of Agriculture or its third-party consultant, as necessary. These measures may include avoidance, or if avoidance is not possible, other measures such as seed collection may be considered. If rare plants are identified within a public right-of-way and cannot be avoided by construction, then in accordance with ORS 564, written permission from the landowner or lease holder must be obtained. If seed collection is determined to be feasible and warranted, a permit from the Oregon Department of Agriculture must be obtained in accordance with OAR 603-073-0100 (3). [Threatened and Endangered Species Condition 3]
STANDARD: Historic, Cultural and Archeological Resources (HC) [OAR 345-022-0090]	
PRE-HC-01	Prior to construction, the certificate holder shall finalize the Draft Historic and Archaeological Resources Mitigation and Monitoring Plan, Attachment S-1 to the Final Order on ASC. [Historic, Cultural and Archeological Resources Condition 1]
PRE-HC-02	Prior to construction, the certificate holder shall update the contact information provided in the Final Order on ASC Attachment E, Inadvertent Discovery Plan. [Historic, Cultural and Archeological Resources Condition 2]
STANDARD: Public Services (PS) [OAR 345-022-0100]	
PRE-PS-01	Prior to construction of the facility, or facility component, as applicable, the certificate holder shall: a. Submit to the Department executed road use agreements between Morrow County and the certificate holder or its contractor. Any Final Traffic Management Plan that is part of the road use agreements shall include, at a minimum, the provisions designated in ASC Exhibit U. b. If a Final Traffic Management Plan designated in sub (a) is not included in road use agreements executed with Morrow County, then submit a Final Traffic Management Plan. A copy of the Final Traffic Management Plan shall be provided to the Department and Morrow County Public Works Department. The Construction Traffic Management Plan shall, at a minimum, include the provisions in ASC Exhibit U. [Public Services Condition 1]

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Condition Number	Preconstruction (PRE) Conditions
PRE-PS-02	If prior to construction, the Oregon Department of Aviation's (ODA) Determinations for the facility expire and are necessary, the certificate holder shall: a. First, submit to and receive responses from the ODA of 7460-1 Notice of Proposed Construction or Alteration Forms for all aboveground facility components. The certificate holder shall provide copies of ODA's responses, which must be consistent with ORS 836.535(2), to the Department. Certificate holder shall respond to ODA recommendations, if applicable. b. Second, once ODA responses on the 7460-1 forms are received and if the FAA determinations have expired, submit to and receive determinations from the Federal Aviation Administration (FAA) for all aboveground facility components. The certificate holder shall provide copies of FAA determinations to the Department. c. Within 5-days of construction, certificate holder shall submit 7460-2 forms to FAA and ODA and shall report both timing of submission and any results to the Department. [Public Services Condition 3]
STANDARD: Wildfire Prevention and Risk Mitigation (WF) [OAR 345-022-0115]	
PRE-WF-01	Prior to construction of the facility, the certificate holder shall finalize the Construction Wildfire Mitigation Plan, as provided in Attachment F-1 to the Final Order on ASC. Wildfire Prevention and Risk Mitigation Condition 1]
APPLICABLE REGULATION: Noise Control Regulations (NC) [OAR 340-035-0035]	
PRE-NC-01	Prior to construction of the facility, facility component or phase, the applicant shall provide the Department the following: a. Information that identifies the final design locations of all facility components to be built at the phase of development b. The maximum sound power level data for the facility components based on manufacturers' warranties or confirmed by other means accept; and c. The results of the noise analysis of the final facility design performed in a manner consistent with the requirements of OAR 340-035- 0035(1)(b)(B)(iii)(IV) and (VI). The analysis will demonstrate, by phase of development, prior to construction that the total noise generated by the facility, including the transmission line, will meet the "ambient noise degradation standard" in OAR 340-035-0035(1)(b)(B)(i) and (ii) and not exceed the "maximum allowable noise standard" in OAR 340-035-0035(1)(b)(B)(i) at the appropriate measurement point for all potentially-affected noise sensitive properties. [Noise Control Regulations Condition 1]
STANDARD: Water Rights (WR) [ORS 537, 540 and 690]	
PRE-WR-01	Prior to construction of the facility, facility component or phase, as applicable, the certificate holder shall: a. Identify all water-related needs and estimate daily and annual water demand for each construction phase, as applicable.

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Condition Number	Preconstruction (PRE) Conditions
	b. Provide excerpts of agreements or other similar conveyance from the water providing entity to the Department demonstrating that construction activities will be adequately and legally served by service providers or third-party permits. [Water Rights Condition 1]

5.4 Construction (CON) Conditions

Condition Number	Construction (CON) Conditions
STANDARD: Organizational Expertise (OE) [OAR 345-022-0010]	
CON-OE-01	During construction, the certificate holder shall: a. Maintain an onsite construction manager. b. Require that the construction manager implement and monitor all applicable construction related site certificate conditions. c. Within six months after beginning construction, and every six months thereafter during construction, submit a semiannual construction progress report to the Department. In each construction progress report, the certificate holder shall describe any changes to major milestones for construction. The certificate holder shall report on the progress of construction and shall address the following: i. Facility Status: An overview of site conditions, the status of components under construction and a summary of the operating experience of components that are in operation. The certificate holder shall describe any events, such as earthquakes, windstorms, major accidents or the like that occurred during the year and that had an adverse impact on the facility. ii. Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period. iii. Compliance Report: A report describing the certificate holder's compliance with all site certificate conditions that are applicable during the reporting period. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate. iv. Facility Modification Report: A summary of any changes to the facility that the certificate holder has made during the reporting period without an amendment of the site certificate in accordance with OAR 345-027-0050. [Organizational Expertise Condition 4]

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<table>
<tr><th>Condition Number</th><th>Construction (CON) Conditions</th></tr>
<tr><td colspan="2">STANDARD: Soil Protection (SP) [OAR 345-022-0022]</td></tr>
<tr><td>CON-SP-01</td><td>During construction, the certificate holder shall:
a. Conduct all work in compliance with the NPDES 1200-C General Construction Permit, ESCP or revised ESCP if applicable. The ESCP shall be revised if determined necessary by the certificate holder, certificate holder’s contractor(s) or the Department. Any Department-required ESCP revisions shall be implemented within 14-days, unless otherwise agreed to by the Department based on a good faith effort to address erosion issues.
b. Following completion of construction, provide evidence to the Department that the NPDES General Permit 1200-C permit was terminated by DEQ.
[Soil Protection Condition 2]</td></tr>
<tr><td>CON-SP-02</td><td>During construction, the certificate holder shall conduct all work in compliance with the Construction SPCC Plan. SPCC updates shall be provided to the Department. Certificate holder shall report spill and cleanup activities to the Department within 72 hours and shall make inspection records available to the Department upon request.
[Soil Protection Condition 5]</td></tr>
<tr><td colspan="2">STANDARD: Land Use (LU) [OAR 345-022-0030]</td></tr>
<tr><td>CON-LU-01</td><td>During construction, the certificate holder shall implement and adhere to the requirements of the Final Noxious Weed Plan or Amended Noxious Weed Plan, as applicable.
[Land Use Condition 6]</td></tr>
<tr><td>CON-LU-02</td><td>During construction, the certificate holder shall provide evidence to the Department that it has consulted with each of the owners of farmland that is within and adjacent to the site boundary regarding landowner farm practices on each of those tracts (including the types of crops and typical timing of crop rotation); and, shall demonstrate that the construction schedule and offsite dust and erosion impacts are being minimized to the greatest extent practicable.
[Land Use Condition 9]</td></tr>
<tr><td colspan="2">STANDARD: Fish and Wildlife Habitat (FW) [OAR 345-022-0060]</td></tr>
<tr><td>CON-FW-01</td><td>During construction, the certificate holder shall implement and adhere to the Reclamation and Revegetation Plan, as applicable.
[Fish and Wildlife Habitat Condition 2]</td></tr>
<tr><td>CON-FW-02</td><td>During construction within the time periods listed below, the certificate holder shall implement buffer zones around active or previously identified active nest sites. No ground-disturbing activities within the buffer zone of active or previously identified active nest sites shall occur during the seasonal restrictions unless a qualified biologist determines the nest site is unoccupied for the season on or after May 31.
<table>
<tr><th>Sensitive Status Species</th><th>Buffer Size (Radius Around Nest Site):</th><th>Sensitive Nesting and Breeding Season:</th></tr>
<tr><td>Western burrowing owl</td><td>0.25 mile</td><td>April 1 to August 15</td></tr>
</table>
</td></tr>
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Condition Number	Construction (CON) Conditions
	<table><tr><td>Ferruginous hawk</td><td>0.50 mile</td><td>March 15 to August 15</td></tr><tr><td>Swainson's hawk</td><td>0.25 mile</td><td>April 1 to August 15</td></tr></table> If avoidance within the buffer restrictions cannot be maintained, the certificate holder may request approval from the Department, in consultation with ODFW, on a mitigation and conservation strategy for condition compliance. [Fish and Wildlife Habitat Condition 7]
CON-FW-03	During construction, the certificate holder shall develop and implement a facility-specific worker environmental training program. All employees and contractors working in the field will be required to attend the environmental training session prior to working on-site. Training will include information on sensitive species potentially present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. [Fish and Wildlife Habitat Condition 8]
CON-FW-04	The certificate holder shall require onsite vehicular traffic to be limited to a 20 mile per hour speed limit. [Fish and Wildlife Habitat Condition 9]
STANDARD: Threatened and Endangered Species (TE) [OAR 345-022-0070]	
CON-TE-01	In years 1, 2 or 3 following the preconstruction protocol-level WGS surveys, in areas of ground disturbance within 1,000-feet of previously identified WGS colonies, the certificate holder shall: a. Install and monitor flagging/temporary fencing to ensure avoidance of sensitive WGS habitat. b. Perform WGS surveys (non-protocol, spot check) and update maps and flagging. Provide updated maps to the Department and ODFW and identify any significant change in previously identified WGS habitat. [Threatened and Endangered Species Condition 2]
STANDARD: Historic, Cultural and Archeological Resources (HC) [OAR 345-022-0090]	
CON-HC-01	During construction, the certificate holder shall require all onsite employees and contractors to implement and adhere to the requirements of the Inadvertent Discovery Plan, as submitted to the Department under Historic, Cultural and Archeological Condition 2. [Historic, Cultural and Archeological Resources Condition 3]
STANDARD: Public Services (PS) [OAR 345-022-0100]	
CON-PS-01	During construction of the facility, or facility component, the certificate holder shall ensure that construction contractors adhere to the requirements of any Road Use Agreement and Traffic Management Plans. [Public Services Condition 2]
STANDARD: Wildfire Prevention and Risk Mitigation (WF) [OAR 345-022-0115]	
CON-WF-01	During construction of the facility, the certificate holder shall implement and require all onsite contractors and employees to adhere to, the Construction Wildfire

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Condition Number	Construction (CON) Conditions
	Mitigation Plan finalized as part of PRE-WF-01. Updates to the Wildfire Mitigation Plan may be required if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department to address wildfire hazard to public health and safety. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard. [Wildfire Prevention and Risk Mitigation Condition 2]
STANDARD: Water Rights (WR) [ORS 537, 540 and 690]	
CON-WR-01	During construction of the facility, facility component or phase, as applicable, if a water right, limited water use license or water rights transfer is needed and would not be obtained by a third-party, submit and obtain approval of the applicable water permit through the site certificate amendment process. [Water Rights Condition 2]

5.5 Pre-Operational (PRO) Conditions

Condition Number	Pre-Operational (PRO) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
PRO-GS-01	Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility. [General Standard Condition 6; Mandatory Condition OAR 345-025-0006(11)]
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
PRO-OE-01	Before operation, the certificate holder shall provide the Department the identity, telephone number, e-mail address and qualifications of the individuals responsible for managing facility operations, including individuals or any third-party entity responsible for onsite maintenance. Qualifications shall demonstrate experience in managing operation of a utility-scale energy facility, including complying with permit and regulatory requirements. [Organizational Expertise Condition 5]
STANDARD: Soil Protection (SP) [OAR 345-022-0022]	
PRO-SP-01	Prior to operation, the certificate holder shall submit to the Department an Operational Spill Prevention Control and Countermeasures Plan (SPCC Plan). [Soil Protection Condition 7]
STANDARD: Land Use (LU) [OAR 345-022-0030]	

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Condition Number	Pre-Operational (PRO) Conditions
PRO-LU-01	Prior to operation, the certificate holder shall provide to the Department an executed interconnection agreement with Umatilla Electric Cooperative (UEC), authorizing interconnection of the facility to the existing UEC transmission line that runs from the UEC Highway 730 Substation to the Blue Ridge Substation. [Land Use Condition 13]
STANDARD: Wildfire Prevention and Risk Mitigation (WF) [OAR 345-022-0115]	
PRO-WF-01	Prior to operation, the certificate holder shall finalize the operational Wildfire Mitigation Plan (WMP), included as Attachment F-2 to the Final Order on ASC. [Wildfire Prevention and Risk Mitigation Condition 3]
STANDARD: Waste Minimization (WM) [OAR 345-022-0120]	
PRO-WM-01	Prior to facility operation, the certificate holder shall submit to the Department, for review and approval, an Operational Waste Management Plan. The Operational Waste Management Plan shall at a minimum include the following: a. All sources and quantities of operational waste and wastewater, including damaged or dysfunctional energy facility components, and where feasible, estimated quantities that can be recycled. b. A description of the battery replacement procedures. c. Identification of the availability of programs or licensed facilities that recycle solar panels and lithium-ion batteries and their capacity to accept materials. d. Identification of final recycling destination facility or program for recycling solar panels and lithium-ion batteries. e. If recycling programs or facilities are not available, the identification of final disposal destination facility or program for disposed solar panels and lithium-ion batteries and their capacity to accept waste. [Waste Minimization Condition 1]
STANDARD: Siting Standard for Transmission Lines (TL) [OAR 345-024-0090]	
PRO-TL-01	Prior to operation of the facility, the certificate holder shall provide landowners within 500 feet of the site boundary a map of the 230-kV transmission line and inform landowners of possible health and safety risks from induced currents caused by electric and magnetic fields. [Siting Standard for Transmission Lines Condition 2]

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5.6 Operational (OPR) Conditions

Condition Number	Operational (OPR) Conditions
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
OPR-OE-01	During operation, the certificate holder shall ensure that the Department has the contact information and qualifications of the facility manager. The facility manager must be responsible for site certificate requirements. [Organizational Expertise Condition 6]
OPR-OE-02	During operation, the certificate holder shall maintain records of equipment malfunction and significant repairs and make them for Department review upon request. [Organizational Expertise Condition 7]
STANDARD: Soil Protection (SP) [OAR 345-022-0022]	
OPR-SP-01	During operation, the certificate holder shall monitor and implement necessary controls for any onsite wind or water related erosion issues. [Soil Protection Condition 5]
OPR-SP-02	During facility operation, if solar panel washing is planned to occur, the use of chemicals, soaps, detergents and heated water is prohibited, unless Chemical Safety Data Sheets for low volatile organic compound/biodegradable cleaning chemicals and solvents are submitted to the Department for review and approval. Pressure washing is allowed, so long as it does not remove paint or other finishes. [Soil Protection Condition 6]
OPR-SP-03	During operations, the certificate holder shall adhere to the requirements of the Operational SPCC Plan. Any SPCC updates shall be described and included in the Annual Report to the Department. Certificate holder shall report spill and cleanup activities to the Department within 72 hours and shall make inspection records available to the Department upon request. [Soil Protection Condition 8]
STANDARD: Land Use (LU) [OAR 345-022-0030]	
OPR-LU-01	During operation, the certificate holder shall implement and adhere to the applicable requirements of the Final Noxious Weed Plan or Amended Noxious Weed Plan, as applicable. [Land Use Condition 7]
OPR-LU-02	During operational ground disturbing activities, the certificate holder shall provide evidence to the Department that it has consulted with each of the owners of farmland that is within and adjacent to the site boundary regarding landowner farm practices on each of those tracts (including the types of crops and typical timing of crop rotation); and, shall demonstrate that the maintenance schedule and any related

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Condition Number	Operational (OPR) Conditions
	offsite dust and erosion impacts are being minimized to the greatest extent practicable. [Land Use Condition 10]
STANDARD: Fish and Wildlife Habitat (FW) [OAR 345-022-0060]	
OPR-FW-01	During operation, the certificate holder shall implement and adhere to the Reclamation and Revegetation Plan, as applicable. [Fish and Wildlife Habitat Condition 3]
OPR-FW-02	During operation, the certificate holder shall implement and adhere to the requirements of the Habitat Mitigation Plan. [Fish and Wildlife Habitat Condition 5]
OPR-FW-02	During operation, the certificate holder shall adhere to the requirements of the Wildlife Monitoring and Mitigation Plan, as provided in Attachment P-5 of the Final Order on the ASC. [Fish and Wildlife Habitat Condition 10]
STANDARD: Historic, Cultural and Archeological Resources (HC) [OAR 345-022-0090]	
OPR-HC-01	During operations, the certificate holder shall require all onsite employees and contractors to implement and adhere to the requirements of the Inadvertent Discovery Plan (IDP), as provided for Historic, Cultural and Archeological Condition 2. The IDP shall be reviewed and updated annually for current contact information. [Historic, Cultural and Archeological Resources Condition 4]
STANDARD: Wildfire Prevention and Risk Mitigation (WF) [OAR 345-022-0115]	
OPR-WF-01	During operation, the certificate holder shall: a. Implement the Operational Wildfire Mitigation Plan (Attachment F-2), finalized under PRO-WF-01. b. Every 5 years after the first operational year, review and update the evaluation of wildfire risk under OAR 345-022-0115(1)(b) and submit the results in the annual report required under General Standard of Review Condition 11 for that year. c. Submit an updated Operational Wildfire Mitigation Plan to the Department if substantive changes are made to the plan because of the review under sub (b) of this condition, or at any other time substantiative revisions are made to Attachment F-2. [Wildfire Prevention and Risk Mitigation Condition 4]

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5.7 Retirement (RET) Conditions

Condition Number	Retirement (RET) Conditions
STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]	
RET-RF-01	The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, nonhazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site. [Retirement and Financial Assurance Condition 2; Mandatory Condition OAR 345-025-0006(9)]
RET-RF-02	If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-025-0006(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan. [Retirement and Financial Assurance Condition 3; Mandatory Condition OAR 345-025-0006(16)]

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6.0 Successors and Assigns

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0400.

7.0 Severability and Construction

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

8.0 Execution

This site certificate may be executed in counterparts and will become effective upon signature by the Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.

IN WITNESS THEREOF, this site certificate has been executed by the State of Oregon, acting by and through the Energy Facility Siting Council and Wagon Trail Solar, LLC (certificate holder).

ENERGY FACILITY SITING COUNCIL	**Wagon Trail Solar, LLC**
By: _____	By: _____
Kent Howe, Chair	Authorized Representative
Date: _____	Date:_____

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ATTACHMENT 1: Facility Location Map Sets

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Figure 1: Facility Regional Location

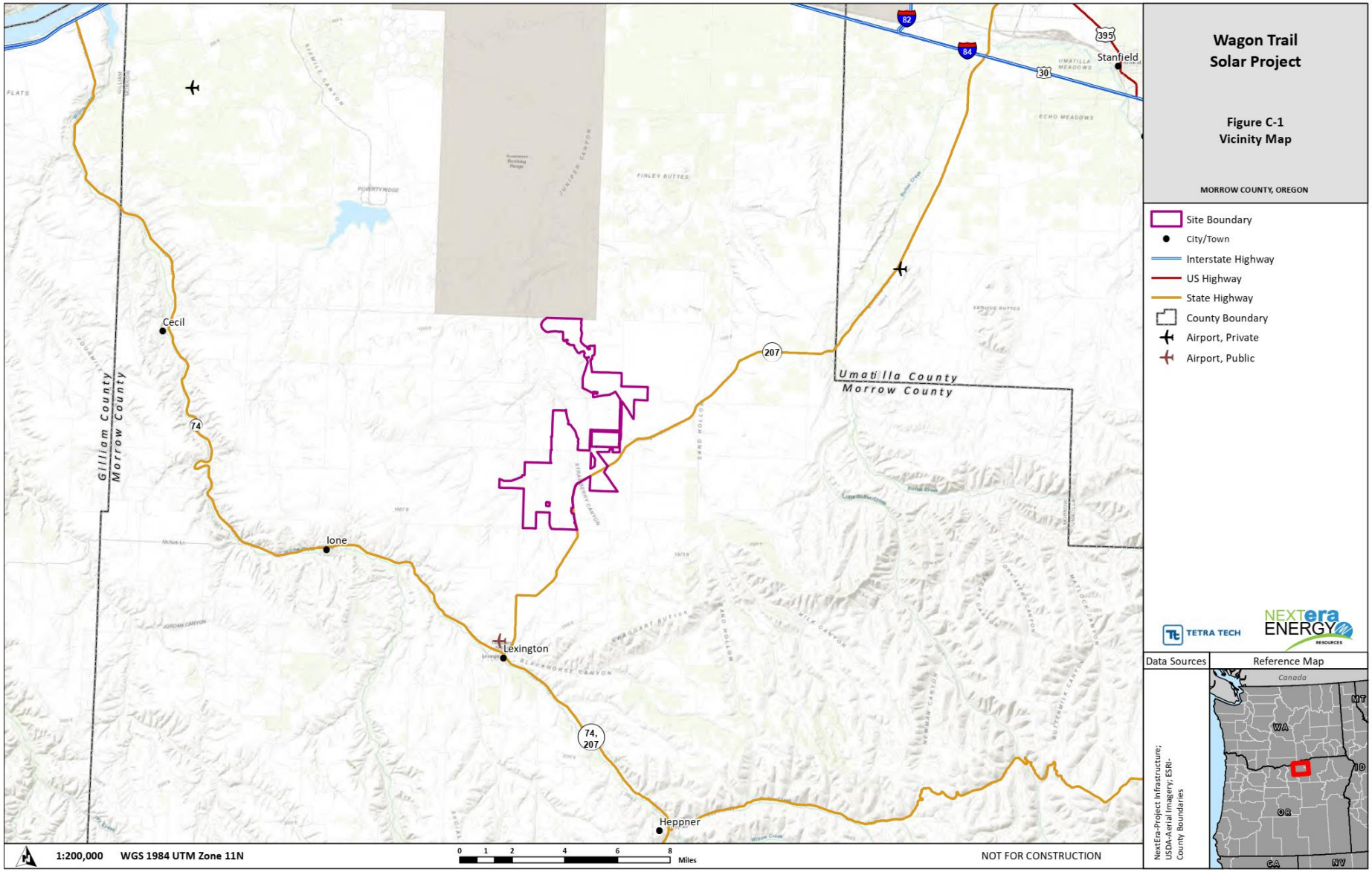
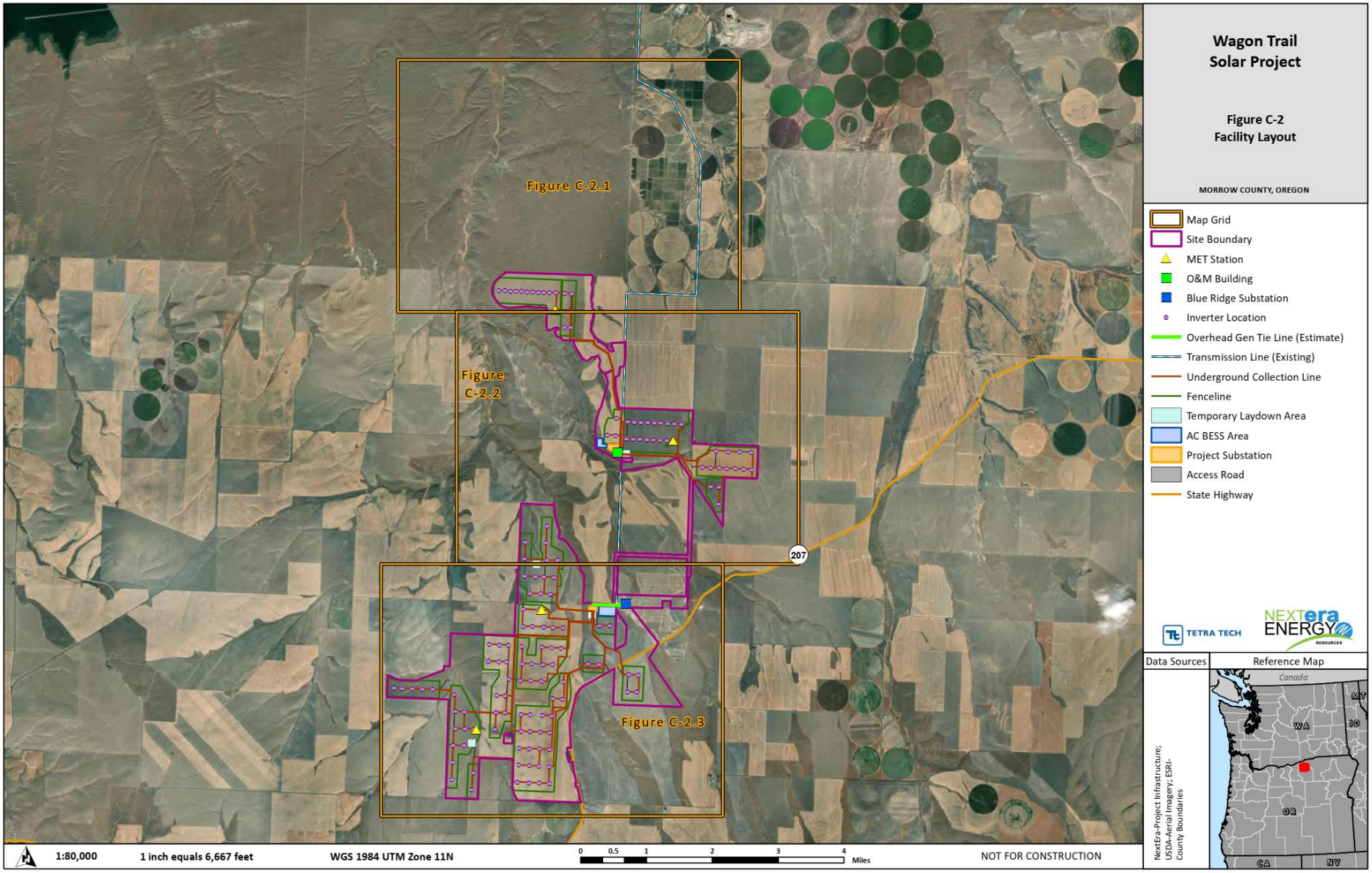


Figure 2: Facility Site Plan



Attachment B: Reviewing Agency Comments on pASC/ASC

Oregon
Tina Kotek, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.oregon.gov/dsl

State Land Board

Tina Kotek
Governor

LaVonne Griffin-Valade
Secretary of State

Tobias Read
State Treasurer

July 6, 2023

NextEra Energy Resources, LLC
Attn: Anneke Solsby
700 Universe Boulevard
Juno Beach, FL 33408

Re: WD # 2022-0023 **Approved**
Waters Delineation Report for Wagon Trail Solar Project
Morrow County; T1N R25E; R26E; and T02N R25E
Multiple Tax Lots (See Attached Table)

Dear Anneke Solsby:

The Department of State Lands has reviewed the waters delineation report prepared by Tetra Tech Inc. for the site referenced above. Please note that the study areas include portions of several tax lots, as shown in the attached Table 1 and Figure 2 and 2.1 through 2.4. Based upon the information presented in the report and additional information submitted upon request, we concur that there are no jurisdictional wetlands or other waters of the state within the study area, as indicated on the revised Figure 5 and 5.1 through 5.7. Please replace all copies of the preliminary wetland maps with these final Department-approved maps.

Within the study areas, 5 ephemeral streams (EPH-01 through EPH-05) were identified. Normally, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined). However, the ephemeral streams do not meet the criteria for a jurisdictional waterway per OAR 141-085-0515(3) and therefore, are not subject to these state permit requirements.

This concurrence is for purposes of the state Removal-Fill Law only. Federal, other state agencies or local permit requirements may apply as well. The U.S. Army Corps of Engineers will determine jurisdiction under the Clean Water Act, which may require submittal of a complete Wetland Delineation Report.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. If you have any questions, please contact the Jurisdiction Coordinator for Morrow County, Jessica Salgado, at (541) 388-6421.

Sincerely,

Peter Ryan, SPWS
Aquatic Resource Specialist

Enclosures

ec: Jessica Taylor, Tetra Tech Inc.
Morrow County Planning Department
Michael Neal, US Army Corps of Engineers
Richard Fitzgerald, DSL
Joy Vaughan, ODFW

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: https://apps.oregon.gov/DSL/EPS/program?key=4.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF of the completed cover from and report may be e-mailed to: **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

Contact and Authorization Information

☒ Applicant ☐ Owner Name, Firm and Address:
Anneke Solsby
NextEra Energy Resources, LLC
700 Universe Boulevard
Juno Beach, FL 33408

Business phone # (503) 860-9076
Mobile phone # (optional)
E-mail: anneke.solsby@nexteraenergy.com

☐ Authorized Legal Agent, Name and Address (if different):

Business phone #
Mobile phone # (optional)
E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Anneke Solsby **Signature:** _____

Date: 1/12/22 Special instructions regarding site access: Contact me to arrange entry

Project and Site Information

Project Name: Wagon Trail Solar Project

Latitude: 45.495748 Longitude: -119.646481
decimal degree - centroid of site or start & end points of linear project

Proposed Use:
Photovoltaic solar generation facility and supporting facilities.

Tax Map # See Figure 2 in the attached report
Tax Lot(s)

Tax Map #
Tax Lot(s)

Project Street Address (or other descriptive location):
6 miles northeast of Lexington, Oregon off of Hwy 207.

Township 1N Range 25E Section 24 QQ
Use separate sheet for additional tax and location information

City: Rural County: Morrow

Waterway: Unnamed River Mile: N/A

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:
Jessica Taylor, Tetra Tech Inc.
14 E Main, Suite 210
Walla Walla WA 99362

Phone # (509) 386-5036
Mobile phone # (if applicable) (509) 386-5036
E-mail: jessica.taylor@tetratech.com

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.

Consultant Signature: Jessica Taylor Date: 01/12/2022

Primary Contact for report review and site access is ☐ Consultant ☒ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present? ☒ Yes ☐ No Study Area size: 6,269 Total Wetland Acreage: 0.0000

Check Applicable Boxes Below

☐ R-F permit application submitted
☐ Mitigation bank site
☒ EFSC/ODOE Proj. Mgr: Chase McVeigh-Walker
☐ Wetland restoration/enhancement project (not mitigation)
☐ Previous delineation/application on parcel
If known, previous DSL # _____

☐ Fee payment submitted **$** _____
☐ Resubmittal of rejected report ($100)
☐ Request for Reissuance. See eligibility criteria. (no fee)
DSL # _____ Expiration date_____
☐ LWI shows wetlands or waters on parcel
Wetland ID code _____

For Office Use Only

DSL Reviewer: JS Fee Paid Date: ____ / ____ / ____ DSL WD # 2022-0023

Date Delineation Received: 01 / 13 / 2022 Scanned: ☐ Electronic: ☒ DSL App.# _____

1.0 Introduction

Wheatridge East Wind, LLC c/o NextEra Energy Resources, LLC (Applicant) is proposing to construct and operate the Wagon Trail Solar Project (Facility), a photovoltaic solar energy generation facility and supporting facilities in Morrow County, Oregon (Figure 1). Wetland and other waters surveys were completed on July 27 to 30, 2020 with additional photos taken on August 6, 2020 and additional surveys completed on March 8, 2021, April 14, 2021, and September 13, 2021 in preparation for the permitting of this Facility.

2.0 Landscape Setting and Land Use

2.1 Study Area

The Facility study area encompasses approximately 6,269 acres of privately owned land. Figure 2 shows and Table 1 below lists the tax lots crossed by the study area.

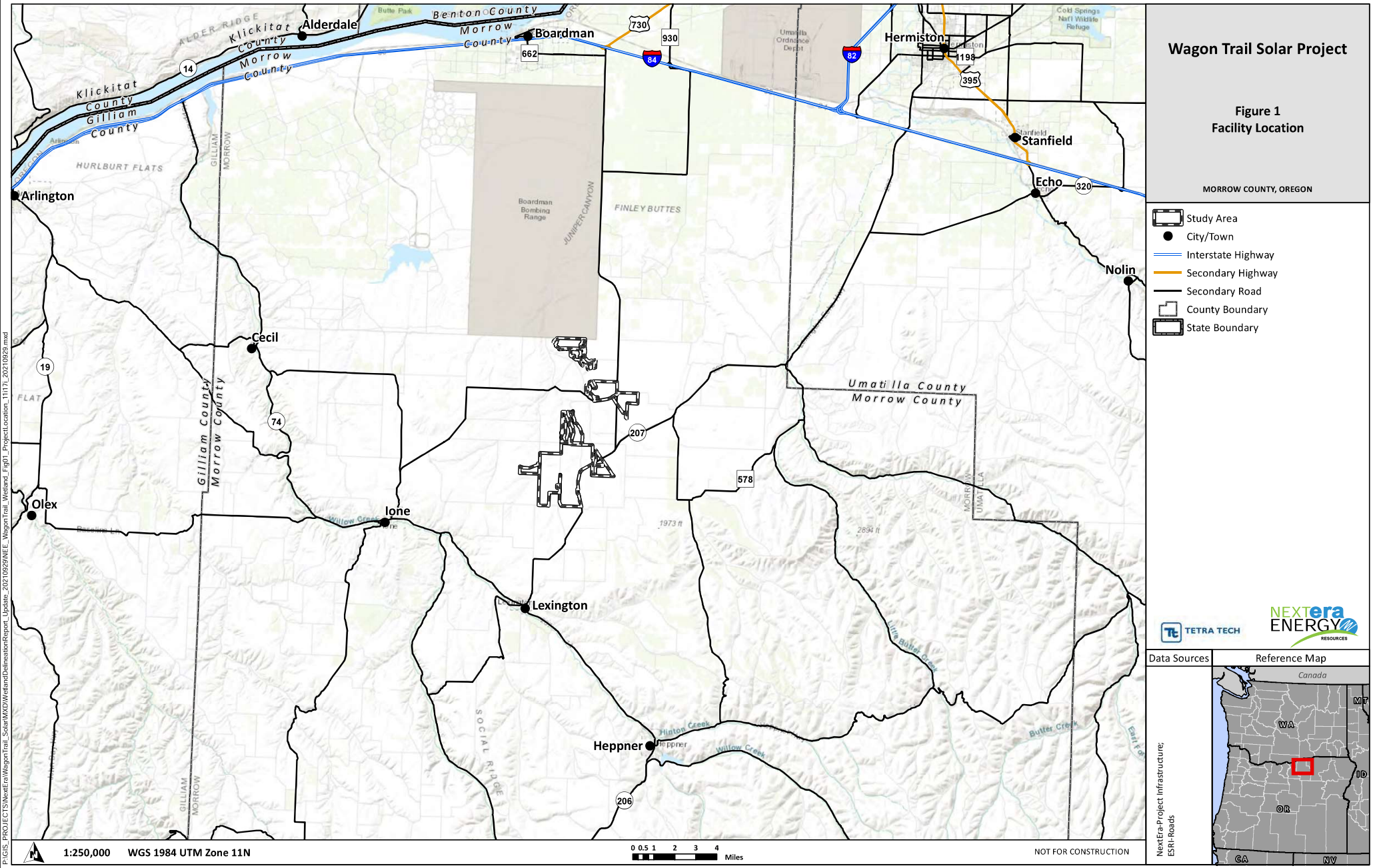
Table 1. Tax Lots Mapped in the Facility Study Area

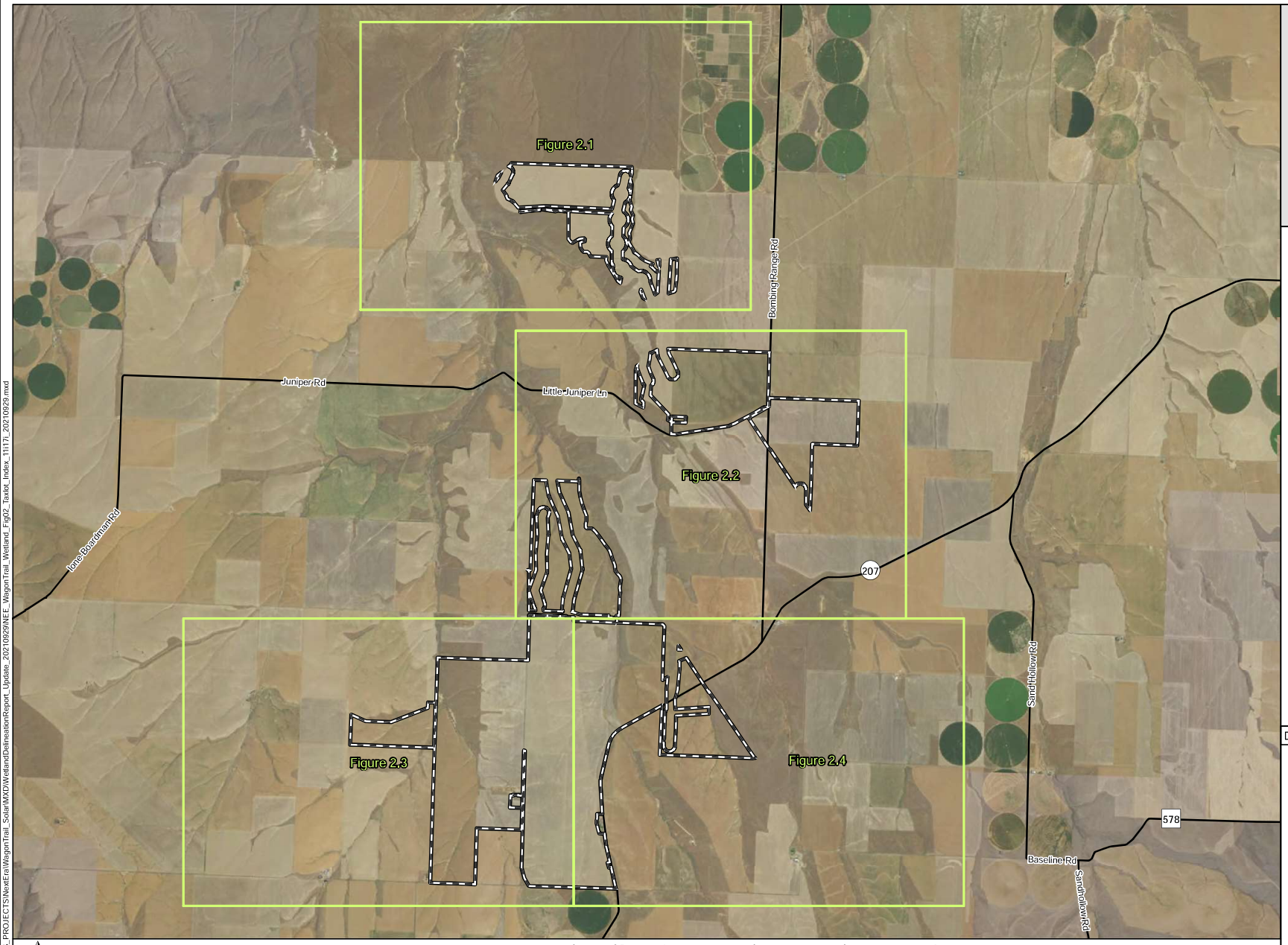
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01N25E	1700
01N25E	1900
01N25E	2803
01N25E	2805
01N25E	2900
01N25E	3000
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01N25E	3200
01N25E	3202
01N25E	3300
01N25E	ROADS
01N26E	1100
01N26E	1102
01N26E	1301
01N26E	3300
01N26E	3400
01N26E	3500
01N26E	3502
01N26E	701
01N26E	ROADS
02N25E	400
02N25E	500
02N25E	ROADS

portions

portions

portions


Wagon Trail Solar Project
Figure 1
Facility Location
MORROW COUNTY, OREGON
Study Area
City/Town
Interstate Highway
Secondary Highway
Secondary Road
County Boundary
State Boundary
Alderdale
Boardman
Hermiston
Stanfield
Echo
Nolin
Arlington
Cecil
Olex
Ione
Lexington
Heppner
Klickitat County
Gilliam County
Morrow County
Benton County
Umatilla County
HURLBURT FLATS
FINLEY BUTTES
Boardman Bombing Range
JUNIPER CANYON
SOCIAL RIDGE
ALDER RIDGE
Cold Springs Nat'l Wildlife Refuge
Umatilla Ordnance Depot
Butte Park
Willow Creek
Hinton Creek
Butter Creek
Little Butter Creek
1973 ft
2894 ft
14
19
74
207
578
206
730
930
662
84
82
1198
395
320
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WGS 1984 UTM Zone 11N
0 0.5 1 2 3 4
Miles
NOT FOR CONSTRUCTION
TETRA TECH
NEXTera ENERGY RESOURCES
Data Sources
NextEra-Project Infrastructure; ESRI-Roads
Reference Map
Canada
MT
WA
ID
OR
CA
NV
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Wagon Trail Solar Project

