

**BEFORE THE  
ENERGY FACILITY SITING COUNCIL  
OF THE STATE OF OREGON**

In the Matter of Request for Amendment 1 of the  
Oregon Trail Solar Site Certificate

---

)  
) PROPOSED ORDER ON  
) AMENDMENT 1 OF THE SITE  
) CERTIFICATE

January 25, 2023

**RED underline and ~~strikethrough~~** represent recommended changes from  
Draft Proposed Order (DPO) to Proposed Order  
**BLACK underline and ~~strikethrough~~** represent Department's initial  
recommended condition changes as presented in the DPO

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**ATTACHMENTS**

- Attachment A: Draft First Amended Site Certificate (red-line)
- Attachment B-1: Reviewing Agency Comments on preliminary RFA1
- Attachment B-2: DPO Comments
- Attachment C: Draft Amended Habitat Mitigation Plan
- Attachment D: Draft Amended Wildlife Monitoring and Mitigation Plan
- Attachment E: Wildfire Mitigation Plan

Attachment F: Draft Memorandum of Agreements Attachment G: Draft Inadvertent Discovery Plan

1 **ACRONYMS AND ABBREVIATIONS**

ACEC	Area of Critical Environmental Concern
ACP	American Clean Power
APLIC	Avian Power Line Interaction Committee
ASC	Application for Site Certificate
BESS	Battery Energy Storage System
BLM	U.S. Bureau of Land Management
BMP	Best Management Practice
Certificate Holder	Oregon Trail Solar, LLC
Council	Energy Facility Siting Council
CTESRO	Confederated Tribes of the Warm Springs Reservation of Oregon
CTUIR	Confederated Tribes of Umatilla Indian Reservation
CWPP	Oregon Community Wildfire Planning Tool
dBA	A-weighted decibel
Department	Oregon Department of Energy
DEQ	Oregon Department of Environmental Quality
DOD	U.S. Department of Defense
DOGAMI	Oregon Department of Geology and Mineral Industries
DPO	Draft Proposed Order
DSL	Oregon Department of State Lands
EFSC	Energy Facility Siting Council
EROS	Earth Resources Observation and Science
ESCP	Erosion and Sediment Control Plan
ESCP	Erosion and Sediment Control Plan
FAA	Federal Aviation Administration
GCCP	Gilliam County Comprehensive Plan
GCZO	Gilliam County Zoning and Land Development Ordinance
HMP	Habitat Mitigation Plan
HPRCSIT	Historic Properties of Religious and Cultural Significance to Indian Tribes
HVRA	Highly Valued Resources and Assets
IBC	International Building Code
IPaC	Information, Planning, and Conservation System
JD	Jurisdictional Determinations
kV	kilovolt
LCDC	Land Conservation and Development Commission
MW	Megawatt
NERC	National Electric Reliability Corporation
NLCD	National Land Cover Database
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPDES 1200-C	National Pollutant Discharge Elimination System 1200-C construction permit
NPS	National Park Service

NRHP	National Register of Historic Places
NWCC	Northwest Interagency Coordination Center
NWCG	National Wildfire Coordinating Group
O&M	Operations and maintenance
OAR	Oregon Administrative Rule
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OHSMS	Occupational Health and Safety Management System
ONHT	Oregon National Historic Trail
OPRD	Oregon Parks and Recreation Department
ORBIC	Oregon Biodiversity Information Center
ORS	Oregon Revised Statute
OSSC	Oregon Structural Specialty Code
OTS	Oregon Trail Solar
OWRD	Oregon Water Resources Department
parent company	Avangrid Renewables, LLC
PGE	Portland General Electric Company
PNRA	Pacific Northwest Region Wildfire Risk Assessment
pRFA1	preliminary Request For Amendment
PSA	Predictive Service Area
RAI	Request for Additional Information
RFA1	Request For Amendment 1
RNA	Research Natural Area
SAG	Special Advisory Group (Gilliam County Court)
SHPO	State Historic Preservation Office
SLIDO	Statewide Landslide Information Database for Oregon
SSURGO	Soil Survey Staff. Gridded Soil Survey Geographic
SWCD	Gilliam County Soil and Water Conservation District
T&E	Threatened and Endangered Species
Type B Review ADR	Type B Review amendment determination request
USDOI	U.S. Department of Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WGS	Washington Ground Squirrel
WMMP	Wildlife Monitoring and Mitigation Plan
WMP	Wildfire Mitigation Plan
WPCF	Water Pollution Control Facility
WPCF 1700-B	General Water Pollution Control Facilities Permit
WSR	Wild and Scenic River
ZVI	Zone of Visual Impacts

1 **I. INTRODUCTION**

2  
3 The Oregon Department of Energy (ODOE or Department) issues this proposed order, in  
4 accordance with Oregon Revised Statute (ORS) 469.405(1) and Oregon Administrative Rule  
5 (OAR) 345-027-0371.

6  
7 In Request for Amendment 1 (RFA1 or amendment request), Oregon Trail Solar, LLC (certificate  
8 holder), a wholly owned subsidiary of Avangrid Renewables, LLC seeks approval from the  
9 Energy Facility Siting Council (EFSC or Council) for the following changes:

- 10  
11 • Amendment of Condition 24 to extend the construction commencement deadline from  
12 August 30, 2022 to August 30, 2025.  
13 • Amendment of Condition 50(b) to adjust the frequency of construction monitoring for  
14 cultural resources.

15  
16 In addition to the above-described changes, the Department recommends changes to condition  
17 language for clarification of the scope and intent, timing, and information to be submitted to  
18 demonstrate compliance. These condition changes are presented in Attachment A: Draft  
19 Amended Site Certificate; changes that are substantive are incorporated in Section III.  
20 *Evaluation of Council Standards*. Changes that are predominately administrative and/or  
21 clarifying are only reflected in Attachment A for brevity.

22  
23 Based upon review of RFA1, the DPO and the comments and recommendations received by  
24 specific state agencies, Tribal Governments, local governments and Council, the Department  
25 recommends Council approve the request and issue a Final Order on RFA1 granting issuance of  
26 the First Amended Site Certificate subject to the existing and recommended new and amended  
27 conditions set forth in this proposed order.

1 **I.A. Site Certificate Procedural History**

2  
3 The Oregon Trail Solar Site Certificate was issued by Council in September 2020, through the  
4 Final Order on Request for Amendment 5 of the Montague Wind Power Facility Site Certificate.  
5 The Final Order on Amendment 5 of the of the Montague Wind Power Facility Site Certificate  
6 authorized previously approved facility components to be allocated into three separate site  
7 certificates for three energy facilities (facilities named: Montague Wind Power Facility,  
8 Montague Solar Facility and Oregon Trail Solar).<sup>1</sup>  
9

10 The approved facility components allocated into the Oregon Trail Solar site certificate include  
11 any combination of wind and solar facility components not to exceed 41 megawatts (MW),  
12 including up to 16 wind turbines or up to 1,228 acres of solar photovoltaic energy generation  
13 equipment. Facility components would be located within an approved 13,866 acre site  
14 boundary, 41 MW of solar facility components within a 1,228 acre (1.9 square miles) solar  
15 micrositing area (maximum footprint of solar facility components would not exceed approx.  
16 400 acres)<sup>2</sup>, or up to 16 wind turbines within wind micrositing corridors, or any combination of  
17 wind and solar components within the approved micrositing area/corridor not to exceed 41  
18 MW.  
19

20 **I.B. Approved Facility Description**

21  
22 The Oregon Trail Solar Site Certificate authorizes construction, operation and retirement of 41  
23 MW of either 16 wind turbines, up to 400 acres of solar photovoltaic components, or any  
24 combination of the two generation types.  
25

26 The site certificate includes the following related or supporting facilities:

- 27 • Power collection system
- 28 • Control system
- 29 • Meteorological towers
- 30 • Optional switching station

---

<sup>1</sup> Wind facility components approved for allocation into the Oregon Trail Solar Site Certificate were approved in the 2010 Final Order on the ASC for the Montague Wind Power Facility, and as subsequently amended in the Final Order on Requests for Amendments 1, 2, 3 and 4 of the Montague Wind Power Facility Site Certificate. Solar facility components approved for allocation into the Oregon Trails Solar Site Certificate were approved in the 2018 Final Order on Request for Amendment 4 of the Montague Wind Power Facility Site Certificate; the 2020 Final Order on Amendment 5 on the Montague Wind Power Facility Site Certificate authorized placement of the previously approved solar facility components within a larger solar micrositing area – expanding the previously approved solar micrositing area to include an additional 1,228 acres .

<sup>2</sup> OTSAMD1Doc8 Complete RAF1 2022-12-19 Attachment 11 Certificate Holder Letter to Gilliam County. In the response to Gilliam County’s comments related to potential impacts to agriculture from development of the site for use of an energy facility, certificate holder affirmed that a 41 MW solar photovoltaic energy generation facility would not likely exceed 400 acres. While the micrositing area allows flexibility in siting of facility components, it does not represent a maximum worst-case footprint and therefore is clarified throughout this order.