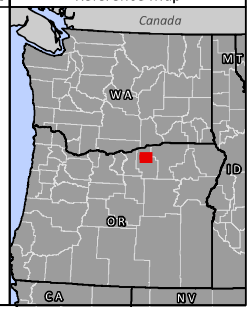
Figure 2
Tax Lot Index Map

MORROW COUNTY, OREGON

Map Grid
Study Area
Secondary Road

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure; ESRI-Roads, USDA-Aerial Imagery	

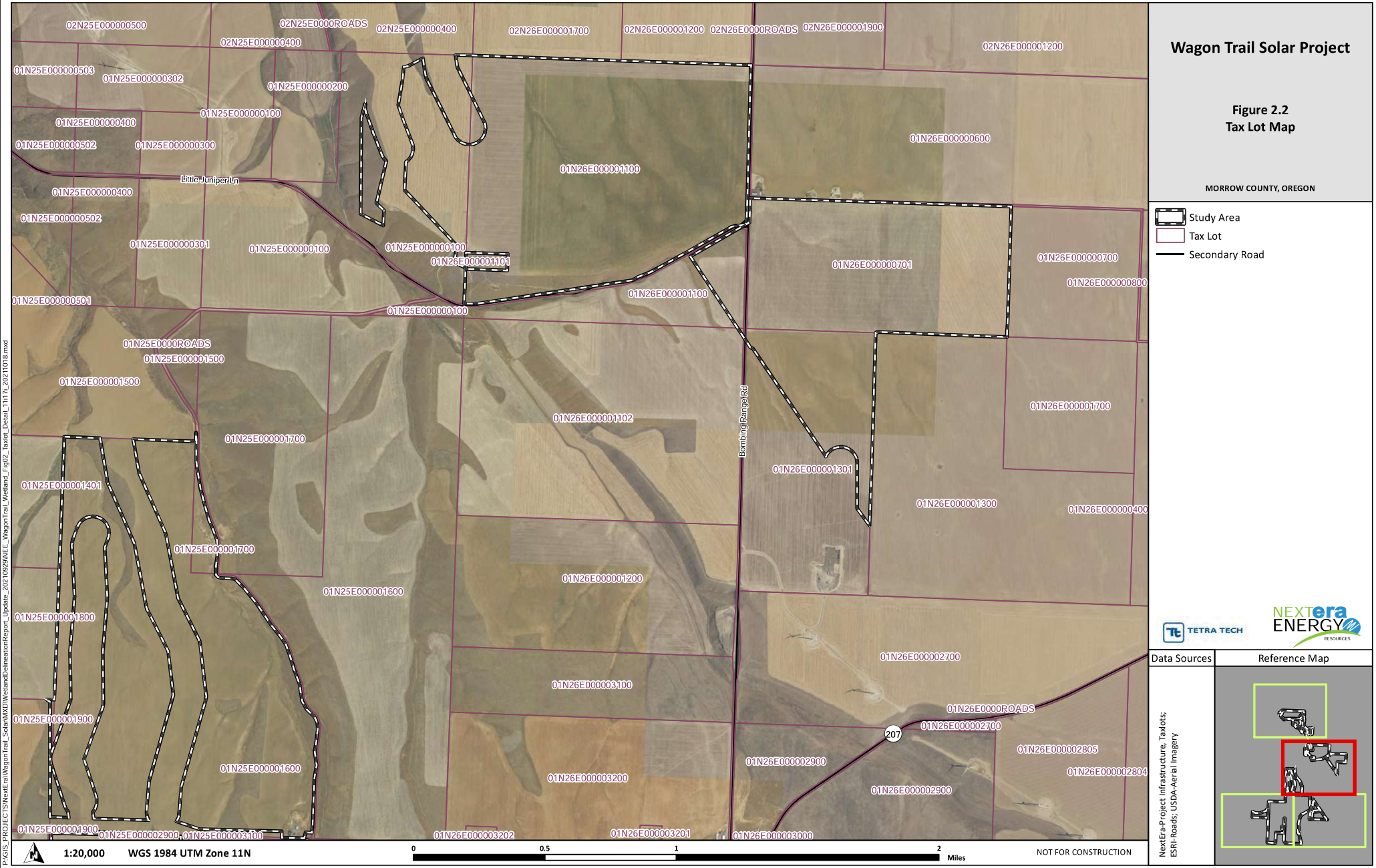
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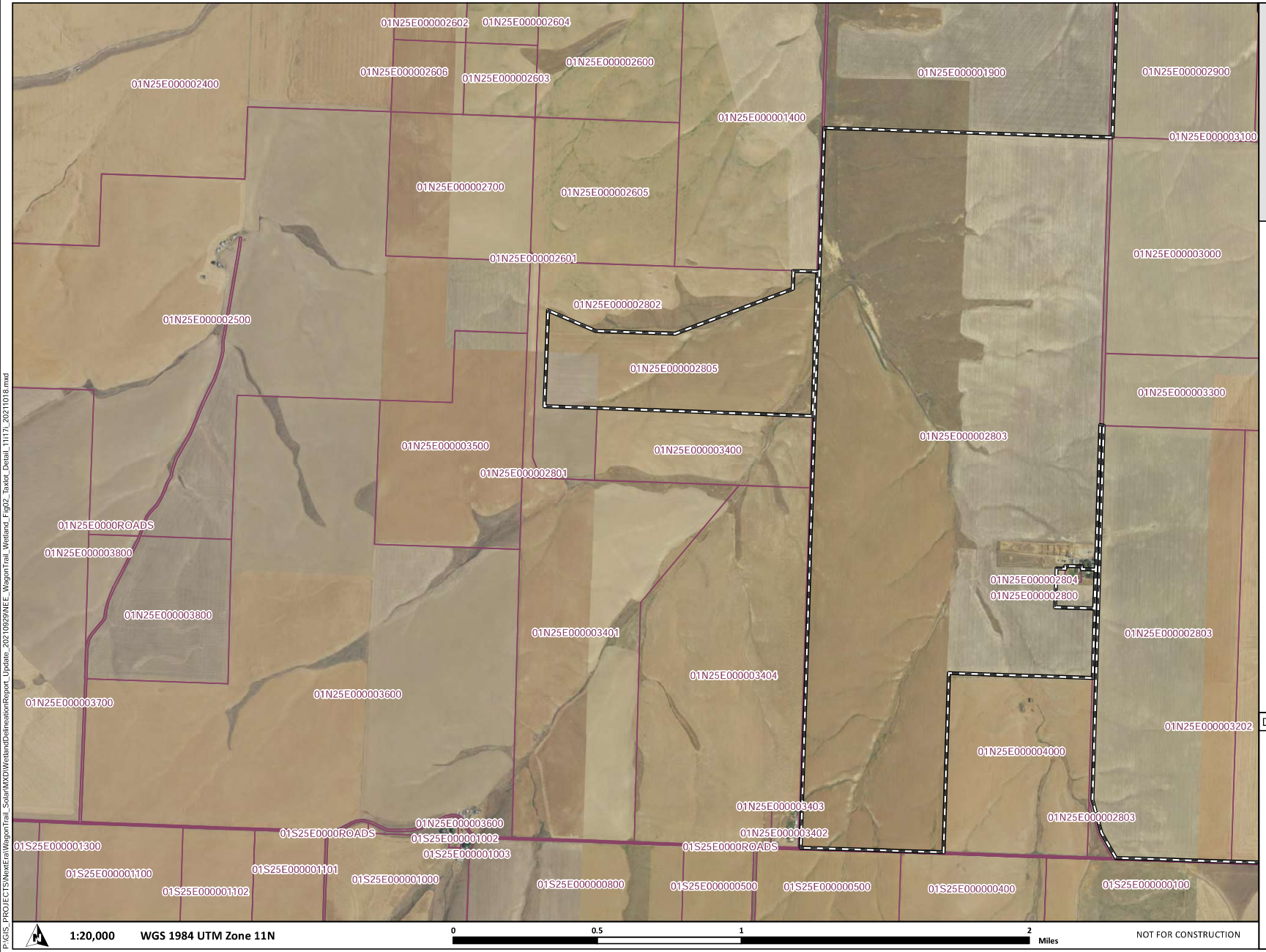
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NOT FOR CONSTRUCTION

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Wagon Trail Solar Project
Figure 2.1
Tax Lot Map
MORROW COUNTY, OREGON
Study Area
Tax Lot
02N26E000000900
02N25E000000200
02N26E000000500
02N25E000000600
02N25E000000700
02N25E0000ROADS
02N25E000000400
02N26E000001200
02N25E000000500
02N25E000000700
02N26E000001500
02N25E000001400
02N25E000001700
02N25E000001800
02N25E0000ROADS
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02N26E000001200
02N25E000001600
02N25E000000500
02N25E000001500
02N25E000000400
02N25E0000ROADS
02N26E000001700
TETRA TECH
NEXTera ENERGY RESOURCES
Data Sources
Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery
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WGS 1984 UTM Zone 11N
0
0.5
1
2
Miles
NOT FOR CONSTRUCTION
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Wagon Trail Solar Project
Figure 2.2
Tax Lot Map
MORROW COUNTY, OREGON
Study Area
Tax Lot
Secondary Road
02N25E000000500
02N25E0000ROADS
02N25E000000400
02N26E000001700
02N26E000001200
02N26E0000ROADS
02N26E000001900
02N26E000001200
01N25E000000503
01N25E000000302
01N25E000000200
01N25E000000100
01N25E000000400
01N25E000000502
01N25E000000300
01N26E000000600
Little Juniper Ln
01N26E000001100
01N25E000000400
01N25E000000502
01N25E000000301
01N25E000000100
01N25E000000100
01N26E000001101
01N26E000000701
01N26E000000700
01N26E000000800
01N25E000000501
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01N25E0000ROADS
01N25E000001500
01N25E000001500
Bombing Range Rd
01N26E000001700
01N26E000001102
01N25E000001700
01N26E000001301
01N25E000001401
01N26E000001300
01N26E000000400
01N25E000001700
01N26E000001200
01N25E000001600
01N25E000001800
01N26E000002700
01N26E000003100
01N26E0000ROADS
01N25E000001900
01N26E000002700
207
01N26E000002805
01N25E000001600
01N26E000002900
01N26E000003200
01N26E000002804
01N26E000002900
01N25E000001900
01N25E000002900
01N25E000003100
01N26E000003202
01N26E000003201
01N26E000003000
1:20,000
WGS 1984 UTM Zone 11N
0
0.5
1
2
Miles
NOT FOR CONSTRUCTION
TETRA TECH
NEXTera ENERGY RESOURCES
Data Sources
Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery
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Wagon Trail Solar Project

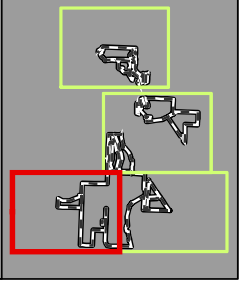
Figure 2.3
Tax Lot Map

MORROW COUNTY, OREGON

Study Area
Tax Lot

TETRA TECH

NEXTera ENERGY RESOURCES

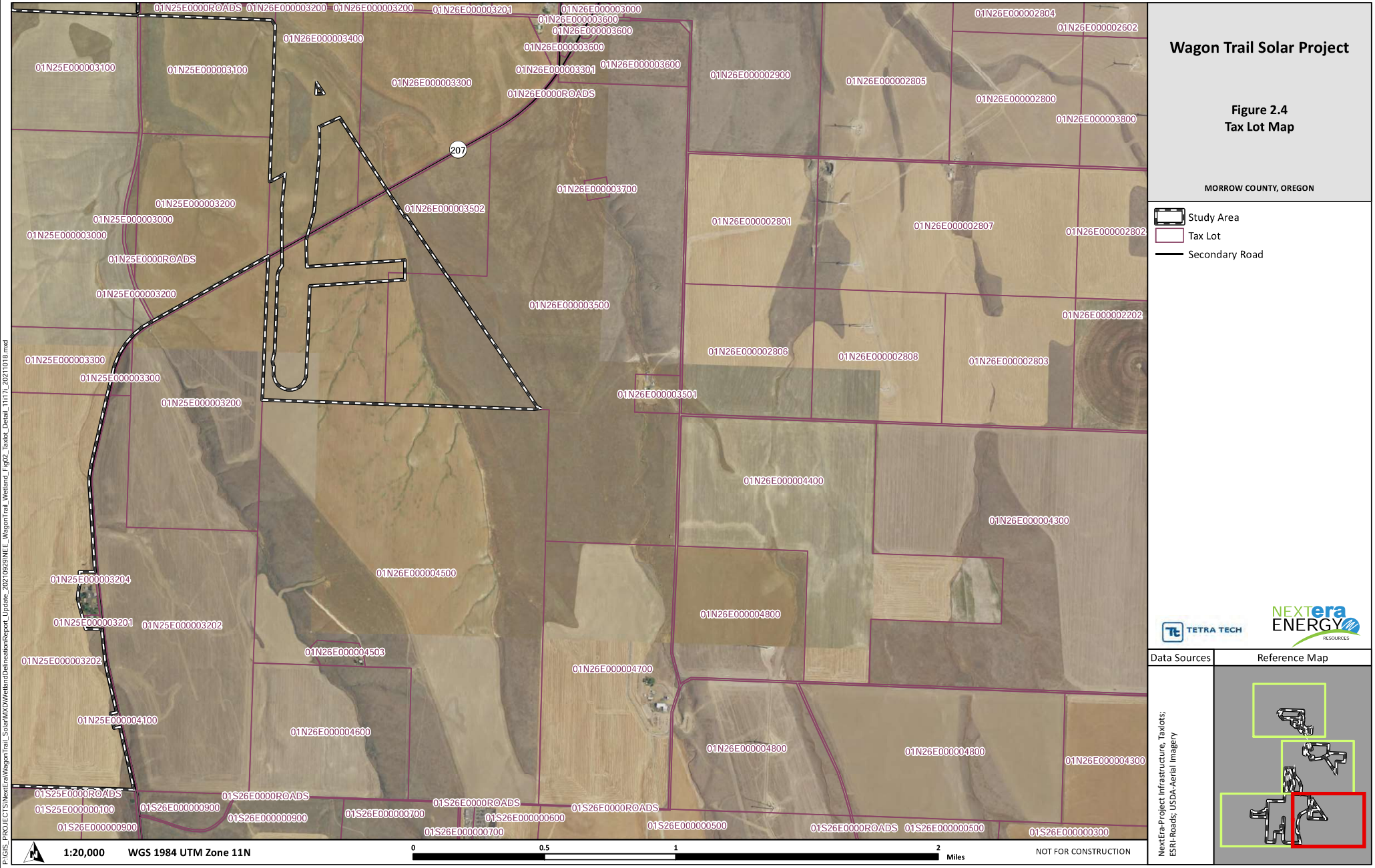
Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

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0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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Wagon Trail Solar Project

Figure 2.4
Tax Lot Map

MORROW COUNTY, OREGON

Study Area
Tax Lot
Secondary Road

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:20,000 WGS 1984 UTM Zone 11N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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Wagon Trail Solar Project

Figure 5
Wetland and Waters
Delineation Index Map

MORROW COUNTY, OREGON

Figure 5.1
Figure 5.2
Figure 5.3
Figure 5.4
Figure 5.5
Figure 5.6
Figure 5.7

207
578

Map Grid
Study Area
Secondary Road

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources

NextEra-Project Infrastructure;
ESRI-Roads; USDA-Aerial Imagery

Reference Map



1:65,000 WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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Wagon Trail Solar Project

Figure 5.1
Wetland and Waters Delineation Map

MORROW COUNTY, OREGON

XBB-03 (#17)
XBB-02 (#16)
XBB-01 (#15)
(#2)
(#4)
(#3)
(#1)
XBB-05 (#20)
XBB-06 (#21)
XBB-07 (#22)
(#18)
XBB-08 (#23)
XBB-04 (#19)
(#7)
(#6)
(#5)

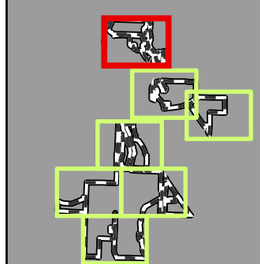
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02N26E000000500
02N25E000000500
02N25E000000400
02N26E000001200
02N25E000001700
02N25E000000500
02N25E000001700
02N25E000000500
02N25E000000400
02N26E000001600

Study Area
Tax Lot
Photo Point (# Photo Number)

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

NOT FOR CONSTRUCTION

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Wagon Trail Solar Project

Figure 5.2
Wetland and Waters Delineation Map

MORROW COUNTY, OREGON

02N25E000000500
02N25E000000400
02N25E000000400
02N26E000001700
02N26E000001200
02N26E000001900
01N25E000000302
01N25E000000100
01N25E000000200
01N25E000000300
01N25E000000301
01N25E000000100
01N25E000001500
01N25E000001700
01N25E000001600
01N25E000001500
01N26E000000600
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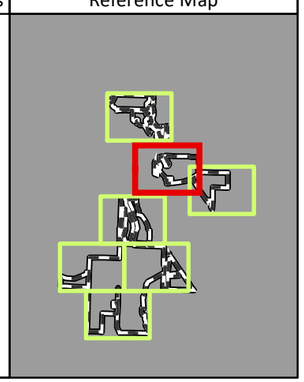
XBB-12 (#13)
XBB-11 (#12)
XBB-13 (#14)
(#10)
XBB-14 (#26)
XBB-15 (#27)
XBB-16 (#28)
(#8)

Little Juniper Ln
Bombing Range Rd

- Study Area
- Secondary Road
- Tax Lot
- Photo Point (# Photo Number)

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH
NEXTera ENERGY RESOURCES

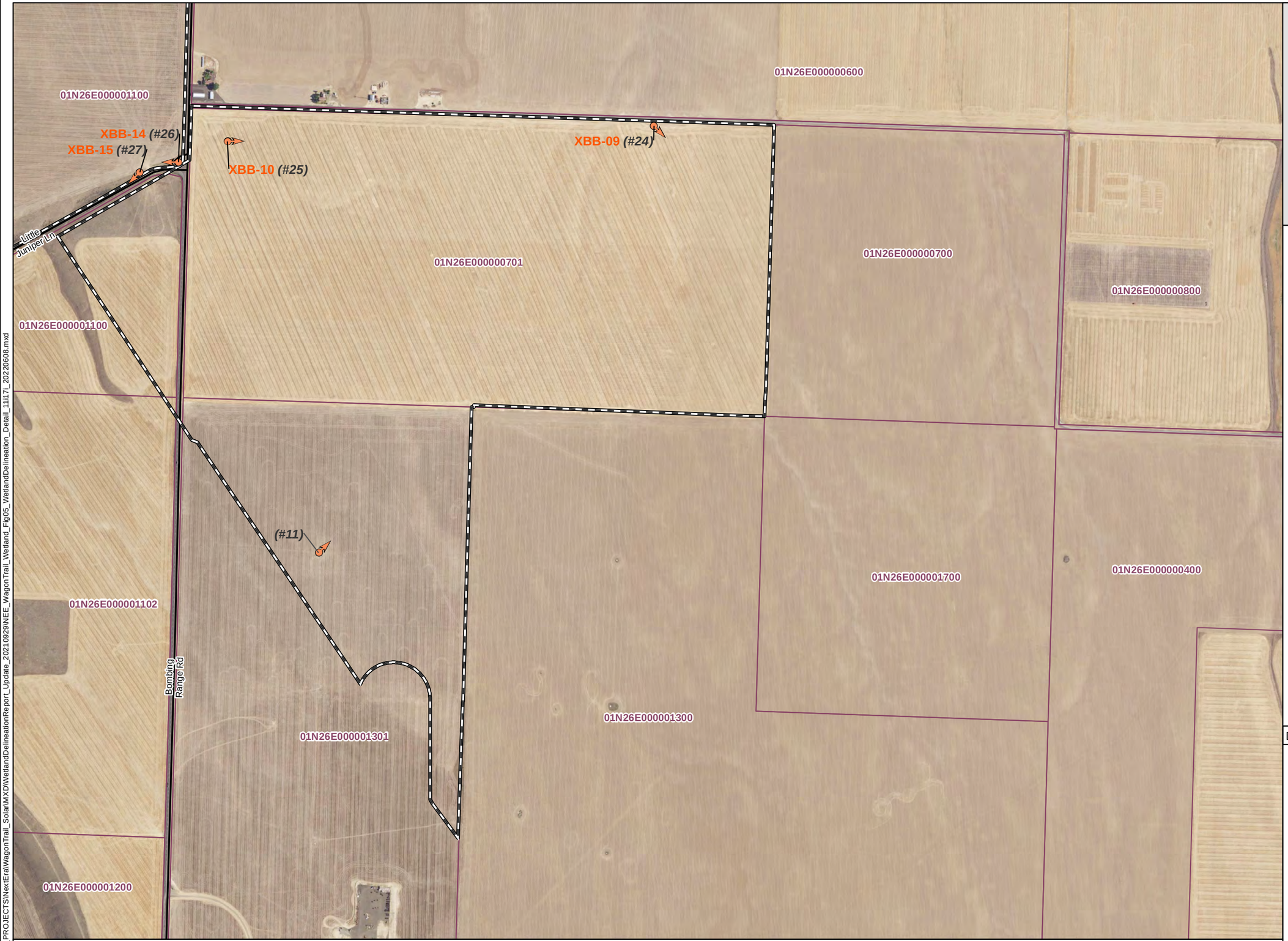
Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

NOT FOR CONSTRUCTION

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Wagon Trail Solar Project

Figure 5.3
Wetland and Waters Delineation Map

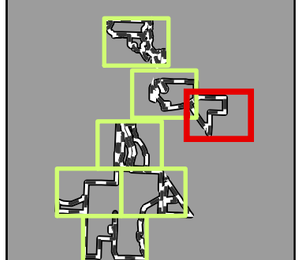
MORROW COUNTY, OREGON

- Study Area
- Secondary Road
- Tax Lot
- Photo Point (# Photo Number)

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

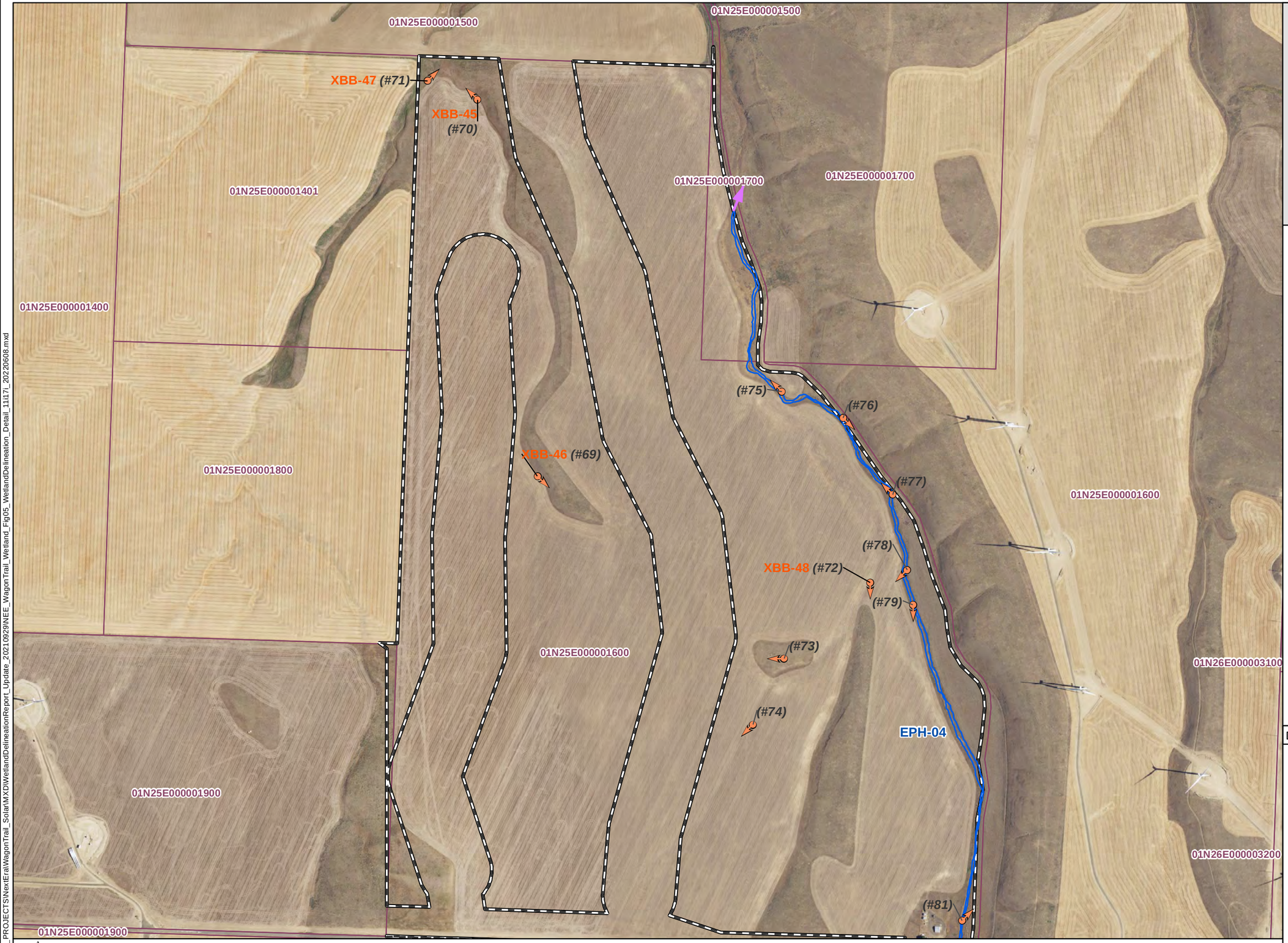
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Wagon Trail Solar Project

Figure 5.4
Wetland and Waters Delineation Map

MORROW COUNTY, OREGON

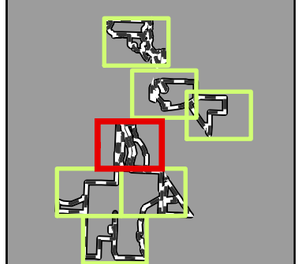


- Study Area
- Tax Lot
- Surveyed Water (Maximum OHWL Width)
- Photo Point (# Photo Number)
- Waters Continue Offsite

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

NOT FOR CONSTRUCTION

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Wagon Trail Solar Project

Figure 5.5
Wetland and Waters Delineation Map

MORROW COUNTY, OREGON

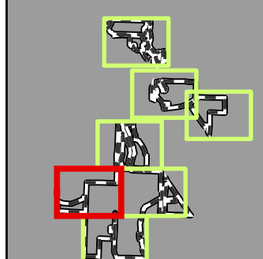


- Study Area
- Tax Lot
- Surveyed Water (Maximum OHWL Width)
- Photo Point (# Photo Number)
- Sample Plots
- Waters Continue Offsite

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

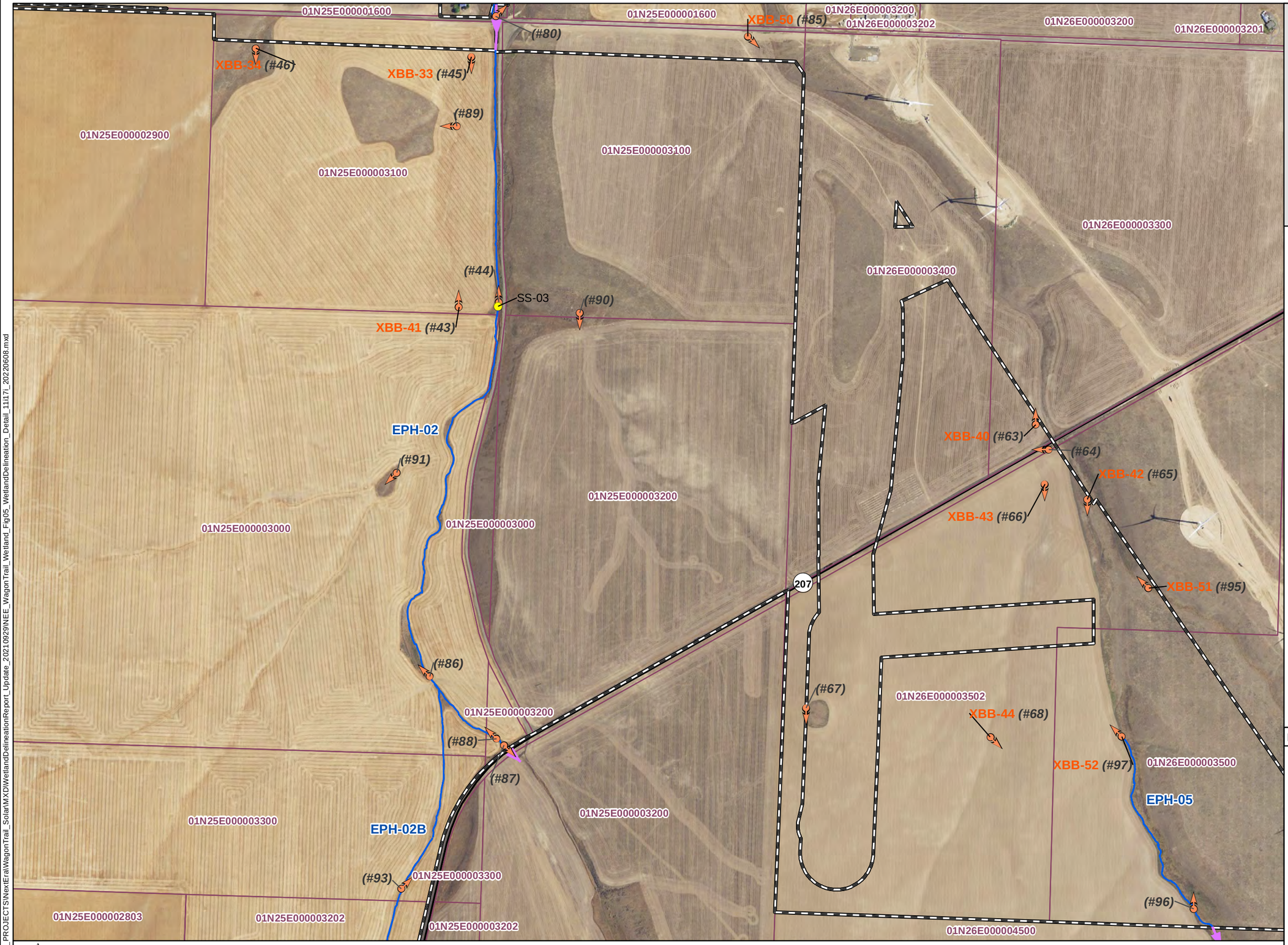
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Wagon Trail Solar Project

Figure 5.6
Wetland and Waters Delineation Map

MORROW COUNTY, OREGON



1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

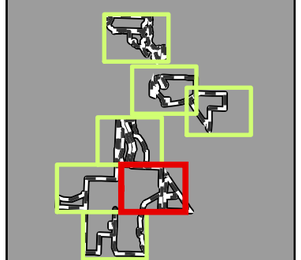
NOT FOR CONSTRUCTION

- Study Area
- Secondary Road
- Tax Lot
- Surveyed Water (Maximum OHWL Width)
- Photo Point (# Photo Number)
- Sample Plots
- Waters Continue Offsite

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

P:\GIS_PROJECTS\NextEraWagonTrail_Solar\MXD\WetlandDelineationReport_Update_20210929\NEE_WagonTrail_Wetland_Fig05_WetlandDelineation_Detail_11i17i_20220608.mxd

Wagon Trail Solar Project

Figure 5.7
Wetland and Waters Delineation Map

MORROW COUNTY, OREGON

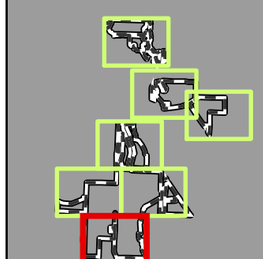


- Study Area
- Secondary Road
- Tax Lot
- Surveyed Water (Maximum OHWL Width)
- Photo Point (# Photo Number)
- Culvert
- Waters Continue Offsite

DSL WD # 2022-0023
Approval Issued 7/6/2023
Approval Expires 7/6/2028

TETRA TECH

NEXTera ENERGY RESOURCES

Data Sources	Reference Map
NextEra-Project Infrastructure, Taxlots; ESRI-Roads; USDA-Aerial Imagery	

1:10,000 WGS 1984 UTM Zone 11N

0 0.25 0.5 1 Miles

NOT FOR CONSTRUCTION

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ESTERSON Sarah * ODOE

From: Sarah.ESTERSON@energy.oregon.gov
Subject: ODOE Call Summary Notes for Wagon Trail Solar Project
Attachments: WTSAPP ODA Consultation Summary (NOTES) 2022-10-21 edits.docx

---

From: BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>
Sent: Friday, October 21, 2022 3:45 PM
To: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Cc: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>; SLOAN Kathleen * ODOE <Kathleen.SLOAN@energy.oregon.gov>
Subject: Re: ODOE Call Summary Notes for Wagon Trail Solar Project

Hello Chase,
Just some very minor additions to the notes should be visible via track changes. Thanks!

From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Date: Friday, October 21, 2022 at 3:19 PM
To: BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>
Cc: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>, SLOAN Kathleen * ODOE <Kathleen.SLOAN@energy.oregon.gov>
Subject: ODOE Call Summary Notes for Wagon Trail Solar Project

Good afternoon Jordan,

Thanks for taking time to discuss the Wagon Trail Solar Project earlier today. Much like the summary notes Sarah provided you earlier for the Westend Solar Project, I have attached summary notes from our call– in the form of a comment letter for your consideration. Please review, revise accordingly and send back – if you choose to provide different input in a different format, that is totally fine. The summary notes are only intended to support resource strain.

Regards,
-Chase

OREGON DEPARTMENT OF ENERGY

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 971-600-5323
P (In Oregon): 800-221-8035



MCVEIGH-WALKER Chase * ODOE

From: BROWN Jordan A * ODA
Sent: Friday, October 21, 2022 3:45 PM
To: MCVEIGH-WALKER Chase * ODOE
Cc: ESTERSON Sarah * ODOE; SLOAN Kathleen * ODOE
Subject: Re: ODOE Call Summary Notes for Wagon Trail Solar Project
Attachments: WTSAPP ODA Consultation Summary (NOTES) 2022-10-21 edits.docx

Hello Chase,
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From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Date: Friday, October 21, 2022 at 3:19 PM
To: BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>
Cc: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>, SLOAN Kathleen * ODOE <Kathleen.SLOAN@energy.oregon.gov>
Subject: ODOE Call Summary Notes for Wagon Trail Solar Project

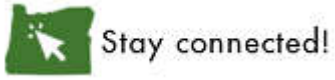
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Regards,
-Chase

OREGON DEPARTMENT OF ENERGY

Chase McVeigh-Walker
Senior Siting Analyst
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P: 971-600-5323
P (In Oregon): 800-221-8035



Wagon Trail Solar Project –

Agency Consultation on Threatened and Endangered Species Standard (OAR 345-022-0070)

Oregon Department of Agriculture (ODA) understands that the Wagon Trail Solar Project is a 500 megawatt (MW) solar photovoltaic energy generation facility, proposed to be located in Morrow County.

ODA understands that the proposed site boundary, encompassing 7,450 acres of Exclusive Farm Use (EFU) zoned land, and that the energy generation facility would occupy up to 3,641 acres. Additionally, it is understood that the site is predominately Dryland Wheat, and that rare plant surveys were not conducted at two different locations within the site boundary; one due to restricted access, and the other due to additional areas being added to the Site Boundary following submittal of the Notice of Intent (NOI).

ODA understands that botanical surveys were conducted within the proposed site boundary in 2019, 2020, and 2021, including field surveys conducted for a separate EFSC facility, but under same ownership as the proposed facility, for the Request for Amendment #4 (RFA4) for the Wheatridge Wind Energy Facility (now WREFI, WREF II, and WREFIII). The survey results identified one state listed Threatened and Endangered Species likely to occur within the site boundary, Laurence's milkvetch. ODA affirms the results, siting presence of Laurence's milkvetch at the Wheatridge Wind Energy Facility.

<u>Recommendations</u>

- Based on Laurence's milkvetch occurrences identified within the Wheatridge Renewable Energy Facility II site boundary and the proximity of this facility's site boundary to the proposed Wagon Trail Solar site boundary, and the ORBIC database query that indicates mapped populations within two miles of the proposed site boundary, there is a relatively high likelihood of occurrences within the proposed site boundary. Therefore, preconstruction surveys in the unsurveyed areas are necessary in areas of suitable habitat where there is a potential for disturbance.
    - Furthermore, if Laurence's milkvetch is identified within the preconstruction survey areas, the plant shall be completely avoided via mapping and flagging, based on a 100 foot buffer, unless otherwise reviewed and approved by the Department and ODA.
    - Given the 5-10 year relevance ("lifespan") of a rare plant survey (based on the dispersal/migration ability of plants), preconstruction surveying of areas previously surveyed and included in the Wagon Trail Solar Project preliminary Application for Site Certificate (pASC) are unnecessary, so long as construction commencement occurs within ten years of the oldest surveying effort relied upon by the applicant.
    - If Laurent's milkvetch are incidentally identified during other preconstruction or construction activity at the site, it is recommended that the occurrence(s) be avoided via mapping and flagging, based on a 100 foot buffer, unless otherwise reviewed and approved by the Department and ODA.
    - ODA requests that the revegetation plan include a requirement to consult with ODA on revegetation, weed treatment and restoration in areas in proximity to incidentally identified occurrences of Laurent's Milkvetch during other preconstruction surveys or construction activities.

Based on review and discussion with ODOE staff on October 21, 2022, ODA considers that with the recommendations provided, the potential impacts from construction and operation of the proposed facility would avoid impacts to the survivability or recovery of Laurent's milkvetch, the only state listed T&E species with a potential to occur within the site boundary.

ESTERSON Sarah * ODOE

From: Sarah.ESTERSON@energy.oregon.gov
Subject: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022
Attachments: DEQ Preliminary Review Comments Wagon Trail Solar 10142022.pdf

---

From: KENNEDY Mike * DEQ <Mike.KENNEDY@deq.oregon.gov>
Sent: Friday, October 14, 2022 10:45 AM
To: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>; CRUSE Martha * DEQ <Martha.CRUSE@deq.oregon.gov>
Cc: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: RE: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022

Chase and Sarah,

Attached are our DEQ's comments. Please let me know if you have any questions, and thank you for the opportunity to review.

Regards,

Michael Kennedy
DEQ-NWR Stormwater
503-729-6488

From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Sent: Friday, October 7, 2022 2:37 PM
To: KENNEDY Mike * DEQ <Mike.KENNEDY@deq.oregon.gov>; CRUSE Martha * DEQ <Martha.CRUSE@deq.oregon.gov>
Cc: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: FW: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022

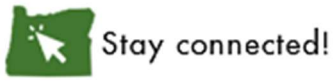
Good afternoon Mike and Martha,

As follow up to the ODOE/ODEQ call yesterday, I wanted to provide you with a few figures associated with the proposed Wagon Trail Solar Project, and both the draft NPDES 1200-C application (inclusive of ESCP) and the Wetland Delineation submitted to Oregon DSL on January 13, 2022.