- Access Roads to solar array
- Shared related or supporting facilities include:

- Substation, switching station, and 10-mile 230-kilovolt (kV) transmission line
- 100 MW battery storage system
- Operations and maintenance (O&M) building
- Temporary construction areas
- Access roads to shared facilities
- Public roadway modifications

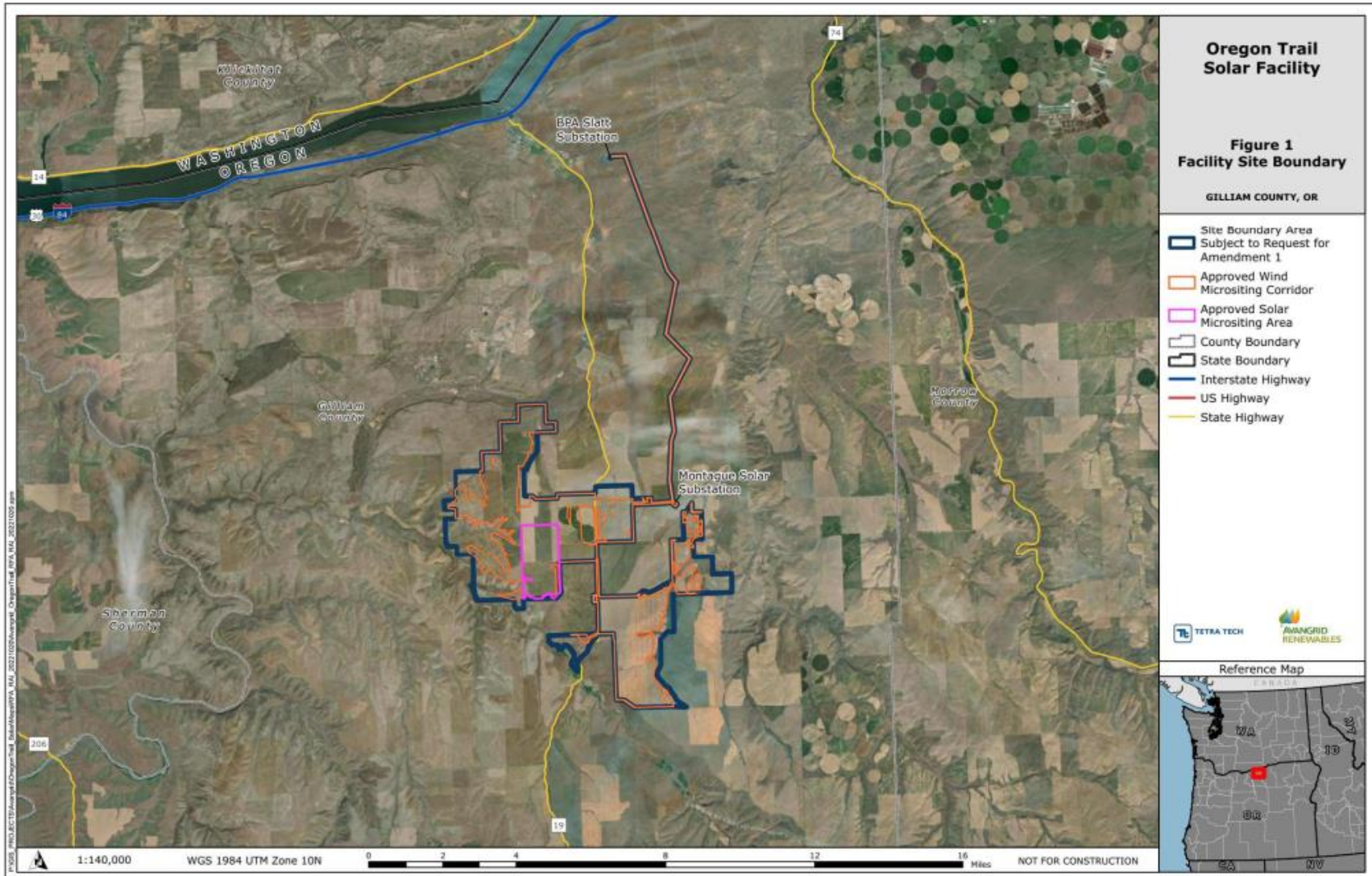
**I.C. Approved Site Description**

The approved facility site is located south of Arlington, in Gilliam County, Oregon. The facility is located on private land subject to easements or lease agreements with landowners.

**I.D. Facility Site Boundary and Micrositing Areas**

The site boundary includes 13,866 acres, as presented in Figure 1 below. Within the site boundary, there are two approved micrositing areas: 12,638 acres for wind energy generation components and 1,228 acres (1.9 square miles) for solar photovoltaic energy generation components. The approved site boundary includes a shared 230 kV transmission line corridor, extending 10-miles in length and ½-mile in width.

Figure 1: Regional Location of Approved Facility/Site Boundary



1

1 **II. AMENDMENT PROCESS**

2  
3 The Type A amendment review process (consisting of OARs 345-027-0359, -0360, -0363, -0365,  
4 -0367, -0371 and -0375) is the default amendment review process and shall apply to the  
5 Council’s review of a request for amendment proposing a change described in OAR 345-027-  
6 0350(2), (3), and (4).<sup>3</sup>

7  
8 Council rules describe the differences in review processes for the Type A and Type B review  
9 paths at OAR 345-027-0351.<sup>4</sup> The Type A review is the standard or “default” amendment review  
10 process for changes that require an amendment. A key procedural difference between the Type  
11 A and Type B review process is that the Type A review requires a public hearing on the Draft  
12 Proposed Order (DPO), and provides an opportunity to request a contested case proceeding on  
13 the Department’s proposed order. Another difference between the Type A and Type B review  
14 process relates to the time afforded to the Department in its determination of completeness of  
15 the amendment and issuance of the DPO. It is important to note that Council rules authorize  
16 the Department to adjust the timelines for these specific procedural requirements, if necessary.

17  
18 A certificate holder may submit an amendment determination request to the Department for a  
19 written determination of whether a request for amendment justifies review under the Type B  
20 review process. The certificate holder has the burden of justifying the appropriateness of the  
21 Type B review process as described in OAR 345-027-0351(3). The Department may consider,  
22 but is not limited to, the factors identified in OAR 345-027-0357(8) when determining whether  
23 to process an amendment request under Type B review.

24  
25 On August 19, 2022, the certificate holder submitted preliminary RFA1 inclusive of a Type B  
26 Review amendment determination request (Type B Review ADR), requesting the Department’s  
27 review and determination of whether, based on evaluation of the OAR 345-027-0357(8) factors,  
28 the amendment request could be reviewed under the Type B review process. On November 10,  
29 2022, the Department issued its determination on the Type B Review ADR, affirming that the  
30 Type A process be maintained based on the complexity of the proposed changes and the  
31 anticipated level of interest from the public and reviewing agencies. The Department’s  
32 determination was made available to the public via a courtesy electronic notification, posting to  
33 the Department’s project webpage and announcement at the November 18, 2022 Council  
34 meeting.

35  
36  

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<sup>3</sup> OAR 345-027-0351(2).

<sup>4</sup> OAR 345-027-0351(1) designates the amendment process that applies to Council’s review of a request for amendment to a site certificate to transfer a site certificate under OAR 345-027-0400, and OAR 345-027-0351(4) designates the pathway for a type c amendment under OAR 345-027-0380 which applies to a request for amendment when the change proposed in the request for amendment relates to the facility, or portion/phase of the facility, not yet in operation, but approved for construction in the site certificate or amended site certificate.

1 **II.A. Requested Amendment**  
2

3 This amendment request includes two proposed site certificate changes:  
4

- 5 • Amendment of Condition 24 to extend the construction commencement deadline from  
6 August 30, 2022 to August 30, 2025.
- 7 • Amendment of Condition 50(b) to adjust the frequency of construction monitoring for  
8 cultural resources.  
9

10 The construction commencement deadline extension is requested to allow more time to for the  
11 certificate holder to reach commercial readiness. The certificate holder must obtain a long-term  
12 contract (i.e., Power Purchase Agreement) for the sale of the energy generated by the facility to  
13 a regional utility or other off-taker. The certificate holder submitted proposals for Portland  
14 General Electric Company’s (PGE) 2021 All Source RFP13 and Puget Sound Energy’s 2021 All  
15 Source RFP14 which are both in process (at the time of the submittal of RFA1) but have not  
16 reached final project selection. Supply chain issues and solar tariffs have also curtailed the  
17 advancement of new solar projects over the last two years. Across the U.S., solar projects have  
18 been delayed because of the constrained supply of solar modules due to uncertainties around  
19 tariffs, shortages of raw material, and factories shutting down during the global pandemic. The  
20 Department recommends Council find that these reasons adequately explain the basis for  
21 needing additional time to commence construction.  
22

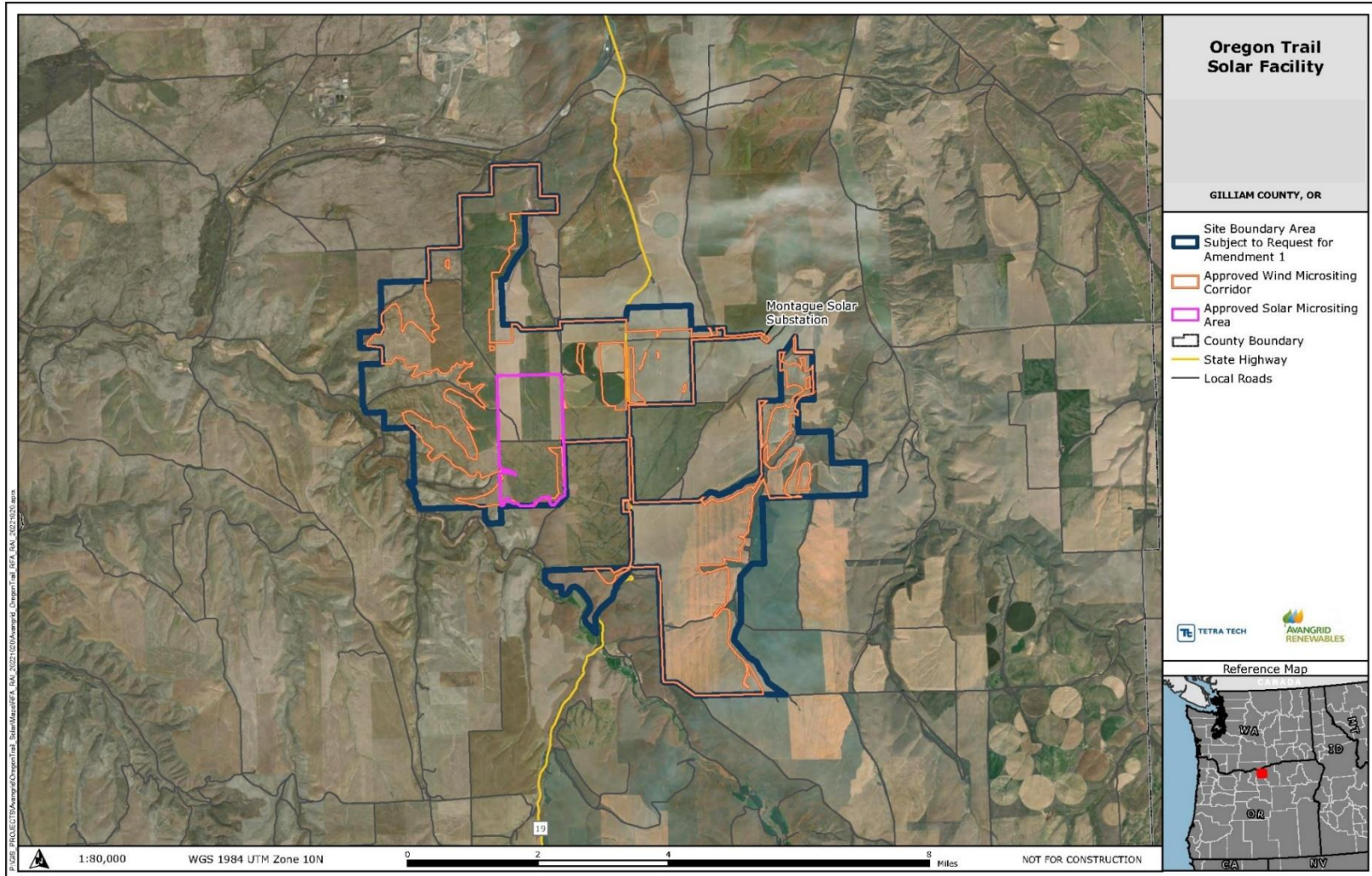
23 The certificate holder requested that the analysis areas evaluated in the amendment request  
24 be specific to the facility components not yet constructed. On June 16, 2022, as is allowable  
25 under, OAR 345-027-0360(3), the Department approved the certificate holder’s request to  
26 modify the analysis area for RFA1 to remove for the 10-mile 230 kV transmission line because it  
27 was built as part of the Montague Wind Power Facility in 2019.<sup>5</sup> The site boundary that  
28 establishes the analysis areas subject to RFA1 is presented in Figure 2 below.  
29  
30  
31

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<sup>5</sup> OTSAMD1Doc1-2 ODOE Approval Analysis Area and Notice Distance for Oregon Trail Solar RFA1\_Combined 2022-06-16.



**Figure 2: Approved Site Boundary and Solar/Wind Micrositing Areas (subject to the changes proposed in RFA1)**



1 **II.B. Council Review Process**

2  
3 Under OAR 345-027-0363(2), on October 12, 2022, the Department determined pRFA1 to be incomplete and issued requests for  
4 additional information (RAIs). The Department also issued additional RAI’s on October 19 and November 22, 2022. Comments were  
5 received from state, local and Tribal governments during review of pRFA1 from Oregon Department of Agriculture – Native Plant  
6 Conservation Program (ODA), Oregon Department of Fish and Wildlife (ODFW), Gilliam County Planning Department and the  
7 Confederated Tribes of Umatilla Indian Reservation (CTUIR). All comments received are provided in Attachment B-1 of this order; the  
8 Department’s analysis of reviewing agency comments and certificate holder responses is incorporated into Section III. *Evaluation of*  
9 *Council Standards* of this order.

10  
11 The certificate holder provided responses to the information request on November 11, November 22, December 12, and December  
12 14, 2022. After reviewing the responses to its information request, on December 14, 2022 the Department determined the RFA1 to  
13 be complete. Under OAR 345-027-0363(5), an RFA is complete when the Department finds that a certificate holder has submitted  
14 information adequate for the Council to make findings or impose conditions for all applicable laws and Council standards. The  
15 certificate holder submitted a complete RFA1 on December 19, 2022 which was then posted on December 21, 2022 to the  
16 Department’s project website with an announcement notifying the public that the complete RFA1 had been received and is available  
17 for viewing.

18  
19 On December 23, 2022, the Department issued the Draft Proposed Order (DPO), and a notice of a comment period on the complete  
20 RFA1 and the DPO (notice) under the Type A review process. The notice was distributed to all persons on the Council’s general  
21 mailing list, to the special mailing list established for the facility (i.e. individuals that have signed up to receive paper notices or  
22 electronic notices from the Department for the Oregon Trail Solar facility or all EFSC energy facilities), to an updated list of property  
23 owners supplied by the certificate holder, and to a list of reviewing agencies as defined in OAR 345-001-0010(52). The comment

1 period extended from December 23, 2022 through January 19, 2023 and closed at the close of the Public Hearing at 7:00 PM PST.  
 2 The DPO public hearing was held on January 19, 2023 at the Hotel Condon in Condon, Oregon.  
 3  
 4 The Department received nine comments on the record of the DPO, including oral testimony received during the public hearing.  
 5 Substantive and specific issues raised by commentors that are within Council jurisdiction are summarized in **Error! Reference source not found.** below and are further addressed under the applicable standards section.  
 6  
 7

**Table 1: Summary of DPO Comments and Recommendations**

<b>Commenter Name</b>	<b>Date(s) Received; Comment Format (Written/Oral)</b>	<b>Issue(s)/Topic(s) and Summary</b>	<b>EFSC Standard Applicability (Section Reference)</b>	<b>Recommendations/ Responses</b>
<b>Public</b>				
Emma Gates	1/17/2023 (written)	In support of OTS and RFA1. Meets Clean Energy Targets Bill (HB2021) and goals for reducing greenhouse gases.	General comment	Noted
Tim Holtz	1/19/2023; Public; Oral	Landowner/Lessee comments in support of OTS project, RFA1 and minimal impacts to agriculture.	Land Use: Goal 3 Exception (Section III.E.3)	Noted
Mike Alldritt	1/19/2023; Public; Written and Oral	In support of OTS and RFA1, living wage jobs and local/rural work and apprentices all benefit local economy.	General Comment, Land Use (Section III.E.3)	Noted
Paul Philpott	1/19/2023; Public; Oral	In support of OTS and RFA1, good for local workers, labor and living wage jobs.	General Comment	Noted
<b>Special Advisory Group, Local Government</b>				

**Table 1: Summary of DPO Comments and Recommendations**

Commenter Name	Date(s) Received; Comment Format (Written/Oral)	Issue(s)/Topic(s) and Summary	EFSC Standard Applicability (Section Reference)	Recommendations/ Responses
Gilliam County Court, Special Advisory Group (SAG), Elizabeth Farrar Campbell	1/18/2023 (written); 1/19/2023 (oral)	Goal 3 Exception: Questioning of the “local economic benefit” and “minimal impacts to agriculture” reasons. Described that certificate holder and county came to an agreement and requested that Council impose a land use condition consistent with the agreement on the Community Donation Fund.	Land Use: Goal 3 Exception (Section III.E.3)	See 1/19/2023 comments, and new Land Use condition (PO Pages 41-44) - Department recommends Council amend the recommended new land use condition to require the executed MOAs be provided to the Department prior to construction, and that evidence of payment issuance to the local entities under the MOAs be provided to the Department within 60-days of operation.
<b>EFSC Council Members</b>				
Anne Beier	1/19/2023; EFSC Member; Oral	Question on basis for 5 year review/update of Wildfire Mitigation Plan. Not required per rule.	Wildfire Prevention and Risk Mitigation (Section IV.N)	See additional justification under standard (PO pages 138-139) - Department recommends Council require that the plan be updated prior to operations and then evaluated annually, based on data sources provided by certificate holder in the



**Table 1: Summary of DPO Comments and Recommendations**

Commenter Name	Date(s) Received; Comment Format (Written/Oral)	Issue(s)/Topic(s) and Summary	EFSC Standard Applicability (Section Reference)	Recommendations/ Responses
				WMP Table 5, to determine the extent of changes in wildfire mitigation measures under any future updates of the plan.
Certificate Holder				
Certificate Holder, Matt Hutchinson	1/12/2023 (written); 1/19/2023 (written and oral)	Provided evidence of county discussions and agreements on the Goal exception – local economic benefit and minimal impacts to agriculture.	Land Use: Goal 3 Exception (Section III.E.3)	See recommendations above to SAG comments on Goal 3 exception
		Remove 5-year review of wildfire risk.	Wildfire Prevention and Risk Mitigation (Section IV.N)	See response above to Council member Beier.
		Revise recommended amended Condition 67 for consistency with other projects.	Public Health and Safety Standards for Wind Energy Facilities (Section III.P)	See additional justification (PO page 145) - Department recommends Council amend the condition to remove the detailed reporting requirement, but maintain the obligation for the certificate holder to develop a detailed protocol for the

**Table 1: Summary of DPO Comments and Recommendations**

<b>Commenter Name</b>	<b>Date(s) Received; Comment Format (Written/Oral)</b>	<b>Issue(s)/Topic(s) and Summary</b>	<b>EFSC Standard Applicability (Section Reference)</b>	<b>Recommendations/ Responses</b>
				ongoing evaluation of inspections and repairs.
Note: See Attachment B-2 of this Order for all comments received on the record of the DPO public hearing				

1

1 The Proposed Order recommends approval of the first amended site certificate.

2

3 The Council will review the proposed order on March 23-24, 2023 and, may adopt, modify or  
4 reject the Proposed Order based on the considerations described in OAR 345-027-0375. If the  
5 Proposed Order is adopted or adopted, with modifications, the Council shall issue a written  
6 Final Order granting issuance of an amended site certificate. If the Proposed Order is denied,  
7 the Council shall issue a written final order denying issuance of the amended site certificate. In  
8 making a decision to grant or deny issuance of the amended site certificate, the Council shall  
9 apply the applicable laws and Council standards required under OAR 345-027-0375 and in  
10 effect on the dates described in OAR 345-027-0375(3). The Council’s final order is subject to  
11 judicial review by the Oregon Supreme Court as provided in ORS 469.403

12

13 **II.C. Applicable Division 27 Rule Requirements**

14

15 In accordance with OAR 345-027-0360, the certificate holder submitted preliminary RFA1  
16 within 12 months (August 19, 2022) of the construction commencement deadline established in  
17 the site certificate (August 30, 2022).

18

19 **III. EVALUATION OF COUNCIL STANDARDS**

20

21 Under OAR 345-027-0375, in making a decision to grant or deny issuance of an amended site  
22 certificate for a request for amendment to extend the deadlines for beginning or completing  
23 construction, the Council must apply the applicable laws and Council standards designated in  
24 OAR 345-027-0375(2)(b), in effect on the dates designated in OAR 345-027-0375(3). After  
25 considering any changes in facts or law since the date the current site certificate was executed,  
26 Council must determine that the preponderance of evidence on the record supports the  
27 conclusion that the facility, with proposed changes, complies with all laws and Council  
28 standards.

29

30 Council need not find compliance with an applicable law or Council standard if the Council finds  
31 that the criteria designated under OAR 345-027-0375(2)(b)(A)-(D) is met.<sup>6</sup> The effective dates  
32 Council must apply for applicable laws and Council standards that apply are the date the  
33 Council issues its final order on the request for amendment, except under the Land Use  
34 standard, the effective date for the applicable substantive criteria Council must apply is the

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<sup>6</sup> OAR 345-027-0375(2)(b)(A)-(D):

(A) The certificate holder has spent more than 50 percent of the budgeted costs on construction of the facility;  
(B) The inability of the certificate holder to complete the construction of the facility by the deadline in effect  
before the amendment is the result of unforeseen circumstances that are outside the control of the certificate  
holder;

(C) The standard, if applied, would result in an unreasonable financial burden on the certificate holder; and

(D) The Council does not need to apply the standard to avoid a significant threat to the public health, safety or the  
environment;

1 date the request for amendment was submitted.<sup>7</sup> For all requests for amendment, the Council  
2 must determine that the preponderance of evidence on the record supports the conclusion  
3 that the amount of the bond or letter of credit required under OAR 345-022-0050 is adequate.