Below this email, please find a request for review and comments email that I sent to reviewing agencies on September 14, 2022. The emailed request was sent to both Greg Svelund and Eric Nigg at ODEQ.

We would appreciate your review and comments on the applicable material. Please identify any waters of the state regulated by DEQ, and encourage you to provide us with comments/recommendations (with regulatory citation) of impact avoidance/minimization measures, and any recommendations on mitigation if it appears facility components would be impacted by DEQ regulated waters of the state.

Thank you for your time.
-Chase

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 971-600-5323
P (In Oregon): 800-221-8035


From: MCVEIGH-WALKER Chase * ODOE
Sent: Wednesday, September 14, 2022 4:39 PM
To: BLEAKNEY Leann <lbleakney@nwcouncil.org>; jason.cane@state.or.us; david.mills@state.or.us; BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>; JOHNSON James * ODA <James.JOHNSON@oda.oregon.gov>; heather.peck@aviation.state.or.us; svelund.greg@deq.state.or.us; eric.nigg@state.or.us; CHERRY Steve P; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>; jon.p.germond@state.or.us; TOKARCZYK John A * ODF; jason.mcclaughry@oregon.gov; JININGS Jon; STEVENSON Chris * DSL <Chris.STEVENSON@dsl.oregon.gov>; matt.muldoon@state.or.us; RASHID Yassir PUC <Yassir.RASHID@puc.oregon.gov>; orshpo.clearance@oregon.gov; cityofioneor@gmail.com; heppner@cityofheppner.org; mclanec@cityofboardman.com
Subject: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022

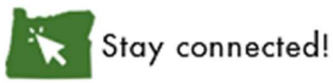
Good afternoon,

The Oregon Department of Energy (ODOE) received a preliminary application for site certificate (pASC) for the Wagon Trail Solar Project on August 31, 2022. ODOE will be relying on your agency's expertise in reviewing the pASC against the statutes and policies relevant to your agency.

The attached memo contains information about the pASC, the Energy Facility Siting Council (EFSC) review process, deadline for comments, and other information. We are requesting that comments be received by **Friday**, **October 14, 2022 at 5 pm PDT**. If you require additional time to review and comment, please let me know.

An electronic copy of the pASC is available on ODOE's website per the following hyperlink: https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WTS.aspx.

Thank you, and please do not hesitate to contact me with any questions.
-Chase

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 971-600-5323
P (In Oregon): 800-221-8035


In response to the request for review:

Mike Kennedy mike.kennedy@deq.oregon.gov (503) 229-6843

Martha Cruse martha.cruse@deq.oregon.gov (503) 926-1430

The proposed facility will be required to obtain a 1200-C Construction Stormwater general permit.

No application for 1200-C Construction Stormwater Discharge Permit has been submitted, reviewed, or issued for this proposed project.

The size and duration of the construction phase of this facility poses challenges to mitigating discharges to surface waters from erosion in the form of dust and stormwater runoff. A robust dust control plan must be developed and implemented to address these concerns. Plans must also include measures for permanent and temporary stabilization, including proven strategies for establishing permanent vegetative density to the levels required in the 1200-C permit. Sequencing for temporary and permanent stabilization must be included, exposing hundreds of acres of disturbed soil at a time is not an option. This project will require a sequencing plan.

DEQ uses Your DEQ Online (YDO) for applications and permit processing. The draft ESCP included does not meet the minimum requirements for the 1200-C Construction Stormwater Discharge general permit. The draft ESCP must be 100% design for construction and stamped by an Oregon registered PE or CEG. Please review the requirements in the 1200-C.

The wetland determination has not been accepted/DSL review has not been completed. There is no DSL or USACE concurrence on this delineation.

Per the preliminary wetland delineation, there are approximately 50 probable waters of the state within the project area. Of these 50, several do not have channels or banks and are utilized as cropland. However, there is no differentiation in symbology to facilitate review when determining which of these water bodies are likely waters of the state.

Applicant must take note that the Oregon Department of State Lands (DSL) has a limited definition of waters of the state and takes jurisdiction over a limited scope of waters of the state for purposes of the state Removal/Fill Law only. DEQ's definition is based in statute (ORS 468B.005(10) and includes all streams, intermittent and perennial. There is no definition or exception for ephemeral in Oregon statute.

Any DSL statements, in writing or otherwise, that indicate that "no state permits are required" or that streams/wetlands are "non-jurisdictional" are in reference to their Removal/Fill Law program only. It does not mean that the waters are exempt from DEQ jurisdiction under statutory water pollution laws.

The plans do not show proposed access road crossings, therefore DEQ cannot provide comment on this aspect of the proposed project.

The plans do not show any specificity about the placement of configuration of the solar arrays or substations, therefore DEQ cannot provide comment on this aspect of the proposed project.

- Draft ESCP Comments:
    - In general, the applicant and ESCP preparer must read and understand the 1200-C permit before drafting the plans. In addition to all the conditions that must be addressed, pay close attention to Section 4.3, which concerns the type of sheets that must be submitted, and Section 4.4, which provides and itemized list of what must be contained within the ESCP. This draft ESCP does not meet permit conditions.
    - All waters of the state must be represented on each sheet within the project boundary. This include springs, which there are at least two based on the USGS topographic maps. All waters of the state within one mile down gradient of the project must be identified.
    - All waters of the state within the project limits must have permits for any impacts. If other agencies do not take jurisdiction or indicate no permit is required for their respective programs, this is not an exemption from DEQ's authority under ORS 468B.050(1)(a) and (d). Any impacts that cannot be permitted must be avoided, even if the impacts are proposed as temporary.
    - All permanent and temporary access roads must be included as their full width of impact. Roads must be clearly marked and to scale and must avoid all waters of the state that have not been permitted for impacts.
    - All solar array and substation configurations must be represented in full detail, no generalities. Arrays may be constructed over waters of the state, but in the absence of explicit permit authorization, no posts may be set within waters of the state and no disturbance in authorized within the waters of the state for purposes of constructing the infrastructure. This includes temporary impacts.
    - All waters of the state within the project boundary and adjacent to the project boundary must have explicit BMPs defined in the ESCP. No generalities.
    - All waters of the state impact permits must be obtained before applying for the 1200-C. All impact permits must be provided to DEQ at the time of the application.
    - Explicit dust control methods must be included in the ESCP due to high winds and highly erodible soils in this area.
    - A robust temporary and permanent stabilization plan is needed. Sequencing is required. A detailed seeding plan, including types of seed mixes, the type of seeding to be conducted, irrigation if necessary, and related information must be included.

ESTERSON Sarah * ODOE

From: Sarah.ESTERSON@energy.oregon.gov
Subject: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022
Attachments: WTSAPP pASC_ODFW_Comments.pdf

From: SOMERS Lindsay N * ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>
Sent: Friday, October 14, 2022 3:10 PM
To: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Cc: CHERRY Steve P * ODFW <Steve.P.CHERRY@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>; ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: RE: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022

Hi Chase,

I have attached ODFW's comments for the Wagon Trail Solar Project pASC. Please let me know if you have any questions.

Have a great weekend,

Lindsay

Lindsay Somers
Habitat Biologist-John Day Watershed
Oregon Department of Fish and Wildlife
73471 Mytinger Ln
Pendleton, OR 97801
Office: 541-388-6294

From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Sent: Thursday, September 29, 2022 1:20 PM
To: CHERRY Steve P * ODFW <Steve.P.CHERRY@odfw.oregon.gov>
Cc: SOMERS Lindsay N * ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>
Subject: FW: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022

Forwarding per your request during our call.
Thank you.
-Chase

From: MCVEIGH-WALKER Chase * ODOE
Sent: Wednesday, September 14, 2022 4:39 PM
To: BLEAKNEY Leann <lbleakney@nwcouncil.org>; jason.cane@state.or.us; david.mills@state.or.us; BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>; JOHNSON James * ODA <James.JOHNSON@oda.oregon.gov>; heather.peck@aviation.state.or.us; svelund.greg@deq.state.or.us; eric.nigg@state.or.us; CHERRY Steve P; THOMPSON

Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>; jon.p.germond@state.or.us; TOKARCZYK John A * ODF; jason.mcclaughry@oregon.gov; JININGS Jon; STEVENSON Chris * DSL <Chris.STEVENSON@dsl.oregon.gov>; matt.muldoon@state.or.us; RASHID Yassir PUC <Yassir.RASHID@puc.oregon.gov>; orshpo.clearance@oregon.gov; cityofioneor@gmail.com; heppner@cityofheppner.org; mclanec@cityofboardman.com
Subject: Request for Review and Comments on the proposed Wagon Trail Solar Project pASC - October 14, 2022

Good afternoon,

The Oregon Department of Energy (ODOE) received a preliminary application for site certificate (pASC) for the Wagon Trail Solar Project on August 31, 2022. ODOE will be relying on your agency's expertise in reviewing the pASC against the statutes and policies relevant to your agency.

The attached memo contains information about the pASC, the Energy Facility Siting Council (EFSC) review process, deadline for comments, and other information. We are requesting that comments be received by **Friday**, **October 14, 2022 at 5 pm PDT**. If you require additional time to review and comment, please let me know.

An electronic copy of the pASC is available on ODOE's website per the following hyperlink: https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WTS.aspx.

Thank you, and please do not hesitate to contact me with any questions.
-Chase

OREGON DEPARTMENT OF ENERGY

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 971-600-5323
P (In Oregon): 800-221-8035



MEMORANDUM

Department of Fish and Wildlife
Habitat Division
Intra Departmental

TO: Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E.
Salem, OR 97301

FROM: Lindsay Somers, Region Habitat Biologist
Oregon Dept. of Fish and Wildlife
73471 Mytinger Ln.
Pendleton, OR 97801
541-388-6294
Lindsay.n.somers@odfw.oregon.gov

DATE: October 14, 2022

RE: Oregon Dept. of Fish and Wildlife's Comments on the Preliminary Application for Site Certificate for the Wagon Trail Solar Project

---

Dear Chase,

Oregon Department of Energy has requested comments from the Oregon Department of Fish and Wildlife (ODFW) on the Preliminary Application for Site Certificate for the Wagon Trail Solar Project. This Letter contains: (1) ODFW contact information for the project; and (2) ODFW's comments on the Application.

Contacts: I will be the main contact person for ODFW for the Wagon Trail Solar Energy Facility Siting Council (EFSC) permitting process. My contact information is 541-276-2344; Lindsay.n.somers@odfw.oregon.gov.

I will also be coordinating with District Wildlife Biologist Steve Cherry, PO Box 363, Heppner, OR 97836, (541) 676-5230. I would appreciate if you would ask the Applicant to send myself and Steve Cherry hard copies of the future EFSC process documents.

General Comments: The Oregon Department of Energy has requested comments from the Oregon Department of Fish & Wildlife on Wagon Trail Solar Project, specifically regarding Exhibits P and Q. There are several items in these exhibits that ODFW would like to address and

provide comments and recommendations, which are provided in the Specific Comments section below. In addition to the specific comments, ODFW appreciates the Applicant implementing several ODFW recommendations and voluntary measures to avoid and reduce impacts to habitat and wildlife, which includes but is not limited to, capping or otherwise modifying vertical pipes and piles to prevent cavity-dwelling and nesting birds from entering, and minimizing impacts to Category 2 and 3 habitats by siting the project on previously disturbed habitat.

Specific Comments: Please see table below.

Wagon Trail Solar Project Comments on the preliminary Application for Site Certificate (pASC) From Oregon Department of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
Exhibit P	OAR 345-021-0010(1)(p)(B)	Pg. 7/Table P-3 & Attachment 1/Pg. 1	The Applicant incorrectly defines the Category 1-6 definitions for the habitat type Open Water- Lakes, Rivers, Streams. The Category 5 definitions appear to be replicated Category 1 definitions, and all Category 1 and Category 6 definitions listed for Open Water – Lakes, Rivers, Streams should be N/A. Please ask ODFW for clarification if needed.
Exhibit P	OAR 345-021-0010(1)(p)(F)	Pg. 22/Section 8.1	The Applicant states that there will be 16 fenced areas within the proposed 3,641-acre site boundary. ODFW requests that a map of the final enclosure sites be provided to evaluate potential adverse impacts to connectivity between patches of remaining habitat.
Exhibit P	OAR 345-021-0010(1)(p)(F)	Section 8.0	ODFW requests the Applicant include a section describing impacts to Category 5 habitat that is referenced in Table P-7 (Pg. 23).
Exhibit P	OAR 345-021-0010(1)(p)(F)	Pg. 23-24/Section 8.1.2	The Applicant lists impacts to Category 2 habitat on Table P-7/Pg. 23. The Applicant states that the final design for the facility will avoid impacts to Category 2 habitat. If this will be achieved by final project micrositing, please provide an updated list of the temporary and permanent impacts by habitat category and type.
Exhibit P	OAR 345-021-0010(1)(p)(F)	Pg. 28/Para. 2	The Applicant states that there will be no permanent impact to wildlife habitat due to the construction or operation of the facility. ODFW considers a “permanent” impact to mean any area that is part of the final facility and typically would be under pavement or infrastructure, or permanently cleared in the case of a right of way, for the life of the project. Although this project is primarily sited on Category 6 habitat, the Applicant lists permanent impacts to approximately 7 acres of Category 3 wildlife habitat for species including Long-billed curlew, Grasshopper sparrow, and

Wagon Trail Solar Project Comments on the preliminary Application for Site Certificate (pASC) From Oregon Department of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
			Swainson's hawk. Please clarify that 7 acres of wildlife habitat will be impacted or explain it if this is not the case.
Exhibit P	OAR 345-021-0010(1)(p)(G)	Pg. 30/Section 9.1.2	ODFW requests that the Applicant include a statement about surveys for Washington ground squirrels (WGS) being conducted prior to construction of the facility. Surveys for WGS are considered viable for use in the construction of projects for a three-year period because of the propensity for WGS to move. ODFW would recommend that the developer survey any area not surveyed within a three-year time frame prior to construction in areas of suitable WGS habitat within 1,000 feet of ground disturbing activities.
Exhibit P	OAR 345-021-0010(1)(p)(G)	Pg. 32/Para. 1	ODFW recommends that the post construction monitoring plan for the project include monitoring of all known WGS colonies in the project area for the life of the project. A WGS colony boundary includes the polygon surrounding the known burrows as well as the 785 ft buffer of Category 1 habitat.
Exhibit P/ Figure P-6	OAR 345-021-0010(1)(p)(F)		The provided map does not include Category 5 habitat within the analysis area although Impacts to Category 5 habitat are included in table P-7 page 23. Please clarify.
Exhibit P/Attachment P-1	OAR 345-021-0010(1)(p)(B)	Figures 1, 1.6, & 1.7	The area in the Northeast portion of figure 1 and described in detail in figures 1.6 and 1.7 is not included on any other site boundary maps, will this proposed area be included in the final project site boundary?
Exhibit P/ Attachment P-2	OAR 345-021-0010(1)(p)(H)	Pg. 2/Section 3.0	The Applicant states that long term raptor nest monitoring would occur at five-year intervals after the first year of surveys following construction of the facility. ODFW would recommend that the Applicant conduct the long-term monitoring on years divisible by five (i.e. 2025, 2030, 2035, etc.) to try

Wagon Trail Solar Project Comments on the preliminary Application for Site Certificate (pASC) From Oregon Department of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
			to develop a consistent survey period across energy facilities within the Columbia Basin. A consistent survey period would result in a more complete understanding of raptor status around the energy facilities within the Basin.
Exhibit P/Attachment P-2	OAR 345-021-0010(1)(q)(C) OAR 345-021-0010(1)(p)(G)	Pg. 3/Section 4.0	The Applicant states that no monitoring for WGS will occur because the known colony is outside of the site boundary. A WGS colony boundary includes the polygon surrounding the known burrows as well as the 785 ft buffer of Category 1 habitat. Because of the proximity of the located WGS colony (within 785 ft of the site boundary) ODFW would recommend that the Applicant monitor the known existing WGS colonies in the project area.
Exhibit P/Attachment P-2	OAR 345-021-0010(1)(p)(H)	Pg. 4/Section 5.0	ODFW requests more information regarding the post-construction fatality monitoring program that is referenced in the draft plan.
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(H)	Pg. 6/Section 5.0	The Applicant states that the estimated temporary impacts to Category 5 Open Water-Ephemeral Stream habitat will be approximately 0.01 acres. Although ODFW requests no compensatory mitigation for temporary impacts to Category 5 habitat, ODFW requests that this area is included in the revegetation plan.
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(H)	Pg. 7/Section 6.2	ODFW requests that a detailed wildfire response plan be included as a habitat enhancement action.
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(H)	Pg. 7/Section 6.2	ODFW would recommend that restricted livestock grazing be included as a habitat enhancement action. Restricting grazing for at least 10 years will increase shrub resiliency in the planted areas. ODFW further requests that any grazing that does take place after the 10-year period should improve or maintain wildlife habitat.

Wagon Trail Solar Project Comments on the preliminary Application for Site Certificate (pASC) From Oregon Department of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(G) & OAR 345-021-0010(1)(p)(H)	Pg. 8/Section 6.3	The Applicant states that monitoring of the HMA will include assessments of the density of shrubs/cover and composition of grasses using the belt transect method and quadrat methods. ODFW requests specific protocol or citations for the above methods.
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(G) & OAR 345-021-0010(1)(p)(H)	Pg. 8/Table 6/Shrub planting	The Applicant states that the success criteria for shrub planting will be at least 50% of the reference site. ODFW recommends that the success criteria for the shrub planting be separated from the facility reference site and be based on a percent of survival of the planted shrubs. For example, if 2.5 acres of shrubs are planted at a density of 250 plants/acre, and the success criteria is 30% survival, a successful establishment of shrubs would be 75 shrubs/acre.
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(G) & OAR 345-021-0010(1)(p)(H)	Pg. 8/Table 6/7-acre grass treatment	ODFW requests more information regarding the methods for the 7-acre grass treatment.
Exhibit P/Attachment P-4	OAR 345-021-0010(1)(p)(H)	Pg. 2/Table 2	The Applicant lists a summary of temporary habitat impacts for Category 2-4 but does not include the estimated 0.01 acres of temporary impact to Category 5 Open-Water Ephemeral stream habitat. Although ODFW requests no compensatory mitigation for temporary impacts to Category 5 habitat, ODFW requests that this area is included in the revegetation plan.

Wagon Trail Solar Project Comments on the preliminary Application for Site Certificate (pASC) From Oregon Department of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
Exhibit P/Attachment P-4	OAR 345-021-0010(1)(p)(H)	Pg. 5/Section 4.2	ODFW suggests that monitoring for noxious weeds occurs more than once annually, at least for the first 5-year period directly after revegetation. More frequent checks for noxious weed infestations will enable the Applicant to respond to new noxious weeds infestations in a timely manner and ensure the success of the revegetation plan.
Exhibit P/Attachment P-4	OAR 345-021-0010(1)(p)(H)	Pg. 8/Section 4.4.3	The Applicant states that if revegetation efforts fail, and additional mitigation is proposed to compensate for the loss of wildlife habitat, revegetation and weed control would continue to apply but without application of success criteria. ODFW recommends that even if revegetation efforts fail, that the Applicant detail what noxious weed control and revegetation efforts would be performed so that success is measurable.
Exhibit Q	OAR 345-021-0010(1)(q)(B)	Pg. 5/Section 4.2.1	The Applicant states that some areas of suitable WGS habitat were not surveyed for WGS due to access constraints. ODFW requests more information about the non-surveyed areas including how many acres of suitable WGS habitat was not surveyed. If there is suitable WGS habitat within the inaccessible area that is within 1,000 ft of proposed or planned ground disturbing activities, how will this area be surveyed prior to construction?
Exhibit Q	OAR 345-021-0010(1)(q)(C)	Pg. 9/Section 6.2	Surveys for WGS are considered viable for use in the construction of projects for a three-year period because of the propensity for WGS to move. ODFW would recommend that the developer survey any area not surveyed within a three-year time frame prior to construction in areas of suitable WGS habitat within 1,000 feet of ground disturbing activities.
Exhibit Q	OAR 345-021-0010(1)(q)(B)	Pg. 6	The Applicant states that one WGS colony was recorded in the analysis area. The habitat categorization map Exhibit P/Figure P-6 shows two areas of

Wagon Trail Solar Project Comments on the preliminary Application for Site Certificate (pASC) From Oregon Department of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
			Category 1 habitat outside of the site boundary, but within the analysis area. Could the Applicant clarify the designation of both areas?

ESTERSON Sarah * ODOE

Subject: Wagon Trail Solar - Morrow County Comments on PaSC
Attachments: BOC Wagon Trail Solar PsSC.pdf

From: Tamra Mabbott <tmabbott@co.morrow.or.us>
Sent: Thursday, October 13, 2022 2:06 PM
To: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Cc: Eric Imes <eimes@co.morrow.or.us>; Stephen Wrecsics <swrecsics@co.morrow.or.us>; Paul Gray <pgray@co.morrow.or.us>; City of Ione <cityofioneor@gmail.com>; heppner@cityofheppner.org
Subject: Wagon Trail Solar - Morrow County Comments on PaSC

Hello Chase – please see attached Morrow County comments on the Preliminary Application for Site Certificate (PaSC) for Wagon Trail Solar.

Cities of Heppner, Lexington and Ione – In this letter Board raises the issue of socioeconomic impacts to the surrounding communities, specifically, housing. County is encouraging the applicant to consult with cities about opportunities to partner to bring more housing to accommodate construction and permanent employees at the proposed facility.

Please let me know if you would like to discuss this project. Chase McVeigh-Walker is the Siting Analyst and staff for Oregon Department of Energy on this project. You may also contact Chase to discuss.

Cordially, Tamra

MORROW COUNTY

Board of Commissioners

P.O. Box 788 • Heppner, OR 97836
541-676-5613
www.co.morrow.or.us

Commissioner Jim Doherty, Chair
Commissioner Melissa Lindsay
Commissioner Don Russell

October 12, 2022

Chase McVeigh-Walker, Siting Officer
Oregon Department of Energy
550 Capitol Street NE 1st Floor
Salem, Oregon 97301

RE: Wagon Trail Solar Project Preliminary Application for Site Certificate Comment Letter

Dear Mr. McVeigh-Walker:

Morrow County submits this letter to provide comments on the completeness of the Exhibits included in the Preliminary Application for Site Certificate (PaSC). Our comments focus on local interpretation of the Oregon Department of Energy (ODOE) Siting Council Standards as well as local applicable Ordinances. Our comments do NOT include Conditions of Approval rather, we will reserve those to include in our comments on the draft Proposed Order.

Exhibit E Permits Required:
Permits listed in the application accurately reflect the requirements from Morrow County. Please update contact information for Morrow County Public Works Director to Eric Imes, eimes@co.morrow.or.us.

The northern portion of Morrow County is host to the Boardman Military Operations Area (MOA). This Special Use Airspace is essential to National Defense and is mission critical to Naval Air Station (NAS) Whidbey Island and the Oregon Military Department (OMD). Morrow County requests review from both NAS Whidbey Island and OMD for their determination of no hazard to the future use of the MOA.

Exhibit K Land Use:
The land use analysis excludes maps or data to show the specific areas that qualify as "arable" under OAR 660-033-0130(38) or areas that are considered "high value farmland" according to ORS 195.300. The goal 3 exception analysis is not specific to lands and includes only general reasons for granting a Goal 3 exception. Further, Exhibit K does not address cumulative impacts of this project, combined with other adjacent existing and future projects and the relationship to the agricultural economy. Morrow County recommends Exhibit K provide more detailed mapping, data and analysis and a more robust Goal 3 exception justification.

Exhibit K page 40 includes general conclusions about complying with screening, drainage, lighting, etc. Morrow County requests more detail on lighting and mitigation. Any project lighting should be limited as to not interfere with the night sky, such lighting be shielded and directed downward.

Fencing that is at or over six feet in height will be subject to a Morrow County Zoning Permit as a structure. This should be identified in the exhibit.

Parking within the project area and at the O&M facility must meet building and ADA standards.

Exhibit P Fish and Wildlife:
At Exhibit P 9.1.4 PaSC mentions weed control. Morrow County incorporated weed abatement in the Code Enforcement Ordinance effective January 2015. Application would be improved if it included explicit mention of compliance with all local and state weed control rules, in particular addressing the identified Noxious Weeds and Weeds of Economic Importance and treatment as part of the Revegetation and Noxious Weed Control Plan. Additionally, Morrow County requests consultation with the Morrow County Weed Inspector and that the Weed Inspector be a reviewer of the applicant's Revegetation and Noxious Weed Control Plan.

Exhibit U Public Services. Exhibit U describes impacts to the community. There is an analysis of truck traffic but no analysis of transportation of employees. This exhibit warrants additional consideration of transit, carpooling and other modes of transportation for construction workers and maintenance workers.

At Exhibit U 2.3.2.4 Housing, the analysis is only very general and relies on outdated data. The exhibit warrants a more robust analysis and provision of specific solutions for providing housing, particularly for lands within the 30-mile study area. For example, South Morrow County is experiencing a severe housing shortage. Simply mentioning availability of rental units in remote areas does not appear to be adequate. Applicant is strongly encouraged to consult with the Town of Lexington, City of Ione and City of Heppner to identify housing options and solutions.

County notes that the Exclusive Farm Use Zone does not allow occupancy of an RV other than for temporary use. County has experienced such code violations associated with other renewable energy projects during the construction period. In order to avoid violations with this project, we encourage developer to meet with local cities and identify locations for longer term occupancy of Recreation vehicles.

Exhibit V Generation of Solid Waste and Wastewater:
The Morrow County Solid Waste Ordinance was adopted in 2006 and is applicable to the preliminary Application for Site Certificate. Morrow County requests the applicant address the Solid Waste Ordinance with particular focus on assuring that recyclables be disposed of in such a way to benefit the Morrow County waste shed through reporting as well as complying with requirements that solid waste be transported either by a franchised hauler or by complying with self-haul requirements. Contractor will be required to contract with a licensed solid waste handler or haul directly to an approved recycling facility.

Exabit W Facility Retirement and Site Restoration:
Morrow County requests that the PaSC address final Retirement Plan and note that it will be

drafted in consultation with the Morrow County Weed Inspector as related to revegetation of the site at the time of decommissioning. Exhibit should also note that decommissioning financial assurances as presented in the Final Site Certificate will be in place prior to the start of construction.

OTHER
We note the application does not address fire and wildfire prevention. County requests this be included and that the applicant consult with local fire departments. County strongly encourages the applicant consult with Paul Gray, Morrow County Emergency Manager at (541) 676-5605.

Thank you for the opportunity to comment on the Wagon Trail Solar Generating Facility Request for Preliminary Application for Site Certificate. Should you have any questions about these comments please contact our Planning Director, Tamra Mabbott at 541-922-4624 or by email at tmabbott@co.morrow.or.us.

Sincerely,

Morrow County Board of Commissioners

Jim Doherty, Chair

Melissa Lindsay, Vice-Chair

Don Russell, Commissioner

Cc: Eric Imes, Public Works Director
Paul Gray, Emergency Manager
Dave Pranger, Weed Supervisor
Town of Lexington
City of Heppner
City of Ione

Confederated Tribes *of the*
Umatilla Indian Reservation

Board of Trustees & General Council

46411 Timíne Way • Pendleton, OR 97801
(541) 429-7030 • fax (541) 276-3095
https://ctuir.org

March 6, 2024

Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capital St., N.E., 1st Floor
Salem, Oregon 97301

Sent electronically to: Chase.MCVEIGH-WALKER@energy.oregon.gov

Dear Mr. McVeigh-Walker:

Wagon Trail Energy Center, LLC has consulted with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) regarding their proposed solar project, known as Wagon Trail Solar Project, in Morrow County, Oregon, south of the Boardman Bombing Range. The CTUIR has been in discussions with Wagon Trail Energy Center, LLC regarding the Project and we have come to a mutual agreement to mitigate for the adverse effects the Project will have on historic property of religious and cultural significance to the CTUIR. The CTUIR is taking the initiative to inform the Oregon Department of Energy that the CTUIR's concerns have been addressed by this agreement and we have no further concerns with the proposed Project with respect to historic properties of religious and cultural significance to the CTUIR.

Should you have questions or concerns, please feel free to contact Teara Farrow Ferman, Program Manager, Cultural Resources Protection Program, at (541) 429-7230 or TearaFarrowFerman@ctuir.org.

Respectfully,

Gary I. Burke, Chairman
Board of Trustees

cc: Katie Frayler, Tribal Relations, Project Director, NextEra Energy Resources

From: Teara Farrow Ferman
Sent: Wednesday, March 13, 2024 10:32 AM
To: MCVEIGH-WALKER Chase * ODOE
Cc: Frayler, Katie
Subject: CTUIR letter to ODOE regarding Wagon Trail Solar
Attachments: 2024 03 06 CTUIR letter to OR DOE_Wagon Trail Solar Project.pdf

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Apologies for getting this letter out to you late. I was out of the office when the signed letter was returned to me.

TEARA FARROW FERMAN
Cultural Resources Protection Program Manager | Department of Natural Resources
Assistant General Manager | Átaw Consulting, LLC
Confederated Tribes of the Umatilla Indian Reservation
46411 Timíne Way | Pendleton | Oregon 97801
541.429.7230 Office|Fax
TearaFarrowFerman@ctuir.org

The information in this e-mail may be confidential and intended only for the use and protection of the Confederated Tribes of the Umatilla Indian Reservation. If you have received this email in error, please immediately notify me by return e-mail and delete this from your system. If you are not an authorized recipient for this information, then you are prohibited from any review, dissemination, forwarding or copying of this e-mail and its attachments. Thank you.

From: Carla McLane
Sent: Thursday, January 18, 2024 2:53 PM
To: MCVEIGH-WALKER Chase * ODOE
Cc: David.Lawlor@nee.com; Tamra Mabbott; Brandon Hammond
Subject: Wagon Trail Solar - Comment
Attachments: WTS Comment 01182024 signed.pdf

You don't often get email from mclanec@cityofboardman.com. Learn why this is important

Chase,
Good afternoon.

Please find attached a comment letter from the City of Boardman. Be glad to discuss further with you or the applicant.

Cordially,
Carla McLane
Planning Official
541-481-9252
The information contained in this e-mail message and any attachments may be privileged and confidential. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that any review, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately by replying to this e-mail and delete the message and any attachments from your computer.

City of Boardman

200 City Center Circle
P.O. Box 229
Boardman, OR 97818
Phone: (541) 481-9252
Fax: (541) 481-3244
TTY Relay 711
www.cityofboardman.com

January 18, 2024

Chase McVeigh-Walker, Senior Siting Analyst (VIA EMAIL)
Oregon Department of Energy
550 Capitol Street NE
Salem, Oregon 97301

Dear Mr. McVeigh-Walker:

Many thanks to you, the Department, and the applicant for the information provided during the information session held on Wednesday, January 17, 2024. It was helpful to understand a bit more about this project.

The purpose of this letter is to inquire further about the current plans for temporary construction housing and share the desire of the City of Boardman to work with the department and applicant to address temporary construction housing. Over the past several years the City of Boardman has seen an exponential growth in housing and yet it is still inadequate to the needs of our employers. And not just for employees but also for temporary construction workers for any number of development projects.

We are also concerned that the allowance of local farms to install temporary facilities for housing this need, which is not addressed in the application, could lead to enforcement issues at a future date. Boardman is engaging a local conversation to attempt to get ahead of this need and identify a variety of pathways to address several different housing needs. If the applicant is so inclined, we would invite them to participate in our housing needs project. Should that not fit we would ask for a meeting with them to discuss some options that we have brainstormed just since last night's meeting.

Again, thanks for the opportunity to comment to this process. I understand that this comment will be difficult to respond to as part of the Site Certificate process but would ask that as the Draft Proposed Order is compiled that some attention is given to the clear concern that Boardman, and many of the other cities in this area, have concerning impacts to housing, whether permanent or temporary in nature.

Cordially,

Carla McLane
Planning Official

cc: Tamra Mabbott, Morrow County Planning Director
David Lawlor, NextEra Energy

From: John Doherty
Sent: Thursday, January 18, 2024 9:54 AM
To: MCVEIGH-WALKER Chase * ODOE
Subject: RE: Complete Application for Site Certificate for the Wagon Trail Solar Project - Request for Agency Report on Compliance and Recommended Site Certificate Conditions (Jan 18, 2024)
Attachments: COH Wagon Trail Energy Center commentary.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

You don't often get email from manager@cityofheppner.org. Learn why this is important

Chase – I had difficulties with the meeting link last night and then departed for a previously scheduled event. I have looked at the project link you provided am attaching the commentary on behalf of the City of Heppner. Please feel free to reach out with any questions.
Thanks,

John Doherty
City Manager
PO Box 756
Heppner, OR 97836-0756
manager@cityofheppner.org
(541) 676-9618 City Hall
(406) 696-9254 Cell

From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Sent: Thursday, January 11, 2024 11:16 AM
To: John Doherty <manager@cityofheppner.org>
Subject: RE: Complete Application for Site Certificate for the Wagon Trail Solar Project - Request for Agency Report on Compliance and Recommended Site Certificate Conditions (Jan 18, 2024)

Good morning John,

Thanks for your question! There isn't a form template for reviewing agency comments. Providing them on City Letterhead is appreciated (and probably preferred), but you can also provide them as the body of an email. We appreciate your review and look forward to your comments.

Regards,
-Chase

From: John Doherty <manager@cityofheppner.org>
Sent: Thursday, January 11, 2024 10:44 AM
To: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Subject: RE: Complete Application for Site Certificate for the Wagon Trail Solar Project - Request for Agency Report on Compliance and Recommended Site Certificate Conditions (Jan 18, 2024)

You don't often get email from manager@cityofheppner.org. Learn why this is important

Chase – Is there a form template to use to provide feedback on the Wagon Trail Project, or should it should be on city letterhead?
Thanks,

John Doherty
City Manager
PO Box 756
Heppner, OR 97836-0756
manager@cityofheppner.org
(541) 676-9618 City Hall
(406) 696-9254 Cell



From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Sent: Thursday, January 4, 2024 9:19 PM
To: kimberly.peacher@navy.mil; BLEAKNEY Leann <lbleakney@nwcouncil.org>; jason.cane@state.or.us; david.mills@state.or.us; BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>; JOHNSON James * ODA <James.JOHNSON@oda.oregon.gov>; PIKE Brandon <Brandon.PIKE@odav.oregon.gov>; SVELUND Greg * DEQ <svelund.greg@deq.state.or.us>; KENNEDY Mike * DEQ <Mike.KENNEDY@deq.oregon.gov>; CRUSE Martha * DEQ <Martha.CRUSE@deq.oregon.gov>; ISAAK Patty * DEQ <Patty.ISAAK@deq.oregon.gov>; Steve.P.Cherry@state.or.us; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>; SOMERS Lindsay N * ODFW <Lindsay.N.Somers@odfw.oregon.gov>; HOLSCHBACH Tim J * ODF <Tim.J.HOLSCHBACH@odf.oregon.gov>; TOKARCZYK John A * ODF <john.a.tokarczyk@oregon.gov>; MCCLAUGHRY Jason * DGMI <jason.mcclaughry@oregon.gov>; HERT Dawn * DLCD <dawn.hert@dlcd.oregon.gov>; FOOTE Hilary * DLCD <hilary.foote@dlcd.oregon.gov>; JININGS Jon * DLCD <jon.jinings@state.or.us>; SALGADO Jessica * DSL <Jessica.SALGADO@dsl.oregon.gov>; FITZGERALD Richard W * DSL <Richard.W.FITZGERALD@dsl.oregon.gov>; MULDOON Matt * PUC <matt.muldoon@state.or.us>;

RASHID Yassir * PUC <Yassir.RASHID@puc.oregon.gov>; BJORK Mary F * WRD <mary.f.bjork@state.or.us>; lori.smith@umatillacounty.gov; dan.dorran@umatillacounty.gov; john.shafer@umatillacounty.gov; cindy.timmons@umatillacounty.gov; robert.waldher@umatillacounty.gov; cityofioneor@gmail.com; John Doherty <manager@cityofheppner.org>; mclanec@cityofboardman.com
Cc: CORNETT Todd * ODOE <Todd.CORNETT@energy.oregon.gov>; ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: Complete Application for Site Certificate for the Wagon Trail Solar Project - Request for Agency Report on Compliance and Recommended Site Certificate Conditions (Jan 18, 2024)

Good evening,

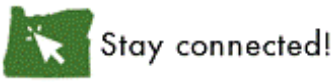
On December 22, 2023, the Oregon Department of Energy (Department), as staff to the Energy Facility Siting Council (EFSC), determined that the preliminary Application for Site Certificate (pASC) for the Wagon Trail Solar Project (proposed facility) was complete. On January 3, 2024, the Department received the complete Application for Site Certificate (ASC) from the applicant, Wagon Trail Energy Center, LLC. The proposed facility is a solar photovoltaic energy generation facility with a nominal generating capacity of approximately 500 megawatts (MWs), with related or supporting facilities, within a site boundary of 7,450 acres in Morrow County, Oregon.

Please find attached a memo requesting your agency provide a report including your comments associated with the proposed facility's compliance with applicable statues, rules and ordinances and recommended site certificate conditions. The Department requests your comments as soon as possible, but no later than **January 18, 2024**. The memo also provides more information about the proposed facility and the Energy Facility Siting Council's review process and information on cost reimbursement. The ASC is available for viewing and downloading on the ODOE from the ODOE website: https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WTS.aspx

The Department will hold an in-person and remote public informational meeting with the applicant on the ASC on January 17, 2024 (additional information is provided in the attached memo). You are encouraged to attend if you like, but it is not required.

Thank you, and please do not hesitate to contact me with any questions.

Regards,
-Chase

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 971-600-5323
P (In Oregon): 800-221-8035


City Of Heppner
Gateway to the Blues
111 N. Main Street – P.O. Box 756
Heppner, Oregon 97836-0756
541-676-9618 – manager@cityofheppner.org

January 16, 2024

Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capital Street NE
Salem, OR 97301

Dear Mr. McVeigh-Walker:

This letter is in regards to the proposed Wagon Trail Solar Project, located in Morrow County, Oregon. The proposed development is outside the City of Heppner's city limits and UGB and will not conflict with or jeopardize any future development plans for the City of Heppner in the foreseeable future. The City of Heppner has no objections to the proposed energy project, if all requirements set forth by the various Federal, State, and/or local agencies are met by the developer.

The City of Heppner respects the choice of landowners with their decisions on how to best utilize their property to ensure the continued prosperity of their lands. The City of Heppner also welcomes new industrial developments within the county. New developments such as these will strengthen the tax base for the County as well as provide job growth and hopefully housing growth. The construction phase of the project will have a positive economic impact on the area, as local contractors and labor may be used. Materials and services will be utilized during the construction phase.

Please feel free to contact me with any questions.