4 **III.A. General Standard of Review: OAR 345-022-0000**  
5

6 *(1) To issue a site certificate for a proposed facility or to amend a site certificate, the*  
7 *Council shall determine that the preponderance of evidence on the record supports the*  
8 *following conclusions:*  
9

10 *(a) The facility complies with the requirements of the Oregon Energy Facility Siting*  
11 *statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards*  
12 *adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the*  
13 *facility outweigh the damage to the resources protected by the standards the facility*  
14 *does not meet as described in section (2);*  
15

16 *(b) Except as provided in OAR 345-022-0030 for land use compliance and except for*  
17 *those statutes and rules for which the decision on compliance has been delegated by*  
18 *the federal government to a state agency other than the Council, the facility*  
19 *complies with all other Oregon statutes and administrative rules identified in the*  
20 *project order, as amended, as applicable to the issuance of a site certificate for the*  
21 *proposed facility. If the Council finds that applicable Oregon statutes and rules, other*  
22 *than those involving federally delegated programs, would impose conflicting*  
23 *requirements, the Council shall resolve the conflict consistent with the public interest.*  
24 *In resolving the conflict, the Council cannot waive any applicable state statute.*  
25

\*\*\*<sup>8</sup>

26 *(4) In making determinations regarding compliance with statutes, rules and ordinances*  
27 *normally administered by other agencies or compliance with requirements of the Council*  
28 *statutes if other agencies have special expertise, the Department of Energy shall consult*  
29 *with such other agencies during the notice of intent, site certificate application, and site*  
30 *certificate amendment processes. Nothing in these rules is intended to interfere with the*  
31 *state's implementation of programs delegated to it by the federal government.*  
32

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<sup>7</sup> OAR 345-027-0375(3).

<sup>8</sup> OAR 345-022-0000(2) and (3) apply to amendment requests where a certificate holder has shown that the amended 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 certificate holder does not assert that the amended facility cannot meet an applicable Council standard. Therefore, OAR 345-022-0000(2) and (3) do not apply to this review.

1 **Findings of Fact**  
2

3 The recommended findings of fact and conclusions of law presented in this order demonstrate  
4 that RFA1 includes sufficient facts and evidence to satisfy a preponderance of evidence under  
5 each standard and applicable rule. The facts and evidence in RFA1 were reviewed by several  
6 reviewing agencies; comments from reviewing agencies were used to inform the Department’s  
7 evaluation and are incorporated into this order to support the reasoning and analysis.  
8

9 OAR 345-022-0000(2) and (3) apply to RFAs where a certificate holder has shown that the  
10 proposed facility modifications cannot meet Council standards or has shown that there is no  
11 reasonable way to meet the Council standards through mitigation or avoidance of the damage  
12 to protected resources; and, for those instances, establish criteria for the Council to evaluate in  
13 making a balancing determination. In RFA1, the certificate holder has not represented that the  
14 proposed amendments cannot meet an applicable Council standard. Therefore, OAR 345-022-  
15 0000(2) and (3) would not apply to this review.  
16

17 *Certificate Expiration [OAR 345-027-0313]*  
18

19 ORS 469.370(12) requires the Council to “specify in the site certificate the date by which  
20 construction of the facility must begin.” ORS 469.401(2) requires that the site certificate contain  
21 a condition “for the time for completion of construction.” Under OAR 345-025-0006(4), the  
22 certificate holder must begin construction on the facility no later than the construction  
23 beginning date specified by Council in the site certificate. “Construction” is defined in ORS  
24 469.300(6) and OAR 345-010-0010(12) to mean “work performed on a site, excluding surveying,  
25 exploration or other activities to define or characterize the site, the cost of which exceeds  
26 \$250,000.”  
27

28 The certificate holder seeks approval to extend the construction start date by three years from  
29 the date established in Condition 24, which is allowable pursuant to OAR 345-027-0385(3)(a).  
30 This is the first request to extend the construction commencement deadline under the Oregon  
31 Trail Solar site certificate. Per OAR 345-027-0385(4), the certificate holder is only eligible for  
32 one more construction commencement deadline extension request. Consistent with the  
33 authorization provided in OAR 345-027-0385(3)(a), the Department recommends Council  
34 amend Condition 24 as requested by the certificate holder. The Department also recommends  
35 that the Council amend the condition to require that the certificate holder provide a written  
36 notification to the Department of the “start of construction” as defined in ORS 469.300(6)<sup>9</sup>, as  
37 presented below:  
38

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<sup>9</sup> EFSC statutes at ORS 469.300(6) define “construction” as “work performed on a site, excluding surveying,  
exploration or other activities to define or characterize the site, the cost of which exceeds \$250,000.”

1 **Recommended Amended Condition 24:** The certificate holder shall begin construction of  
2 the facility by August 30, ~~2022~~ 2025. Certificate holder shall provide written notification to  
3 the Department of “start of construction” as defined in ORS 469.300(6). ~~The Council may~~  
4 ~~grant an extension of the deadline to begin construction in accordance with OAR 345-027-~~  
5 ~~0385 or any successor rule in effect at the time the request for extension is submitted.~~  
6 [MWP AMD5, Sept 2020; OTS AMD1]  
7

8 A requirement that the certificate holder provide written notification to the Department of the  
9 “start of construction” supports the Department’s review of the construction schedule and  
10 allows the Department to review and verify whether, based on the notification, all applicable  
11 preconstruction conditions have been appropriately satisfied.  
12

13 The Department also recommends Council amend Condition 25 to remove condition language  
14 that defines “completion” of construction, where the definition is unsupported by rule and is  
15 unclear the documentation or information that would be provided to demonstrate compliance;  
16 and, unnecessarily restates language from Council’s amendment rules under OAR Chapter 340,  
17 Division 27. The recommended amended condition is presented below:  
18

19 **Recommended Amended Condition 25:** The certificate holder shall complete construction  
20 of the facility by [3 years of from the date of construction commencement]. ~~Construction is~~  
21 ~~complete when: (1) the facility is substantially complete as defined by the certificate~~  
22 ~~holder’s construction contract documents, (2) acceptance testing has been satisfactorily~~  
23 ~~completed and (3) the energy facility is ready to begin continuous operation consistent with~~  
24 ~~the site certificate.~~ The certificate holder shall promptly notify the Department of the date  
25 of completion of construction. ~~The Council may grant an extension of the deadline for~~  
26 ~~completing construction in accordance with OAR 345-027-0385 or any successor rule in~~  
27 ~~effect at the time the request for extension is submitted.~~  
28 [MWP Final Order on ASC, AMD5; OTS AMD1]  
29

30 *Mandatory Conditions in Site Certificates [OAR 345-025-0006]*  
31

32 OAR 345-025-0006 lists certain conditions that the Council must adopt in every site certificate.  
33 OAR-345-025-0006(3) requires that the certificate holder design, construct, operate and retire  
34 the facility substantially as described in the site certificate. To align with this Mandatory  
35 Condition, Council previously imposed Conditions 27, which establishes maximum dimensions  
36 for wind turbines and an acreage limitation for solar photovoltaic energy generation  
37 components. To better align with the language of the mandatory condition (referring the design  
38 of a facility to the description in the site certificate versus condition language) and minimize the  
39 potential for a non-substantive site certificate amendment triggered by the specificity of the  
40 condition rather than an evaluation of a potential substantive change in facility design  
41 compared to the site certificate description, the Department recommends that the condition be  
42 amended as follows:  
43

1 **Recommended Amended Condition 27:** The certificate holder shall construct a facility  
2 substantially as described in the site certificate ~~and may select turbines of any type, subject~~  
3 ~~to the following restrictions and compliance with all other site certificate conditions.~~ Before  
4 beginning construction, the certificate holder shall provide to the Department a description  
5 of the facility to be constructed, any phasing and construction schedule. ~~turbine types~~  
6 ~~selected for the facility demonstrating compliance with this condition. Components may~~  
7 ~~include any combination of wind and solar energy generation equipment, up to 16 wind~~  
8 ~~turbines or the maximum layout (including number and size) of solar array components~~  
9 ~~substantially as described in RFA4 and RFA5. The maximum blade tip height must not exceed~~  
10 ~~597 feet (182 meters). The minimum aboveground blade tip clearance must be 46 feet (14~~  
11 ~~meters).~~

12 [MWP Final Order on ASC; AMD3; AMD4; AMD5; OTS AMD1]

### 13 14 Conclusions of Law

15  
16 Based on the foregoing recommended findings of fact and conclusions of law, and subject to  
17 compliance with the recommended amended conditions, the Department recommends Council  
18 find that the facility, with proposed changes, would continue to satisfy the requirements of  
19 OAR 345-022-0000.

### 20 III.B. Organizational Expertise: OAR 345-022-0010

21  
22 *(1) To issue a site certificate, the Council must find that the applicant has the*  
23 *organizational expertise to construct, operate and retire the proposed facility in*  
24 *compliance with Council standards and conditions of the site certificate. To conclude that*  
25 *the applicant has this expertise, the Council must find that the applicant has*  
26 *demonstrated the ability to design, construct and operate the proposed facility in*  
27 *compliance with site certificate conditions and in a manner that protects public health*  
28 *and safety and has demonstrated the ability to restore the site to a useful, non-*  
29 *hazardous condition. The Council may consider the applicant’s experience, the*  
30 *applicant’s access to technical expertise and the applicant’s past performance in*  
31 *constructing, operating and retiring other facilities, including, but not limited to, the*  
32 *number and severity of regulatory citations issued to the applicant.*

33  
34 *(2) The Council may base its findings under section (1) on a rebuttable presumption that*  
35 *an applicant has organizational, managerial and technical expertise, if the applicant has*  
36 *an ISO 9000 or ISO 14000 certified program and proposes to design, construct and*  
37 *operate the facility according to that program.*

38  
39 *(3) If the applicant does not itself obtain a state or local government permit or approval*  
40 *for which the Council would ordinarily determine compliance but instead relies on a*  
41 *permit or approval issued to a third party, the Council, to issue a site certificate, must*  
42 *find that the third party has, or has a reasonable likelihood of obtaining, the necessary*  
43 *permit or approval, and that the applicant has, or has a reasonable likelihood of entering*

1            *into, a contractual or other arrangement with the third party for access to the resource*  
2            *or service secured by that permit or approval.*

3  
4            *(4) If the applicant relies on a permit or approval issued to a third party and the third*  
5            *party does not have the necessary permit or approval at the time the Council issues the*  
6            *site certificate, the Council may issue the site certificate subject to the condition that the*  
7            *certificate holder shall not commence construction or operation as appropriate until the*  
8            *third party has obtained the necessary permit or approval and the applicant has a*  
9            *contract or other arrangement for access to the resource or service secured by that*  
10           *permit or approval.*

11  
12           **Findings of Fact**

13  
14           The certificate holder is Oregon Trail Solar, LLC, a wholly owned subsidiary of Avangrid  
15           Renewables, LLC (parent company).<sup>10</sup> Since Council’s prior review, the leadership of the parent  
16           company changed with a new president and CEO, Jose Antonio Miranda, in October 2021.<sup>11</sup>  
17           There have been no other changes to the organizational structure or experience of the  
18           certificate holder and parent company since Council’s prior review.

19  
20           *Certificate Holder demonstrated the ability to design, construct and operate the facility in*  
21           *compliance with site certificate conditions*

22  
23           Council previously found that the certificate holder has the ability to construct, operate and  
24           retire the facility in compliance with Council standards and all site certificate conditions by  
25           relying on its parent company of the Avangrid Renewables LLC. In RFA1, the certificate holder  
26           provides additional evidence to demonstrate that the project-specific LLC., Oregon Trail Solar,  
27           LLC., has the organizational expertise to design, construct and operate the facility because of its  
28           relationship with the parent company (Avangrid Renewables).

29  
30           Oregon Trail Solar, LLC relies upon the organizational expertise of Avangrid Renewables to  
31           demonstrate that it has the ability to construct, operate and retire the facility in compliance  
32           with site certificate conditions and Council standards. Avangrid Renewables LLC., is the parent  
33           company to several other EFSC-approved and operational facilities, including the Montague  
34           Wind Power Facility (certificate holder - Montague Wind Power Facility, LLC) and the Montague  
35           Solar Facility (certificate holder - Montague Solar, LLC) which share a site certificate history with  
36           OTS as well as the related or supporting facilities. Montague Wind Power Facility has been in  
37           commercial operation since October 2019 and construction of the Montague Solar Facility  
38           began in March 2021. As part of pre-construction and operational compliance for these

---

<sup>10</sup> RFA1 Attachment 7 includes The Articles of Incorporation for the Certificate Holder. Oregon Trail Solar, LLC filed amended annual reports with the Oregon Secretary of State in 2021 and 2022 that reaffirmed Avangrid Renewables as the sole member of the company. OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.2.

<sup>11</sup> OTSAMD1 DPO Comment Certificate Holder 2022-01-12.



1 facilities the certificate holders have submitted bonds or letter of credit that are issued to the  
2 certificate holder project specific LLC's. Therefore, the Department recommends that because  
3 of the parent company's record of compliance for other EFSC facility bonding, and other  
4 preconstruction, construction, and operational site certificate conditions, this is a reasonable  
5 demonstration that the certificate holder would have the ability to design, construct and  
6 operate the facility in compliance with site certificate conditions.

7  
8 According to its Articles of Incorporation, Oregon Trail Solar, LLC is a "Member-Managed  
9 Limited Liability Company" with Avangrid Renewables, LLC as the sole member. Under ORS  
10 63.130(1)(a), members of a limited liability company have "equal rights in the management and  
11 conduct of the limited liability's business." Avangrid Renewables directs Oregon Trail Solar, LLC,  
12 in its capacity as the certificate holder, to permit, design, construct, operate, and retire an  
13 energy facility. An example of how this relationship is implemented and managed, and as noted  
14 above, the parent company also owns Montague Solar, LLC. Montague Solar, LLC contracted  
15 with Portland General Electric (PGE) to service its Green Future program from energy generated  
16 from the Montague Solar Project under the same limited liability company to parent company  
17 arrangement as the Certificate Holder. This required Avangrid Renewables, and Montague  
18 Solar, LLC, to meet PGE's technical qualifications for financing, technology, credit rating, site  
19 control, permitting, interconnection, transmission, and labor standards. A copy of the Material  
20 Terms and Conditions of the PGE Green Future Impact Phase 2 Customer Supplied Option is  
21 included in RFA1 Attachment 7. The Department recommends that because of the parent  
22 company's relationship with other EFSC Project LLC's and the parent company relationship with  
23 the certificate holder, as well as the obligations that the certificate holder would have to  
24 comply with for a PPA to be operational, this is a reasonable demonstration that the certificate  
25 holder continues to have the ability to design, construct and operate the facility in compliance  
26 with site certificate conditions.

27  
28 When operational, the certificate holder indicates that it would own the facility which would  
29 have an asset value of approximately \$65 million.<sup>12</sup> Further, the facility would generate revenue  
30 from a power purchase agreement or from selling power into the wholesale spot market and  
31 this revenue would be invested into the company to be able to operate the facility.

32  
33 RFA1 Attachment 11 is the certificate holder letter to Gilliam County addressing the County's  
34 comments on the local economic benefits generated by construction of the Montague Solar  
35 Project (certificate holder - Montague Solar, LLC). In this letter, the certificate holder provides  
36 evidence with tax statements of that during the construction phase, Montague Solar LLC paid  
37 over \$850,000 in property taxes in 2022 to the County and is expected to pay between \$1  
38 million to \$2 million in 2023 property taxes. It further indicates that over the next 25 years,  
39 Montague Solar LLC will pay over \$17 million in tax revenue to the County and more than \$4  
40 million in lease payments to landowners. The letter also indicates to the County the certificate

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<sup>12</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.2.

1 holder's commitment to invest in County programs that would be paid by the Oregon Trail Solar  
2 LLC.

3  
4 The Department recommends that because of the parent company's relationship with other  
5 LLC certificate holders of EFSC-jurisdictional energy facilities and the parent company  
6 relationship with those LLC-certificate holders, as well as demonstration that project-specific  
7 LLCs have the ability to be financially liable for their obligations, this is a reasonable  
8 demonstration that the certificate holder continues to have the ability to design, construct and  
9 operate the facility in compliance with site certificate conditions.

10

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

12

13 As discussed in Section III.G., *Retirement and Financial Assurance*, the certificate holder  
14 provided updated unit costs for the retirement of the solar and wind facility components as  
15 well as the related or supporting facilities, including shared related or supporting facilities. The  
16 Department recommends Council find that \$7.03 million (Q4 2022 dollars) is a reasonable  
17 estimate to restore the Oregon Trail Solar facility to a useful, non-hazardous condition following  
18 permanent cessation of construction or operation, in accordance with Recommended Amended  
19 Condition 32.

20

21 The Council has previously determined that the certificate holder can restore the site to a  
22 useful and non-hazardous condition. The Final Order for Montague Wind Project Request for  
23 Amendment 5 found that the Oregon Trail Solar facility could continue to meet this  
24 requirement. The Department recommends that Council continue to find that the OTS facility,  
25 and proposed changes in OTS RFA1 would not impact the certificate holder's ability to restore  
26 the site to a useful, non-hazardous condition.

27

28 *Third-Party Permits*

29

30 RFA1 does not propose any new or different third-party permits necessary for design,  
31 construction or operation of the facility.

32

33 The Council previously evaluated potential third-party permits needed by certificate holder  
34 including an Oregon Department of Environmental Quality (ODEQ) National Pollution Discharge  
35 Elimination System (NPDES) 1200-C permit, an onsite sewage disposal construction-installation  
36 permit for the O&M building; a DEQ issued general water pollution control facilities permit for  
37 wastewater and stormwater management of a temporary construct batch plant (WPCF-1000); a  
38 DEQ issued general water pollution control facilities permit for solar module washing during  
39 facility operations (WPCF-1700-B); an Oregon Water Resources Department (OWRD) issued  
40 limited water use license for construction-related water use; and an Oregon Department of  
41 Transportation (ODOT) issued oversize load movement permit/load registration for  
42 transporting large or overweight equipment to the site. While not specifically identified in  
43 *Request for Amendment 4 for the Montague Wind Project*, because a third-party DEQ issued  
44 WPCF-1000 permit was identified for a temporary batch plant, it is possible that additional

1 third-party permits would be required for a temporary concrete batch plant, including a land  
2 use permit from Gilliam County and a DEQ issued Air Contaminant Discharge Permit. No  
3 additional or new permits were identified as being required by the certificate holder in this  
4 amendment request.

5  
6 With the exception of the ODOT permit, the above-described third-party permits would  
7 normally be included in and governed by the site certificate. However, because these permits  
8 would be issued, enforced and reviewed by another state or local agency, such as OWRD or  
9 ODEQ, providing compliance documentation to the Department is not necessary. For these  
10 reasons, in the Final Order on Request for Amendment 4 for the Montague Wind Project, the  
11 Council amended site certificate Condition 29 to specify a reporting requirement by the  
12 certificate holder to notify the Department if a compliance issue or violation is cited by another  
13 agency for the identified third-party permits to provide the Department enforcement oversight  
14 on the certificate holder if third-party entities demonstrate compliance violations.

15  
16 **Conclusions of Law**

17  
18 Based on the evidence presented in RFA1, the Department recommends that Council continue  
19 to find that with existing certificate conditions, the certificate holder has the ability to design,  
20 construct, and operate the facility, with proposed changes, in compliance with all Council  
21 standards and conditions, as required by the Organizational Expertise standard.