Sincerely,

John Doherty
City Manager
City of Heppner

From: SOMERS Lindsay N * ODFW
Sent: Thursday, January 18, 2024 3:04 PM
To: MCVEIGH-WALKER Chase * ODOE
Cc: CHERRY Steve P * ODFW; THOMPSON Jeremy L * ODFW
Subject: RE: Complete Application for Site Certificate for the Wagon Trail Solar Project - Request for Agency Report on Compliance and Recommended Site Certificate Conditions (Jan 18, 2024)
Attachments: WTSP_completeASC_ODFW.pdf

Hi Chase,

I have attached ODFW comments on the Complete ASC for Wagon Trail Solar. Please let me know if you have any questions,

Lindsay

From: MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Sent: Thursday, January 4, 2024 9:19 PM
To: kimberly.peacher@navy.mil; BLEAKNEY Leann <lbleakney@nwcouncil.org>; jason.cane@state.or.us; david.mills@state.or.us; BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>; JOHNSON James * ODA <James.JOHNSON@oda.oregon.gov>; PIKE Brandon <Brandon.PIKE@odav.oregon.gov>; SVELUND Greg * DEQ <svelund.greg@deq.state.or.us>; KENNEDY Mike * DEQ <Mike.KENNEDY@deq.oregon.gov>; CRUSE Martha * DEQ <Martha.CRUSE@deq.oregon.gov>; ISAAK Patty * DEQ <Patty.ISAAK@deq.oregon.gov>; Steve.P.Cherry@state.or.us; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>; SOMERS Lindsay N * ODFW <Lindsay.N.Somers@odfw.oregon.gov>; HOLSCHBACH Tim J * ODF <Tim.J.HOLSCHBACH@odf.oregon.gov>; TOKARCZYK John A * ODF <john.a.tokarczyk@oregon.gov>; MCCLAUGHRY Jason * DGMI <jason.mcclaughry@oregon.gov>; HERT Dawn * DLCD <dawn.hert@dlcd.oregon.gov>; FOOTE Hilary * DLCD <hilary.foote@dlcd.oregon.gov>; JININGS Jon * DLCD <jon.jinings@state.or.us>; SALGADO Jessica * DSL <Jessica.SALGADO@dsl.oregon.gov>; FITZGERALD Richard W * DSL <Richard.W.FITZGERALD@dsl.oregon.gov>; MULDOON Matt * PUC <matt.muldoon@state.or.us>; RASHID Yassir * PUC <Yassir.RASHID@puc.oregon.gov>; BJORK Mary F * WRD <mary.f.bjork@state.or.us>; lori.smith@umatillacounty.gov; dan.dorran@umatillacounty.gov; john.shafer@umatillacounty.gov; cindy.timmons@umatillacounty.gov; robert.waldher@umatillacounty.gov; cityofioneor@gmail.com; heppner@cityofheppner.org; mclanec@cityofboardman.com
Cc: CORNETT Todd * ODOE <Todd.CORNETT@energy.oregon.gov>; ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: Complete Application for Site Certificate for the Wagon Trail Solar Project - Request for Agency Report on Compliance and Recommended Site Certificate Conditions (Jan 18, 2024)

Good evening,

MEMORANDUM

Department of Fish and Wildlife
Habitat Division

TO: Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E., 1st Floor
Salem, OR 97301

FROM: Lindsay Somers, Region Habitat Biologist
Oregon Dept. of Fish and Wildlife
73471 Mytinger Ln.
Pendleton, OR 97801
541-388-6294
Lindsay.n.somers@odfw.oregon.gov

DATE: January 18, 2024

RE: Request for Agency Report on Compliance and Recommended Site Certificate Conditions on the Complete Application for Site Certificate for the Proposed Wagon Trail Solar Project

---

General Comments: The Oregon Department of Fish and Wildlife (ODFW) appreciates the Applicant avoiding and minimizing impacts to wildlife habitat by early coordination with ODFW and by siting facility components on already disturbed areas. Please see specific comments below.

Specific Comments: Please see table below.

On December 22, 2023, the Oregon Department of Energy (Department), as staff to the Energy Facility Siting Council (EFSC), determined that the preliminary Application for Site Certificate (pASC) for the Wagon Trail Solar Project (proposed facility) was complete. On January 3, 2024, the Department received the complete Application for Site Certificate (ASC) from the applicant, Wagon Trail Energy Center, LLC. The proposed facility is a solar photovoltaic energy generation facility with a nominal generating capacity of approximately 500 megawatts (MWs), with related or supporting facilities, within a site boundary of 7,450 acres in Morrow County, Oregon.

Please find attached a memo requesting your agency provide a report including your comments associated with the proposed facility's compliance with applicable statues, rules and ordinances and recommended site certificate conditions. The Department requests your comments as soon as possible, but no later than **January 18, 2024**. The memo also provides more information about the proposed facility and the Energy Facility Siting Council's review process and information on cost reimbursement. The ASC is available for viewing and downloading on the ODOE from the ODOE website: https://www.oregon.gov/energy/facilities-safety/facilities/Pages/WTS.aspx

The Department will hold an in-person and remote public informational meeting with the applicant on the ASC on January 17, 2024 (additional information is provided in the attached memo). You are encouraged to attend if you like, but it is not required.

Thank you, and please do not hesitate to contact me with any questions.

Regards,
-Chase

OREGON DEPARTMENT OF ENERGY

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 971-600-5323
P (In Oregon): 800-221-8035

Stay connected!

Wagon Trail Solar Project Comments on the Complete Application for Site Certificate From Oregon Dept. of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
Exhibit P	OAR 345-021-0010(1)(p)(F)	Pg. 17/Section 8.1.2	Please clarify total impacts to wildlife habitat under final facility design.
Exhibit P	OAR 345-021-0010(1)(p)(H)	Pg.21/Section 8.2.2	ODFW appreciates the Applicant developing a post-construction monitoring program with the goal of answering a region-specific question on wildlife-PV solar interaction.
Exhibit P		Pg. 25/Section 9.1.3	Early release date for Burrowing owl nest sites is May 31.
Exhibit P	OAR 345-021-0010(1)(p)(F)	Pg. 24/Section 9.1	ODFW would like to discuss the final layout design of the fences and potential monitoring, by ODFW or the Applicant, of wildlife movement between fencing exclosures. Fencing surrounding PV solar facilities has the potential to negatively impact wildlife via entrapment, strikes, or reducing habitat connectivity. To avoid entrapment of big game, ODFW recommends panel array fencing be at least 8 feet tall with gates on opposite sides of facilities to facilitate big game egress. For fencing types that pose a high collision risk, ODFW recommends bird diverter fence markers to increase visibility. Where feasible, ODFW recommends fences be designed to allow permeability for smaller wildlife using small gaps between the fence and the ground, at regular intervals around the perimeter fencing.
Exhibit P/Attachment P-2	OAR 345-021-0010(1)(p)(H)	Pg. 1	ODFW requests more details on long-term Raptor nest monitoring.
Exhibit P		Figure P-5 Habitat types within the Analysis Area	The current figure does not identify the area that is Developed: Other within the site boundary, could the Applicant please clarify the current boundaries?

Wagon Trail Solar Project Comments on the Complete Application for Site Certificate From Oregon Dept. of Fish and Wildlife			
Exhibit	**Rule/ Ordinance/Law Reference**	**Pg. / Para. / Sentence Reference (as needed)**	**Comment or Information Request**
Exhibit P/Attachment P-3	OAR 345-021-0010(1)(p)(G) OAR 345-021-0010(1)(p)(H	Pg. 9/Section 6.2 Pg. 10/Table 7	Although minimization measures from the final facility design may reduce mitigation need, greater detail is needed to evaluate measures of habitat enhancement and success criteria. ODFW recommends that shrub planting occur at densities found within the region or appropriate for the site conditions and that success criteria for annual grass treatment be detailed in the final HMP.
Exhibit P/Attachment P-4	OAR 345-021-0010(1)(p)(F)	Pg. 2/Section 2.2	Stated temporary habitat impacts differ from Draft Habitat Mitigation Plan, Exhibit P/Attachment P-3/Pg.3/Table 2. Please clarify total impact to Category 2 habitat.
Exhibit P/Attachment P-4	OAR 345-021-0010(1)(p)(H)	Pg.8/Section 4.4.3	ODFW suggests that monitoring for revegetation of temporary impacts to wildlife habitat occurs more than once annually, particularly directly after revegetation. More frequent checks for weedy non-native plants or early site colonizers, such as Russian Thistle (*Salsola tragus),* will ensure the success of the revegetation plan and reduce the need for remedial actions.

From: Tamra Mabbott
Sent: Friday, February 9, 2024 9:47 AM
To: MCVEIGH-WALKER Chase * ODOE
Cc: ESTERSON Sarah * ODOE; Eric Imes; Corey Sweeney; Daisy Goebel; Valerie Ballard
Subject: Fw: Signed Letter from BOC to EFSC Wagon Trail Solar
Attachments: 0088_001.pdf

Hello Chase and Sarah - attached is the Morrow County letter for Wagon Trail Solar ASC.
Please let me know if you have questions or comments. Happy to interpolate a few of the comments, especially the Goal 3 exception part.
Thank you for accepting our comments at this date.
Tamra

From: Valerie Ballard <vballard@co.morrow.or.us>
Sent: Thursday, February 8, 2024 10:20 AM
To: Tamra Mabbott <tmabbott@co.morrow.or.us>
Subject: Signed Letter from BOC to EFSC Wagon Trail Solar

Good morning,

Here is the signed letter from the Board to EFSC. Do you need the original?

Thanks,

Valerie Ballard
Executive Assistant
Morrow County Administration and Board of Commissioners
541-676-5613 ext. 5303
PO Box 788
110 N Court St.
Heppner, OR 97836
vballard@co.morrow.or.us

MORROW COUNTY

BOARD OF COMMISSIONERS

110 N Court St. • P.O. Box 788
Heppner, OR 97836
541-676-5613
www.co.morrow.or.us

David Sykes, Chair
Jeff Wenholz, Commissioner
Roy Drago Jr., Commissioner

February 7, 2024

Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capital Street NE
Salem, OR 97301

RE: Application for Site Certificate
Wagon Trail Solar

Dear Mr. McVeigh-Walker:

This letter is intended to provide comments and recommendations for the proposed 500 MW Wagon Trail Solar Application for Site Certificate (ASC). Morrow County generally supports conditions recommended by EFSC staff but shares additional recommendations about certain specific standards.

County agrees with the draft conditions of approval to ensure compliance with Land Use Standards found in OAR 345-022-0030 relating to county permits, a right to farm disclaimer, a final noxious weed plan, and compliance with recommendations of underlying landowners regarding final facility layout and design.

County notes that compliance with a weed plan, per Condition #Pre-LU-04, is problematic to enforce and to that end recommends that EFSC also require that the final noxious weed plan be reviewed and approved by county Weed Supervisor. That plan will, at minimum, require the certificate holder to fund at least one FTE County position to implement the weed abatement program and ensure compliance with planned noxious weed and native re-vegetation requirements. In addition, the noxious weed plan may require the certificate holder to employ personnel, hire a third party or fund additional county employee(s) to carry out the weed abatement program. The certificate holder's annual monitoring report required per EFSC's operational conditions should include a report identifying the ratio of noxious weeds to native vegetation to ensure compliance with the noxious weed plan.

To ensure appropriate coordination of construction traffic, County recommends EFSC include a condition requiring a Traffic Management Plan (TMP) and Road Use Agreement (RUA) to be approved by Morrow County. As part of the TMP and RUA, County will require the developer conduct a pre-construction survey of anticipated construction routes and implement road improvements identified in the survey prior to construction.

Additional detail about dust management during construction is warranted. Specifically, application should provide documentation about source of water supply to ensure water is from an appropriate source (well or city supply). Relatedly, developer claims no adverse impacts to water supply yet estimates 40-70 million gallons of water per phase during construction, and 1 million gallons per year after construction. Water is also required during drought conditions to wash solar panels. County recommends a condition of approval requiring the certificate holder to verify local capacity.

Exhibit U Socioeconomic Impacts includes a summary of housing Impacts that is not substantiated with current data. Morrow County, like much of Oregon, is experiencing a serious housing shortage. While temporary workforce housing may be permitted through the county CUP process, the ASC does not specify properties. Further, while county supports allowing temporary workforce housing on lands zoned Exclusive Farm Use, as part of the county CUP process, there is no evidence in the record that quantifies expected number of specific RV sites. Housing vacancy information is outdated. County recommends developer conduct a housing needs and impacts analysis specifically for temporary construction period and a mitigation plan for any downstream impacts to the local housing supply. The application does not identify cumulative impacts of multiple major construction projects. Several pending energy projects are claiming "no significant impacts" to local housing/water/services and are relying on the same baseline data.

Cities have also expressed concern about impacts to housing supplies and cumulative housing impacts. In addition to providing updated and current housing data, county recommends developer consult with cities in Morrow County and identify housing specifically for the Wagon Trail project.

With regard to Statewide Planning Goal 3, County does not support the conclusion that "[t]he site boundary includes an area of 7,450 acres, or approximately 1 percent of land on farms in Morrow County, and therefore a de minimis removal of land from agricultural use." Exhibit K page 50. This is particularly problematic to prove where the analysis fails to consider the cumulative impacts to agricultural land from the many large and small-scale energy generating facilities sited on farmable land in Morrow County.

The applicant's analysis relies on presumptive tax revenue to offset local agricultural and economic impacts, which is not consistent with the intent of Statewide Planning Goal 3. In Exhibit K Applicant relies upon a "reasons exception" per ORS 469.504 and concludes that the "exception is warranted to allow a locationally dependent facility that will fulfill important state and county goals by providing renewable energy while minimizing impacts on local farming practices." Exhibit K page 71. That statement does not account for the specific impacts on the subject property i.e. where there is a solar array constructed no farming is possible. County agrees generally that the development could take place in such a way that minimizes impacts to *adjacent* farming practices, however, the application provides no examples of how the development will minimize or mitigate impacts to the subject property underneath the solar array.

Applicant relies primarily on proximity to existing infrastructure and the overall economic benefit to county in general, as reasons to justify the exception. County suggests additional

detail be included to show how the proposed solar is compatible with adjacent farm use. Additionally, county recommends the ASC explore specific ideas to mitigate impacts to the farmland and the farming economy rather than relying on general financial contribution to county which may or may not mitigate farmland specifically.

As recognized by Goal 3, the value of agricultural land extends far beyond the taxable value of the property and as such, prospective tax revenue should not be the sole consideration when evaluating agricultural impact mitigation. County notes that the Agricultural Impact Analysis by ECONorthwest is similar to an analysis submitted for another project who has proposed a special fund be set aside earmarked for agriculture mitigation.

Sincerely,

David Sykes
Chair

RECUSED
Jeff Wenholz
Commissioner

Roy Drago Jr.
Commissioner

MORROW COUNTY

Attachment P-2: Draft Wildlife Monitoring and Mitigation Plan

DRAFT
Wildlife Monitoring and Mitigation Plan for the Wagon Trail Solar Project

Prepared for

NEXTera® ENERGY RESOURCES

Prepared by:

TETRA TECH

December 2023

Revised by the Department, May 2024

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Table of Contents

1.0 Introduction 1
2.0 Wildlife Response and Reporting System 2
3.0 Data Reporting 3
4.0 Amendment of the Plan 3
5.0 References 3

Acronyms and Abbreviations

Applicant	Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC
Council	Oregon Energy Facility Siting Council
Facility	Wagon Trail Solar Project
MW	megawatt
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
SCADA	supervisory control and data acquisition
USFWS	U.S. Fish and Wildlife Service
WMMP	Wildlife Monitoring and Mitigation Plan
WRRS	Wildlife Response and Reporting System

1.0 Introduction

Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC (Applicant) proposes to construct and operate the Wagon Trail Solar Project (Facility), a photovoltaic solar energy generation facility with a nominal and average generating capacity of up to 500 megawatts (MW), and related or supporting facilities in Morrow County, Oregon. The Facility will generate electricity using solar panels wired in series and in parallel to form arrays and connected to electrical infrastructure. The Facility will overlap with portions of the Wheatridge Renewable Energy Facilities I, II, and III.

The Facility will be located entirely on private land. The number, size, and actual layout of the Facility infrastructure has yet to be determined. Facility components proposed include:

- A 500-MW battery storage system;
- Collector substations;
- Electrical collection systems connecting the solar arrays;
- 230-kilovolt transmission line connecting to the existing Blue Ridge Substation;
- One operations and maintenance building;
- Meteorological stations and tower;
- New private access and service roads, gates and security fencing;
- Temporary construction areas;
- One supervisory control and data acquisition (SCADA) system.

This Wildlife Monitoring and Mitigation Plan (WMMP) has been prepared for operations of the proposed Facility and will be updated, as necessary, prior to construction.

This WMMP has the following components:

1. Wildlife Response and Reporting System (WRRS),

~~2. Raptor nest monitoring,~~

~~3. Washington ground squirrel monitoring,~~

~~4.~~2. ~~Post-construction fatality monitoring,~~ and

~~5.~~3. Data reporting.

The Applicant has also prepared a Habitat Mitigation Plan and Reclamation and Revegetation Plan to address effects on wildlife from habitat loss or modification.

2.0 Wildlife Response and Reporting System

The Applicant has voluntarily developed a WRRS as a proactive method of monitoring and recording wildlife found incidentally during the operation of the Facility. This system has a specific set of processes, procedures, and training for monitoring, responding to, and reporting bird, bat, or other wildlife species' injuries and fatalities at the Facility. The Applicant has developed a WRRS Manual, which gives details of the program and will guide operations personnel in implementation of the system. The manual's purpose is to standardize the actions in response to any wildlife fatalities or injuries found within the Applicant's facilities, regardless of their cause. The main points of the system are:

- Any livestock or wildlife injury or fatality discovered at the Facility will be documented by operations personnel.
- An incident report will be completed and include photographs.
- The Applicant 's wildlife program manager will be notified by the site manager within a reasonable timeframe to determine if further actions are needed, based on the species and circumstances surrounding the incident.
- If a federally endangered or threatened species is found dead or injured at the Facility, the Applicant will immediately notify the U.S. Fish and Wildlife Service (USFWS) Region 1 Field Office of the discovery within 1 business day of the species identification.
- If a state endangered or threatened species is found dead or injured at the Facility, the Applicant will immediately notify the Oregon Department of Fish and Wildlife (ODFW) of the discovery within one business day of species identification.

~~3.0 Washington Ground Squirrel Monitoring~~

~~Washington ground squirrel (*Urocitellus washingtoni*) pre-construction surveys were performed at the Facility to determine operations monitoring requirements. One active ground squirrel colony was recorded within the 2021 survey area, but the colony was located outside of the Site Boundary. As the colony is outside the Site Boundary no monitoring is planned at this time. However, if new colonies are located during other monitoring activities or incidentally during operations, the Applicant will document and delineate the colonies, and will amend the WMMP with a Washington ground squirrel monitoring program in consultation with ODOE. Observations of Washington ground squirrels in agricultural habitat will be reported to ODOE, but such observations do not warrant mitigation or monitoring.~~

~~4.0 Post-construction Fatality Monitoring~~

~~A post-construction fatality monitoring program for the first phase of the Facility will be developed in consultation with ODFW and ODOE. This program will address a wildlife-PV solar interaction research question with the potential for meaningful insight based on Facility-specific circumstances. This program will employ appropriate methods and assumptions according to the best available science.~~

~~5.0~~3.0 Data Reporting

The Applicant will report wildlife monitoring data to ODOE annually. Monitoring data include WRRS data, and if applicable, newly discovered Washington ground squirrel colonies. The Applicant may include the reporting of wildlife monitoring data in the annual report required under Oregon Administrative Rules 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted. In addition, upon request by ODOE, Applicant will provide to ODOE any data or record generated in carrying out this monitoring plan.

The Applicant will notify USFWS and ODFW if any federal or state endangered or threatened species are killed or injured at the Facility site within 1 business day of species identification.

~~6.0~~4.0 Amendment of the Plan

This WMMP may be amended by agreement of the Applicant and the Oregon Energy Facility Siting Council (Council). Such amendments may be made without amendment of the site certificate. The Council authorizes ODOE to agree to amendments to this plan. ODOE will notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of this plan.

~~7.0~~5.0 References

Steenhof, K., and I. Newton. 2007. Assessing nesting success and productivity. Pages 181–192 in D.M. Birdand K.L. Bildstein [Eds.], *Raptor research and management techniques*. Hancock House, Blaine, WA U.S.A.

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Attachment P-3: Draft Habitat Mitigation Plan

DRAFT
Habitat Mitigation Plan for the Wagon Trail Solar Project

Prepared for

NEXTera® ENERGY RESOURCES

Prepared by:

TETRA TECH

December 2023

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Attachment 1. Memorandum of Conservation Easement

Acronyms and Abbreviations

Applicant	Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC
Council	Oregon Energy Facility Siting Council
Facility	Wagon Trail Solar Project
HMA	Habitat Mitigation Area
HMP	Habitat Mitigation Plan
MW	megawatt
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
SCADA	supervisory control and data acquisition
WAGS	Washington ground squirrel

1.0 Introduction

Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC (Applicant) proposes to construct and operate the Wagon Trail Solar Project (Facility), a photovoltaic solar energy generation facility with a nominal and average generating capacity of up to 500 megawatts (MW), and related or supporting facilities in Morrow County, Oregon. The Facility will generate electricity using solar panels wired in series and in parallel to form arrays and connected to electrical infrastructure. The Facility will overlap with portions of the Wheatridge Renewable Energy Facilities I, II, and III. As described in detail in Exhibit B of the Application for Site Certificate, the Applicant proposes to construct the Facility in phases over several years. This Habitat Mitigation Plan (HMP) addresses a fully built-out scenario, but takes into consideration a phased construction schedule.

The Facility will be located entirely on private land. The number, size, and actual layout of the Facility infrastructure has yet to be determined. Facility components proposed include:

- A 500-MW battery storage system;
- Collector substations;
- Electrical collection systems connecting the solar arrays;
- 230-kilovolt transmission line connecting to the existing Blue Ridge Substation;
- One operations and maintenance building;
- Meteorological stations and tower;
- New private access and service roads, gates and security fencing;
- Temporary construction areas;
- One supervisory control and data acquisition (SCADA) system.

The Applicant conducted habitat categorization surveys and other biological studies to define habitat categorization of the Facility in accordance with the Oregon Department of Fish and Wildlife (ODFW) Fish and Wildlife Habitat Mitigation Policy, Oregon Administrative Rule (OAR) 635-415-0000 through 0025. This HMP was prepared to meet the habitat mitigation requirements for the Facility and thoroughly describes the manner in which the impact of the development action will be reduced or eliminated over time, avoided, and/or minimized. This HMP commits to maintaining, enhancing, and preserving in-kind wildlife habitat in the Columbia Basin Ecoregion to achieve no net loss of Category 2, 3, and 4 habitat quantity or quality and a net benefit in Category 2 habitat. Included in this plan are measures for enhancing and protecting sufficient acreages of wildlife habitat to compensate for those acreages permanently impacted by the Facility or phase of the Facility. This protection will be, at minimum, for the duration of the Facility or phase of the Facility.

2.0 Habitat Categories and Habitat Types

In support of OAR 345-021-0010(p)(a)-(e) and described further in Section 2.2 of Exhibit P, the following field-based surveys inform this HMP:

- Habitat surveys in portions of the site boundary during pre-construction compliance surveys for adjacent facilities;
- Raptor nest surveys and nest monitoring efforts performed at adjacent facilities; and
- Wildlife habitat mapping surveys conducted simultaneously with special status wildlife and Washington ground squirrel (*Urocitellus washingtoni*) surveys specific to this Facility;

The ODFW Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0015) provides a framework to categorize habitats based on type, quality, availability, and usefulness/importance to wildlife, and establishes mitigation goals and implementation standards for each. Table 1 defines each of the six habitat category types as presented in the policy.

Table 1. Habitat Categorization Types

Category Type	Definition[1]	Mitigation Goal
1	Irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is limited on either a physiographic province or site-specific basis, depending on the individual species, population or unique assemblage.	The mitigation goal for Category 1 habitat is no loss of either habitat quantity or quality.
2	Essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage.	The mitigation goal if impacts are unavoidable is no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality.
3	Essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.	The mitigation goal is no net loss of either habitat quantity or quality.
4	Important habitat for fish and wildlife species.	The mitigation goal is no net loss of either habitat quantity or quality.
5	Habitat for fish and wildlife having high potential to become either essential or important habitat.	The mitigation goal, if impacts are unavoidable, is to provide a net benefit in habitat quantity or quality.
6	Habitat that has low potential to become essential or important habitat for fish and wildlife.	The mitigation goal is to minimize impacts.
1. Source: OAR 635-415-0025.		

During field surveys, habitat categories and types (vegetation and other characteristics) were identified within the site boundary that met definitions for Category 1, 2, 3, 4, 5, and 6 habitats

(Exhibit P, Section 3.0). Category 1 habitat is associated with suitable habitat within 785 feet of documented Washington ground squirrel (WAGS) (*Urocitellus washingtoni)* colonies. Category 2 habitat is associated with areas of potential WAGS use (within 4,921 feet of WAGS colony). Category 3, 4, 5, and 6 habitats include areas that do not contain WAGS colonies or areas of potential WAGS use and are categorized as such solely due to their vegetation characteristics.

3.0 Temporary and Permanent Impacts

The Facility will be confined to the site boundary as shown in Exhibit P, Figure P-1. Impacts from the Facility and associated components may be temporary or permanent. Temporary impacts are those impacts that are limited to the construction period, although recovery of habitat will vary by type. For instance, the recovery period for agricultural areas and annual grasslands that are temporarily disturbed could be as short as 1 to 3 years, while native grasslands generally recover within 3 to 7 years, and shrublands taking as long as 10 to 50 years to recover. Permanent impacts are defined as those impacts that will exist for the life of the Facility. After Facility construction, the Applicant will restore habitat that has been temporarily disturbed by construction activities and monitored according to provisions in the Draft Reclamation and Revegetation Plan (Attachment P-4 of Exhibit P).

It is expected that Category 2 through 6 habitats will be impacted by the Facility. Table 2 shows the acres of temporary and permanent impacts in each habitat category by habitat subtype for the Facility. Figure 1 shows the location of temporary and permanent impacts from the Facility.

Table 2. Temporary and Permanent Impacts by Habitat Category and Habitat Subtype

ODFW Habitat Category	Habitat Subtype	Permanent	Temporary
2	Shrub-steppe-Rabbitbrush/Snakeweed	0.0001	0.04
	Total	**0.0001**	**0.04**
3	Developed-Revegetated or Other Planted Grassland	0.0	0.2
	Grassland-Native Perennial	7.0	2.0
	Shrub-steppe-Rabbitbrush/Snakeweed	0.0	4.3
	Total	**7.0**	**6.5**
4	Grassland-Exotic Annual	0.0	0.1
	Shrub-steppe-Rabbitbrush/Snakeweed	0.0	0.25
	Total	0.0	**0.35**
5	Wetlands/Waters-Ephemeral Stream	0.0	0.01
	Total	**0.0**	**0.1**
6	Developed-Dryland Wheat	3,653.9	159.9
	Developed-Other	11.1	2.5
	Total	**3,667.9**	**162.6**
	Grand Total	**3,684.9**	**169.5**

The Applicant proposes to begin construction as soon as March 2023 and to construct the Facility in phases. For any phase of construction, the Applicant is only required to comply with the preconstruction conditions applicable to the phase (Oregon Revised Statutes 469.300(6)). The size and construction schedule for each phase (and various solar array areas) will depend on market demand. The impact analysis presented in the Application for Site Certificate and mitigation outlined in this Draft HMP represents the fully built-out scenario of 500 MW. Mitigation will be determined prior to the construction of each phase. If phases are transferred to a new certificate holder, then any mitigation obligations will also be transferred.

4.0 Mitigation Calculations

The mitigation area will be determined for each phase of the Facility based on the final design for that phase and actual habitat impacts (i.e., Category 2 vs. Category 6 habitat). Before beginning construction of each phase of the Facility, the Applicant will provide the Oregon Department of Energy (ODOE) with a map showing the final design configuration for that phase of the Facility, and a table showing the estimated acres of permanent and temporary impacts by habitat category (Table 2). Table 3 shows the methods for calculating mitigation for temporary impacts and Table 4 shows the methods for calculating mitigation for permanent impacts. The Applicant is not proposing compensatory mitigation under the ODFW Fish and Wildlife Habitat Mitigation Policy for impacts to Category 6 habitat.

Table 3. Calculating Mitigation for Temporary Impacts

Habitat Category	Habitat Subtype	Mitigation Ratio[1]	Mitigation Description
2	Shrub-steppe-Rabbitbrush/Snakeweed	1:1	The mitigation goal for Category 2 habitat is "no net loss" and "net benefit." All areas of temporary disturbance would be restored at the site of impact to meet the "no net loss" requirement. The proposed mitigation ratio for permanent impacts to grasslands would meet the "net benefit" requirement for all impacts to Category 2 grasslands.
3	Shrub-steppe-Rabbitbrush/Snakeweed	0.5:1	The mitigation goal for Category 3 and Category 4 habitat is "no net loss" in quantity or quality. Depending on the habitat subtype temporarily disturbed, the proposed mitigation ratio would result in an equal or lesser amount of acreage of mitigation than what is impacted by the project. Combined with restoration of
	Grassland-Native Perennial	0	
	Developed-Revegetated or Other Planted Grassland	0	

Habitat Category	Habitat Subtype	Mitigation Ratio[1]	Mitigation Description
4	Shrub-steppe-Rabbitbrush/Snakeweed	0.5:1	temporary disturbances, the proposed mitigation ratio is intended to account for the temporary loss of habitat functionality and meet the "no net loss" goal. Temporary disturbances to Category 3 and Category 4 Grasslands are not mitigated beyond restoration.
	Grassland-Exotic Annual	0	
5	Open Water-Ephemeral Stream	0.5:1	The mitigation goal, if impacts are unavoidable, is to provide a net benefit in habitat quantity or quality. The proposed ratio is to address the net benefit goal, in consideration with restoration.
6	Developed-Dryland Wheat	0:1	The mitigation goal for Category 6 habitat is minimization; no compensatory mitigation is proposed.
	Developed-Other		
1. Acres of mitigation: acres impact.			

Table 4. Calculating Mitigation for Permanent Impacts

Habitat Category	Habitat Subtype	Mitigation Ratio[1]	Mitigation Description
2	Shrub-steppe-Rabbitbrush/Snakeweed	2:1	The mitigation goal for Category 2 habitat is "no net loss" and "net benefit." Accordingly, mitigation for permanent impacts on Category 2 habitat needs to demonstrate a net benefit in quality or quantity.
3	Shrub-steppe-Rabbitbrush/Snakeweed	1:1	The mitigation goal for Category 3 habitat is "no net loss" in quantity or quality.
	Grassland-Native Perennial		
	Developed-Revegetated or Other Planted Grassland		
4	Shrub-steppe-Rabbitbrush/Snakeweed	1:1	The mitigation goal for Category 4 habitat is "no net loss" in quantity or quality.
	Grassland-Exotic Annual	1:1	
5	Open Water-Ephemeral Stream	1:1	The mitigation goal, if impacts are unavoidable, is to provide a net benefit in habitat quantity or quality. The proposed ratio is to address the net benefit in quality goal.
6	Developed-Dryland Wheat	0:1	The mitigation goal for impacts on Category 6 habitat is minimization; no compensatory mitigation proposed.
	Developed-Other		
1. Acres of mitigation: acres impact.			

5.0 Estimated Mitigation for the Facility

Table 5 applies the acres of temporary and permanent impacts shown in Table 2 with the mitigation ratios shown in Table 3 and Table 4 to estimate mitigation requirements for the Facility.

Table 5. Estimated Mitigation by Habitat Category and Habitat Subtype for the Facility

Habitat Category	Habitat Subtype	Impact	Acres	Mitigation Ratio[1]	Estimated Mitigation	Mitigation Subtotal by Habitat Category[1]
2	Shrub-steppe-Rabbitbrush/Snakeweed	Temp	0.04	1:1	0.04	0.0402
		Perm	.0001	2:1	0.0002	
3	Shrub-steppe-Rabbitbrush/Snakeweed	Temp	4.3	0.5:1	2.15	9.15
		Perm	0.0	1:1	0	
	Grassland-Native Perennial	Temp	2.0	0:1	0	
		Perm	7.0	1:1	7.0	
	Developed-Revegetated or Other Planted Grassland	Temp	0.2	0:1	0	
		Perm	0.0	1:1	0	
4	Shrub-steppe-Rabbitbrush/Snakeweed	Temp	0.25	0.5:1	0.125	0.125
		Perm	0.0	1:1	0	
	Grassland-Exotic Annual	Temp	0.09	0:1	0	
		Perm	0.0	1:1	0	
5	Open Water-Ephemeral Stream	Temp	0.01	0.5:1	0.005	0.005
		Perm	0.0	1:1	0	
6	Developed-Dryland Wheat	Temp	159.9	0:1	0	0
		Perm	3,653.9	0:1	0	
	Developed-Other	Temp	2.5	0:1	0	
		Perm	11.1	0:1	0	
TOTALS						**9.3202**

Note: Totals in this table may not be precise due to rounding.

1. Acres of mitigation: acres impact.

The mitigation requirements will be determined for each phase of the Facility based on the final design for that phase and actual habitat impacts (i.e., Category 2 vs. Category 6 habitat). Before beginning construction of each phase of the Facility, the Applicant will provide ODOE with a table showing the estimated mitigation by habitat subtype and category for that phase (Table 5).

6.0 Habitat Mitigation Area

The Habitat Mitigation Area (HMA) is the area where the Applicant is proposing to perform enhancement and preservation actions to address the estimated mitigation for the Facility (Table 5). The HMA must be large enough and have the characteristics to meet the standards set in OAR 635-415-0025.

According to ODFW standards, areas appropriate for mitigation of Category 2, 3 and 4 habitat impacts must provide reliable "in-kind" mitigation which creates similar structure and function to that being disturbed and also be "in-proximity" to the Facility and have potential for habitat enhancement (OAR 635-415-0025). The Applicant identified privately-owned land that contains native and revegetated uplands of interest and importance for conservation, as well as being located within designated mule deer winter range. The Applicant has secured an agreement for 200 acres that has been placed into a conservation easement where the HMA will be located.

6.1 HMA Habitat Assessment

The 200-acre conservation easement contains suitable habitat within 2,100 acres of private land in Gilliam County (Figure 2; Attachment 1). The exact location of the approximately 9.5-acre HMA within the 200-acre conservation easement is shown on Figure 3. A habitat assessment of the conservation easement occurred in 2020 following methods approved by ODFW (Tetra Tech 2020). Primary habitat subtypes were delineated on the parcel by qualified biologists (the private landowners) using an intuitive meandering pedestrian survey. The easement includes two primary habitat subtypes: 1 - Native Perennial Grassland and Shrub-steppe Mosaic; and 2 - Revegetated or Other Planted Grassland (Table 6; Figure 3). A few rock escarpments also occur within the conservation easement, as well as an intermittent drainage. The Native Perennial Grassland and Shrub-steppe Mosaic includes native perennial grassland areas interspersed with sagebrush, rabbitbrush, and snakeweed.

Table 6. Primary Habitat Subtypes that Occur on the Conservation Easement

Habitat Category	Primary Habitat Subtype	Acres	Description
2	Native Perennial Grassland and Shrub-steppe Mosaic	115.9	*Grassland* Soil type and depth varies but is mostly deep loamy soils. Some shallow soils on plateaus and west or south facing slopes (stony loam). Small basalt escarpments on slopes. Canyons include small seeps and springs and basin wildrye, wild rose, clematis, larkspur and phacelia. Dominated by native perennial bunchgrass consisting of bluebunch wheatgrass, Sandberg's bluegrass, Idaho fescue and needle-and-thread grass. Scattered mature and young shrubs, not dense except in canyons. Sagebrush and rabbitbrush. Small areas of broom snakeweed scattered in disturbed areas. Numerous native forb species such as phlox, balsamroot, woolypod milkvetch, lupine, mariposa lily, shooting star and many others. Includes small patches of exotic annual grass and/or weeds (cheatgrass, bulbous bluegrass, cereal ryegrass, ventenata, tumblemustard, etc.). Open, low shrubs such as snakeweed and rabbitbrush in the annual grass sites. *Shrub-steppe Mosaic* Shrub-steppe patches in predominantly grassland habitat. Shrublands are dominated by cover of basin big sagebrush, some gray and green rabbitbrush and broom snakeweed. Open low shrubs such as buckwheats (*Erigonum* sp.) found in patches.
	Revegetated or Other Planted Grassland	84.1	Soils are mostly silt-loam. Perennial grassland revegetated after being previously farmed for dryland wheat, some historically enrolled in the Conservation Reserve Program or other previously farmed sites. Mature grasslands dominated by intermediate and tall wheatgrass and Sandberg or bulbous bluegrass, some fescue. Enhancements in the past ten years in some areas (seeding native perennials such as bluebunch wheatgrass, Idaho fescue, Sandberg's bluegrass and bottlebrush squirreltail) Residual (not previously plowed) native vegetation patches in a few locations and also on steeper slopes next to native perennial grassland. Scattered mature and young shrubs throughout (gray or green rabbitbrush, sagebrush), brome snakeweed in disturbed areas. Includes small patches of exotic annual grassland and/or weeds. Non-native forbs such as salsify, storksbill and field bindweed and native forbs such as lupine, shaggy fleabane and common yarrow.

6.2 Habitat Enhancement Actions

Habitat designated within the conservation easement for mitigation will be maintained, enhanced, and protected from alteration for the life of the Facility, or phase of the Facility. Besides legal protection to ensure no development occurs, enhancement actions for the HMA will include the following:

- The Applicant will work with the landowner to monitor and control or eradicate County-designated noxious weeds impacting wildlife habitat quality if found during monitoring. Currently, there are no county-designated noxious weeds on the HMA.
- The Applicant will implement a Wildfire Mitigation Plan (see Exhibit V) to protect the existing habitat from risk of wildfire.
- The Applicant will work with the landowner on HMA wildlife-related projects. Examples of such projects to be implemented in this or similar scope and scale are:
    - Planting sagebrush and/or rabbitbrush on approximately 2.5 acres to account for the temporary disturbance to Category 2, 3, and 4 Shrub-steppe Rabbitbrush/Snakeweed habitat subtype.
    - Reduce annual grasses through application of chemical control or increase density of native grasses through seeding. Treatment will occur on approximately 7 acres to account for permanent impacts on native grasslands.
    - Grazing practices compatible with conservation—wildlife habitat values will have priority and incompatible livestock grazing practices will not be allowed.

6.3 HMA Monitoring Reporting

The Applicant will hire a qualified, independent investigator (wildlife biologist, botanist, or revegetation specialist) to conduct wildlife and vegetation monitoring on the HMA to determine the effectiveness of the habitat enhancement actions. Monitoring duration will be for the life of the Facility or phase of the Facility, with annual monitoring occurring over the first 5 years. After Year 5, a long-term habitat monitoring plan will be developed in consultation with ODOE and ODFW. At a minimum, annual monitoring will include assessments of:

- Effectiveness of noxious weed control measures, if applicable;
- Density of shrubs following enhancement actions will be monitored in a 50- by 100-foot plot within the planting area. Three 50-foot transects will be established perpendicular to the long side of the plot. The transect monitoring will be of 6-foot wide belt transects with all shrubs occurring within the belt transect being recorded;
- A year-to-date climate data report; and
- Cover and composition of annual grasses and native and/or desirable grasses following enhancement action (quadrat method), with a year-to-date climate data report.

6.4 HMA Success Criteria

The goal of the habitat mitigation described herein is to maintain, enhance, and protect a sufficient quantity of habitat to meet ODFW mitigation goals for impacts on Category 2, 3, and 4 habitats. The habitat enhancement actions described herein will be implemented and their progress will be

monitored to determine their effectiveness. Table 7 shows the success criteria for the habitat enhancement actions proposed in Section 6.2.

Table 7. HMA Success Criteria

Habitat Management Action	Success Criteria
Grazing practices compatible with conservation	The Easement terms state that grazing, nature study, and other land uses are permitted provided that conservation and wildlife habitat values and wildlife use shall take precedence and priority where such uses are or may be deemed incompatible. Owners or their tenants or guests may graze cattle on the conservation easement property only between November 15 and March 15 unless other dates are agreed to in writing prior to initiation of grazing. Grazing will be permitted only if the Applicant and owners both determine and agree that the grazing will benefit vegetative quality and biological diversity values. No domestic livestock grazing is permitted in enhancement project areas unless the Applicant determines grazing to be a useful tool for vegetative growth management.
County-designated noxious weed control if found during annual monitoring.	Control of County-designated noxious weeds at the HMA. Photo point monitoring will show that known sites of noxious weeds are not expanding or have been reduced or eliminated. Chemical control is the most likely method to be used; however, mechanical control methods may also be used depending on site-specific conditions.
Shrub planting.	Successful establishment of shrubs on 2.5 acres of the HMA. Photo point monitoring will show successful shrub establishment where planted. Success criteria is 30% survival of planted shrubs after 5 years.
7-acre grass treatment	To be determined.