22 **III.C. Structural Standard: OAR 345-022-0020**

23  
24 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*  
25 *Council must find that:*

26  
27 *(a) The applicant, through appropriate site-specific study, has adequately*  
28 *characterized the site as to the Maximum Considered Earthquake Ground Motion as*  
29 *shown for the site in the 2009 International Building Code and maximum probable*  
30 *ground motion, taking into account ground failure and amplification for the site*  
31 *specific soil profile under the maximum credible and maximum probable seismic*  
32 *events; and*

33  
34 *(b) The applicant can design, engineer, and construct the facility to avoid dangers to*  
35 *human safety presented by seismic hazards affecting the site that are expected to*  
36 *result from maximum probable ground motion events. As used in this rule “seismic*  
37 *hazard” includes ground shaking, ground failure, landslide, liquefaction, lateral*  
38 *spreading, tsunami inundation, fault displacement, and subsidence;*

39  
40 *(c) The applicant, through appropriate site-specific study, has adequately*  
41 *characterized the potential geological and soils hazards of the site and its vicinity*  
42 *that could, in the absence of a seismic event, adversely affect, or be aggravated by,*  
43 *the construction and operation of the proposed facility; and*

1  
2 (d) The applicant can design, engineer and construct the facility to avoid dangers to  
3 human safety presented by the hazards identified in subsection (c).  
4

5 (2) The Council may issue a site certificate for a facility that would produce power from  
6 wind, solar or geothermal energy without making the findings described in section (1).  
7 However, the Council may apply the requirements of section (1) to impose conditions on  
8 a site certificate issued for such a facility.  
9

10 (3) The Council may issue a site certificate for a special criteria facility under OAR 345-  
11 015-0310 without making findings described in section (1). However, the Council may  
12 apply the requirements of section (1) to impose conditions on a site certificate issued for  
13 such a facility.  
14

### 15 **Findings of Fact**

16  
17 The analysis area for review of geologic and soil stability, as evaluated under the Council's  
18 Structural Standard, is the area within the site boundary. The certificate holder also assesses  
19 earthquakes within 50-miles from the site boundary and faults outside the site boundary.  
20

21 For amendments requesting to extend construction deadlines, the Department and Council  
22 evaluate whether there have been "changes in fact or law" since the site certificate was issued  
23 to determine whether, based on changes in fact or law, the facility would continue to satisfy  
24 requirements of the standard. Primary sources relied upon to evaluate soil characteristics  
25 include:  
26

#### 27 *Seismic Hazards*

28  
29 The primary sources relied upon to identify and characterize geological and seismic hazards  
30 within the site boundary included a review of the following technical reports, academic  
31 literature and searches in federal and state geological and seismic hazard databases:

- 32 • Oregon Department of Geology and Mineral Industries (DOGAMI). Oregon Geologic  
33 Data Compilation Release 6. Compiled by Rachel L. Smith and Warren P. Roe.  
34 Accessed at: <http://www.oregongeology.com/sub/ogdc/index.htm> Accessed on:  
35 September 12, 2017.
- 36 • US Geological Survey (USGS). 2020. National Agriculture Imagery Program 2020.  
37 Oregon Statewide Imagery Program. Available online at:  
38 [https://imagery.oregonexplorer.info/arcgis/rest/services/NAIP\\_2020](https://imagery.oregonexplorer.info/arcgis/rest/services/NAIP_2020)  
39 Accessed November 2022.
- 40 • U.S. Geological Survey (USGS). 2019. National Land Cover Database (NLCD) 2019  
41 Land Cover Conterminous United States Remote Sensing Image. Contact: Jon Dewitz,  
42 Physical Scientist Earth Resources Observation and Science (EROS) Center. U.S.  
43 Geological Survey. <https://www.mrlc.gov/data?f%5B0%5D=year%3A2019>.
- 44 • U.S. Geological Survey (USGS) National Seismic Hazard Mapping (2008)

- 1 • U.S. Geological Survey (USGS). Earthquake Hazards Program, National Seismic  
2 Hazard Mapping Project. Golden, Colorado. Accessed at:  
3 <http://earthquake.usgs.gov/> Accessed on: September 12, 2017.
- 4 • U.S. Geological Survey (USGS) Earthquake Hazards Program, Earthquake Search  
5 Catalog. Golden, Colorado. Accessed at:  
6 <http://earthquake.usgs.gov/earthquakes/search/> Accessed on: November 2016 and  
7 2017.
- 8 • U.S. Geological Survey (USGS) Earthquake Hazards Program. Earthquake Glossary.  
9 Accessed at: [https://earthquake.usgs.gov/learn/glossary/?term=active fault](https://earthquake.usgs.gov/learn/glossary/?term=active%20fault)  
10 Accessed on: November 2016 and 2017.
- 11 • Federal Emergency Management Agency. 2015 National Earthquake Hazards  
12 Reduction Program Seismic Design Provisions (2015)
- 13 • Geomatrix Consultants, Inc. Seismic Design Mapping, State of Oregon. (1995)
- 14 • Barr Engineering Company (Barr). Montague Wind Project Geotechnical Engineering  
15 Report. Prepared for Avangrid Renewables, LLC. (2017)
- 16 • Wang, Yumei, Oregon Department of Geology and Mineral Industries (DOGAMI).  
17 Verbal and written communication with Montague Wind Power Facility, LLC, and  
18 CH2M HILL Engineers, Inc. September 29 and October 2, 2017.

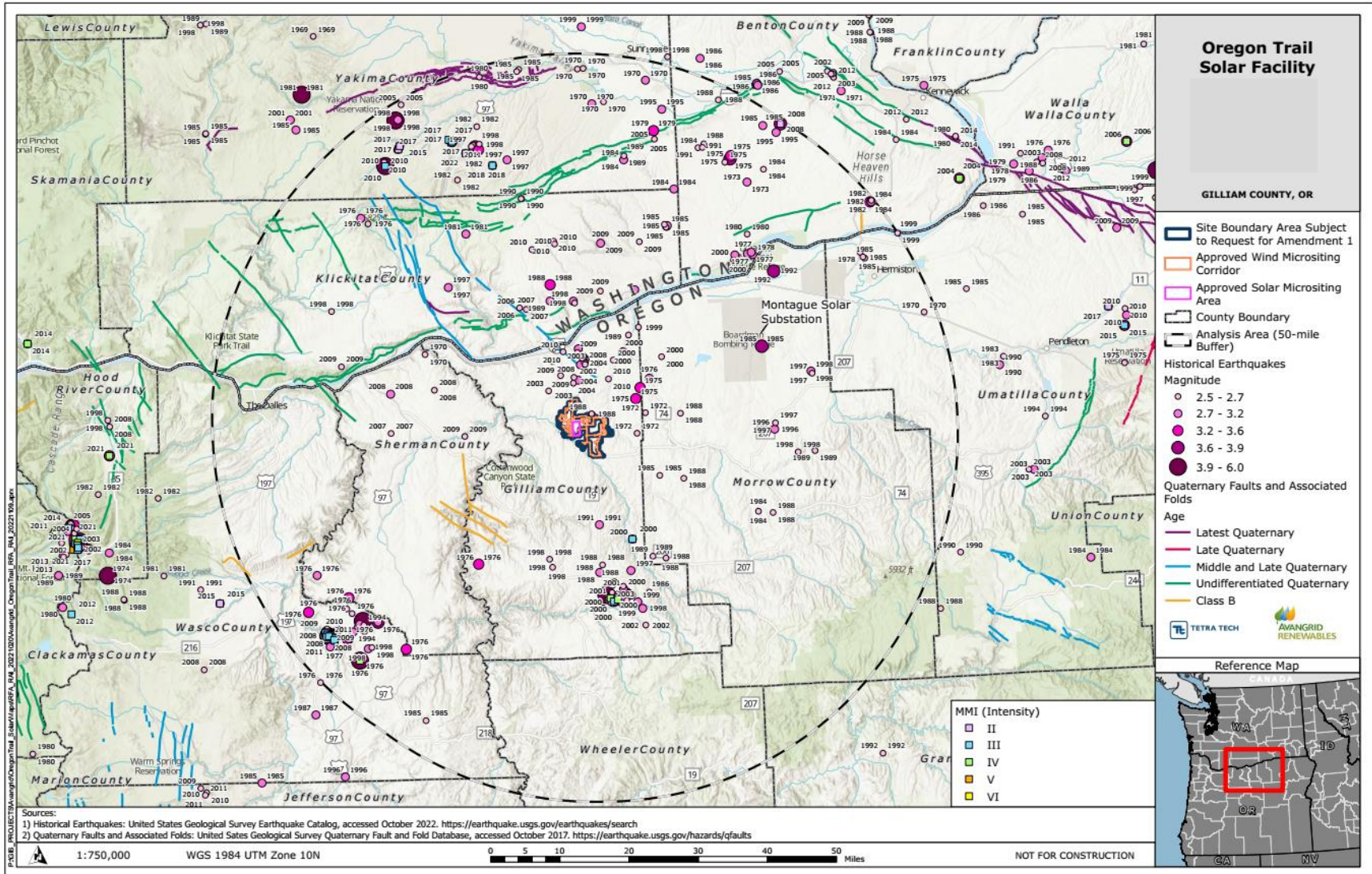
19  
20 Preliminary geotechnical analysis and evaluation conducted for Montague Wind Project RFA4  
21 (2018) identified the following geological faults and potential seismic hazards within the OTS  
22 analysis area:

- 23 • Figure H-2 from Montague Wind Project Request for Amendment 4 Exhibit H  
24 shows the results for seismic hazards identified for the site boundary and  
25 surrounding areas.
- 26 • No potentially active faults are mapped within the facility site boundary with  
27 closest fault approximately 7.5 miles from site boundary (Figure H-2).
- 28 • A number of late-Quaternary-age faults are mapped in the vicinity of the facility  
29 site, as shown in Figure H-2.
- 30 • Only one fault has the largest potential for seismic contribution is the Mill Creek  
31 fault; a late-Quaternary-age fault (<15,000 years old) mapped within 50 miles of  
32 the facility site boundary.

33  
34 These historic earthquakes and faults are presented in Figure 3 below.