7.0 Implementation Schedule

Table 8 includes a schedule for implementation of all mitigation actions for the Facility or for a phase of the Facility, and within the HMA.

Table 8. Mitigation Implementation Schedule

Mitigation Action	Schedule	Associated Plan
Revegetation of temporary construction-related impacts at the Facility, or a phase of the Facility.	As soon as possible following construction. Late fall seeding, just before the soil freezes, is typical when seeding grasses in the Columbia basin shrub-steppe ecoregion. Seeding can occur through early spring.	Draft Reclamation and Revegetation Plan

Mitigation Action	Schedule	Associated Plan
Monitoring weed control within the Facility, or a phase of the Facility.	Conducted annually for the first five years. Early detection is paramount for successful weed control. Reporting on noxious weeds will occur annually. The Applicant will consult with ODOE and ODFW to design a long-term monitoring schedule.	Draft Noxious Weed Control Plan
Securing the conservation easement establishing the Wagon Trail HMA.	Conservation easement has already been secured.	Draft Habitat Mitigation Plan
Performing habitat management actions on the Wagon Trail HMA.	Concurrently with construction or during the first year of operation of the Facility, or a phase of the Facility.	Draft Habitat Mitigation Plan
Monitoring habitat management actions at the Wagon Trail HMA.	Conducted annually for the first 5 years. Monitoring is to occur in the spring/early-summer or fall. The monitoring report should be available the following spring. The Applicant will consult with ODOE and ODFW to design a long-term habitat management monitoring schedule.	Draft Habitat Mitigation Plan

8.0 Amendment of the HMP

This HMP will be amended by the Applicant as each phase of the Facility is built. During pre-construction compliance review for each phase, this HMP will be amended to describe the habitat mitigation requirements that are specific to that phase. Such amendments may be made without amendment of the site certificate. The Oregon Energy Facility Siting Council (Council) authorizes ODOE to agree to amendments to this plan. ODOE shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of this plan agreed to by ODOE.

9.0 References

Tetra Tech. 2020. Wheatridge Renewable Energy Facility I and Wheatridge Renewable Energy Facility II Habitat Mitigation Plan. Prepared for Wheatridge Wind Energy, LLC and Wheatridge Wind II, LLC.

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Figures

Attachment 1. Memorandum of Conservation Easement

Attachment P-4: Draft Reclamation and Revegetation Plan

DRAFT
Reclamation and Revegetation Plan for the Wagon Trail Solar Project

Prepared for

NEXTera® ENERGY RESOURCES

Prepared by

TETRA TECH

December 2023

Revised by Department May 2024

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Acronyms and Abbreviations

Applicant	Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC
Council	Oregon Energy Facility Siting Council
Facility	Wagon Trail Solar Project
HMP	Habitat Mitigation Plan
MW	megawatt
NPDES	National Pollutant Discharge Elimination System
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
Plan	Reclamation and Revegetation Plan

1.0 Introduction

Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC (Applicant) proposes to construct and operate the Wagon Trail Solar Project (Facility), a photovoltaic solar energy generation facility with a nominal and average generating capacity of up to 500 megawatts (MW), and related or supporting facilities in Morrow County, Oregon. The Facility will generate electricity using solar panels wired in series and in parallel to form arrays and connected to electrical infrastructure. The Facility will overlap with portions of the Wheatridge Renewable Energy Facilities I, II, and III.

This Reclamation and Revegetation Plan (Plan) has been prepared to guide restoration of temporarily disturbed areas for the Facility. This Plan will be updated, as necessary, in coordination with the Oregon Department of Energy (ODOE), the Oregon Department of Fish and Wildlife (ODFW), and Morrow County.

Throughout construction and revegetation activities, the Applicant will take appropriate actions to prevent the spread of noxious weeds (Morrow County 2019). A stand-alone Draft Noxious Weed Control Plan has also been prepared (see Exhibit P, Attachment P-5), which contains information on Morrow County listed noxious weeds, noxious weeds observed during surveys, and treatment and monitoring of noxious weeds.

2.0 Site Description

The Facility is located in Morrow County, Oregon. It lies within the Columbia Plateau Ecoregion at elevations from approximately 1,000 to 1,400 feet. The Facility is sited entirely on private land and primarily in agricultural land used for growing dryland wheat. Native vegetation has been modified not only through agricultural conversion, but also through historical and current livestock grazing, by changes in fire regimes, and by the presence of exotic grasses and other vegetation.

Habitats within the Facility include Developed (subtypes include Dryland Wheat, Developed-Other) and Grassland (Exotic Annual). The Draft Habitat Mitigation Plan (HMP; Exhibit P, Attachment P-3) details the acres of each habitat subtype that will be temporarily and permanently disturbed during construction and operation of the Facility. All areas within the solar array fence line are considered a permanent impact and will be mitigated as such in the HMP. However, the Applicant will maintain the portions of the solar arrays that will be graded as a low-growing mix of grasses. The site will be mowed as needed for fire safety requirements and to keep vegetation from interfering with operations and maintenance activities. Areas replanted within the solar array fence line are not monitored under this Plan, as they are considered a permanent impact and mitigated appropriately in the Draft HMP. However, the areas within the fence line will be monitored for noxious weeds per the stand-alone Draft Noxious Weed Control Plan (Exhibit P, Attachment P-5).

For purposes of this Plan, Developed-Dryland Wheat and Developed-Other habitat subtypes are grouped together. Developed-Other habitat subtypes include farm and ranch homes and related infrastructure, roads, quarries, livestock facilities, and other areas associated with human activity. All other habitat subtypes are collectively referred to as wildlife habitat.

2.1 Temporary Disturbance to Dryland Wheat and Developed-Other

Temporary disturbance to areas identified as Developed-Wheat and Developed-Other habitat subtypes are shown in Table 1. Figures depicting the location of these temporary disturbances are available in the HMP (Attachment P-3). Restoration of Developed-Other habitat subtypes will be determined on a case-by-case basis and is not covered further in this Plan. Temporary disturbances to Developed-Dryland Wheat will be restored as described in Section 4.3.

Table 1. Summary of Temporary Disturbances to Category 6 Habitat

Habitat Subtype (Category 6 Habitat)	Temporary Disturbance (Acres)
Dryland Wheat	158.2
Developed-Other	2.5
TOTAL	**160.7**

2.2 Temporary Impacts to Wildlife Habitat

Temporary disturbance to areas identified as wildlife habitat are shown in Table 2. Figures depicting the locations of these temporary disturbances are available in the HMP (Attachment P-3). These temporary disturbances will be restored as described in Section 3.4.

Table 2. Summary of Temporary Disturbances to Wildlife Habitat

ODFW Habitat Category	Habitat Subtype	Temporary Disturbance (Acres)
2	Shrub-steppe-Rabbitbrush/Snakeweed	0.4
	Total	**0.4**
3	Developed-Revegetated or Other Planted Grassland	0.2
	Grassland-Native Perennial	2.0
	Shrub-steppe-Rabbitbrush/Snakeweed	4.3
	Total	**6.5**
4	Grassland-Exotic Annual	0.1
	Shrub-steppe-Rabbitbrush/Snakeweed	0.25
	Total	**0.4**
	GRAND TOTAL	**7.3**

3.0 Reclamation and Revegetation Methods

This Plan addresses reclamation and revegetation methods for both Dryland Wheat and wildlife habitat. Revegetation will begin as soon as feasible after Facility construction. Seeding and planting will be done in a timely manner and in the appropriate season. Reclamation and revegetation of Dryland Wheat habitat will be designed in consultation with the landowner.

The Applicant will consult with the Oregon Department of Agriculture on revegetation, weed treatment and restoration in areas in proximity to any incidentally identified occurrences of Laurent's Milkvetch (*Astragalus collinus var. laurentii*), if observed during preconstruction surveys or construction activities.

3.1 Roles and Responsibilities

The construction contractor will be responsible for implementing the measures in the National Pollutant Discharge Elimination System (NPDES) 1200-C permit including interim stabilization measures that may or may not include seeding activities. The seed mixes presented in this Plan are intended for final site stabilization. The construction contractor will be responsible for implementing the reclamation and revegetation activities discussed herein during and immediately after construction. A qualified botanist or revegetation specialist will be responsible for monitoring and reporting on revegetation success. Remedial revegetation actions, if needed during the operations phase, will be performed by a qualified contractor. The Applicant will be responsible for ensuring that all contractors perform work in accordance with permit requirements and all agreed-upon methods for revegetation.

3.2 Soil Reclamation

Soil scientists use a soil penetrometer to field measure subsurface compaction in soil. This tool measures resistance (pressure) to the advance of a cone-tipped rod with a T-handle, vertically through the soil column. The metric intends to measure soil compaction that can inhibit the ability of plants to penetrate the soil. An operator pushes the penetrometer rod with a cone base into the ground with consistent force. A pressure gauge records pressure in pounds per square inch(psi), equaling levels of resistance at differing soil layers. Resistance is measured at 3-inch intervals until the meter goes above 300 psi, which is a level of soil compaction most roots cannot penetrate. For this test compaction would be measured at 3, 6, 9, and 12 inches if the soils allowed.

1. Baseline and post-construction soil compaction measurements and testing must be done in conditions favorable to soil testing (e.g. non-saturated or frozen soils).
2. Baseline soil compaction measurements will be documented and established by using the above protocol, or other protocol as approved by the Department, to establish baseline soil conditions within:
    a. One (1) adjacent plot to each turbine work area;
    b. Adjacent plots, established by Department and certificate holder, along facility roads where temporary impacts are wider than 50 feet from operational road width;

c. Adjacent plots, established by Department and certificate holder, along underground collector lines where temporary impacts are wider than 50 feet from operational width.

3. Recordation of the baseline soil plots must be represented on a map based on facility design and temporary impact areas. (Draft site plans are included as Attachment 1 to this plan)

4. Prior to construction completion at a facility site and prior to construction contractor moving from the location, soil compaction testing following the above protocols must be done within the temporary work area.

5. If soil measurements demonstrate that the soils within the work areas are more than 10% compacted than the adjacent baseline plot, then remediation activities must be completed prior to construction contractor moving to a new location or off-site. See Section 3.0 below, the facility NDES 1200-C permit, and applicable site certificate conditions.

In addition, in areas where soil is removed during construction, the following measures will be taken where appropriate:

- The topsoil will be stockpiled separately from the subsurface soils.
- The conserved soil will be put back in place as topsoil prior to revegetation activities.
- Soil preparation will involve standard, commonly used methods (i.e. tracking, decompaction, and tilling), and will consider all relevant site-specific factors, including slope, size of area, and erosion potential.
- Regrade severe machine or vehicle tracking that would hinder seeding success and are unnecessary for soil stabilization.
- Topsoil and other soils from noxious weed infested areas will not be moved outside of the infested areas and will be returned to its previous location during reclamation activities.
- Soils from weed-infested areas may be treated with a pre-emergent herbicide prior to initiation of revegetation efforts, depending on site-specific conditions.
- Prior to final regrade and revegetation efforts any weeds that have grown during periods of construction dormancy should be removed mechanically or treated with an herbicide in consultation with the Morrow County Weed Department.
- Movement of topsoil and other soils from non-infested areas will be limited to eliminate the transport of weed seeds, roots, or rhizomes.
- The construction contractor may use appropriate erosion and sediment control practices (i.e., unseeded hydromulch, tackifier, weed-free erosion control blankets, weed-free or locally sourced straw mulch) to maintain topsoil during construction. In general, the soil needs to be prepared into a firm, moderately textured soil bed that is relatively free of debris before seeding or planting. Shallow tilling with a disc, followed by a harrow or drag if necessary, can typically achieve this. If replaced soil is too soft and fine, then seeds may be buried too deep to properly germinate or may be washed away by rain events. A roller or

culti-packer with water should be used to lightly pack down the soil to regain appropriate soil structure.

- Prior to seeding in Dryland Wheat, soils will be prepared to facilitate success. Soil compaction is a concern for restoring agricultural soils to their pre-construction productivity. During construction of temporary facilities, the Applicant will excavate and store soils by soil horizon, so that soils could be replaced and restored appropriately, including replacing topsoil. During post-construction restoration of temporary impacts to agricultural areas, the Applicant will loosen agricultural soil by mechanical scarification (tilling or ripping the soil) to an appropriate depth to reduce the potential effects of compaction. Soil amendment, by addition of organic matter (compost), may also be necessary to alleviate compaction.

3.3 Revegetation of Cropland

Croplands will be reseeded with the appropriate crop or maintained as fallow in consultation with the landowner or farm operator. The construction contractor will also consult with the landowner or farm operator to determine seed mix, application methods, and rates for seed and fertilizer. Success of cropland revegetation will be achieved when production of the revegetated area is comparable to that of adjacent, non-disturbed croplands of the same type. Success determination will involve consultation with the landowner or farm operator, and the Applicant will report to ODOE on the success of cropland revegetation efforts. Noxious weed control is necessary for successful revegetation of croplands and will be implemented per the methods described in the Draft Noxious Weed Control Plan (Attachment P-5).

3.4 Revegetation of Habitat

All wildlife habitat will be reseeded with either 1) a mix of native or non-invasive, non-persistent non-native grasses; or 2) a mix of native or non-invasive, non-persistent, non-native grasses and shrubs. The seed mixes and application rates will be developed in consultation with ODOE and ODFW prior to construction. The application methods considered for seed application include broadcast seeding, hydroseeding, and drill seeding. These methods are further described in the following subsections. The agency-approved seed mixes will be obtained from a reputable supplier in compliance with the Oregon Seed Law (Oregon Administrative Rule 603-056).

The methods used and timing of planting will be appropriate to the seed mixes, weather conditions, and site conditions (including area size, slope, and erosion potential). Preparation of disturbed ground may include replacing lost topsoil or implementing chemical or mechanical weed control per the Draft Noxious Weed Control Plan (Attachment P-5). Following soil preparation (Section 3.2), seed mixes in non-cropland areas will be applied through broadcast or drill seeding.

During construction, the construction contractor will implement site stabilization measures, including seeding of temporarily disturbed areas according to the Applicant's NPDES 1200-C permit. Approximately 6 months prior to commercial operation, the Applicant and construction contractor will meet with ODFW, ODOE, and Morrow County Weed Control Authority personnel to

review the conditions of temporarily impacted areas and confirm the revegetation methods to be implemented.

3.4.1 Broadcast Seeding

In this method, the seed mix is typically broadcast at a rate of 20 to 24 pounds per acre; this rate may be adjusted depending on the recommendations of the actual seed supplier and agency recommendations. Broadcasting should not be utilized when winds exceed 5 miles per hour. If feasible, half of the seed mix will be broadcast in one direction, with the other half broadcast perpendicularly to the first half. A tracking dye may be added to facilitate uniform application. Certified weed-free straw will be applied at a rate of approximately 2 tons per acre immediately after seeding. This straw will either be crimped into the ground or applied with a tackifier. If certified weed-free straw is not available, the construction contractor will source local straw from land near the Facility and will notify ODOE, ODFW, and Morrow County of the source of the straw.

3.4.2 Hydroseeding

Hydroseeding is a method of hydraulically applying seeds, stabilizers, and soil amendments to the surface of the soil. Hydroseeding is often used when other seeding methods, such as cut and fill slopes, are impractical.

3.4.3 Drill Seeding

Drill seeding plants seeds using an agricultural or range seed drill at a rate of 12 to 14 pounds per acre, per discussions with a seed supplier and ODFW. The rate may be adjusted depending on the recommendations of the actual seed supplier.

3.4.4 Seed Mix

The seed mix will be determined in consultation with ODOE and ODFW prior to construction. The seed mix will be a grass-only mix to maximize flexibility for weed control. Planting or seeding of shrubs may be proposed for revegetation of temporarily disturbed shrub-steppe habitats.

4.0 Monitoring

4.1 Noxious Weed Monitoring

A qualified investigator will be employed to assess noxious weed presence throughout the first 5 years after construction and to make recommendations on noxious weed control measures. Annual m~~M~~onitoring may occur earlier in the growing season and again during revegetation monitoring during the first 5 years after construction. The certificate holder shall monitor and treat noxious weeds, as needed, for the lifetime of the facility. Reports will be submitted to ODOE and to ODFW following each annual inspection. Details regarding known noxious weed occurrences at the

Facility, proposed noxious weed monitoring, and control of noxious weeds are available in a separate Draft Noxious Weed Control Plan (Attachment P-5).

4.2 Soil Reclamation Monitoring

Soil measurements conducted per Section 3.2 shall be evaluated to determine whether soils within the work areas are more than 10% compacted than the adjacent baseline plot. If more than 10% then remediation activities must be completed prior to construction contractor moving to a new location or off-site.

4.3 Cropland Revegetation Monitoring

Records will be kept of revegetation efforts in cropland. Records will include:

- Date construction was completed;
- Description of the affected area;
- Date revegetation was initiated;
- Description of the revegetation effort; and
- Confirmation from the landowner that temporary disturbances in cropland have been satisfactorily restored.

The Applicant will update these records periodically as revegetation work occurs, and will provide ODOE with copies of these records along with submission of a summary in the first annual report following construction.

4.4 Habitat Revegetation Monitoring

To determine if the revegetation of habitat is meeting success criteria, paired monitoring and reference sites will be established. Monitoring and reference sites will be established in each of the habitat subtypes that will be temporarily disturbed by construction (Table 2).

Reference sites are intended to represent target conditions for the revegetation effort. Vegetation within monitoring plots in revegetation areas will be compared with those in the associated reference sites to measure success of the required revegetation activities.

4.4.1 Reference Sites

Prior to Facility operation, reference sites—areas of habitat quality similar to those found prior to disturbance at the areas to be revegetated—will be identified in consultation with ODOE and ODFW. Reference sites will be chosen with consideration to land use patterns, soil types, terrain, and presence of noxious weeds. Alternate reference sites may be chosen in consultation with ODOE and ODFW if land use changes, wildfire, or other disturbance makes a chosen reference site no longer representative of target conditions.

The number of reference sites will be determined prior to construction and will represent the range of temporarily disturbed wildlife habitat areas for which revegetation is required (Table 2). Proposed reference sites will be chosen based on review of:

- Aerial imagery (Google Earth 2021);
- Information from previous vegetation surveys conducted for the Project;
- Local knowledge of the site; and
- Soil survey data (NRCS 2019).

Final selection of proposed reference sites will include a site visit conducted at the appropriate time of year to evaluate baseline conditions. These site visits will document the following:

- Vascular plant species present;
- Native/non-native status of species present;
- Approximate percent cover of dominant species;
- Approximate percent cover of state and county listed noxious weeds; and
- Evidence of ongoing, recent, or past disturbance.

Monitoring methods will be determined in consultation with ODOE and ODFW prior to construction.

4.4.2 Monitoring Sites

Per ODFW recommendations on other projects, a minimum of one monitoring plot will be placed within habitats where temporary disturbances will be less than 5 acres in size. For habitats where the impacts will be greater than 5 acres, the number of monitoring plots will be chosen to represent 5 percent of the total temporary disturbance area by habitat subtype and category or a maximum of 10 monitoring plots.

The number of monitoring plots for habitat subtypes where impacts will be greater than 5 acres will be determined first by multiplying the impact acreage by 5 percent and then converting the acreages into square feet. The square footage is then divided by 5,000, which represents the number of square feet within a proposed sample plot (50 feet by 100 feet).

Monitoring sites within each habitat subtype will be selected using a stratified randomization process based on existing habitat mapping. Additional monitoring locations will be chosen, through the stratified randomization process, as alternative locations in case one of the original monitoring locations is deemed unacceptable during the first revegetation monitoring effort. Data collected during the first year of monitoring will serve as pilot data to determine if the chosen number of monitoring sites will provide robust results. Additional monitoring sites will be added if analysis of the first year's data indicates additional monitoring plots are needed. Monitoring methods will be determined in consultation with ODOE and ODFW prior to construction.

4.4.3 Monitoring Procedures

In the first growing season after planting in revegetation areas, a qualified botanist or revegetation specialist will inspect each monitoring site to assess the success of revegetation measures. These assessments will be done annually for the first 5 years. Monitoring reports will be submitted along with annual monitoring requirements for the Facility. Assessments will address whether, based on evaluation of monitoring and reference sites, revegetation is trending toward meeting the success criteria described in Section 4.4.4.

During each assessment, revegetated monitoring sites will be compared to reference sites based on the success criteria defined in Section 4.4.4. Monitoring will not be required for areas that have been converted by the landowner to land uses that preclude meeting revegetation success criteria.

Based on the fifth annual assessment, a long-term monitoring plan will be developed in coordination with ODOE and ODFW. This may include remedial actions and/or additional monitoring for areas that have been determined by ODOE, in consultation with ODFW, not to have met the success criteria. Revegetation efforts may in some cases be deemed to have failed, and additional mitigation may be proposed in such cases to compensate for loss of wildlife habitat, while revegetation and weed control would continue to apply but without application of success criteria.

4.4.4 Success Criteria

Each monitoring report will involve assessing the progress of each area of wildlife habitat disturbed during construction toward meeting revegetation objectives. Habitat quality shall be evaluated based on the success criteria listed below. Final determination of whether the Applicant has met the revegetation obligations will be made by ODOE, in consultation with ODFW.

- **Native Forbs:** No success criteria are applied to the Facility because forbs are not anticipated to be included in the approved revegetation seed mix due to concerns regarding noxious weed control.[1]
- **Native Shrubs:** The average density or frequency of the shrub component should be at least 50 percent of the reference site within 5 years. At least 15 percent of the shrub density or frequency should be the dominant species found on the reference site. The diversity of shrub species within the revegetated areas should at least equal the shrub species diversity measured on the reference site.
- **Native and Desirable Grasses (i.e., species included in the seed mix used for revegetation and natural recruitment of native species):** Revegetated sites should maintain grass species diversity and density that is at least 85 percent similar to reference

[1] ODFW's recommended success criterion for native forbs is that the average density or frequency of desirable forbs (typically native, with some site-specific exceptions) should be a minimum of 75 percent of the reference site within 5 years. Diversity of forbs on a reclaimed site should at least equal the diversity measured on the reference site within 5 years.

sites. Native bunchgrasses should be given preference. Native or desirable grasses are to be planted at rates sufficient to achieve abundance and diversity characteristics of the grass component at the reference site.

- **Non-Native Weeds:** Every attempt should be made to prevent and control all species listed on county, state, and federal noxious weed lists. Revegetation sites should not contain a higher percentage of non-native weed cover than the reference site. All state and federal laws pertaining to noxious weeds must be followed. Highly competitive invasive species such as cheatgrass and other weedy brome grasses are prohibited in seed mixtures and should be actively controlled if any are found in the reclaimed areas.

4.5 Remedial Action

Remedial action options will be identified in cases where reclamation and revegetation success criteria are not met. Remedial actions may include soil amendments, reseeding, or other measures. The investigator will make recommendations for remedial actions after each monitoring visit, and appropriate measures will be taken to meet the restoration objectives. The recommendations for remedial actions will be described in the annual monitoring report. ODOE may require reseeding or other remedial actions in cases where revegetation objectives have not been met.

5.0 Plan Amendment

This Plan may be amended by agreement of the Applicant and the Oregon Energy Facility Siting Council (Council). Such amendments may be made without amendment of a site certificate. The Council authorizes ODOE to agree to amendments to this Plan. ODOE shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of this Plan agreed to by ODOE.

6.0 References

Google Earth. 2021. Google Earth Pro Aerial Imagery. Accessed December 2021

Morrow County. 2019. Morrow Country Code Enforcement Ordinance. May 2019. https://www.co.morrow.or.us/sites/default/files/fileattachments/planning/page/11881/2019_code_enforcement_final_.pdf. Accessed July 2019.

NRCS (Natural Resources Conservation Service). 2019. Web Soil Survey. U.S. Department of Agriculture, Natural Resources Conservation Service. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Attachment P-5: Draft Noxious Weed Control Plan

DRAFT
Noxious Weed Control Plan for the Wagon Trail Solar Project

Prepared for

NEXTera ENERGY RESOURCES

Prepared by

TETRA TECH

December 2023

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Acronyms and Abbreviations

Applicant	Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC
EPA	U.S. Environmental Protection Agency
Facility	Wagon Trail Solar Project
MW	megawatt
ODA	Oregon Department of Agriculture
ODOE	Oregon Department of Energy
ORS	Oregon Revised Statutes
OSWB	Oregon State Weed Board
Plan	Noxious Weed Plan

1.0 Introduction

Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC (Applicant) proposes to construct and operate the Wagon Trail Solar Project (Facility), a photovoltaic solar energy generation facility with a nominal and average generating capacity of up to 500 megawatts (MW), and related or supporting facilities in Morrow County, Oregon. The Facility will generate electricity using solar panels wired in series and in parallel to form arrays and connected to electrical infrastructure. The Facility will overlap with portions of the Wheatridge Renewable Energy Facilities I, II and III.

The Facility will be located entirely on private land. The number, size, and actual layout of the Facility infrastructure has yet to be determined. Facility components proposed include:

- A 500-MW battery storage system;
- Collector substations;
- Electrical collection systems connecting the solar arrays;
- 230-kilovolt transmission line connecting to the existing Blue Ridge Substation;
- One operations and maintenance building;
- Meteorological stations and tower;
- New private access and service roads, gates and security fencing;
- Temporary construction areas;
- One supervisory control and data acquisition system.

This Draft Noxious Weed Plan (Plan) has been prepared for the Facility. Noxious weed species can adversely affect the structure, composition, and success of revegetation efforts associated with construction-related temporary disturbances. The intent of this Plan is to provide clear methods to prevent the introduction and spread of designated noxious weeds from the construction and operation of the Facility, to control existing populations of noxious weeds within construction areas, and to monitor efforts to prevent and control noxious weeds. The Applicant and its contractors will be responsible for implementing the methods detailed in this Plan. This Draft Plan will be finalized in coordination with the Oregon Department of Energy (ODOE), the Oregon Department of Fish and Wildlife (ODFW), and Morrow County; it will be updated for future phases of construction, as necessary.

2.0 Regulatory Framework

2.1 State of Oregon

In Oregon, noxious weeds are defined under Oregon Revised Statutes (ORS) 569.175 as “terrestrial, aquatic, or marine plants designated by the Oregon State Weed Board (OSWB) under ORS 569.615

as among those representing the greatest public menace and as a top priority for action by weed control programs." Noxious weeds have been declared by ORS 569.350 as a menace to public welfare, and control of these plants is the responsibility of private landowners and operators, as well as county, state, and federal governments.

The OSWB was established under ORS 561.650. It provides direction to control noxious weeds at the state level and develops and maintains the State Noxious Weed List. OSWB and the Oregon Department of Agriculture (ODA) classify noxious weeds in Oregon in accordance with the ODA Noxious Weed Classification System (ODA 2020). There are three designations under the State's system:

- **Class A State Listed Noxious Weed:** A weed of known economic importance which occurs in the state in small enough infestations to make eradication or /containment possible; or is not known to occur in Oregon, but its presence in neighboring states makes future occurrence seem imminent.
    - **Recommended Action:** Infestations are subject to eradication or intensive control when and where found.
- **Class B State Listed Noxious Weed:** A weed of economic importance that is regionally abundant but may have limited distribution in some counties.
    - **Recommended Action:** Limited to intensive control at the state, county, or regional level as determined on a site-specific, case-by-case basis. Where implementation of a fully integrated statewide management plan is not feasible, biological control (when available) shall be the primary control method.
- **Class T Designated State Noxious Weeds:** Priority noxious weed species selected and designated by the OSWB as the focus of prevention and control actions by the Noxious Weed Control Program. T-designated noxious weeds are selected annually from either the A or B list and the ODA is directed to develop and implement a statewide management plan for these species.

2.2 Morrow County

The Morrow County Code Enforcement Ordinance (Morrow County 2021) establishes procedures for enforcing Morrow County Code through the authority granted to general law counties by ORS Chapter 203. Section 11 of the county ordinance establishes Morrow County as a weed control district, defines what is considered a noxious weed or weed of economic importance, identifies the responsibility of private landowners to control weeds, and outlines the authority of the weed control district and the Morrow County Weed Coordinator to enforce the ordinance.

Morrow County has its own weed classification system that differs from the state. Per the county ordinance, Morrow County defines two classifications of weeds:

- **Noxious Weed:** Any plant which determined by the County Board of Commissioners to be injurious to public health, crops, livestock, land, or property.

- **Weeds of Economic Importance:** Weeds which result in economic impact and which are identified by the County Weed Advisory Board and approved by the County Board of Commissioners as appropriate targets for intensive control or eradication as feasible.

3.0 ODA and Morrow County Weeds Lists

The ODA lists 46 Class A species and 94 Class B species for the state (ODA 2020). Morrow County specifically recognizes 17 species of noxious weeds and 20 weeds of economic importance (Table 1; Morrow County 2021). Although not all of the Morrow County listed noxious weeds noted in Table 1 occur within or near the Facility, the Applicant and its contractors should be aware of the entire list while monitoring and controlling weeds. Noxious weeds known to occur within or near the Facility are discussed in Section 4.0.

Table 1. Morrow County Weed Department Weed Lists and Classifications

Scientific Name	Common Name
Noxious Weeds	
Butomus umbellatus	flowering rush
Cardaria (*Lepidium*) *draba*	whitetop (hoary cress)
Carduus acanthoides	plumeless thistle
Carduus nutans	musk thistle
Centaurea solstitialis	yellow starthistle
Centromadia (*Hemizonia*) *pungens*	common spikeweed
Chondrilla juncea	rush skeletonweed
Crupina vulgaris	common crupina
Cynoglossum officinale	houndstongue
Euphorbia esula	leafy spurge
Iris pseudacorus	yellow flag iris
Linaria dalmatica	dalmatian toadflax
Linaria vulgaris	yellow toadflax
Lythrum salicaria	purple loosestrife
Onopordum acanthium	Scotch thistle
Salvia aethiopis	Mediterranean sage
Senecio jacobaea	tansy ragwort
Weeds of Economic Importance	
Acroptilon repens	Russian knapweed
Aegilops cylindrica	jointed goatgrass
Avena fatua	wild oats
Bassia (*Kochia*) *scoparia*	kochia

Scientific Name	Common Name
Centaurea diffusa	diffuse knapweed
Centaurea stoebe subsp. *micranthos*	spotted knapweed
Cicuta douglasii	water hemlock
Cirsium arvense	Canada thistle
Conium maculatum	poison hemlock
Convolvulus arvensis	field bindweed
Cuscuta spp.	field dodder
Euphorbia myrsinites	myrtle spurge
Hypericum perforatum	St. Johnswort
Lepidium latifolium	perennial pepperweed
Secale cereale	cereal rye
Sonchus arvensis	perennial sowthistle
Sorghum halepense	johnsongrass
Taeniatherum caput-medusae	medusahead rye
Tribulus terrestris	puncturevine
Ventenata dubia	ventenata

4.0 Noxious Weeds Identified at the Facility

Field surveys for the state-listed threatened plant species Laurent's milkvetch (*Astragalus collinus* var. *laurentii*) were conducted for Wheatridge Wind (Wheatridge Renewable Energy Facility I and Wheatridge Renewable Energy Facility II) June 29 – July 2, 2019 and July 17 – 18, 2019 (Tetra Tech 2019), and for the Facility from July 13-15, 2020 and June 22, 2021 (Tetra Tech 2021a). Noxious weeds were also recorded during these surveys. The Survey Area for these surveys included all lands within the site boundary, with the exception of active agricultural lands, as well as 9.5 acres of land where right of entry was not permitted at the time of surveys.

Table 2 identifies both state and county listed noxious weed species observed within the Facility Survey Area during pre-construction surveys, and their estimated frequency of occurrence. The locations of these noxious weeds are shown in Figure 1.

Table 2. Noxious Weeds Identified During Surveys at the Facility

Scientific Name	Common Name	State Status (ODA)[1]	Morrow County Status	Frequency
Acroptilon repens	Russian knapweed	B	Weed of Economic Importance	Two observations within the northern portion of the Facility Survey Area
Aegilops cylindrica	jointed goatgrass	B	Weed of Economic Importance	Two observations within the Facility Survey Area; one in the northeast and one in the southeast
Bassia (Kochia) scoparia	kochia	B	Weed of Economic Importance	Commonly observed within the Facility Survey Area
Centaurea diffusa	diffuse knapweed	B	Weed of Economic Importance	Abundant within of the Facility Survey Area
Centaurea solstitialis	yellow starthistle	B	Noxious Weed	Commonly observed in the central-eastern and southeastern portions of the Facility Survey Area
Centromadia (*Hemizonia*) *pungens*	common spikeweed	B	Noxious Weed	One observation in the central-eastern portion of the Facility Survey Area
Chondrilla juncea	rush skeletonweed	B/T	Noxious Weed	Observed in three locations in the south-central portion of the Facility Survey Area
Convolvulus arvensis	field bindweed	B	Weed of Economic Importance	One observation within the central portion of the Facility Survey Area
Lepidium latifolium	perennial pepperweed	B/T	Weed of Economic Importance	One observation within the north-central portion of the Facility Survey Area
Onopordium acanthium	Scotch thistle	B	Noxious Weed	One observation in central-eastern portion of the Facility Survey Area
Secale cereale	cereal rye	Not listed	Weed of Economic Importance	Commonly observed in scattered locations of the Facility Survey Area; most abundant in southwestern portion of Survey Area

Sources: Morrow County 2021, ODA 2020.

1. ODA: B = A weed of economic importance that is regionally abundant, but that may have limited distribution in some counties. T = priority targets for control.

5.0 Weed Management

This section of the Plan describes the steps the Applicant will take to prevent and control the establishment and spread of noxious weed species during both construction and operation of the Facility. Noxious weed control methods for the Facility described in this Plan have been developed utilizing information from the ODA Noxious Weed Control Program and the Morrow County Weed Control Program.

The management of noxious weeds will be considered throughout all stages of construction and operation of the Facility and will include:

- **Education and Personnel Requirements:** Educating all construction personnel regarding known locations of noxious weed infestations, identification of noxious weed species, and the importance of preventive measures and treatment methods.
- **Prevention:** Implementing measures to prevent the spread of noxious weeds during construction, operation, and maintenance activities.
- **Treatment:** Treating noxious weed infestations with appropriate control methods within the most effective timeframe.

The Applicant's objective is to prevent the introduction of new weed populations and the spread of existing noxious weed populations. The methods described below will be implemented to minimize the spread of noxious weeds during construction activities. New noxious weeds detected post-construction will be considered a result of construction activities and will be controlled accordingly.

5.1 Education and Personnel Requirements

Prior to construction, all construction personnel will be instructed on the importance of controlling noxious weeds. As part of start-up activities, and to help facilitate the avoidance of existing infestations and identification of new infestations, the Applicant or their construction contractor will provide information and training to all construction personnel regarding noxious weed identification and management. Operations and maintenance personnel will be similarly informed. The importance of preventing the spread of noxious weeds in areas not currently infested and controlling the proliferation of noxious weeds already present within or near the Facility, will be emphasized.

5.2 Prevention

Implementation of the following best management practices are intended to prevent the spread of noxious weeds during construction activities, revegetation efforts, and operation and maintenance activities.

- Prior to construction, areas of noxious weed infestations will be flagged to alert construction personnel to their presence;

- Limiting vehicle access to designated routes, whether existing roads or newly constructed roads, and the outer limits of construction disturbances per the final design for the Facility;
- Limiting vehicle traffic in noxious weed-infested areas;
- Cleaning construction vehicles prior to entering the Facility for the first time. Regularly cleaning or removing mud and debris that can transport noxious weeds from vehicles during the construction period. Upon completion of work at the Facility, construction vehicles should be cleaned before leaving Morrow County. Cleaning of vehicles during construction activities should occur at a wash station at a designated location at the Facility or by a mobile wash station. A public car wash in the vicinity of the Facility can be used as construction vehicles arrive on site for the first time and as those vehicles leave Morrow County;
- Cleaning vehicles and equipment associated with ground disturbance and movement of topsoil after performing work in noxious weed-infested areas and prior to performing work in non-infested areas utilizing a mobile wash station;
- Topsoil and other soils from noxious weed infested areas will not be moved outside of the infested areas and will be returned to its previous location during reclamation activities;
- Soils from infested areas may be treated with a pre-emergent herbicide prior to initiation of revegetation efforts, depending on site-specific conditions;
- Movement of topsoil and other soils from non-infested areas will be limited to eliminate the transport of weed seeds, roots, or rhizomes.
- Providing information regarding target noxious weed species at the operations and maintenance buildings;
- Treating noxious weeds via mechanical or chemical control (see Section 5.3);
- Preventing conditions favorable for noxious weed germination and spread by revegetating temporarily disturbed areas as soon as possible;
- Monitoring areas of disturbance for noxious weeds after construction (see Section 6.0), during the normal course of revegetation maintenance of temporary work spaces, and implementing control measures as appropriate;
- Revegetating the site with appropriate, local native seed or native plants; when these are not available, non-invasive and non-persistent non-native species may be used; and
- Inspecting and certifying that the seed and straw mulch used for site rehabilitation and revegetation are free of noxious weed seed and propagules.

5.3 Treatment

Control of noxious weeds will be implemented through mechanical or chemical control measures. The Applicant will be responsible for hiring a qualified contractor to implement the treatment of

noxious weeds. The Applicant will ensure that noxious weed management actions will be carried out by specialists with the following qualifications:

- Experience in native plant, non-native and invasive plants, and noxious weed identification;
- Experience in noxious weed mapping;
- If chemical control is used, specialists must possess a Commercial or Public Pesticide Applicator License from the ODA or possess an Immediately Supervised Pesticide Trainee License and be supervised by a licensed applicator;
- Training in noxious weed management or Integrated Pest Management with an emphasis in noxious weeds; and
- Experience in coordination with agency and private landowners.

Existing noxious weed populations should be prevented from expanding in size and density and should not be spread to new sites. Where possible, existing populations of noxious weeds should be eradicated. If it is determined that noxious weeds have invaded areas immediately adjacent to the Facility (e.g., areas visible just beyond the outer limits of construction disturbances associated with the Facility or along access roads) as a result of construction, the Applicant will contact the landowner and seek approval to treat those noxious weed populations.

Long-term weed control methods will be described in a long-term monitoring plan as described in Section 6.0. The main factor in long-term weed control is successful revegetation with non-weedy species as described in the Reclamation and Revegetation Plan (Tetra Tech 2021b). As noted above, short-term noxious weed control will be done through mechanical or chemical treatment. However, it will be important to ensure that the short-term treatment does not affect the establishment of the native perennial cover that will help provide the long-term control. Additionally, early detection and control of small noxious weed populations before they can expand into larger populations is extremely important for successful weed control efforts.

5.3.1 Mechanical Treatment

Mechanical control methods rely on removal of plants, seed heads, and/or cutting roots with a shovel or other hand tools or equipment that can be used to remove, mow, or disc noxious weed populations. Hand removal of plants is also included under this treatment method. Mechanical methods are useful for smaller, isolated populations of noxious weeds). Some rhizomatous plants can spread by discing or tillage; therefore, implementation of discing will be species specific. If such a method is used in areas to be reclaimed, subsequent seeding will be conducted to re-establish desirable vegetative cover that will stabilize the soils and slow the potential re-invasion of noxious weeds. Discing or other mechanical treatments that disturb the soil surface within native habitats will be avoided in favor of herbicide application (see Section 5.3.2), which is an effective means of reducing the size of noxious weed populations as well as preventing the establishment of new infestations.

5.3.2 Chemical Treatments

Chemical control can effectively remove noxious weeds through use of selective herbicides. The recommended chemical treatment and timing of chemical application for noxious weeds that have been identified during surveys at the Facility (Table 2) are presented in Table 3. The herbicides used and the timing of application will differ depending on whether the species are (1) perennial, broad-leaved, or dicot weeds (e.g., thistle and knapweeds) or (2) annual grasses or monocots (e.g., jointed goatgrass), as appropriate herbicides differ substantially between dicots and monocots.