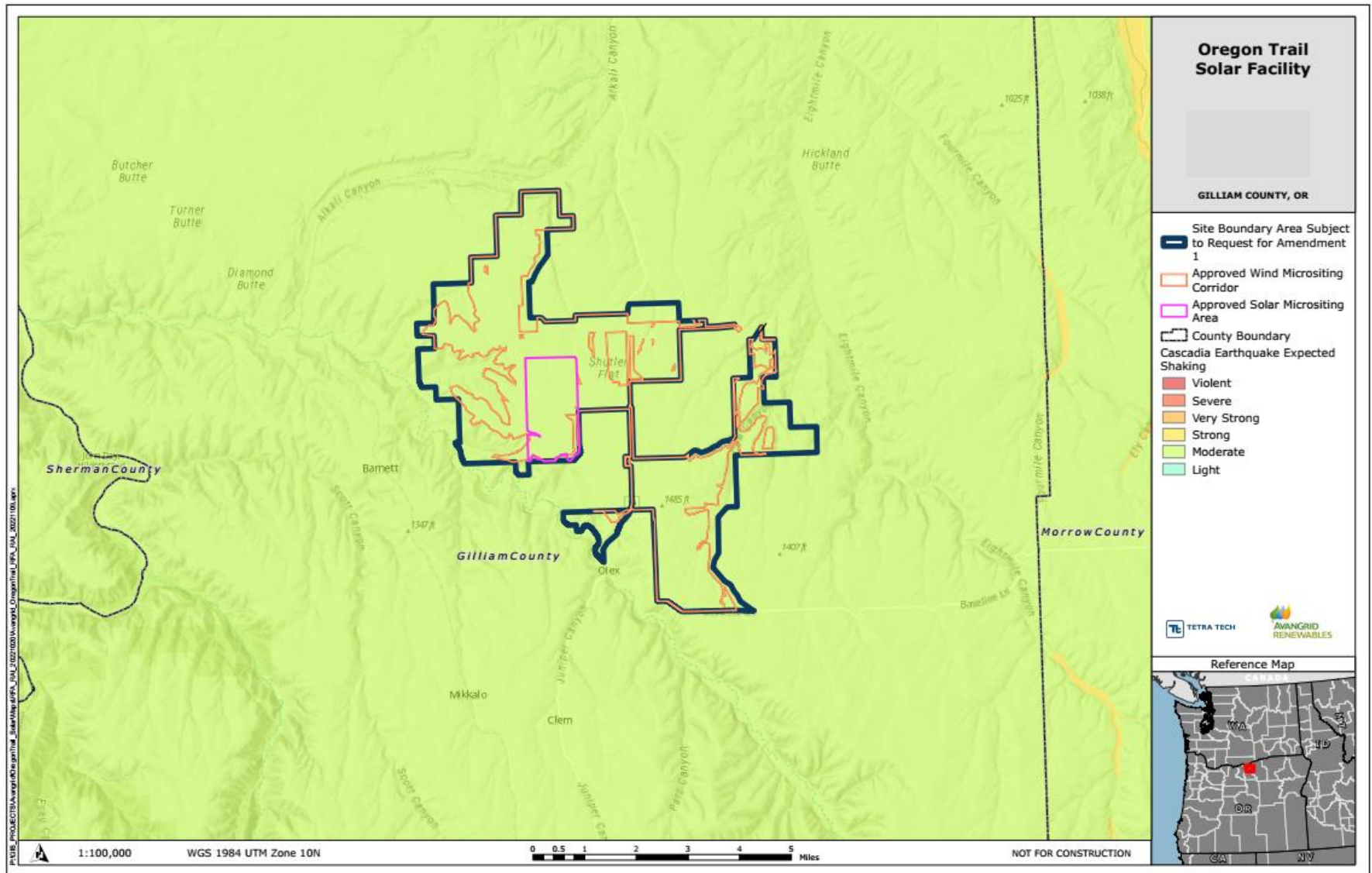


Figure 3: Historical Earthquakes and Faults within Analysis Area



1 Based on a 2018 preliminary geotechnical evaluation, low risk of ground shaking is expected  
2 within the facility site boundary. The other risks (fault displacement, liquefaction and other  
3 subsurface material behavior) were determined to be non-existent. Further, the preliminary  
4 geotechnical assessment concluded that the probability of damage to structures as a result of  
5 seismic ground shaking is considered to be low because the seismic hazard potential would be  
6 relatively low if the facility was designed, engineered and constructed to meet the  
7 requirements of current International Building Code (IBC) and Oregon Structural Specialty Code  
8 (OSSC) guidelines for a Site Class B facility. The updated evaluation concludes that the seismic  
9 risk within the analysis area is moderate as presented in Figure 4 below.

1 Figure 4: Seismic Risk within the Analysis Area



2



1 Seismic hazards and risk potential for the facility included a review of previous preliminary  
2 geotechnical analysis conducted, consultations and site visit conducted with DOGAMI in 2010  
3 and 2017, and data compiled and submitted by the certificate holder as part of Montague Wind  
4 Project RFA4, Exhibit H (2018). Updated review of DOGAMI and USGS sources, identified the  
5 nearest seismic risk from a Cascadia Earthquake is located approximately 5 miles to the south  
6 (See Figure 3B). The DOGAMI map indicates the entire site boundary is within a moderate  
7 hazard. Based upon the results of the Department's evaluation, the Department recommends  
8 that Council continue to find that there is sufficient evidence that seismic risk for the facility  
9 and surrounding vicinity is considered low for ground-shaking and non-existent for the other  
10 seismic risks identified.

11  
12 Previously imposed conditions will continue to support the above findings. Condition 52  
13 requires the certificate holder to complete a preconstruction, site specific geotechnical  
14 investigation of the site, to be reviewed by the Department and DOGAMI. Condition 53 requires  
15 that the certificate holder design and construct the facility in accordance with requirements of  
16 the current Oregon Structural Specialty Code and International Building Code. The facility will  
17 be designed for no life-threatening structural damage from either the vibrational response of  
18 the structure or from secondary hazards associated with ground movement or failure (such as  
19 landslides, lateral spreading, liquefaction, fault displacement, or subsidence). By meeting the  
20 IBC Site Class B requirements for facility design, engineering and construction, Council has  
21 previously found that the facility will avoid/minimize impacts and risks of seismic hazards,  
22 which are deemed to be low for areas within the approved site boundary.

#### 23 24 *Non-seismic Hazards*

25  
26 In order to identify and evaluate potential non-seismic hazards, the certificate holder previously  
27 conducted a literature review, preliminary site reconnaissance, and a search of non-seismic  
28 resources and databases to characterize the potential risk of non-seismic hazards within and  
29 near the site boundary. The primary sources relied upon to identify and characterize geological  
30 and non-seismic hazards within the site boundary included a review of the following technical  
31 reports, academic literature, and searches in federal and state geological and non-seismic  
32 hazard databases:

- 33 • Oregon Department of Geology and Mineral Industries (DOGAMI) Statewide Landslide  
34 Information Database for Oregon (SLIDO)
- 35 • Natural Resources Conservation Service (NRCS). 2008. Official Soil Series Descriptions. Soil  
36 Survey Staff. United States Department of Agriculture NRCS, Lincoln, Nebraska. Accessed  
37 at: <http://soils.usda.gov/technical/classification/osd/index.html>  
38 Date Accessed: November 2016.
- 39 • Oregon Water Resources Department (OWRD). 2017. Well Log Query. Accessed at:  
40 [http://apps.wrd.state.or.us/apps/gw/well\\_log/Default.aspx](http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx) Accessed September 12,  
41 2017.
- 42 • Waldron, H. H. "Volcanic Hazards in Washington." Engineering Geology in Washington.  
43 Volume 1. Washington Division of Geology and Earth Resources. Bulletin 78. (1989)

- Barr Engineering Company (Barr). Montague Wind Project Geotechnical Engineering Report. Prepared for Avangrid Renewables, LLC. (2017)

The 2018 literature review identified the following potential non-seismic geologic hazards: slope instability (landslides), erosion instability, collapse potential of loess, and volcanic eruptions.

- No landslides are shown within the site boundaries on the Statewide Landslide Information Database for Oregon (SLIDO) database. No landslides were observed in the site vicinity during the site reconnaissance conducted for MWP RFA4. The slopes were interpreted to be stable. For these reasons, risk of landslides within the OTS site boundary are considered to be low.
- Data from the NRCS indicate that the predominant silt loam soils on the site have an erodibility rating of 0.64, which indicates high water erosion potential. The silt loam soils at the site are in WEGs 3 and 5, which indicates moderate to moderately high susceptibility to wind erosion. For these reasons the potential erosion risk to soils is considered to be moderate to high.
- There is some soil collapse potential for loess deposits because loess has a structure that is sometimes susceptible to collapse and/or swelling, but the risk is considered to be low.
- The closest active volcanoes are Mount Adams, Mount Jefferson (75 miles away) and Mount St Helens (most active) 102 miles away from facility. However, due to the distance to potentially active volcanoes, no direct or indirect impacts of volcanic activity are expected to occur within the site boundary and for these reasons, the non-seismic risk from volcanic eruption are considered low.
- Climate change impacts identified for the region include greater-intensity rainfall events, fluctuations in typical annual snowpack (above or below normal), and warmer average annual temperatures and could result in increased erosion from runoff and wind, soil moisture and groundwater levels, and could impact overall stability of slopes at the site. Existing ancient landslides could become reactivated by saturation that occurs as a result of increased annual precipitation; however, no ancient landslides were observed at the site. Future drought conditions and any associated loss of vegetation could increase the potential for dust storms and subsequent erosion.

Based on the location of the analysis area, there is little to no risk as a result of flooding. Updated evaluation submitted as part of this amendment request did not identify and new information or new non-seismic hazards since Council’s prior review. Based on the 2018 preliminary geotechnical evaluation, the certificate holder’s qualified geological consultant concluded that the risk posed by volcanic eruption is considered to be low. Based on these findings, the potential non-seismic hazards within the site boundary include potential risk for soil loss and erosion and slope instability resulting from geological, storm and precipitation climate-related events. The potential risk of landslides and slope instability is considered to be low to moderate. The potential risk of soil erosion, is considered to be moderate to high.