All herbicides included in Table 3 are currently approved for use by the U.S. Environmental Protection Agency (EPA) and ODA; however, the status of herbicide approval and specific herbicide products should be checked annually. Prior to construction and every fall season during facility operation, the Applicant or its contractor shall consult with the Morrow County Weed Supervisor on timing, method and application rates for each identified weed species of concern, to allow for adaptive weed management given changes in weed control effectiveness from noxious weed species tolerance to herbicide treatment over time. Results of the consultation shall be reported in the Applicant's annual weed monitoring report. Any alternative control methods can be proposed by the Applicant or its contractors, after consulting with the Morrow County Weed Supervisor, and included in the Applicant's annual weed monitoring report.

Table 3. Recommended Timing and Method of Control

Noxious Weed Species	Method and Timing of Control	Application Rate
Acroptilon repens (Russian knapweed)	**2,4-D –** Apply at the early stage of flower stem elongation (late April to early May).	1 to 2 lb ae/a
	Aminocyclopyrachlor + chlorsulfuron – Apply to actively growing plants in spring.	1.8 to 3.2 oz/a aminocyclopyrachlor + 0.7 to1.3 oz/a chlorsulfuron (4.5 to 8 oz/a of product)
	Aminopyralid – Consult label for optimum timing. Diffuse and spotted knapweed: apply to actively growing plants in fall or in spring from rosette to bolting growth stages.	1 to 1.75 oz ae/a
	Clopyralid – Up to the bud stage of knapweeds.	0.25 to 0.5 lb ae/a (0.66 to 1.33 pints/a)
	Clopyralid + 2,4-D amine (Curtail) – Apply after most rosettes emerge but before flower stem elongates.	2 to 4 quarts/a Curtail
	Glyphosate – Apply to actively growing knapweed when most plants are at bud stage.	3 lb ae/a
	Triclopyr + clopyralid – Apply from rosette to early bolt stage when weeds are actively growing.	1.5 to 2 pints/a
Aegilops cylindrica	**Glyphosate** – Apply to actively growing plants emerged before bolt stage (i.e., stage of growth	0.38 to 0.75 lb ae/a

Noxious Weed Species	Method and Timing of Control	Application Rate
(jointed goatgrass)	where growth is focused on seed development versus leaf development).	
	Imazapic – Apply pre-emergence in fall. Due to the residual effect of this herbicide, it will not be used in areas to be revegetated.	0.063 to 0.188 lb/a
	Sulfometuron – Apply in fall or in late winter before jointed goatgrass is 3 inches tall.	1 to 1.5 oz ai/a (1.33 to 2 oz/a)
Bassia (Kochia) *scoparia* (Kochia)	**Aminocyclopyrachlor + chlorsulfuron** – Apply either pre-emergence (late winter/early spring) or post-emergence. Postemergence is most effective on seedlings.	4.75 to 8 oz/a
	Chlorsulfuron – Apply pre-emergence (late winter/early spring), or post-emergence from seedling to bolting stage of growth.	0.75 oz ai/a (1 oz/a)
	Fluroxypyr – Apply in spring from seedling to bolting stage of growth.	2.1 to 7.7 oz ae/a (6 to 22 o/a)
	Glyphosate – Apply in spring from seedling to flowering stage of growth.	1.1 to 1.7 lb ae/a
	Hexazinone – Apply pre-emergence in the early spring.	0.5 to 1.5 lb ai/a (2 to 6 pints/a)
	Imazapyr – Apply pre-emergence (late winter/early spring) or post-emergence to actively growing kochia.	0.5 to 1.5 lb ae/a (2 to 4 pints/a)
	Metsulfuron – Apply in spring from seedling to flowering stage of growth.	0.6 to 1.2 oz ai/a (1 to 2 oz/a)
	Rimsulfuron – Apply pre-emergence (late winter/early spring) or post-emergence to kochia seedlings.	1 oz ai/a (4 oz/a)
Centaurea diffusa (diffuse knapweed)	See Russian knapweed (*Acroptilon repens*)	
Centaurea solstitialis (yellow starthistle)	**2,4-D LV ester or 2,4-D amine –** Apply before flowering.	1 lb ae/a in 50 gallons of water
	Aminocyclopyrachlor + chlorsulfuron – Apply to actively growing plants.	1.2 to 1.8 oz/a aminocyclopyrachlor + 0.5 to 0.7 oz/a chlorsulfuron (3 to 4.5 oz/a of product)
	Aminopyralid (Milestone) – Apply to plants at the rosette through bolting stages.	0.75 to 1.25 oz ae/a (3 to 5 fluid oz/a Milestone)
	Chlorsulfuron – For best results apply to young, actively growing plants.	1.125 oz ai/a (1.5 oz/a)
	Clopyralid – After most rosettes have emerged but before bud formation.	0.09 to 0.375 lb ae/a (0.25 to 1 pint/a)

Noxious Weed Species	Method and Timing of Control	Application Rate
	Clopyralid + 2,4-D amine (Curtail) – Apply after most rosettes have emerged but before bud formation.	1 to 5 quarts/a Curtail
	Triclopyr + clopyralid – Apply from rosette to early bolt stage when starthistle is actively growing.	1.5 to 2.5 pints/a
Centromadia (*Hemizonia*) *pungens* (common spikeweed)	**2,4-D –** Apply post-emergence when plants are in rosette stage in winter or early spring.	1.4 lb ae/a
	Aminocyclopyrachlor + chlorsulfuron (Perspective) – Apply pre-emergence or early post-emergence before bolting.	1.75 to 2.75 oz/a of product
	Chlorsulfuron – Apply pre-emergence or post-emergence to plants in rosette stage.	0.375 to 0.75 oz ai/a
Chondrilla juncea (rush skeletonweed)	**2,4-D or MCPA –** Apply to rosettes in the spring immediately before or during bolting.	2 lb ae/a
	Aminocyclopyrachlor + chlorsulfuron – Apply to actively growing plants in spring.	1.8 to 3.2 oz/a aminocyclopyrachlor + 0.7 to 1.3 oz/a chlorsulfuron
	Aminopyralid (Milestone) – Spring or fall when rosettes are present.	1.75 oz ae/a (7 fluid oz/a Milestone)
	Clopyralid – Apply to rosettes in fall or up to early bolting in spring.	0.25 to 0.375 lb ae/a (0.66 to 1 pint/a)
Convolvulus arvensis (field bindweed)	**2,4-D amine –** Apply at bud growth stage or at summer fallow stage in early August	2 to 3 lb ae/a
	Aminocyclopyrachlor + chlorsulfuron – Apply to actively growing plants in spring.	1.8 to 3.2 oz/a aminocyclopyrachlor + 0.7 to 1.3 oz/a chlorsulfuron
	Glyphosate + 2,4-D – Apply when bindweed runners are at least 10 inches long. Tilling after treatment may improve control.	Broadcast: 0.378 to 0.67 lb ae/a. Spot treatment: 1 to 2% solution.
	Imazapic – Apply after 25% of plants are blooming through fall.	0.125 to 0.188 lb ai/a
	Metsulfuron – Apply to actively growing bindweed in bloomstage.	0.6 to 1.2 oz ai/a
	Quinclorac (Paramount) – Apply to actively growing bindweed in bloomstage.	6 oz ai/a (8 oz/a)
Lepidium latifolium (perennial pepperweed)	**2,4-D amine –** Apply at bud stage of growth.	4 lb ae/a
	Aminocyclopyrachlor + chlorsulfuron – Apply to actively growing plants in spring.	1.8 to 3.2 oz/a aminocyclopyrachlor + 0.7 to 1.3 oz/a chlorsulfuron
	Chlorsulfuron – Apply in fall or spring up through bloom stage.	0.75 oz ai/a
	Imazapic – Apply after flowers open (full bloom) until plants desiccate. Fall rosettes may also be treated if moisture permits.	0.125 to 0.188 lbs. ai/acre

Noxious Weed Species	Method and Timing of Control	Application Rate
	Metsulfuron – Apply to actively growing plants.	0.6 to 1.2 ounces ai/acre
Onopordum acanthium (Scotch thistle)	**2,4-D –** spring or fall.	1.5 to 2 lbs. ae/acre
	Aminocyclopyrachlor + chlorsulfuron – Apply to actively growing plants in spring.	1.8 to 3.2 ounces/acre aminocyclopyrachlor + 0.7 to 1.3 ounces/acre chlorsulfuron (4.5 to 8 ounces/acre of product)
	Aminopyralid (Milestone) – Apply in spring or early summer to rosettes or bolting plants or in fall to seedlings and rosettes.	0.75 to 1.25 oz ae/a (3 to 5 fluid ounces/acre Milestone)
	Chlorsulfuron – Apply to young, actively growing plants.	0.75 oz ai/a (1 ounces/acre)
	Clopyralid + 2,4-D amine (Curtail) – Apply to actively growing thistle after most basal leaves emerge but before bud stage.	1 to 5 quarts/acre Curtail
	Clopyralid – Apply up to the bud stage.	0.09 to 0.375 lb ae/acre (0.25 to 1 pint/acre)
	Glyphosate + 2,4-D – Apply to plants in rosette stage of growth in spring or before freeze-up in fall.	Broadcast: 16 to 32 fluid ounces/acre. Spot treatment: 1 to 2% solution.
	Metsulfuron (Escort and others) – Apply post-emergence to actively growing plants.	Escort: 0.6 oz ai/a (1 ounces/acre)
	Triclopyr + clopyralid – Apply to actively growing plants from rosette to early bolt stage.	1.5 to 2 pints/acre
Secale cereale (cereal rye)	Consult with Morrow County Weed Supervisor. Glyphosate applied post-emergence in spring provides good (80-95% control); however, does not provide residual weed control. Rimsulfuron applied in early fall or in the spring provides good (80-95%) control.	
Sources: DiTomaso et al. 2013; Kyser et al. 2014; Prather et al. 2019. Notes: a = acre; ae = acid equivalent; ai = active ingredient; lb= pound; oz = ounces.		

Herbicides will be applied to identified, treatable, noxious weed infestations. The Applicant or their contractors will coordinate with the Morrow County Weed Control Supervisor to determine which populations are treatable and will notify landowners of proposed herbicide use on their lands prior to application. If a noxious weed population is deemed to be untreatable (e.g., too widespread and established in an area to successfully control), the Applicant will implement the prevention measures discussed in Section 5.2, except for treatment with herbicides.

5.3.2.1 Herbicide Application and Handling

Herbicide application will adhere to EPA and ODA standards. Only those herbicides that are approved by the EPA and ODA will be used. In general, application of herbicides will not occur when the following conditions exists:

- Wind velocity exceeds 15 miles per hour for granular application, or exceeds 10 miles per hour for liquid applications;
- Snow or ice covers the foliage of target species; or
- Adverse weather conditions are forecasted within the next few days.

Hand application methods (e.g., backpack spraying) may be used in roadless areas or in rough terrain. Vehicle-mounted sprayers (e.g., handgun, boom and injector) will be used mainly in open areas that are readily accessible by vehicle. Calibration checks of equipment will be conducted prior to spraying activities, as well as periodically throughout use, to ensure that appropriate application rates are achieved.

Herbicides will be transported to the Facility daily with the following stipulations:

- Only the quantity needed for that day's work will be transported.
- Concentrate will be transported in approved containers only, and in a manner that will prevent spilling, stored separately from food, clothing, and safety equipment.
- Mixing will be done off site and at a distance greater than 200 feet from open or flowing water, wetlands, or other sensitive species' habitat. No herbicides will be applied at these areas unless authorized by the appropriate regulatory agencies.
- All herbicide equipment and containers will be inspected daily for leaks.
- Herbicides use will be in accordance with all manufacture's label recommendations and warnings.

5.3.2.2 Herbicide Spills and Cleanups

All appropriate precautions will be taken to avoid herbicide spills. In the event of a spill, cleanup will be immediate. Contractors will keep spill kits in their vehicles and in an appropriate storage shed to allow for quick and effective response to spills. Items included in the spill kit will be:

- Protective clothing and gloves;
- Adsorptive clay, "kitty litter," or other commercial adsorbent;
- Plastic bags and a bucket;
- A shovel;
- A fiber brush and screw-in handle;
- A dust pan;

- Caution tape;
- Highway flares (use on existing hard-top roads only); and
- Detergent.

Response to an herbicide spill will vary with the size and location of the spill, but general procedures include:

- Stopping the leak;
- Containing the spilled material;
- Traffic control;
- Dressing the clean-up team in protective clothing;
- Cleaning up and removing the spilled herbicide, as well as the contaminated adsorptive material and soil; and
- Transporting the spilled herbicide and contaminated material to an authorized disposal site.

5.3.2.3 Herbicide Spill Reporting

All herbicide contractors will have readily available copies of the appropriate material safety data sheets for the herbicides used at their disposal and will keep copies of the material safety data sheets in the application vehicle. All herbicide spills will be reported in accordance with applicable laws and requirements. If a spill occurs, the appropriate agency and spill coordinators will be notified promptly. In case of a spill into wetlands and waterbodies, the appropriate federal, state, and county agencies will be notified immediately.

5.3.2.4 Special Considerations

The Applicant will provide special consideration to intermittent and ephemeral streams/draws during treatment activities. No herbicide will be sprayed where the drift can enter standing water or saturated soil. It will be the herbicide applicators' responsibility to ensure that no herbicide or drift enters standing water, regardless of the season when the herbicide is applied. Similar considerations will be made when in proximity to agricultural fields.

6.0 Monitoring

During the construction phase of the Facility, construction staff will conduct periodic monitoring of noxious weeds. Noxious weeds observed during construction will be treated with mechanical or chemical treatments (Section 5.3) or other best management practices, as applicable. Following construction, a qualified investigator will be employed to assess noxious weed presence annually for the first five years to inform noxious weed control measures. Reports will be submitted to the Applicant, to ODOE, ODFW, and Morrow County following each annual inspection.

Annual noxious weed inspections will occur across the entire Facility site, including under the solar arrays, along both sides of the fence line, along Facility roads that extend outside the Facility boundary through visual inspection of the site while driving and/or walking. These inspections will be used to inform ongoing noxious weed control efforts. The Applicant will be responsible for treating all noxious weeds observed across the site during these annual inspections.

Based on the success of noxious weed control efforts after the fifth year of annual monitoring, the Applicant will consult with ODOE and ODFW to design a long-term weed control plan. The Applicant may propose remedial actions and/or additional monitoring for noxious weed populations where weed control efforts have not resulted in successful control of noxious weeds.

The Applicant will maintain ongoing communication with individual landowners, the Morrow County Weed Control Supervisor, and ODOE regarding noxious weeds within the Facility. Landowners may also contact the Applicant directly to report the presence of noxious weeds related to Facility activity. The Applicant will control the noxious weeds on a case-by-case basis and prepare a summary of measures taken for that landowner.

The following contact information for the Morrow County Weed Control Supervisor will be used and updated as needed:

Dave Pranger, Weed Control Supervisor
Morrow County Public Works
365 West Highway 74
Lexington, OR 97839
(541) 989.9502
mcweed@co.morrow.or.us

7.0 References

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Figures

Attachment D: Draft Historic and Archaeological Resources Mitigation and Monitoring Plan

Draft Historic and Archaeological Resources Mitigation and Monitoring Plan

Under Recommended Historic, Cultural and Archeological Condition 1 (PRE-HCA-01), this plan may be finalized by:

1. Resubmit to the Department and its consultant Historic Research Associates (HRA), or to the Department and SHPO, or both, the technical reports for the facility that address the resources identified in Table 1 below, for review and written concurrence from the Department in consultation with HRA or SHPO of likely NRHP eligibility.
    a. If resources are determined to be not likely eligible for listing on the NRHP, the avoidance measures in Table 1 are not applicable and the resource may be impacted.
    b. If resources are determined to be likely eligible for listing on the NRHP, the avoidance measures in Table 1 are applicable.
2. Submit:
    a. Indication of individuals responsible for finding, identifying, and flagging the avoidance areas.
    b. A description of the type of flagging, fencing, or other methods to indicate to construction contractors to avoid the areas.
    c. Final facility design maps that indicate the location of facility components in relation to the resources listed in Table 1. The maps should also illustrate the avoidance buffer.
    d. Flagging or avoidance measures must remain in place until construction in the vicinity of the resources is concluded.

Table 1: Historic, Cultural and Archeological Resources within Analysis Area and Management Recommendation

Resource	Description	Proposed Eligibility Recommendation	Management Requirement
Historic Property of Religious and Cultural Significance to Indian Tribes (HPRCSIT)			
Sand Hollow Battleground	Site of the largest battle of the Cayuse War	Eligible	Monitoring within HPRCSIT boundary during ground disturbance at minimum depths of 3 feet
Sisupa	Campsite	Eligible	
Aboveground Historic Sites			
WT-H-10	Historic grain elevator	Eligible	No further mgmt. required
WT-H-13	Historic residences (70575 Bombing Range Road)	Potentially Eligible	
Archeological Sites			
WRII-DM-04	Abandoned historic agricultural access road	Not Eligible	Flagging of 100 foot buffer and impact avoidance
WT-BB-01	Historic refuse scatter	Not Eligible	
WT-BB-02	Historic refuse scatter	Not Eligible	

Table 1: Historic, Cultural and Archeological Resources within Analysis Area and Management Recommendation

Resource	Description	Proposed Eligibility Recommendation	Management Requirement
WT-BB-03	Historic refuse scatter	Not Eligible	
WT-BB-04	Historic refuse scatter	Not Eligible	
WT-BB-05	Abandoned historic cistern	Unevaluated	
WT-BB-06	Historic refuse scatter	Unevaluated	
WT-BB-07	Historic road sign	Not Eligible	
WT-BB-08	Historic refuse scatter	Unevaluated	
WT-BB-09	Historic refuse scatter	Not Eligible	
WT-BB-10	Historic refuse scatter	Unevaluated	
Archeological Objects			
WRII-BB-ISO-01	Historic refuse	Not Eligible	Flagging of 100 foot buffer and impact avoidance
WT-BB-ISO-02	Historic refuse	Not Eligible	
WT-BB-ISO-03	Historic refuse	Not Eligible	
WT-BB-ISO-04	Historic refuse	Not Eligible	
WT-BB-ISO-05	Historic refuse	Not Eligible	

Attachment E: Draft Inadvertent Discovery Plan

This Inadvertent Discovery Plan (IDP) for the Wagon Trail Solar Project shall be used as a guide when an unexpected cultural resource is found. It also serves to outline precautions to consider during construction and operation of the Project. This IDP should be followed if cultural resources, including human remains, are encountered during construction and/or operation.

Role	Name	Contact Information
Construction Manager	TBD	TBD
Project Archaeologist	TBD, NextEra/Wagon Trail Energy Center, LLC	TBD
	TBD, Contractor	TBD
Project Managers	TBD, NextEra	TBD
	TBD, Contractor	TBD
	TBD, Other	TBD
Oregon State Police Contact	Craig Heuberger, Lieutenant	Phone: (503) 508-0779 Email: Craig.Heuberger@osp.oregon.gov
Oregon Legislative Commission on Indian Services	Patrick Flanagan, Executive Director	Phone: (503) 986-1067 Email: Patrick.Flanagan@oregonlegislature.gov
SHPO	John Pouley, State Archaeologist	Phone: 503-480-9164 Email: john.pouley@oregon.gov
CTUIR-CRPP	Teara Farrow Ferman, Program Manager	Phone: (541) 429-7230 Cell: (541) 377-2959 Email: TearaFarrowFerman@ctuir.org

Protocol for coordination in the event of an inadvertent discovery:

Procedure	Protocol
1	In the event of an inadvertent discovery of possible cultural resources, including human remains, all work will stop immediately in the vicinity of the find. A 30-meter buffer should be placed around the discovery wherein ground disturbing work will be stopped. Work may proceed outside of this buffered area unless additional cultural materials are encountered.
2	The area within the buffer shall be secured and protected from additional disturbance with flagging or fencing, or by posting a worker to ensure avoidance. Project personnel shall ensure the discovery is not disturbed and remains confidential, on a need to know basis. Project personnel will not speak with the media or discuss the find on social media (e.g., Facebook, Twitter, Instagram, etc.), or take photographs of the find. The location should be secured, and work will not resume in the area of discovery until all parties involved agree upon a course of action.
3	Project personnel (e.g., CRM, Tribal Monitor, construction personnel, individual who identified the remains) must immediately notify the Construction Manager and Project Archaeologist. The Construction Manager and Project Archaeologist will coordinate subsequent procedures. The Project Archaeologist will notify NextEra, SHPO, and CTUIR CRPP of the find. If the find consists of human remains, the special procedures listed below for inadvertent discoveries of human remains will be followed.
4	No work may resume until consultation with SHPO has occurred and the Project Archaeologist is able to assess the discovery. The Project Archaeologist, in consultation with SHPO and CTUIR CRPP, as appropriate, will determine whether or not the discovery is subject to any of the EFSC siting standards and determine an appropriate course of action. Archaeological probing, testing, or other excavation may be required. This will be handled on a case-by-case basis by the Project Archaeologist and NextEra, in consultation with SHPO and CTUIR CRPP, as appropriate. All treatment efforts will adhere to the guidelines outlined by the permit for archaeological excavation issued by SHPO to the Project Archaeologist prior to construction.
5	As part of the initial notifications described in Step 3 for discoveries of archaeological resources, if possible human remains are encountered, the Oregon State Police and Commission on Indian Services will also be notified.

Procedure	Protocol
6	If human remains are encountered, do not disturb them in any way. Do not call 911. Secure the location. Project personnel shall ensure the human remains and any associated artifacts and features are not disturbed, are treated with respect and dignity, and ensure confidentiality of the find on a need to know basis. Project personnel will not speak with the media or discuss the find on social media (e.g., Facebook, Twitter, Instagram, etc.), or take photographs of the remains, burials, or associated artifacts. The location should be secured, and work will not resume in the area of discovery until all parties involved agree upon a course of action.
7	A professional archaeologist may be needed to assess the discovery and they will consult with SHPO and appropriate Tribal Governments to determine an appropriate course of action.
8	Archaeological excavations may be required. This is handled on a case by case basis by the professional archaeologist and project manager, in consultation with SHPO and appropriate Tribes.

When to stop work:

Construction work may uncover previously unidentified Native American or Euro-American artifacts. This may occur for a variety of reasons, but may be associated with deeply buried cultural material, access restrictions during project development, or if the area contains impervious surfaces throughout most of the project area which would have prevented standard archaeological site discovery methods.

Work must stop when the following types of artifacts and/or features are encountered:

Native American artifacts may include (but are not limited to):
Flaked stone tools (arrowheads, knives scrapers etc.);
Waste flakes that resulted from the construction of flaked stone tools;
Ground stone tools like mortars and pestles;
Layers (strata) of discolored earth resulting from fire hearths. May be black, red or mottled brown and often contain discolored cracked rocks or dark soil with broken shell;
Human remains;
Structural remains - wooden beams, post holes, etc.
Euro-American artifacts may include (but are not limited to):
Glass (from bottles, vessels, windows etc.);
Ceramic (from dinnerware, vessels etc.);
Metal (nails, drink/food cans, tobacco tins, industrial parts etc.);
Building materials (bricks, shingles etc.);
Building remains (foundations, architectural components etc.);
Old wooden posts, pilings, or planks (these may be encountered above or below water);
Old farm equipment may indicate historic resources in the area.
Even what looks to be old garbage could very well be an important archaeological resource.

Proceeding with construction:

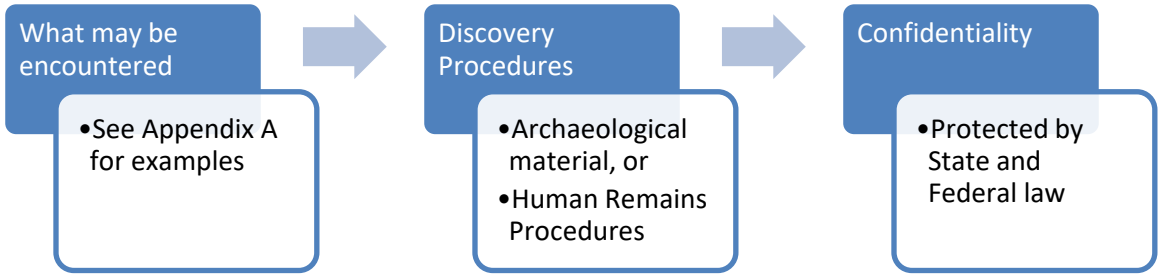
1	No construction work is permitted within the buffered area until all appropriate approvals are obtained and the area is released. Construction may proceed only after the proper archaeological inspections have occurred and environmental clearances are obtained from the Project Archaeologist, SHPO, ODOE, and CTUIR CRPP, as appropriate.
2	After an inadvertent discovery, some areas may be specified for close monitoring or "no work zones." Any such areas will be identified by the Project Archaeologist to NextEra, CTUIR CRPP, and the Construction Manager. In coordination with SHPO, NextEra will verify these identified areas and be sure that the areas are clearly demarcated in the field, as needed.

ARCHAEOLOGICAL INADVERTENT DISCOVERY PLAN (IDP)

[Project Name]

[Project Manager] [Date] [SHPO case number]

HOW TO USE THIS DOCUMENT



Archaeology consists of the physical remains of the activities of people in the past. This IDP should be followed should any archaeological sites, objects, or human remains are found. These are protected under Federal and State laws and their disturbance can result in criminal penalties.

This document pertains to the work of the Contractor, including any and all individuals, organizations, or companies associated with [the project].

WHAT MAY BE ENCOUNTERED

Archaeology can be found during any ground-disturbing activity. If encountered all excavation and work in the area MUST STOP. Archaeological objects vary and can include evidence or remnants of historic-era and precontact activities by humans. Archaeological objects can include but are not limited to:

- **Stone flakes**, **arrowheads**, **stone tools**, **bone or wooden tools**, **baskets**, **beads**.
- Historic building materials such as **nails**, **glass**, **metal** such as cans, barrel rings, farm implements, **ceramics**, **bottles**, **marbles**, **beads**.
- Layers of **discolored earth** resulting from hearth fire
- Structural remains such as **foundations**
- **Shell** Middens
- **Human skeletal remains** and/or **bone fragments** which may be whole or fragmented.

For photographic examples of artifacts, please see Appendix A. (Human remains not included)

If there is an inadvertent discovery of any archaeological objects see procedures below.

If in doubt call it in.

DISCOVERY PROCEDURES: WHAT TO DO IF YOU FIND SOMETHING

1. Stop ALL work in the vicinity of the find
2. Secure and protect area of inadvertent discovery with 30 meter/100 foot buffer—work may continue outside of this buffer

3. Notify Project Manager and Agency Official
4. Project Manager will need to contact a professional archaeologist to assess the find.
5. If archaeologist determines the find is an archaeological site or object, contact SHPO. If it is determined to *not* be archaeological, you may continue work.

HUMAN REMAINS PROCEDURES

1. If it is believed the find may be human remains, stop ALL work.
2. Secure and protect area of inadvertent discovery with 30 meter/100 foot buffer, then work may continue outside of this buffer with caution.
3. Cover remains from view and protect them from damage or exposure, restrict access, and leave in place until directed otherwise. **Do not take photographs. Do not speak to the media**.
4. Notify:
    - Project Manager
    - Agency Official
    - Oregon State Police **DO NOT CALL 911**
    - SHPO
    - LCIS
    - Appropriate Native American Tribes
5. If the site is determined not to be a crime scene by the Oregon State Police, do not move anything! The remains will continue to be *secured in place* along with any associated funerary objects, and protected from weather, water runoff, and shielded from view.
6. Do not resume any work in the buffered area until a plan is developed and carried out between the State Police, SHPO, LCIS, and appropriate Native American Tribes and you are directed that work may proceed.

CONTACT INFORMATION

- Project Manager, [Name]: [555-555-5555]
- Agency Official, [Name]: [555-555-5555]
- Contracted Archaeologist, [Name]: [555-555-5555]
- Oregon State Police, Lt. Craig Heuberger: 503-508-0779 cheuber@osp.oregon.gov
- Oregon State Historic Preservation Office (SHPO),
    - [SHPO archaeologist who reviewed submission]: [number]
    - Asst. State Archaeologist, John Pouley: 503-480-9164
    - GIS Archaeologist, Jamie French: 503-979-7580
- LCIS, Mitch Sparks: 503-986-1086
- Appropriate Tribes
    - [add tribes as provided by LCIS]

CONFIDENTIALITY

[The project] and employees shall make their best efforts, in accordance with federal and state law, to ensure that its personnel and contractors keep the discovery confidential. The media, or any third-party member or members of the public are not to be contacted or have information regarding the discovery, and any public or media inquiry is to be reported to [lead agency]. Prior to any release, the responsible agencies and Tribes shall concur on the amount of information, if any, to be released to the public.

To protect fragile, vulnerable, or threatened sites, the National Historic Preservation Act, as amended (Section 304 [16 U.S.C. 470s-3]), and Oregon State law (ORS 192.501(11)) establishes that the location of archaeological sites, both on land and underwater, shall be confidential.

APPENDICES AND SUPPLEMENTARY MATERIALS

A. Visual reference and examples of archaeology

[B. Relevant maps such as APE and monitoring areas if relevant]

APPENDIX A

VISUAL REFERENCE GUIDE TO ENCOUNTERING ARCHAEOLOGY



Figure 1: Stone flakes



Figure 2: Stone tool fragments



Figure 3: Cordage



Figure 4: Shell midden



Figure 5: Historic glass artifacts



Figure 6: Historic metal artifacts



Figure 7: Historic building foundations



Figure 8: 18th Century ship

Attachment F-1: Draft Construction Wildfire Mitigation Plan

Wagon Trail Solar Project

Draft Construction Wildfire Mitigation Plan

Wagon Trail Solar Project
December 2023
Revised by Department May 2024

Prepared for

NEXTera ENERGY RESOURCES

Prepared by

TETRA TECH

Tetra Tech, Inc.

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Acronyms and Abbreviations

APLIC	Avian Power Line Interaction Committee
Applicant	Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC
ASC	Application for Site Certificate
CFR	Code of Federal Regulations
CWPP	Community Wildfire Protection Plan
EMP	Emergency Management Plan
Facility	Wagon Trail Solar Project
NERC	National Energy Reliability Corporation
NHMP	Natural Hazards Mitigation Plan
O&M	operations and maintenance
OAR	Oregon Administrative Rules
Plan	Wildfire Mitigation Plan
SCADA	supervisory, control, and data acquisition

1.0 Introduction

This Wildfire Mitigation Plan (Plan) was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(v), including providing evidence that the Wagon Trail Solar Project (Facility) complies with the approval standard in OAR 345-022-0115.

2.0 Wildfire Risk Minimization Procedures

(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source;

In addition to the measures described in this plan, the risk of a wildfire affecting the public safety, first responders, or Oregon Energy Facility Siting Council-protected resources would be minimized by the procedures listed in Table 4. Additionally, the Applicant will incorporate guidance as outlined in the wildfire annex of the Morrow County NHMP (Morrow County 2016), which is the Morrow County CWPP (Morrow County 2019) as applicable to facility construction.

Certificate holder will consult with local fire districts, as well as local emergency management agencies to receive and incorporate input into final WMP, as appropriate, about the location and types of temporary fire breaks needed in the event of a fire on or off site. The final WMP shall designate:

- Estimated response times for on-site staff and local emergency service providers,
- Protocols for staff or emergency providers to erect or create fire breaks in the event of a fire,
- Identify and provide maps of priority areas where fire breaks would be prioritized to protect fires spreading off site or impacting the facility site.

During construction, the certificate holder or its contractor will work directly with local emergency responders to compile and maintain a current list of adjacent landowners/property owners with contact information. The final Wildfire Mitigation Plan will identify the best notification procedures of adjacent landowners/property owners to provide to local and regional emergency services for emergency notifications, in the event of an ignition or fire at the facility.

Table 14. Procedures to Wildfire Risk

Topic	Procedures
Public health and safety	The public will be excluded from the solar, substation, and BESS facilities by fencing. Ground mounted inverters near turbines, and junction boxes will be surrounded by bollards to minimized inadvertent vehicle/farm equipment collisions with electrical equipment.
First Responders	Response to fires in the facility should focus on controlling spread to adjacent lands. Construction personnel will be trained in the use of fire extinguishers for responding to incipient stage fires on site.
Resource Protection	Resources covered by Oregon Energy Facility Siting Council standards near the project area include agricultural land, shrub steppe habitat, and cultural resources. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat or cultural resources.

~~2.0~~3.0 Wildfire Risk Assessment

This Plan has been prepared to meet the approval standard under OAR 345-022-0115(1)(b), which requires:

(5) *Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;*

Prior to construction of the facility provide a summary update of wildfire risk at the site as designated under OAR 345-022-0115, if significantly different from Final Order on ASC.

~~Data from the Oregon Community Wildfire Protection Plan (CWPP) planning tool were used for the analyses in this Plan (CWPP 2018). The Oregon CWPP provides a clearinghouse of fire behavior and fire effects data to aid decision makers in charge of reducing wildfire risk in their communities. The statewide wildfire risk map was developed and is maintained per requirements under Senate Bill 762 and associated administrative rules. The Oregon Explorer's CWPP data presented are from the 2018 Pacific Northwest Quantitative Wildfire Risk Assessment (Pyrologix 2018).~~

~~Based on data provided in the Application for Site Certificate (ASC), approximately 27 percent of the Site Boundary has low wildfire risk where it contains irrigated cultivated crop land cover and is relatively flat topography. Approximately 6 percent of the Site Boundary has moderate to very high wildfire risk. The areas with high to very high wildfire risk are along Lexington Echo Highway (OR-207) through the southeastern portion of the Site Boundary, Bombing Range Road in the eastern portion of the Site Boundary, Strawberry Lane across the middle of the Site Boundary, and a portion in the southwest corner along Juniper Canyon Road due to more shrub/scrub vegetation. The areas within the analysis area outside of the Site Boundary with high to very high wildfire risk include~~

~~along Baseline Lane in the south and in the north along Juniper Canyon Road and where the analysis area meets the southern edge of the Boardman Bombing Range.~~

~~Areas of heightened risk are described using the Oregon CWPP Risk to Assets (see Exhibit V: Figure V-5), potential impacts to people and property (Exhibit V: Figure V-6), and potential impacts to infrastructure datasets (Exhibit V: Figure V-7). Risk to assets includes likelihood and consequences of wildfire on mapped highly valued assets including critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures (CBI 2020). People and property data take into account housing density based on Where People Live and USFS private inholdings (Pyrologix 2018). Infrastructure includes critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures (Pyrologix 2018).~~

~~The Site Boundary contains low to high wildfire risk to assets. A majority (95 percent) of the Site Boundary contains no mapped assets, and therefore no risk to known assets. Of the approximately 5 percent of the Site Boundary that has wildfire risk to assets, approximately 3 percent is moderate risk to assets and 2 percent is low risk to assets. The areas in the Site Boundary with high risk to assets include along Lexington-Echo Highway through the southeastern portion, Bombing Range Road in the eastern portion, Strawberry Lane across the middle, and in the southwestern corner along Juniper Canyon Road. Additionally, areas of heightened risk outside of the Site Boundary but within the analysis area include in the south along Baseline Lane and in the north along Juniper Canyon Road and where the analysis area meets the southern edge of the Boardman Bombing Range.~~

~~Within the Site Boundary and analysis area, existing structures include distribution and transmission lines, wind turbines, the Lexington Pump, the Blue Ridge Substation, and a few residential properties. If a wildfire were ignited onsite, the areas subject to heightened risk would be the areas associated with these structures. The distribution line poles and residential structures may be considered areas of high fire consequence as there is the potential for high fire hazard for these structures. Any time assets are added to a landscape, wildfire risk will increase. With the addition of infrastructure that will result from Facility construction, it is expected that more of the area would fall into moderate to high categories for wildfire risk to assets.~~

~~Additional areas of heightened risk include moderate potential for impacts areas to people and property is approximately 1 percent of the Site Boundary. These areas are centered around farm and ranch buildings and infrastructure along Lexington-Echo Highway, Bombing Range Road, and Strawberry East Road in the southeastern portion and along Juniper Canyon Road in the southwestern portion of the Site Boundary. Similarly, there are low to moderate potential for impact to infrastructure along Lexington-Echo Highway in the southeast and low to high potential for impact to infrastructure along Juniper Canyon Road in the southwestern portions of the Site Boundary.~~

~~There are additional areas of moderate to high potential impact to people and property south and southwest of the Site Boundary and within the analysis area that cover approximately 1 percent and less than 0.5 percent respectively of the analysis area. These high potential impact areas are along Baseline Lane and Juniper Canyon Road. There is also additional low to moderate potential~~

impact to infrastructure north of the Site Boundary but within the analysis area along Lexington-Echo Highway in the east and along Juniper Canyon Road and southern edge of Boardman Bombing Range.

3.04.0 Inspection and Management

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

3.14.1 Facility Inspections

Facility components would be inspected quarterly. The supervisory, control, and data acquisition (SCADA) system collects operating and performance data from the facility as a whole and allows remote operation. Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC (Applicant) will monitor the Facility components, such as the substation and solar arrays 24 hours a day, 7 days a week including shutdown capabilities. These operational monitoring and maintenance measures are also discussed in Section 4.0.

Onsite inspections of Facility equipment will occur quarterly. Onsite inspections will include check lists provided by the Original Equipment Manufacturer and the use of utility industry best practices. Smoke/fire detectors will be placed around the site that will be tied to the SCADA system and will contact local firefighting services as needed.

Additionally, the BESS will have an integrated fire safety system that monitors heat, and smoke, and provides dedicated annunciation/alarming in the event a fire condition is detected, automatically returns the system to a standby mode and if necessary, automatically deploys an appropriate suppression agent.

The facility components that could cause electrical fires are solar inverters, wind turbines, substations, battery energy storage system (BESS), and overhead electrical lines. The Applicant will inspect these components during operations as outlined in Table 1.

Table 1. Operational Inspections for Electrical Components

Inspection	Procedure	Standard	Time frame
Solar Inverter	Visual inspection of inverter and surrounding area.	SPCC Plan[1] Manufacturer's maintenance recommendations	Monthly SPCC Bi-annual Preventative Maintenance
Substation	Visual inspection of MPT, Avian Power Line Interaction Committee (APLIC) measures, and surrounding area.	Manufacturer's maintenance recommendations APLIC[2]	Monthly Yearly (APLIC)

~~Inspection~~	~~Procedure~~	~~Standard~~	~~Time frame~~
~~BESS~~	~~Visual inspection of BESS, PCS, and surrounding areas~~	~~SPCC Plan~~ ~~Manufacturer's maintenance recommendations~~	~~Monthly~~
~~Overhead electrical lines~~	~~Visual inspection of components, grounding, APLIC measures, vertical clearance distance between conductor and vegetation.~~	~~National Energy reliability Corporation (NERC)[3]~~ ~~APLIC~~	~~Bi-annual~~
~~1. The Operational Spill Prevention, Control, and Countermeasure Plan for the facility will require these components to be inspected monthly for spills. During these inspections, Operational Staff will also visually inspect the component and surrounding area.~~ ~~2. Applicant will develop an inspection checklist and program of electrical equipment based on manufacturer's recommendations for individual components.~~ ~~3. Vegetation maintenance standard FAC-003-0 .~~			

~~3.2~~4.2 Vegetation Management

The Certificate Holder and contractor(s) will maintain vegetation within the Site Boundary and will also maintain a defensible space clearance along Facility features. Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle.

The following best management practices to minimize fire risk from vehicle travel and fueling activities would be implemented at the site during construction:

- The movement of vehicles will be planned and managed to minimize fire risk.
- The contractor(s) will be responsible for identifying and marking paths for all off-road vehicle travel. All off-road vehicle travel will be required to stay on the identified paths. No off-road vehicle travel will be permitted while working alone. Travel off road or parking in vegetated areas will be restricted during fire season.
- Areas with grass that are as tall or taller than the exhaust system of a vehicle must be wetted before vehicles travel through it.
- Workers will be instructed to shut off the engine of any vehicle that gets stuck, and periodically inspect the area adjacent to the exhaust system for evidence of ignition of vegetation. Stuck vehicles will be pulled out rather than "rocked" free and the area will be inspected again after the vehicle has been moved.
- All combustion engines (including but not limited to off road vehicles, chainsaws, and generators) will be equipped with a spark arrester that meets U.S. Forest Service Standard 5100-1.
- The contractor(s) will designate a location for field fueling operations at the temporary construction yards. Any fueling of generators, pumps, etc. shall take place at this location only.

- Fuel containers, if used, shall remain in a vehicle or equipment trailer, parked at a designated location alongside a county right-of-way. No fuel containers shall be in the vehicles that exit the right-of-way except the five-gallon container that is required for the water truck pump.
- Smoking shall only be allowed in designated smoking areas at the Facility.

~~The Applicant will maintain vegetation within the fence line and will also maintain a 5-foot noncombustible, defensible space clearance along the fenced perimeter of the Site Boundary.~~

~~A physical vegetation survey assessment of the fenced area will be completed at least twice a year to monitor for vegetation clearances, maintenance of fire breaks, and monitor for wildfire hazards. Additionally, the Applicant will incorporate guidance regarding the fuel breaks for defensible/survivable space per the Morrow County adopted Natural Hazards Mitigation Plan (NHMP) and OAR 629-044-1085, as applicable.~~

~~One of the vegetation survey assessments will occur in May or June, prior to the start of the dry season, a time when wildfire risk is heightened. The survey will be conducted by the Site Operations Manager and will be used to assess the frequency of upcoming vegetation maintenance and identify areas that may need additional attention and will be used to create a Vegetation Maintenance Work Plan. The work plan will be a living document that will be updated in order to meet the objectives of this Plan. Observations in the vegetation survey will include:~~

- ~~Location;~~
- ~~Species;~~
- ~~Estimated growth rate;~~
- ~~Abundance;~~
- ~~Clearance/setbacks; and~~
- ~~Risk of fire hazard.~~

~~Additional vegetation surveys may be required throughout the season based on seasonally heightened fire risk. The Vegetation Maintenance Work Plan will be followed during operation of the Facility to ensure that vegetation does not grow in a manner that blocks or reduces solar radiation reaching the solar panels and reduce the risk of starting a fire. Vegetation control will employ best management practices and techniques that are most appropriate for the local environment. These may include physical vegetation control such as mowing or introduction of a non-invasive species that is low growing. In rare circumstances where it is necessary to use herbicides, an effort will be made to minimize use and only apply bio-degradable, U.S. Environmental Protection Agency-registered, organic solutions that are non-toxic to wildlife. Any herbicides used for vegetation management the site will be selected and used in a manner that fully complies with all applicable laws and regulations.~~

~~Vegetation within the fence line and below the solar arrays will be maintained to a height of 18-inches and provide a minimum of 24-inch clear distance to any exposed electrical cables. Exposed~~

~~electrical wires should be running under the solar panels at the midpoint or higher than the center of the panel. Vegetation will be removed within 10-foot perimeter of the inverter/transformer/battery unit pads. Gravel or similar noncombustible base will be located within the 10-foot perimeter of these pads. Vegetation will be removed from inside the Facility collector substation fence line. Gravel or similar noncombustible base shall be used.~~

~~To reduce the availability of fuels for wildfire near electrical components, the Applicant will install a non-flammable gravel base around solar inverters, substations, and BESS, and implement on-going vegetation management outlined in Table 2 to ensure that vegetation does not grow in these graveled areas.~~

~~Table 2. Vegetation Management Procedures by Facility Component~~

~~Vegetation Management~~	~~Procedure~~	~~Standard~~	~~Time frame~~
~~Solar Inverter~~	~~Herbicide application on gravel pad around inverter to prevent vegetation growth.~~	~~IEEE 80 NEC 70~~	~~Yearly, depending on vegetation condition.~~
~~Substation~~	~~Herbicide application on substation gravel pad. Highly compacted gravel foundations of substation are not suitable for vegetation ground.~~	~~IEEE 80 NEC 70~~	~~Yearly, depending on vegetation condition.~~
~~BESS~~	~~Herbicide application on gravel pad surrounding BESS. Highly compacted gravel foundations of BESS are not suitable for vegetation.~~	~~IEEE 80 NEC 70~~	~~Yearly, depending on vegetation condition.~~
~~Overhead electrical lines~~	~~Mow vegetation to achieve clearance requirements between conductor and ground.~~	~~NERC~~	~~Yearly, depending on vegetation condition.~~

~~4.0~~5.0 Preventative and Minimization Actions for Wildfire Risk

€ Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

~~4.1~~5.1 Preventative Actions

~~The Applicant will minimize risk of facility components causing wildfire through preventative actions. In the design of the facility, the Applicant will implement the design considerations and best practices outlined in Table 3 to minimize electrical fire risk from facility components.~~

~~Table 3. Design Considerations for Fire Safety by Facility Component~~

~~Consideration~~	~~Solar Inverter~~	~~Substation~~	~~BESS~~	~~Overhead Lines~~
~~Electrical connections by qualified electricians~~	~~X~~	~~X~~	~~X~~	~~X~~

Consideration	Solar Inverter	Substation	BESS	Overhead Lines
Inspections for mechanical integrity prior to energizations	X	X	X	X
Lighting protection	X	X	X	X
Corrosion protection	X	X	X	X
Strain relief of connecting cabling	X	X	X	X
Protection against moisture	X	X	X	X
Grounding systems	X	X	X	X
Limits on input voltage and power	X	X	X	X
Safety setback from structures	X[1]	X[1]	X[1]	X[2]
Technology specific design standards	X[3]	X[4]	X[5]	X[3]

1. 50-foot setback from structures.
2. Vertical and horizontal clearances from structures depends on voltage of conductor.
3. NFPA 70.
4. IEEE 979.
5. NFPA 1, Chapter 52.

During Facility operations, the areas within the Site Boundary that are subject to a heightened risk of wildfire include the solar array areas. The solar array areas will have low-growing vegetation maintained below the solar arrays during the operational period of the Facility. Measures for reducing the risk of fire ignition and reducing the risk of equipment damage were a wildfire to occur are discussed further in Section 3.0, including the Facility's vegetation management program (see Section 3.2), and through the emergency response procedures that will be described in the Emergency Management Plan (EMP). The EMP will be developed for the Facility and is outlined below in Section 4.2.5. The collector substation area, transformer pads, and the permanent, fenced parking and storage area will have reduced risk for fire due to the fact that these areas will have a gravel base with no vegetation within a 10-foot perimeter to reduce fire risk.

The Facility components will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards and will not pose a significant fire risk. The solar array will have shielded electrical cabling, as required by applicable code, to prevent electrical fires. In addition, the collector system and substation will have redundant surge arrestors to deactivate the Facility during unusual operational events that could start fires. The collector substation and the switchyard will have also sufficient spacing between equipment to prevent the spread of fire.

Unless already paved, access roads will be graveled. The fenced areas around the collector substation, operations and maintenance (O&M) building, met stations, and energy storage system will be graveled, with no vegetation present. All newly constructed roads will be graded and graveled to meet load requirements for all equipment. Service roads, approximately 12 feet wide, will be constructed within the solar array fence line, to facilitate access for construction and maintenance purposes. Approximately 20-foot-wide service roads will be constructed outside the

solar array fence line to reach the separately fenced substations. Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety. Service roads will be all-weather, compacted soil or gravel, with an internal turning radius of 28 feet. Vegetation maintenance along service roads will include mowing as needed for fire safety requirements. Facility access roads will be sufficiently sized for emergency vehicle access.

~~Smoke/fire detectors will be placed around the site that will be tied to the supervisory, control, and data acquisition (SCADA) system and will contact local firefighting services. The SCADA system collects operating and performance data from the solar array and from the facility as a whole and allows remote operation from the O&M building. The limited vegetation present within the Site Boundary during operations will also help to minimize spread of fire. Any potential fires inside the Site Boundary will be controlled by trained staff who will be able to access the Facility around the clock. These measures will help keep external fires out or internal fires in.~~

~~The Applicant proposes the option to construct up to two alternating current coupled battery storage sites within the site boundary (Exhibit C, Figure C-2). The BESS will be capable of storing and later deploying approximately 500 megawatts of energy generated by the Facility or other sources connected to Blue Ridge Substation.~~

~~The Applicant will implement the following fire prevention and control methods to minimize fire and safety risks if Li-ion batteries are used for battery storage:~~

- ~~The batteries will be stored in completely contained, leak-proof modules.~~
- ~~Ample working space will be provided around the BESS for maintenance and safety purposes.~~
- ~~Off-site, 24-hour monitoring of the BESS will be implemented and will include shutdown capabilities.~~
- ~~The ESP will have response procedures specific to the BESS in the event of an emergency, such as a fire.~~
- ~~Transportation of Li-ion batteries is subject to 49 Code of Federal Regulations (CFR) 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. This regulation contains requirements for prevention of a dangerous evolution of heat; prevention of short circuits; prevention of damage to the terminals; and prevention of batteries coming into contact with other batteries or conductive materials. Adherence to the requirements and regulations, personnel training, safe interim storage, and segregation from other potential waste streams will minimize any public hazard related to transport, use, or disposal of batteries.~~
- ~~Design of the BESS will be in accordance with applicable Underwriters Laboratories (specifically, 1642, 1741, 1973, 9540A), National Electric Code, and National Fire Protection Association (specifically 855) standards, which require rigorous industry testing and certification related to fire safety and/or other regulatory requirements applicable to battery energy storage at the time of construction.~~

- ~~Additionally, the Applicant will employ the following design practices, as applicable to the available technology and design at time of construction:~~
  - ~~Use of Li-ion phosphate battery chemistry that does not release oxygen when it decomposes due to temperature;~~
  - ~~Employment of an advanced and proven battery management systems;~~
  - ~~Employment of Fike fire control panels with 24-hour battery backup at every battery container;~~
  - ~~Installation of fire sensors, smoke and hydrogen detectors, alarms, emergency ventilation systems, cooling systems, and aerosol fire suppression/extinguishing systems in every battery container;~~
  - ~~Installation of doors that are equipped with a contact that will shut down the battery container if opened;~~
  - ~~Installation of fire extinguishing and thermal insulation sheets between each individual battery cell;~~
  - ~~Implementation of locks and fencing to prevent entry of unauthorized personnel;~~
  - ~~Installation of remote power disconnect switches; and~~
  - ~~Clear and visible signs to identify remote power disconnect switches.~~

~~4.2~~5.2 Preventative Programs

The Applicant will implement the following programs to minimize fire risk during operations of the Facility.

~~4.2.1~~5.2.1 *OHSA-Compliant Fire Prevention Plan*

All workers, contracting employees, and other personnel performing official duties at the Facility will conduct work under a Fire Prevention Plan that meets applicable portions of 29 CFR 1910.39, 29 CFR 1910.155, 29 CFR 1910, subpart L. The plan will ensure that:

- Workers are trained in fire prevention, good housekeeping, and use of a fire extinguisher
- Workers are trained in the evacuation procedures in the event in a fire occurs in a wind turbine while workers are inside the turbine.
- Necessary equipment is available to fight incipient stage fires. Fire beyond incipient stage shall be managed using local fire response organizations.
- Provide necessary safety equipment for handling and storing combustible and flammable material.
- Ensure equipment is maintained to prevent and control sources of ignition.
- Do not allow smoking or open flames in an area where combustible materials are located.

- Implement a Hot Work Procedure and permit program.

~~*4.2.2 Electrical Safety Program*~~

~~All operational workers will be trained in electrical safety and the specific hazards of the facility. This training will address:~~

- ~~Minimum experience requirements to work on different types of electrical components;~~
- ~~Electrical equipment testing and troubleshooting;~~
- ~~Switching system;~~
- ~~Provisions for entering high voltage areas (e.g., substation);~~
- ~~Minimum approach distances; and~~
- ~~Required personal protective equipment.~~

~~*4.2.3 Lock Out/Tag Out Program*~~

~~During maintenance activities on electrical equipment is the de-energized and physically locked or tagged in the de-energized positions to inadvertent events that could result in arc flash.~~

~~*4.2.4*~~*5.2.2 Fire Weather Monitoring and Hot Work*

Burn probability, expected flame length, and overall risk may increase during periods of the fire season. Personnel on site will monitor Fire Weather Watches and Red Flag Warnings. A fire weather watch indicates the potential for weather conducive to large fore spread in the next 12 to 72 hours. A Red Flag Warning is issued when current weather conditions are conducive to large fire growth in the next 24 hours. Personnel monitoring these conditions ~~may~~ shall halt work in ~~certain~~ high risk locations, designated in this plan, ~~or~~ and employ additional mitigation measures designated in this plan. Mitigation measures during a Red Flag Warning include, but are not limited to, communicating to on-site staff of the Red Flag Warning, communicating with local fire protection agency personnel of on-going conditions, driving or parking on roads to avoid sparking a fire in grass or brush, and halting construction activities that may increase fire risk such as hot work. All hot work (any cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces, and fire suppression equipment will be immediately available during hot work activities. Following the completion of hot work, the Certificate Holder or contractor(s) must maintain a fire watch for 60 minutes to monitor for potential ignition..

~~*4.2.5*~~*5.2.3 Emergency Management Plan*

The EMP will be prepared prior to construction by the Applicant and construction contractor and will contain policies and procedures for preparing for and responding to a range of potential emergencies, including fires. Implementation of the EMP will ensure risks to public health and

safety and risks to emergency responders are minimized. Any potential fires inside the solar array will be controlled by trained staff who will be able to access the Facility around the clock. These measures will help keep external fires out or internal fires in. The EMP will cover response procedures that consider the dry nature of the region and address risks on a seasonal basis. The plan will also specify communication channels the Applicant intends to pursue with local fire protection agency personnel, for example, ~~annual~~ a construction kick off meeting~~s~~ to discuss emergency planning, and invitations to observe any emergency drill conducted at the Facility. ~~At the beginning of Facility operations, a copy of the site plan indicating the arrangement of the Facility structures and access points will be provided to the local fire district. to the Applicant will incorporate guidance from Chapter 4: Emergency Operations of the Morrow County NHMP regarding wildland fire suppression procedures as needed (Morrow County 2016).~~

In addition to the emergency responses to be stipulated in the EMP, personnel will be trained on the RACE procedure to implement in the event of a fire start. RACE procedure includes:

- **Rescue** anyone in danger (if safe to do so);
- **Alarm** – call the control room, who will then determine if 911 should be alerted;
- **Contain** the fire (if safe to do so); and
- **Extinguish** the incipient fire stage (if safe to do so).

Personnel on site will carry fire suppression equipment during the fire season in their vehicles. This equipment shall include, at a minimum:

- Fire Extinguisher: Dry chemical. 2.5 or 2.8 pound. 1A-10B: C U/L rating, properly mounted or secured;
- Pulaski Hand Shovel: Round point. 26 to 28 in“h”"D" Handle, bla–e - 12 inches long and 10 inches wide;
- Collapsible Pail or Backpack Pump: 5-gallon capacity; and
- Drip Can: 5-gallon capacity.

Another ~~potential~~ safety mitigation measure is to have available on site during construction ~~and operation~~ is a water truck, water buffalo, or tank with minimum 500 gallon capacity.

Personnel will receive training on use of suppression equipment. All personnel shall also be equipped with communication equipment capable of reaching the control room from all locations within the Site Boundary.

~~5.0 Wildfire Risk Minimization Procedures~~

~~*(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source;*~~

~~In addition to the measures described above, the risk of a wildfire affecting the public safety, first responders, or Oregon Energy Facility Siting Council-protected resources would be minimized by the procedures listed in Table 4. Additionally, the Applicant will incorporate guidance as outlined in the wildfire annex of the Morrow County NHMP (Morrow County 2016), which is the Morrow County CWPP (Morrow County 2019) as needed.~~

Table 24. Procedures to Wildfire Risk

Topic	Procedures
Public health and safety	The public will be excluded from the solar, substation, and BESS facilities by fencing. Ground mounted inverters near turbines, and junction boxes will be surrounded by bollards to minimized inadvertent vehicle/farm equipment collisions with electrical equipment.
First Responders	The Applicant will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires in the facility should focus on controlling spread to adjacent lands. Operational staff will be trained in the use of fire extinguishers for responding to incipient stage fires on site.
Resource Protection	Resources covered by Oregon Energy Facility Siting Council standards near the project area include agricultural land, shrub steppe habitat, and cultural resources. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat or cultural resources. According to Exhibit S within the Site Boundary, there is one eligible National Register of Historic Places historic site, the North Lexington Grain Elevator, a potentially eligible historic residence (70575 Bombing Range Road), four unevaluated archaeological sites, and two Historic Properties of Religious and Cultural Significance to Indian Tribes.

Plan Updates and Modification€*(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.*

This Plan will be updated by the Applicant every five years. Updates to this Plan will account for changes in local fire protection agency personnel and changes in best practices for minimizing and mitigating fire risk. It is recommended to consult with Morrow County, the local fire department, and the Morrow County Emergency Manager including updates to the Morrow County NHMP (Morrow County 2016) and Morrow County CWPP (Morrow County 2019).

After each 5-year review, a copy of the updated plans will be provided to the Oregon Department of Energy with the annual compliance report required under OAR 345-026-008(2). If after the 5-year review of the Plan, a determination is made that no updates are required, an explanation of this determination will be provided in the annual compliance report.

Every five years, the Applicant will review wildfire risk and update this Plan for the Site Boundary. Evaluation of wildfire risk will be consistent with the requirements of OAR 345-022-0115(1) using current data from reputable sources.

The Applicant may consider revisions to this plan at its sole discretion to incorporate future best practices or emerging technology depending on whether the new technology is cost effective and suitable for the site conditions. The Applicant will track the industry groups and applicable design standards outlined in Table 5 to identify future technologies or best practices that could be implemented at the Facility.

~~Table 5. Resources for Future Best Practices~~

~~Reference~~	~~Description~~	~~Method~~
~~American Clean Power~~	~~Industry ground that establishes best practices for renewable energy projects.~~	~~The Applicant is a member of ACP and participates in best practice development[1].~~
~~National Electric Reliability Corporation (NERC)~~	~~National Energy Reliability Corporation develops electrical standards for large energy facilities.~~	~~The Applicant will follow NERC Standard FAC-003-0 for its vegetation management program of transmission lines[2], or updates to this standard as approved by NERC.~~
~~Oregon Specialty Building Codes~~	~~Building codes applicable to inhabitable spaces, including the O&M building and the substation enclosure.~~	~~Remodeling to the O&M and enclosure structure that requires permits will follow any updates to the OSPC at that time.~~
~~APLIC~~	~~Avian protection methods for electrical facility reduce fires related to bird/mammal nests on electrical equipment.~~	~~The Applicant is a member of APLIC[3]. An operational wildlife monitoring program will inspect for wildlife nesting on facilities that could cause fire, and take actions following applicable laws (e.g., MBTA).~~

~~1. Link to ACP Standards & Practices: https://cleanpower.org/resources/types/standards-and-practices/.~~
~~2. NERC FAC-003-0: https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-0.pdf.~~
~~3. Link to APLIC member organization: https://www.aplic.org/member_websites.php.~~

6.0 References

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Attachment F-2: Draft Operational Wildfire Mitigation Plan

Wagon Trail Solar Project

Draft Operational Wildfire Mitigation Plan

Wagon Trail Solar Project
December 2023
Revised by Department May 2024

Prepared for

NEXTera ENERGY RESOURCES

Prepared by

TETRA TECH

Tetra Tech, Inc.

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Acronyms and Abbreviations

APLIC	Avian Power Line Interaction Committee
Applicant	Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC
ASC	Application for Site Certificate
CFR	Code of Federal Regulations
CWPP	Community Wildfire Protection Plan
EMP	Emergency Management Plan
Facility	Wagon Trail Solar Project
NERC	National Energy Reliability Corporation
NHMP	Natural Hazards Mitigation Plan
O&M	operations and maintenance
OAR	Oregon Administrative Rules
Plan	Wildfire Mitigation Plan
SCADA	supervisory, control, and data acquisition

1.0 Introduction

This Wildfire Mitigation Plan (Plan) was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(v), including providing evidence that the Wagon Trail Solar Project (Facility) complies with the approval standard in OAR 345-022-0115.

2.0 Wildfire Risk Minimization Procedures

(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source;

In addition to the measures described in this plan, the risk of a wildfire affecting the public safety, first responders, or Oregon Energy Facility Siting Council-protected resources would be minimized by the procedures listed in Table 4. Additionally, the Applicant will incorporate guidance as outlined in the wildfire annex of the Morrow County NHMP (Morrow County 2016), which is the Morrow County CWPP (Morrow County 2019) as applicable to facility operation.

Certificate holder will consult with local fire districts, as well as local emergency management agencies to receive and incorporate input into final WMP, as appropriate, about the location and types of temporary fire breaks needed in the event of a fire on or off site. The final WMP shall designate:

- Estimated response times for on-site staff and local emergency service providers,
- Protocols for staff or emergency providers to erect or create fire breaks in the event of a fire,
- Identify and provide maps of priority areas where fire breaks would be prioritized to protect fires spreading off site or impacting the facility site.

During operation, the certificate holder or its contractor will work directly with local emergency responders to compile and maintain a current list of adjacent landowners/property owners with contact information. The final Wildfire Mitigation Plan will identify the best notification procedures of adjacent landowners/property owners to provide to local and regional emergency services for emergency notifications, in the event of an ignition or fire at the facility.

Table 14. Procedures to Wildfire Risk

Topic	Procedures
Public health and safety	The public will be excluded from the solar, substation, and BESS facilities by fencing. Ground mounted inverters near turbines, and junction boxes will be surrounded by bollards to minimized inadvertent vehicle/farm equipment collisions with electrical equipment.
First Responders	The Applicant will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires in the facility should focus on controlling spread to adjacent lands. Operational staff will be trained in the use of fire extinguishers for responding to incipient stage fires on site.
Resource Protection	Resources covered by Oregon Energy Facility Siting Council standards near the project area include agricultural land, shrub steppe habitat, and cultural resources. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat or cultural resources.

~~2.0~~3.0 Wildfire Risk Assessment Update

~~This Plan has been prepared to meet the approval standard under OAR 345-022-0115(1)(b), which requires:~~

(5) *Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;*

Prior to operation of the facility provide a summary update of wildfire risk at the site as designated under OAR 345-022-0115.

~~Data from the Oregon Community Wildfire Protection Plan (CWPP) planning tool were used for the analyses in this Plan (CWPP 2018). The Oregon CWPP provides a clearinghouse of fire behavior and fire effects data to aid decision makers in charge of reducing wildfire risk in their communities. The statewide wildfire risk map was developed and is maintained per requirements under Senate Bill 762 and associated administrative rules. The Oregon Explorer's CWPP data presented are from the 2018 Pacific Northwest Quantitative Wildfire Risk Assessment (Pyrologix 2018).~~

~~Based on data provided in the Application for Site Certificate (ASC), approximately 27 percent of the Site Boundary has low wildfire risk where it contains irrigated cultivated crop land cover and is relatively flat topography. Approximately 6 percent of the Site Boundary has moderate to very high wildfire risk. The areas with high to very high wildfire risk are along Lexington Echo Highway (OR-207) through the southeastern portion of the Site Boundary, Bombing Range Road in the eastern portion of the Site Boundary, Strawberry Lane across the middle of the Site Boundary, and a portion in the southwest corner along Juniper Canyon Road due to more shrub/scrub vegetation. The areas within the analysis area outside of the Site Boundary with high to very high wildfire risk include~~

~~along Baseline Lane in the south and in the north along Juniper Canyon Road and where the analysis area meets the southern edge of the Boardman Bombing Range.~~

~~Areas of heightened risk are described using the Oregon CWPP Risk to Assets (see Exhibit V: Figure V-5), potential impacts to people and property (Exhibit V: Figure V-6), and potential impacts to infrastructure datasets (Exhibit V: Figure V-7). Risk to assets includes likelihood and consequences of wildfire on mapped highly valued assets including critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures (CBI 2020). People and property data take into account housing density based on Where People Live and USFS private inholdings (Pyrologix 2018). Infrastructure includes critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures (Pyrologix 2018).~~

~~The Site Boundary contains low to high wildfire risk to assets. A majority (95 percent) of the Site Boundary contains no mapped assets, and therefore no risk to known assets. Of the approximately 5 percent of the Site Boundary that has wildfire risk to assets, approximately 3 percent is moderate risk to assets and 2 percent is low risk to assets. The areas in the Site Boundary with high risk to assets include along Lexington-Echo Highway through the southeastern portion, Bombing Range Road in the eastern portion, Strawberry Lane across the middle, and in the southwestern corner along Juniper Canyon Road. Additionally, areas of heightened risk outside of the Site Boundary but within the analysis area include in the south along Baseline Lane and in the north along Juniper Canyon Road and where the analysis area meets the southern edge of the Boardman Bombing Range.~~

~~Within the Site Boundary and analysis area, existing structures include distribution and transmission lines, wind turbines, the Lexington Pump, the Blue Ridge Substation, and a few residential properties. If a wildfire were ignited onsite, the areas subject to heightened risk would be the areas associated with these structures. The distribution line poles and residential structures may be considered areas of high fire consequence as there is the potential for high fire hazard for these structures. Any time assets are added to a landscape, wildfire risk will increase. With the addition of infrastructure that will result from Facility construction, it is expected that more of the area would fall into moderate to high categories for wildfire risk to assets.~~

~~Additional areas of heightened risk include moderate potential for impacts areas to people and property is approximately 1 percent of the Site Boundary. These areas are centered around farm and ranch buildings and infrastructure along Lexington-Echo Highway, Bombing Range Road, and Strawberry East Road in the southeastern portion and along Juniper Canyon Road in the southwestern portion of the Site Boundary. Similarly, there are low to moderate potential for impact to infrastructure along Lexington-Echo Highway in the southeast and low to high potential for impact to infrastructure along Juniper Canyon Road in the southwestern portions of the Site Boundary.~~

~~There are additional areas of moderate to high potential impact to people and property south and southwest of the Site Boundary and within the analysis area that cover approximately 1 percent and less than 0.5 percent respectively of the analysis area. These high potential impact areas are along Baseline Lane and Juniper Canyon Road. There is also additional low to moderate potential~~

~~impact to infrastructure north of the Site Boundary but within the analysis area along Lexington-Echo Highway in the east and along Juniper Canyon Road and southern edge of Boardman Bombing Range.~~

~~3.0~~4.0 Inspection and Management

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

~~3.1~~4.1 Facility Inspections

Facility components would be inspected quarterly. The supervisory, control, and data acquisition (SCADA) system collects operating and performance data from the facility as a whole and allows remote operation. Wagon Trail Energy Center, LLC c/o NextEra Energy Resources, LLC (Applicant) will monitor the Facility components, such as the substation and solar arrays 24 hours a day, 7 days a week including shutdown capabilities. These operational monitoring and maintenance measures are also discussed in Section 4.0.

Onsite inspections of Facility equipment will occur quarterly. Onsite inspections will include check lists provided by the Original Equipment Manufacturer and the use of utility industry best practices. Smoke/fire detectors will be placed around the site that will be tied to the SCADA system and will contact local firefighting services as needed.

Additionally, the BESS will have an integrated fire safety system that monitors heat, and smoke, and provides dedicated annunciation/alarming in the event a fire condition is detected, automatically returns the system to a standby mode and if necessary, automatically deploys an appropriate suppression agent.

The facility components that could cause electrical fires are solar inverters, wind turbines, substations, battery energy storage system (BESS), and overhead electrical lines. The Applicant will inspect these components during operations as outlined in Table 1.

Table 2~~1~~. Operational Inspections for Electrical Components

Inspection	Procedure	Standard	Time frame
Solar Inverter	Visual inspection of inverter and surrounding area.	SPCC Plan[1] Manufacturer's maintenance recommendations	Monthly SPCC Bi-annual Preventative Maintenance
Substation	Visual inspection of MPT, Avian Power Line Interaction Committee (APLIC) measures, and surrounding area.	Manufacturer's maintenance recommendations APLIC[2]	Monthly Yearly (APLIC)

Inspection	Procedure	Standard	Time frame
BESS	Visual inspection of BESS, PCS, and surrounding areas	SPCC Plan Manufacturer's maintenance recommendations	Monthly
Overhead electrical lines	Visual inspection of components, grounding, APLIC measures, vertical clearance distance between conductor and vegetation.	National Energy reliability Corporation (NERC)[3] APLIC	Bi-annual

1. The Operational Spill Prevention, Control, and Countermeasure Plan for the facility will require these components to be inspected monthly for spills. During these inspections, Operational Staff will also visually inspect the component and surrounding area.

2. Applicant will develop an inspection checklist and program of electrical equipment based on manufacturer's recommendations for individual components.

3. Vegetation maintenance standard FAC-003-0 .

~~3.2~~4.2 Vegetation Management

The Applicant will maintain vegetation within the fence line and will also maintain a 5-foot noncombustible, defensible space clearance along the fenced perimeter of the Site Boundary. Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle.

A physical vegetation survey assessment of the fenced area will be completed at least twice a year to monitor for vegetation clearances, maintenance of fire breaks, and monitor for wildfire hazards. Additionally, the Applicant will incorporate guidance regarding the fuel breaks for defensible/survivable space per the Morrow County adopted Natural Hazards Mitigation Plan (NHMP) and OAR 629-044-1085, as applicable.

One of the vegetation survey assessments will occur in May or June, prior to the start of the dry season, a time when wildfire risk is heightened. The survey will be conducted by the Site Operations Manager and will be used to assess the frequency of upcoming vegetation maintenance and identify areas that may need additional attention. The Site Operations Manager will visually assess and document vegetation height, abundance, and areas where vegetation should not be present such as crushed rock bed around collector substations. The vegetation survey assessment will determine that clearances and fire breaks (vegetative clearance areas and areas determined to remain clear to act as permanent fire breaks or areas where temporary fire breaks may be deployed in the event of a fire) are satisfactory, and if not, the mitigation procedures will be implemented (e.g., vegetation management) to ensure clearances and fire breaks are satisfactory.~~and identify areas that may need additional attention and will be used to create a Vegetation Maintenance Work Plan. The work plan will be a living document that will be updated in order to meet the objectives of this Plan. Observations in the vegetation survey will include:~~ The vegetation survey will document:

- Location;
- Species;
- Estimated growth rate;
- Abundance;
- Clearance/setbacks; and
- Risk of fire hazard.

Additional vegetation surveys may be required throughout the season based on seasonally heightened fire risk. ~~The~~ Vegetation Maintenance ~~Work Plan~~procedures and BPMs will be followed during operation of the Facility to ensure that vegetation does not grow in a manner that blocks or reduces solar radiation reaching the solar panels and reduce the risk of starting a fire. Vegetation control will employ best management practices and techniques that are most appropriate for the local environment. These may include physical vegetation control such as mowing or introduction of a non-invasive species that is low growing. In rare circumstances where it is necessary to use herbicides, an effort will be made to minimize use and only apply bio-degradable, U.S. Environmental Protection Agency-registered, organic solutions that are non-toxic to wildlife. Any herbicides used for vegetation management the site will be selected and used in a manner that fully complies with all applicable laws and regulations.

Vegetation within the fence line and below the solar arrays will be maintained to a height of 18-inches and provide a minimum of 24-inch clear distance to any exposed electrical cables. Exposed electrical wires should be running under the solar panels at the midpoint or higher than the center of the panel. Vegetation will be removed within 10-foot perimeter of the inverter/transformer/battery unit pads. Gravel or similar noncombustible base will be located within the 10-foot perimeter of these pads. Vegetation will be removed from inside the Facility collector substation fence line. Gravel or similar noncombustible base shall be used.

To reduce the availability of fuels for wildfire near electrical components, the Applicant will install a non-flammable gravel base around solar inverters, substations, and BESS, and implement on-going vegetation management outlined in Table 2 to ensure that vegetation does not grow in these graveled areas.

Table 3~~2~~. Vegetation Management Procedures by Facility Component

Vegetation Management	Procedure	Standard	Time frame
Solar Inverter	Herbicide application on gravel pad around inverter to prevent vegetation growth.	IEEE 80 NEC 70	Yearly, depending on vegetation condition.
Substation	Herbicide application on substation gravel pad. Highly compacted gravel foundations of substation are not suitable for vegetation ground.	IEEE 80 NEC 70	Yearly, depending on vegetation condition.

BESS	Herbicide application on gravel pad surrounding BESS. Highly compacted gravel foundations of BESS are not suitable for vegetation.	IEEE 80 NEC 70	Yearly, depending on vegetation condition.
Overhead electrical lines	Mow vegetation to achieve clearance requirements between conductor and ground.	NERC	Yearly, depending on vegetation condition.

4.05.0 Preventative and Minimization Actions for Wildfire Risk

€ Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

4.15.1 Preventative Actions

The Applicant will minimize risk of facility components causing wildfire through preventative actions. In the design of the facility, the Applicant will implement the design considerations and best practices outlined in Table 3 to minimize electrical fire risk from facility components.

Table 43. Design Considerations for Fire Safety by Facility Component

Consideration	Solar Inverter	Substation	BESS	Overhead Lines
Electrical connections by qualified electricians	X	X	X	X
Inspections for mechanical integrity prior to energizations	X	X	X	X
Lighting protection	X	X	X	X
Corrosion protection	X	X	X	X
Strain relief of connecting cabling	X	X	X	X
Protection against moisture	X	X	X	X
Grounding systems	X	X	X	X
Limits on input voltage and power	X	X	X	X
Safety setback from structures	X[1]	X[1]	X[1]	X[2]
Technology specific design standards	X[3]	X[4]	X[5]	X[3]

1. 50-foot setback from structures.
2. Vertical and horizontal clearances from structures depends on voltage of conductor.
3. NFPA 70.
4. IEEE 979.
5. NFPA 1, Chapter 52.

5.1.1 Facility Design Features:

During Facility operations, the areas within the Site Boundary that are subject to a heightened risk of wildfire include the solar array areas. The solar array areas will have low-growing vegetation maintained below the solar arrays during the operational period of the Facility. Measures for reducing the risk of fire ignition and reducing the risk of equipment damage were a wildfire to occur are discussed further in Section 3.0, including the Facility's vegetation management program (see Section 3.2), and through the emergency response procedures that will be described in the Emergency Management Plan (EMP). The EMP will be developed for the Facility and is outlined below in Section 4.2.5. The collector substation area, transformer pads, and the permanent, fenced parking and storage area will have reduced risk for fire due to the fact that these areas will have a gravel base with no vegetation within a 10-foot perimeter to reduce fire risk.

The Facility components will meet National Electrical Code and Institute of Electrical and Electronics Engineers standards and will not pose a significant fire risk. The solar array will have shielded electrical cabling, as required by applicable code, to prevent electrical fires. In addition, the collector system and substation will have redundant surge arrestors to deactivate the Facility during unusual operational events that could start fires. The collector substation and the switchyard will have also sufficient spacing between equipment to prevent the spread of fire.

Unless already paved, access roads will be graveled. The fenced areas around the collector substation, operations and maintenance (O&M) building, met stations, and energy storage system will be graveled, with no vegetation present. All newly constructed roads will be graded and graveled to meet load requirements for all equipment. Service roads, approximately 12 feet wide, will be constructed within the solar array fence line, to facilitate access for ~~construction and~~ maintenance purposes. Approximately 20-foot-wide service roads will be constructed outside the solar array fence line to reach the separately fenced substations. Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety. Service roads will be all-weather, compacted soil or gravel, with an internal turning radius of 28 feet. Vegetation maintenance along service roads will include mowing as needed for fire safety requirements. Facility access roads will be sufficiently sized for emergency vehicle access. Vegetation free areas such as gravel pads or base and facility perimeter and interior roads act as a permanent fire break which could minimize the spread of fires on site or impacts from an external wildfire.

Smoke/fire detectors will be placed around the site that will be tied to the supervisory, control, and data acquisition (SCADA) system and will contact local firefighting services. The SCADA system collects operating and performance data from the solar array and from the facility as a whole and allows remote operation from the O&M building. The limited vegetation present within the Site Boundary during operations will also help to minimize spread of fire. Any potential fires inside the Site Boundary will be controlled by trained staff who will be able to access the Facility around the clock. These measures will help keep external fires out or internal fires in.

The Applicant proposes the option to construct up to two alternating current coupled battery storage sites within the site boundary (Exhibit C, Figure C-2). The BESS will be capable of storing

and later deploying approximately 500 megawatts of energy generated by the Facility or other sources connected to Blue Ridge Substation.

The Applicant will implement the following fire prevention and control methods to minimize fire and safety risks if Li-ion batteries are used for battery storage:

- The batteries will be stored in completely contained, leak-proof modules.
- Ample working space will be provided around the BESS for maintenance and safety purposes.
- Off-site, 24-hour monitoring of the BESS will be implemented and will include shutdown capabilities.
- The ESP will have response procedures specific to the BESS in the event of an emergency, such as a fire.
- Transportation of Li-ion batteries is subject to 49 Code of Federal Regulations (CFR) 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. This regulation contains requirements for prevention of a dangerous evolution of heat; prevention of short circuits; prevention of damage to the terminals; and prevention of batteries coming into contact with other batteries or conductive materials. Adherence to the requirements and regulations, personnel training, safe interim storage, and segregation from other potential waste streams will minimize any public hazard related to transport, use, or disposal of batteries.
- Design of the BESS will be in accordance with applicable Underwriters Laboratories (specifically, 1642, 1741, 1973, 9540A), National Electric Code, and National Fire Protection Association (specifically 855) standards, which require rigorous industry testing and certification related to fire safety and/or other regulatory requirements applicable to battery energy storage at the time of construction.
- Additionally, the Applicant will employ the following design practices, as applicable to the available technology and design at time of construction:
    - Use of Li-ion phosphate battery chemistry that does not release oxygen when it decomposes due to temperature;
    - Employment of an advanced and proven battery management systems;
    - Employment of Fike fire control panels with 24-hour battery backup at every battery container;
    - Installation of fire sensors, smoke and hydrogen detectors, alarms, emergency ventilation systems, cooling systems, and aerosol fire suppression/extinguishing systems in every battery container;
    - Installation of doors that are equipped with a contact that will shut down the battery container if opened;

- Installation of fire extinguishing and thermal insulation sheets between each individual battery cell;
- Implementation of locks and fencing to prevent entry of unauthorized personnel;
- Installation of remote power disconnect switches; and
- Clear and visible signs to identify remote power disconnect switches.

~~4.2~~5.2 Preventative Programs

The Applicant will implement the following programs to minimize fire risk during operations of the Facility.

~~4.2.1~~5.2.1 OHSA-Compliant Fire Prevention Plan

All workers, contracting employees, and other personnel performing official duties at the Facility will conduct work under a Fire Prevention Plan that meets applicable portions of 29 CFR 1910.39, 29 CFR 1910.155, 29 CFR 1910, subpart L. The plan will ensure that:

- Workers are trained in fire prevention, good housekeeping, and use of a fire extinguisher
- Workers are trained in the evacuation procedures in the event in a fire occurs in a wind turbine while workers are inside the turbine.
- Necessary equipment is available to fight incipient stage fires. Fire beyond incipient stage shall be managed using local fire response organizations.
- Provide necessary safety equipment for handling and storing combustible and flammable material.
- Ensure equipment is maintained to prevent and control sources of ignition.
- Do not allow smoking or open flames in an area where combustible materials are located.
- Implement a Hot Work Procedure and permit program.

~~4.2.2~~5.2.2 Electrical Safety Program

All operational workers will be trained in electrical safety and the specific hazards of the facility. This training will address:

- Minimum experience requirements to work on different types of electrical components;
- Electrical equipment testing and troubleshooting;
- Switching system;
- Provisions for entering high voltage areas (e.g., substation);
- Minimum approach distances; and
- Required personal protective equipment.

~~4.2.3~~5.2.3 Lock Out/Tag Out Program

During maintenance activities on electrical equipment is the de-energized and physically locked or tagged in the de-energized positions to inadvertent events that could result in arc flash.

~~4.2.4~~5.2.4 Fire Weather Monitoring and Hot Work

Burn probability, expected flame length, and overall risk may increase during periods of the fire season. Personnel on site will monitor Fire Weather Watches and Red Flag Warnings. A fire weather watch indicates the potential for weather conducive to large fore spread in the next 12 to 72 hours. A Red Flag Warning is issued when current weather conditions are conducive to large fire growth in the next 24 hours. Personnel monitoring these conditions ~~may~~ shall halt work in ~~certain~~ high risk locations, as designated in this plan, ~~or~~ and employ additional mitigation measures designated in this plan. Mitigation measures during a Red Flag Warning include, but are not limited to, communicating to on-site staff of the Red Flag Warning, communicating with local fire protection agency personnel of on-going conditions, driving or parking on roads to avoid sparking a fire in grass or brush, and halting construction activities that may increase fire risk such as hot work. All hot work (any cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces, and fire suppression equipment will be immediately available during hot work activities. Following the completion of hot work, the Certificate Holder or contractor(s) must maintain a fire watch for 60 minutes to monitor for potential ignition.

~~4.2.5~~5.2.5 Emergency Management ~~Plan~~

~~The EMP will be prepared prior to construction by the Applicant and construction contractor and will contain policies and procedures for preparing for and responding to a range of potential emergencies, including fires. Implementation of the EMP will ensure risks to public health and safety and risks to emergency responders are minimized. Any potential fires inside the solar array will be controlled by trained staff who will be able to access the Facility around the clock. These measures will help keep external fires out or internal fires in. The EMP~~Emergency Management will cover response procedures that consider the dry nature of the region and address risks on a seasonal basis. The final WMP ~~plan~~ will ~~also~~ specify communication channels the Applicant intends to pursue with local fire protection agency personnel, for example, annual meetings to discuss emergency planning, and invitations to observe any emergency drill conducted at the Facility. At the beginning of Facility operations, a copy of the site plan indicating the arrangement of the Facility structures, ~~and~~ access points, and fire breaks will be provided to the local fire district. to the Applicant will incorporate guidance from Chapter 4: Emergency Operations of the Morrow County NHMP regarding wildland fire suppression procedures as needed (Morrow County 2016).

~~In addition to the emergency responses to be stipulated in the EMP, p~~Personnel will be trained on the RACE procedure to implement in the event of a fire start. RACE procedure includes:

- **Rescue** anyone in danger (if safe to do so);

- **Alarm** – call the control room, who will then determine if 911 should be alerted;
- **Contain** the fire (if safe to do so); and
- **Extinguish** the incipient fire stage (if safe to do so).

Personnel on site will carry fire suppression equipment during the fire season in their vehicles. This equipment shall include, at a minimum:

- Fire Extinguisher: Dry chemical. 2.5 or 2.8 pound. 1A-10B: C U/L rating, properly mounted or secured;
- Pulaski Hand Shovel: Round point. 26 to 28 in“h”"D" Handle, bla–e - 12 inches long and 10 inches wide;
- Collapsible Pail or Backpack Pump: 5-gallon capacity; and
- Drip Can: 5-gallon capacity.

Another ~~potential~~ safety mitigation measure to have available on site during ~~construction and~~ operational activities during times of heightened wildfire risk is a water truck, water buffalo, or tank with minimum 500 gallon capacity.

Personnel will receive training on use of suppression equipment. All personnel shall also be equipped with communication equipment capable of reaching the control room from all locations within the Site Boundary.

~~5.0~~6.0 ~~Wildfire Risk Minimization Procedures~~Plan Updates and Future BMPs

~~*(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source;*~~

~~In addition to the measures described above, the risk of a wildfire affecting the public safety, first responders, or Oregon Energy Facility Siting Council-protected resources would be minimized by the procedures listed in Table 4. Additionally, the Applicant will incorporate guidance as outlined in the wildfire annex of the Morrow County NHMP (Morrow County 2016), which is the Morrow County CWPP (Morrow County 2019) as needed.~~

~~Table 4. Procedures to Wildfire Risk~~

~~Topic~~	~~Procedures~~
~~Public health and safety~~	~~The public will be excluded from the solar, substation, and BESS facilities by fencing. Ground mounted inverters near turbines, and junction boxes will be surrounded by bollards to minimized inadvertent vehicle/farm equipment collisions with electrical equipment.~~
~~First Responders~~	~~The Applicant will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires in the facility should focus on controlling spread to adjacent lands. Operational staff will be trained in the use of fire extinguishers for responding to incipient stage fires on site.~~
~~Resource Protection~~	~~Resources covered by Oregon Energy Facility Siting Council standards near the project area include agricultural land, shrub steppe habitat, and cultural resources. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields into wildlife habitat or cultural resources.~~

Plan Updates and Modification€*(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.*

This Plan will be updated by the Applicant every five years. Updates to this Plan will account for changes in local fire protection agency personnel and changes in best practices for minimizing and mitigating fire risk. It is recommended to consult with Morrow County, the local fire department, and the Morrow County Emergency Manager including updates to the Morrow County NHMP (Morrow County 2016) and Morrow County CWPP (Morrow County 2019).

After each 5-year review, a copy of the updated plans will be provided to the Oregon Department of Energy with the annual compliance report required under OAR 345-026-008(2). If after the 5-year review of the Plan, a determination is made that no updates are required, an explanation of this determination will be provided in the annual compliance report.

Every five years, the Applicant will review wildfire risk and update this Plan for the Site Boundary. Evaluation of wildfire risk will be consistent with the requirements of OAR 345-022-0115(1) using current data from reputable sources.

The Applicant may consider revisions to this plan at its sole discretion to incorporate future best practices or emerging technology depending on whether the new technology is cost effective and suitable for the site conditions. The Applicant will track the industry groups and applicable design standards outlined in Table 5 to identify future technologies or best practices that could be implemented at the Facility.

Table 5. Resources for Future Best Practices

Reference	Description	Method
American Clean Power	Industry ground that establishes best practices for renewable energy projects.	The Applicant is a member of ACP and participates in best practice development[1].
National Electric Reliability Corporation (NERC)	National Energy Reliability Corporation develops electrical standards for large energy facilities.	The Applicant will follow NERC Standard FAC-003-0 for its vegetation management program of transmission lines[2], or updates to this standard as approved by NERC.
Oregon Specialty Building Codes	Building codes applicable to inhabitable spaces, including the O&M building and the substation enclosure.	Remodeling to the O&M and enclosure structure that requires permits will follow any updates to the OSPC at that time.
APLIC	Avian protection methods for electrical facility reduce fires related to bird/mammal nests on electrical equipment.	The Applicant is a member of APLIC[3]. An operational wildlife monitoring program will inspect for wildlife nesting on facilities that could cause fire, and take actions following applicable laws (e.g., MBTA).

1. Link to ACP Standards & Practices: https://cleanpower.org/resources/types/standards-and-practices/.
2. NERC FAC-003-0: https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-0.pdf.
3. Link to APLIC member organization: https://www.aplic.org/member_websites.php.

~~6.0~~7.0 References

CBI (Conservation Biology Institute). 2020. "Wildfire Risk Assessment Data Layer Descriptions Spreadsheet." DataLayerDescriptions_04_01_2019.Xlsx. Conservation Biology Institute. https://databasin.org/datasets/31cc2ca6bebe4efab3b139c50dd79722/.

CWPP (Oregon Community Wildfire Planning Tool). 2018. Accessed October 2022. Available online at: https://tools.oregonexplorer.info/oe_htmlviewer/index.html?viewer=wildfireplanning.

Morrow County. 2016. "Multi-Jurisdictional Natural Hazard Mitigation Plan." Report for: Morrow County, City of Boardman, City of Heppner, City of Ione, City of Irrigon, Town of Lexington. Morrow County, Oregon: Morrow County, Oregon Partnership for Disaster Resilience, and Resource Assistance to Rural Environments. https://www.co.morrow.or.us/sites/default/files/fileattachments/emergency_management/page/16294/nhmp_2016_-_final_adoption.pdf.

Morrow County. 2019. "2019 Morrow County Community Wildfire Protection Plan." Area 9 Fire Defense Board. Morrow County Planning Department. https://www.co.morrow.or.us/sites/default/files/fileattachments/planning/page/15251/2019_cwpp_final.pdf.

Pyrologix. 2018. "Pacific Northwest Quantitative Wildfire Risk Assessment: Methods and Results." Prepared for the U.S. Forest Service. Pyrologix LLC. https://oe.oregonexplorer.info/externalcontent/wildfire/reports/20170428_PNW_Quantitative_Wildfire_Risk_Assessment_Report.pdf.

Attachment X-1: Retirement and Restoration Cost Estimate

Attachment X-1. Estimated Retirement and Restoration Cost

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Estimate Summary
TETRA TECH EC, INC.
Job Code: Wagon Trail Solar
Description: Decommissioning Estimate

CBS Position Code	Quantity	UM	Cost Item Description	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1	1.00	Lump Sum	WAGON TRAIL SOLAR RETIREMENT	0.00	Detail	U.S. Dollar	27,547,539.39	27,547,539.39
1.1	1.00	Lump Sum	Equipment & Facilities Mob / Demob	0.20	Detail	U.S. Dollar	269,918.33	269,918.33
1.1.1	1.00	Lump Sum	Equipment Mob	0.00	Detail	U.S. Dollar	122,400.00	122,400.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UERNTRLG	Rental Equip Transp-Large		12.00	Each	U.S. Dollar	10,000.00	120,000.00
UERNTRSM	Rental Equip Transp-Small		16.00	Each	U.S. Dollar	150.00	2,400.00

1.1.2	1.00	Lump Sum	Site Facilities	0.00	Detail	U.S. Dollar	4,400.00	4,400.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UOCONMOB	Connex Box Mob		4.00	Each	U.S. Dollar	300.00	1,200.00
UOTRLTRN	Trailer Trnsp/Setup/Trdwn		4.00	Each	U.S. Dollar	800.00	3,200.00

1.1.3	3.00	Day	Crew Mob & Site Setup	1.00	Detail	U.S. Dollar	28,623.67	85,871.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	1,440.00	48.00	Each (hourly)	U.S. Dollar	45.44	65,439.79
L010101	OPERATOR	360.00	12.00	Each (hourly)	U.S. Dollar	56.75	20,431.21

1.1.4	2.00	Day	Crew Demob & Site Cleanup	1.00	Detail	U.S. Dollar	28,623.67	57,247.33

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	960.00	48.00	Each (hourly)	U.S. Dollar	45.44	43,626.53
L010101	OPERATOR	240.00	12.00	Each (hourly)	U.S. Dollar	56.75	13,620.80

1.2	1.00	Lump Sum	Project Site Support	0.00	Detail	U.S. Dollar	1,336,854.79	1,336,854.79
1.2.1	12.00	Month	Site Facilities	0.00	Detail	U.S. Dollar	3,510.00	42,120.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
URCONNEX	Connex Box		48.00	Month	U.S. Dollar	150.00	7,200.00
UROFFTRL	Office Trailer -12x60		24.00	Month	U.S. Dollar	500.00	12,000.00
UO1STAID	1st Aid Supplies		24.00	Month	U.S. Dollar	300.00	7,200.00
UOOFFSUP	Office Supplies($/prs/mo)		24.00	Month	U.S. Dollar	55.00	1,320.00
URPRTAJH	Port-a-John Unit(s) (4)		48.00	Month	U.S. Dollar	300.00	14,400.00

1.2.2	12.00	Month	Field Management	0.05	Detail	U.S. Dollar	107,894.57	1,294,734.79

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L90FXX02	Field - Proj Superintendent	5,280.00	2.00	Each (hourly)	U.S. Dollar	83.18	439,200.96
RPUTRK05	F-250 4X4 3/4 TON PICKUP	15,840.00	6.00	Each (hourly)	U.S. Dollar	11.07	175,269.60
L90FEL00	Field - Engr. Tech	5,280.00	2.00	Each (hourly)	U.S. Dollar	39.57	208,950.84
L90FXX03	Field - SHSO	5,280.00	2.00	Each (hourly)	U.S. Dollar	89.26	471,313.39

1.3	1.00	Lump Sum	Substation & T-Line Retirement	0.01	Detail	U.S. Dollar	691,767.42	691,767.42
1.3.1	1.00	Lump Sum	Substation Retirement	0.02	Detail	U.S. Dollar	493,682.56	493,682.56
1.3.1.1	1.00	Day	Fence Removal	1.00	Detail	U.S. Dollar	1,354.33	1,354.33

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010101	OPERATOR	10.00	1.00	Each (hourly)	U.S. Dollar	56.75	567.53
L060100	GENERAL LABORER	10.00	1.00	Each (hourly)	U.S. Dollar	45.44	454.44
RBACKH09	Deere 710J BACKHOE, 1.62CY	10.00	1.00	Each (hourly)	U.S. Dollar	33.24	332.35

1.3.1.2	1.00	Each	Transformer Removal	0.06	Detail	U.S. Dollar	282,148.74	282,148.74

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CBS Position Code	Quantity	UM	Description	Hours	Quantity	UM	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
			Cost Item								
1.3.1.2.1	3.00	Each	Oil Removal & Disposal				1.00	Detail	U.S. Dollar	58,283.89	174,851.66
1.3.1.2.1.1	3.00	Each	Oil Removal				1.00	Detail	U.S. Dollar	908.89	2,726.66
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			60.00	2.00	Each (hourly)		U.S. Dollar		45.44	2,726.66
1.3.1.2.1.2	42,000.00	Gallon	Oil Disposal				0.00	Detail	U.S. Dollar	4.00	168,000.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
USDISPOSAL	Disposal Fee's				168,000.00	Each		U.S. Dollar		1.00	168,000.00
1.3.1.2.1.3	3.00	Each	Trucking - Per Load				0.00	Detail	U.S. Dollar	1,375.00	4,125.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				4,125.00	Each		U.S. Dollar		1.00	4,125.00
1.3.1.2.2	3.00	Each	Dismantle & Loadout Transformer				0.20	Detail	U.S. Dollar	35,765.70	107,297.09
1.3.1.2.2.1	3.00	Each	Dismantle, Cut & Size				0.20	Detail	U.S. Dollar	30,265.70	90,797.09
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			600.00	4.00	Each (hourly)		U.S. Dollar		45.44	27,266.58
L010101	OPERATOR			300.00	2.00	Each (hourly)		U.S. Dollar		56.75	17,026.01
*REXCAV06A	Excav 100K w/ Bucket & Grapple			150.00	1.00	Each (hourly)		U.S. Dollar		124.54	18,680.25
*REXCAV06E	Excav 100K w/ Shear			150.00	1.00	Each (hourly)		U.S. Dollar		185.50	27,824.25
1.3.1.2.2.2	12.00	Each	Trucking - Per Load				0.00	Detail	U.S. Dollar	1,375.00	16,500.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				16,500.00	Each		U.S. Dollar		1.00	16,500.00
1.3.1.3	1.00	Each	Remove Control Building				2.00	Detail	U.S. Dollar	2,508.66	2,508.66
1.3.1.3.1	1.00	Each	Demo				2.00	Detail	U.S. Dollar	1,133.66	1,133.66
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			5.00	1.00	Each (hourly)		U.S. Dollar		45.44	227.22
L010101	OPERATOR			5.00	1.00	Each (hourly)		U.S. Dollar		56.75	283.77
*REXCAV06A	Excav 100K w/ Bucket & Grapple			5.00	1.00	Each (hourly)		U.S. Dollar		124.54	622.68
1.3.1.3.2	1.00	Each	Trucking - Per Load				0.00	Detail	U.S. Dollar	1,375.00	1,375.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				1,375.00	Each		U.S. Dollar		1.00	1,375.00
1.3.1.4	3.00	Day	UG Utility & Ground Removal				1.00	Detail	U.S. Dollar	1,354.33	4,062.98
Resource Code	**Description**			**Hours**	**Quantity**	**UM**		**Currency**		**Unit Cost**	**Total Cost**
L010101	OPERATOR			30.00	1.00	Each (hourly)		U.S. Dollar		56.75	1,702.60
L060100	GENERAL LABORER			30.00	1.00	Each (hourly)		U.S. Dollar		45.44	1,363.33
RBACKH09	Deere 710J BACKHOE, 1.62CY			30.00	1.00	Each (hourly)		U.S. Dollar		33.24	997.05
1.3.1.5	1,000.00	Cubic Yard	Remove Foundations To Subgrade				73.68	Detail	U.S. Dollar	27.85	27,846.68
1.3.1.5.1	1,000.00	Cubic Yard	Excavate / Remove Foundation - Various Depth				280.00	Detail	U.S. Dollar	15.87	15,873.25

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CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			35.71	1.00	Each (hourly)	U.S. Dollar	45.44	1,623.01
L010101	OPERATOR			71.43	2.00	Each (hourly)	U.S. Dollar	56.75	4,053.81
*REXCAV06C	Excav 100K w/ Hammer			35.71	1.00	Each (hourly)	U.S. Dollar	160.97	5,748.75
*REXCAV06A	Excav 100K w/ Bucket & Grapple			35.71	1.00	Each (hourly)	U.S. Dollar	124.54	4,447.68
1.3.1.5.2	1,000.00	Cubic Yard	Concrete Transport Offsite		100.00	Detail	U.S. Dollar	11.97	11,973.43
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
RDUTRK06	CAT D350D, 18CY-24CY			100.00	1.00	Each (hourly)	U.S. Dollar	74.29	7,429.00
L080940	TEAMSTER			100.00	1.00	Each (hourly)	U.S. Dollar	45.44	4,544.43
1.3.1.6	1.00	Lump Sum	Misc. Material Disposal		0.00	Detail	U.S. Dollar	1,975.00	1,975.00
1.3.1.6.1	1.00	Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	1,375.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				1,375.00	Each	U.S. Dollar	1.00	1,375.00
1.3.1.6.2	20.00	Ton	Disposal Cost		0.00	Detail	U.S. Dollar	30.00	600.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
USDISPOSAL	Disposal Fee's				600.00	Each	U.S. Dollar	1.00	600.00
1.3.1.7	1.00	Lump Sum	Restore Yard		0.04	Detail	U.S. Dollar	173,786.17	173,786.17
1.3.1.7.1	16.00	Acre	Backfill / Regrade		2.00	Detail	U.S. Dollar	1,692.29	27,076.72
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			160.00	2.00	Each (hourly)	U.S. Dollar	45.44	7,271.09
L010101	OPERATOR			160.00	2.00	Each (hourly)	U.S. Dollar	56.75	9,080.54
REXCAV06B	Gradall - Excavator			80.00	1.00	Each (hourly)	U.S. Dollar	75.73	6,058.29
*RDOZER08	CAT D6 LGP Dozer			80.00	1.00	Each (hourly)	U.S. Dollar	58.34	4,666.80
1.3.1.7.2	5,000.00	Cubic Yard	Vegetative Cover		300.00	Detail	U.S. Dollar	27.74	138,709.45
1.3.1.7.2.1	5,000.00	Cubic Yard	Topsoil, Delivered		0.00	Detail	U.S. Dollar	20.00	100,000.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
IMSOIL	Topsoil				5,000.00	Cubic Yard	U.S. Dollar	20.00	100,000.00
1.3.1.7.2.2	5,000.00	Cubic Yard	Placement		300.00	Detail	U.S. Dollar	7.74	38,709.45
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
L010101	OPERATOR			333.33	2.00	Each (hourly)	U.S. Dollar	56.75	18,917.78
RDOZER08	CAT D6N XL			333.33	2.00	Each (hourly)	U.S. Dollar	59.38	19,791.67
1.3.1.7.3	16.00	Acre	Re-Seed With Native Vegetation		0.00	Detail	U.S. Dollar	500.00	8,000.00
Resource Code	**Description**			**Hours**	**Quantity**	**UM**	**Currency**	**Unit Cost**	**Total Cost**
USLANDSCAPE	Landscape Sub				16.00	Acre	U.S. Dollar	500.00	8,000.00
1.3.2	1.00	Lump Sum	Transmission Line Retirement		0.02	Detail	U.S. Dollar	198,084.86	198,084.86
1.3.2.1	20.00	Each	Structure Removal		1.00	Detail	U.S. Dollar	4,978.95	99,578.97
1.3.2.1.1	20.00	Each	Cut / Lower Structure		2.00	Detail	U.S. Dollar	1,914.80	38,296.06

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CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	400.00	4.00	Each (hourly)	U.S. Dollar	45.44	18,177.72
L010101	OPERATOR	100.00	1.00	Each (hourly)	U.S. Dollar	56.75	5,675.34
*RXMISC14	MAN LIFT GAS 125ft	100.00	1.00	Each (hourly)	U.S. Dollar	53.52	5,352.00
*RXMISC23	GROVE RT 200 TON	100.00	1.00	Each (hourly)	U.S. Dollar	90.91	9,091.00

1.3.2.1.2	20.00 Each	Cut / Size Structure & Loadout	2.00	Detail	U.S. Dollar	2,101.65	42,032.92

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	600.00	6.00	Each (hourly)	U.S. Dollar	45.44	27,266.58
L010101	OPERATOR	100.00	1.00	Each (hourly)	U.S. Dollar	56.75	5,675.34
*RXMISC23	GROVE RT 200 TON	100.00	1.00	Each (hourly)	U.S. Dollar	90.91	9,091.00

1.3.2.1.3	14.00 Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	19,250.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		19,250.00	Each	U.S. Dollar	1.00	19,250.00

Notes: **********
Assume 9 ton per steel structure and cable span
****

1.3.2.2	20.00 Each	Remove Foundations To Subgrade	0.98	Detail	U.S. Dollar	4,925.29	98,505.89

1.3.2.2.1	20.00 Each	Excavate / Remove Foundation - Various Depth	1.00	Detail	U.S. Dollar	4,898.95	97,979.06

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	400.00	2.00	Each (hourly)	U.S. Dollar	45.44	18,177.72
L010101	OPERATOR	400.00	2.00	Each (hourly)	U.S. Dollar	56.75	22,701.34
*REXCAV06C	Excav 100K w/ Hammer	200.00	1.00	Each (hourly)	U.S. Dollar	160.97	32,193.00
*REXCAV06A	Excav 100K w/ Bucket & Grapple	200.00	1.00	Each (hourly)	U.S. Dollar	124.54	24,907.00

1.3.2.2.2	33.00 Cubic Yard	Concrete Transport Offsite	75.00	Detail	U.S. Dollar	15.96	526.83

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
RDUTRK06	CAT D350D, 18CY-24CY	4.40	1.00	Each (hourly)	U.S. Dollar	74.29	326.88
L080940	TEAMSTER	4.40	1.00	Each (hourly)	U.S. Dollar	45.44	199.95

1.4	1.00 Each	O&M Building Removal	0.21	Detail	U.S. Dollar	26,163.89	26,163.89

1.4.1	40.00 Ton	Structure Demo	10.00	Detail	U.S. Dollar	514.43	20,577.01

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*REXCAV06A	Excav 100K w/ Bucket & Grapple	40.00	1.00	Each (hourly)	U.S. Dollar	124.54	4,981.40
*REXCAV06E	Excav 100K w/ Shear	40.00	1.00	Each (hourly)	U.S. Dollar	185.50	7,419.80
L010101	OPERATOR	80.00	2.00	Each (hourly)	U.S. Dollar	56.75	4,540.27
L060100	GENERAL LABORER	80.00	2.00	Each (hourly)	U.S. Dollar	45.44	3,635.54

1.4.2	50.00 Cubic Yard	Remove Foundations To Subgrade	71.43	Detail	U.S. Dollar	35.74	1,786.88

1.4.2.1	50.00 Cubic Yard	Excavate / Remove Foundation - Various Depth	250.00	Detail	U.S. Dollar	17.78	888.90

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	2.00	1.00	Each (hourly)	U.S. Dollar	45.44	90.89
L010101	OPERATOR	4.00	2.00	Each (hourly)	U.S. Dollar	56.75	227.01
*REXCAV06C	Excav 100K w/ Hammer	2.00	1.00	Each (hourly)	U.S. Dollar	160.97	321.93
*REXCAV06A	Excav 100K w/ Bucket & Grapple	2.00	1.00	Each (hourly)	U.S. Dollar	124.54	249.07

1.4.2.2	50.00 Cubic Yard	Concrete Transport Offsite	100.00	Detail	U.S. Dollar	17.96	897.98

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CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
RDUTRK06	CAT D350D, 18CY-24CY	5.00	1.00	Each (hourly)	U.S. Dollar	74.29	371.45
L080940	TEAMSTER	5.00	1.00	Each (hourly)	U.S. Dollar	45.44	227.22
L010101	OPERATOR	2.50	0.50	Each (hourly)	U.S. Dollar	56.75	141.88
RFELWH09	CAT 966F LOADER, 4.25CY	2.50	0.50	Each (hourly)	U.S. Dollar	62.97	157.43

1.4.3	40.00	Ton	Material T&D	0.00	Detail	U.S. Dollar	95.00	3,800.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		2,600.00	Each	U.S. Dollar	1.00	2,600.00
USDISPOSAL	Disposal Fee's		1,200.00	Each	U.S. Dollar	1.00	1,200.00

1.5	4.00	Each	MET Tower Removal	1.42	Detail	U.S. Dollar	3,932.80	15,731.22

1.5.1	4.00	Each	Structure Demo	2.00	Detail	U.S. Dollar	2,572.13	10,288.51

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*REXCAV06A	Excav 100K w/ Bucket & Grapple	20.00	1.00	Each (hourly)	U.S. Dollar	124.54	2,490.70
*REXCAV06E	Excav 100K w/ Shear	20.00	1.00	Each (hourly)	U.S. Dollar	185.50	3,709.90
L010101	OPERATOR	40.00	2.00	Each (hourly)	U.S. Dollar	56.75	2,270.13
L060100	GENERAL LABORER	40.00	2.00	Each (hourly)	U.S. Dollar	45.44	1,817.77

1.5.2	60.00	Cubic Yard	Remove Foundation	146.00	Detail	U.S. Dollar	48.47	2,908.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	8.22	2.00	Each (hourly)	U.S. Dollar	45.44	373.51
L010101	OPERATOR	12.33	3.00	Each (hourly)	U.S. Dollar	56.75	699.70
*REXCAV06C	Excav 100K w/ Hammer	8.22	2.00	Each (hourly)	U.S. Dollar	160.97	1,323.00
*REXCAV06A	Excav 100K w/ Bucket & Grapple	4.11	1.00	Each (hourly)	U.S. Dollar	124.54	511.79

1.5.3	60.00	Cubic Yard	Concrete Transport Offsite	146.67	Detail	U.S. Dollar	12.25	734.71

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
RDUTRK06	CAT D350D, 18CY-24CY	4.09	1.00	Each (hourly)	U.S. Dollar	74.29	303.91
L080940	TEAMSTER	4.09	1.00	Each (hourly)	U.S. Dollar	45.44	185.91
L010101	OPERATOR	2.05	0.50	Each (hourly)	U.S. Dollar	56.75	116.09
RFELWH09	CAT 966F LOADER, 4.25CY	2.05	0.50	Each (hourly)	U.S. Dollar	62.97	128.80

1.5.4	40.00	Ton	Structure Salvage & Recovery	0.00	Detail	U.S. Dollar	45.00	1,800.00

1.5.4.1	40.00	Ton	Scrap Trucking Cost	0.00	Detail	U.S. Dollar	45.00	1,800.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		1,800.00	Each	U.S. Dollar	1.00	1,800.00

1.6	500.00	MW	DC Storage Retirement	2.47	Detail	U.S. Dollar	3,101.27	1,550,633.25

1.6.1	500.00	MW	Battery Removal & Disposal	5.00	Detail	U.S. Dollar	1,984.51	992,254.80

1.6.1.1	100.00	Day	Remove Batteries, Load For Transport	1.00	Detail	U.S. Dollar	3,159.56	315,955.80

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	6,000.00	6.00	Each (hourly)	U.S. Dollar	45.44	272,665.80
RLIFTS05	JCB 508C, 8,000lbs FRKLFT	2,000.00	2.00	Each (hourly)	U.S. Dollar	21.65	43,290.00

1.6.1.2	165.00	Each	Transport Batteries	0.00	Detail	U.S. Dollar	1,480.60	244,299.00

1.6.1.2.1	165.00	Each	Roll Off Liners	0.00	Detail	U.S. Dollar	105.60	17,424.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCLINER	Rolloff Liner		165.00	Each	U.S. Dollar	105.60	17,424.00

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CBS Position Code	Quantity	UM	Description	Hours	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
			Cost Item						
1.6.1.2.2	165.00	Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	226,875.00
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				226,875.00 Each		U.S. Dollar	1.00	226,875.00
1.6.1.3	2,160.00	Ton	Disposal Fee's		0.00	Detail	U.S. Dollar	200.00	432,000.00
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
USDISPOSAL	Disposal Fee's				432,000.00 Each		U.S. Dollar	1.00	432,000.00
1.6.2	500.00	MW	Structure & Components Removal		4.90	Detail	U.S. Dollar	1,116.76	558,378.45
1.6.2.1	50.00	Day	Refrigerant Recovery		1.00	Detail	U.S. Dollar	1,275.93	63,796.40
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
L010110	Craft - MEP			1,000.00	2.00 Each (hourly)		U.S. Dollar	63.80	63,796.40
1.6.2.2	1,640.00	Ton	Structure Demo		43.33	Detail	U.S. Dollar	118.71	194,690.19
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
*REXCAV06A	Excav 100K w/ Bucket & Grapple			378.46	1.00 Each (hourly)		U.S. Dollar	124.54	47,131.71
*REXCAV06E	Excav 100K w/ Shear			378.46	1.00 Each (hourly)		U.S. Dollar	185.50	70,202.72
L010101	OPERATOR			756.92	2.00 Each (hourly)		U.S. Dollar	56.75	42,957.92
L060100	GENERAL LABORER			756.92	2.00 Each (hourly)		U.S. Dollar	45.44	34,397.84
1.6.2.3	165.00	Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	226,875.00
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				226,875.00 Each		U.S. Dollar	1.00	226,875.00
1.6.2.4	43,750.00	Gallon	Glycol Recovery & Disposal		0.00	Detail	U.S. Dollar	1.00	43,750.00
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
USLIQUID	Liquids T&D				43,750.00 Each		U.S. Dollar	1.00	43,750.00
1.7	1.00	Lump Sum	Solar Array Retirement		0.00	Detail	U.S. Dollar	13,120,094.28	13,120,094.28
1.7.1	243,236.00	Linear Feet	Fence Removal		5,124.80	Detail	U.S. Dollar	1.32	322,169.42
1.7.1.1	243,236.00	Linear Feet	Fence Removal		5,124.80	Detail	U.S. Dollar	1.06	257,546.36
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
L010101	OPERATOR			1,423.88	3.00 Each (hourly)		U.S. Dollar	56.75	80,809.74
L060100	GENERAL LABORER			2,847.75	6.00 Each (hourly)		U.S. Dollar	45.44	129,414.10
RBACKH09	Deere 710J BACKHOE, 1.62CY			1,423.88	3.00 Each (hourly)		U.S. Dollar	33.24	47,322.52
1.7.1.2	47.00	Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	64,623.07
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				64,623.07 Each		U.S. Dollar	1.00	64,623.07
1.7.2	142.00	Each	Inverter / Transformer Removal		0.50	Detail	U.S. Dollar	5,616.16	797,495.08
1.7.2.1	142.00	Each	Disconnect Electrical		1.00	Detail	U.S. Dollar	1,203.06	170,834.09
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
L010110	Craft - MEP			1,420.00	1.00 Each (hourly)		U.S. Dollar	63.80	90,590.89
L060100	GENERAL LABORER			1,420.00	1.00 Each (hourly)		U.S. Dollar	45.44	64,530.91
RPUTRK05	F-250 4X4 3/4 TON PICKUP			1,420.00	1.00 Each (hourly)		U.S. Dollar	11.07	15,712.30
1.7.2.2	142.00	Each	Loadout Inverter & Transformer		1.00	Detail	U.S. Dollar	3,038.11	431,410.98
Resource Code	**Description**			**Hours**	**Quantity UM**		**Currency**	**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			5,680.00	4.00 Each (hourly)		U.S. Dollar	45.44	258,123.62
L010101	OPERATOR			1,420.00	1.00 Each (hourly)		U.S. Dollar	56.75	80,589.76

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CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
RHYDCR06	GROVE RT880 73 TON		1,420.00	1.00 Each (hourly)	U.S. Dollar		65.28	92,697.60
1.7.2.3	142.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	195,250.00
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub			195,250.00 Each	U.S. Dollar		1.00	195,250.00
1.7.3	142.00	Each	Remove Foundations To Subgrade	2.30	Detail	U.S. Dollar	891.09	126,535.31

Notes: **********
Assumption: 24x36x1 concrete pad per inverter/ transformer
****

1.7.3.1	4,544.00	Cubic Yard	Excavate / Remove Foundation	280.00	Detail	U.S. Dollar	15.87	72,128.05
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER		162.29	1.00 Each (hourly)	U.S. Dollar		45.44	7,374.96
L010101	OPERATOR		324.57	2.00 Each (hourly)	U.S. Dollar		56.75	18,420.52
*REXCAV06C	Excav 100K w/ Hammer		162.29	1.00 Each (hourly)	U.S. Dollar		160.97	26,122.32
*REXCAV06A	Excav 100K w/ Bucket & Grapple		162.29	1.00 Each (hourly)	U.S. Dollar		124.54	20,210.25
1.7.3.2	4,544.00	Cubic Yard	Concrete Transport Offsite	100.00	Detail	U.S. Dollar	11.97	54,407.27
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
RDUTRK06	CAT D350D, 18CY-24CY		454.40	1.00 Each (hourly)	U.S. Dollar		74.29	33,757.38
L080940	TEAMSTER		454.40	1.00 Each (hourly)	U.S. Dollar		45.44	20,649.89
1.7.4	965,007.00	Each	Solar Panel Removal & Disposal	5,600.00	Detail	U.S. Dollar	5.84	5,639,622.20
1.7.4.1	965,007.00	Each	Solar Panel Removal	5,600.00	Detail	U.S. Dollar	3.11	3,003,292.20
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
RLIFTS05	JCB 508C, 8,000lbs FRKLFT		10,339.36	6.00 Each (hourly)	U.S. Dollar		21.65	223,795.46
L010101	OPERATOR		10,339.36	6.00 Each (hourly)	U.S. Dollar		56.75	586,793.36
L060100	GENERAL LABORER		48,250.35	28.00 Each (hourly)	U.S. Dollar		45.44	2,192,703.38

Notes: **********
Assumed production: 20 panels per laborer per hour, Includes packaging and preparing for shipment offsite.
****

1.7.4.2	1,286.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	1,768,250.00
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub			1,768,250.00 Each	U.S. Dollar		1.00	1,768,250.00

Notes: **********
Assumption: 45,000 lbs per load
****

1.7.4.3	28,936.00	Ton	Disposal Cost	0.00	Detail	U.S. Dollar	30.00	868,080.00
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
USDISPOSAL	Disposal Fee's			868,080.00 Each	U.S. Dollar		1.00	868,080.00

Notes: **********
Assumption: 965,007 modules x 59.97 lbs each
****

1.7.5	1.00	Lump Sum	Solar Rack (Trackers) & Post Removal	0.01	Detail	U.S. Dollar	6,234,272.27	6,234,272.27
1.7.5.1	17,871.00	Each	Solar Rack (Trackers) & Post Removal	160.00	Detail	U.S. Dollar	257.21	4,596,647.27
Resource Code	**Description**		**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
L010101	OPERATOR		17,871.00	16.00 Each (hourly)	U.S. Dollar		56.75	1,014,239.12
L060100	GENERAL LABORER		17,871.00	16.00 Each (hourly)	U.S. Dollar		45.44	812,135.09
*REXCAV06A	Excav 100K w/ Bucket & Grapple		8,935.50	8.00 Each (hourly)	U.S. Dollar		124.54	1,112,782.49
*REXCAV06E	Excav 100K w/ Shear		8,935.50	8.00 Each (hourly)	U.S. Dollar		185.50	1,657,490.57

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CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost

Notes: **********
Assumed production: .5 hour per rack per crew. Crew to include 1 excavator w/shear, 1 excavator w/grapple, 2 operators and 2 laborers. Includes post removal and sizing of steel for sale as scrap, and loadout to haul trucks.
****

1.7.5.2	1,191.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	1,637,625.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		1,637,625.00	Each	U.S. Dollar	1.00	1,637,625.00

Notes: **********
Assumption: 45,000 lbs per load
****

1.8	1.00	Lump Sum	Site Restoration - Partial Site Seeding	0.01	Detail	U.S. Dollar	945,308.60	945,308.60
1.8.1	248,160.00	Linear Feet	Decompact Roads	5,000.00	Detail	U.S. Dollar	0.92	228,482.60

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*RDOZER08	CAT D6 LGP Dozer	1,985.28	4.00	Each (hourly)	U.S. Dollar	58.34	115,811.31
L010101	OPERATOR	1,985.28	4.00	Each (hourly)	U.S. Dollar	56.75	112,671.29

Notes: **********
Decompaction to include discing and regrading
****

1.8.2	910.00	Acre	Spot Grade Disturbed Areas	16.00	Detail	U.S. Dollar	287.72	261,826.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*RDOZER08	CAT D6 LGP Dozer	2,275.00	4.00	Each (hourly)	U.S. Dollar	58.34	132,712.13
L010101	OPERATOR	2,275.00	4.00	Each (hourly)	U.S. Dollar	56.75	129,113.87

Notes: **********
Assumtion: 3,638 acres total property area.
Assume that 25% of the area distrubed by construction will be regraded.
****

1.8.3	910.00	Acre	Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction	0.00	Detail	U.S. Dollar	500.00	455,000.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USLANDSCAPE	Landscape Sub		910.00	Acre	U.S. Dollar	500.00	455,000.00

Notes: **********
Assumtion: 3,638 acres total property area.
Assume that 25% of the area distrubed by construction will be re-seeded.
****

1.9	1.00	Lump Sum	Contractor Markups	0.00	Detail	U.S. Dollar	4,810,089.80	4,810,089.80
1.9.1	1.00	Lump Sum	Home Office, Project Management (5% Of Cost)	0.00	Detail	U.S. Dollar	897,823.55	897,823.55

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USMARKUP5	5% Markup		17,956,471.00	Each	U.S. Dollar	0.05	897,823.55

1.9.2	1.00	Lump Sum	Contractor Contingency (5% Of Cost)	0.00	Detail	U.S. Dollar	942,714.75	942,714.75

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USMARKUP5	5% Markup		18,854,295.00	Each	U.S. Dollar	0.05	942,714.75

1.9.3	1.00	Lump Sum	Contractor OH & Fee (15% Of Cost)	0.00	Detail	U.S. Dollar	2,969,551.50	2,969,551.50

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USMARKUP	15% Markup		19,797,010.00	Each	U.S. Dollar	0.15	2,969,551.50

1.10	1.00	Lump Sum	ODOE Applied Contingencies	0.00	Detail	U.S. Dollar	4,780,977.81	4,780,977.81

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Cost Item							
CBS Position Code	Quantity UM	Description	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1.10.1	1.00 Lump Sum	1% Performance Bond	0.00	Detail	U.S. Dollar	227,665.61	227,665.61

Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost
UODOE1	ODOE 1% Markup		22,766,561.00 Each	U.S. Dollar	0.01	227,665.61

1.10.2	1.00 Lump Sum	10% Administrative and Project Management	0.00	Detail	U.S. Dollar	2,276,656.10	2,276,656.10

Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost
UODOE2	ODOE 10% Markup		22,766,561.00 Each	U.S. Dollar	0.10	2,276,656.10

1.10.3	1.00 Lump Sum	10% Future Development Contingency	0.00	Detail	U.S. Dollar	2,276,656.10	2,276,656.10

Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost
UODOE2	ODOE 10% Markup		22,766,561.00 Each	U.S. Dollar	0.10	2,276,656.10

Report Total:	27,518,272.53

Category	Total
Labor	7,483,870.68
Rented Equipment	4,047,437.18
Supplies	25,944.00
Materials	100,000.00
Subcontract	11,031,892.87
Travel-Risk-Adj	43,750.00
ODCs	4,785,377.81

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