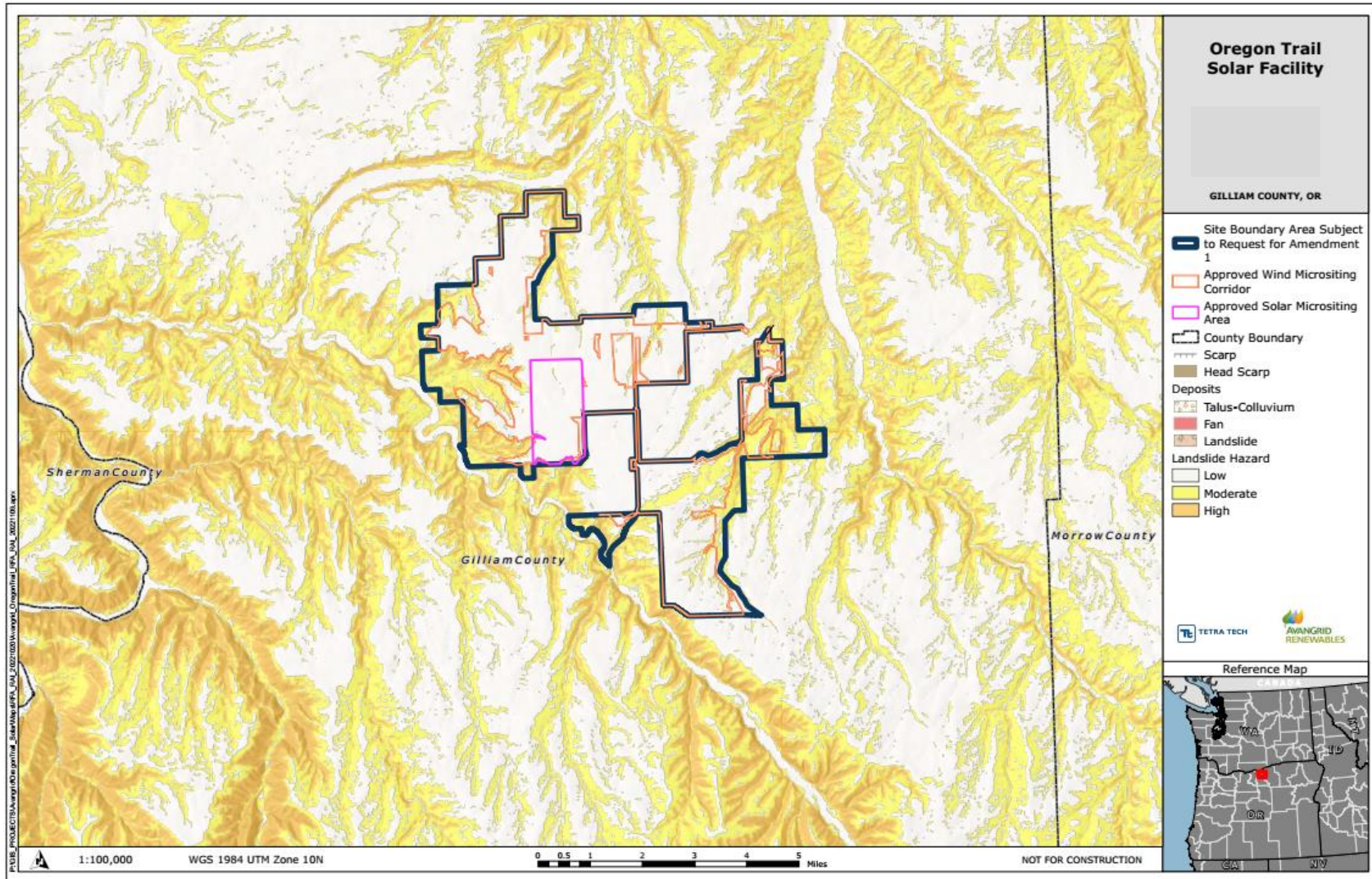
1 Preliminary investigations indicate facility design will meet requirements to be classified under  
2 International Building Code (IBC) and Oregon Structural Safety Code (OSSC) guidelines as Site  
3 Class B. (2012) IBC and (2014) OSSC versions relied upon for Montague Wind Project RFA4  
4 Exhibit H (2018). By meeting the IBC Site Class B and OSSC requirements for facility design,  
5 engineering, and construction the facility will avoid and minimize impacts and risks of non-  
6 seismic hazards, which are deemed to be low-to-moderate for landslides, high for water-cause  
7 soil erosion, moderate for wind-caused soil erosion, and low for volcanic impacts. These design  
8 codes are also to ensure disaster resilience of the facility. In addition, set-backs are the  
9 recommended design element for avoiding risk of landslides impacting the facility. No  
10 structures will be built on steep slopes that could be prone to instability, thus avoiding potential  
11 impacts from risk of landslides. For these reasons, the probability of damage to structures as a  
12 result of non-seismic hazards is considered to be low because the facility will be designed,  
13 engineered and constructed to meet the requirements of current International Building Code  
14 (IBC) and Oregon Structural Specialty Code (OSSC) guidelines for a Site Class B facility.

15  
16 To minimize and prevent the risk for potential soil erosion during construction, the construction  
17 activities will be regulated by an erosion and sediment control plan (ESCP) and a NPDES 1200-C  
18 construction permit. Best Management Practices (BMPs) will be implemented to limit and  
19 control erosion. Erosion control measures will meet local, county, and state erosion control  
20 measures. If potentially collapsible soils (i.e.: loess) are identified during the required pre-  
21 construction site-specific geotechnical investigation, mitigation measures will include  
22 construction techniques such as over-excavating and replacing with structural fill, wetting, and  
23 compacting during subgrade preparation. The implementation of BMPs and ongoing monitoring  
24 and maintenance of BMPs during facility operations will help mitigate climatic changes and  
25 likely impacts from excessive rainfall events, flooding or increased drought-related erosion.

26  
27 Department review of the evaluation of non-seismic hazards risk potential for the facility  
28 included a review of previous preliminary geotechnical analysis conducted, a review of  
29 literature and aerial imagery, and the SLIDO database, consultation and site visit conducted  
30 with DOGAMI in 2010 and 2017 as part of Montague Wind Project application for site  
31 certificate (ASC) and RFA4, and the findings from these previous analyses, concludes that there  
32 is sufficient evidence that non-seismic risk from landslides and volcanic eruptions is low, soil  
33 erosion is moderate to high. An updated evaluation of non-seismic risks confirmed a low risk of  
34 landslides in the majority of the micro-siting areas as presented in Figure 5 below.

1 Figure 5: Non-Seismic Risks and Landslide Hazards

7



1 There is a potential risk of soil collapse if loess or similar collapsible deposits are identified in  
2 the site-specific geotechnical study required under existing site certificate condition 52. If such  
3 soils are determined to be present, the risk will be mitigated through established construction  
4 methods designed to mitigate this potential risk. Erosion control measures, as included in the  
5 required ESCP and NPDES-1200 C permit are intended to prevent loss of soils due to erosion.  
6 Further, the design, engineering and construction of the facility to meet the requirements of  
7 the current IBC Site Class B facility and OSSC guidelines will ensure that the risk of non-seismic  
8 hazards will be avoided or minimized below a significant impact to health or human safety or  
9 structural integrity of the facility. In summary, the non-seismic risk is generally determined to  
10 be low because the facility can be designed and constructed to avoid or minimize potential non-  
11 seismic hazards of landslides or erosion. For these reasons, the Department recommends, with  
12 the existing and recommended amended site certificate conditions that the facility will  
13 continue to meet the Council’s structural standard for non-seismic hazards.

14  
15 Council previously imposed site certificate conditions 52, 53 and 54 to ensure compliance with  
16 EFSC’s structural standard:

- 17 • Condition 52 requires a full geotechnical study be completed prior to construction.
- 18 • Condition 53 requires that the certificate holder design and construct the facility in  
19 accordance with requirements of the current Oregon Structural Specialty Code and  
20 International Building Code.
- 21 • Condition 54 requires that the facility will be designed, engineered and constructed to  
22 avoid dangers to human safety presented by non-seismic hazards.

23  
24 **Conclusions of Law**

25  
26 Based on the foregoing analysis, and subject to the existing conditions in the site certificate, the  
27 Department recommends that the Council find that the facility, with proposed changes,  
28 continues to comply with the Council’s Structural Standard.

29  
30 **III.D. Soil Protection: OAR 345-022-0022**

31  
32 *To issue a site certificate, the Council must find that the design, construction and operation*  
33 *of the facility, taking into account mitigation, are not likely to result in a significant adverse*  
34 *impact to soils including, but not limited to, erosion and chemical factors such as salt*  
35 *deposition from cooling towers, land application of liquid effluent, and chemical spills.*

36  
37 **Findings of Fact**

38  
39 The analysis area for the Soil Protection standard is the area within the site boundary, specific  
40 to the site boundary area for the changes proposed in RFA1 (i.e. approved wind and solar  
41 micrositing areas where facility components have not yet been constructed).

42  
43 For amendments requesting to extend construction deadlines, the Department and Council  
44 evaluate whether there have been “changes in fact or law” since the site certificate was issued



1 to determine whether, based on changes in fact or law, the facility would continue to satisfy  
2 requirements of the standard. Primary sources relied upon to evaluate soil characteristics  
3 include:

- 4 • Hosler, Richard E. 1984. Soil Survey of Gilliam County, Oregon. U.S. Department of  
5 Agriculture, Soil Conservation Service. May 1984.
- 6 • Natural Resources Conservation Service (NRCS). 2022. Soil Survey Staff. Gridded Soil  
7 Survey Geographic (SSURGO) Database for Gilliam County, Oregon. United States  
8 Department of Agriculture, Natural Resources Conservation Service. Available online  
9 at <https://gdg.sc.egov.usda.gov/> Accessed June 28, 2022.
- 10 • Natural Resources Conservation (NRCS). 2008. U.S. Department of Agriculture. Soil  
11 Survey Staff, USDA-NRCS, Lincoln, Nebraska. Official Soil Series Descriptions.
- 12 • Natural Resources Conservation Service (NRCS). 2009. U.S. Department of  
13 Agriculture. Soil Survey Geographic (SSURGO) for Gilliam County, Oregon.
- 14 • Oregon Department of Environmental Quality (DEQ). 2005. Erosion and Sediment  
15 Control Manual.
- 16 • Oregon Department of Transportation (ODOT). 2005. Guidelines for Developing and  
17 Implementing Erosion and Sediment Controls.

18  
19 The results of the certificate holder and Department review of the above referenced sources  
20 demonstrate that there have been no changes in facts or law related to soil conditions within  
21 the analysis area. The Department, therefore, presents the previously evaluated facts and  
22 conclusions to support Council’s review of whether the certificate holder has demonstrated an  
23 ability to maintain compliance with the standard.

24  
25 *Existing Soil Conditions and Land Use*

26 The main soil types within the analysis area are: Silt Loam; (2) Warden Silt Loam; and (3) Willis  
27 Silt Loam. The soils within the wind and solar micro-siting areas include soil units consisting  
28 primarily of Ritzville silt loam with slopes ranging from zero to 12 percent, and a small area of  
29 Willis silt loam with 5 to 12 percent slopes.<sup>13</sup>

- 30 • Ritzville Series — This soil unit consists of deep, well-drained soils formed in loess  
31 and volcanic ash, on uplands within the facility area.
- 32 • Warden Series — This soil unit located on uplands within the facility area, and  
33 consists of very deep, well-drained soils formed in loess and the underlying  
34 calcareous, lacustrine silts.
- 35 • Willis Silt Loam — This soil unit consists of moderately deep, well-drained soils  
36 formed in loess, on terraces within the facility area.

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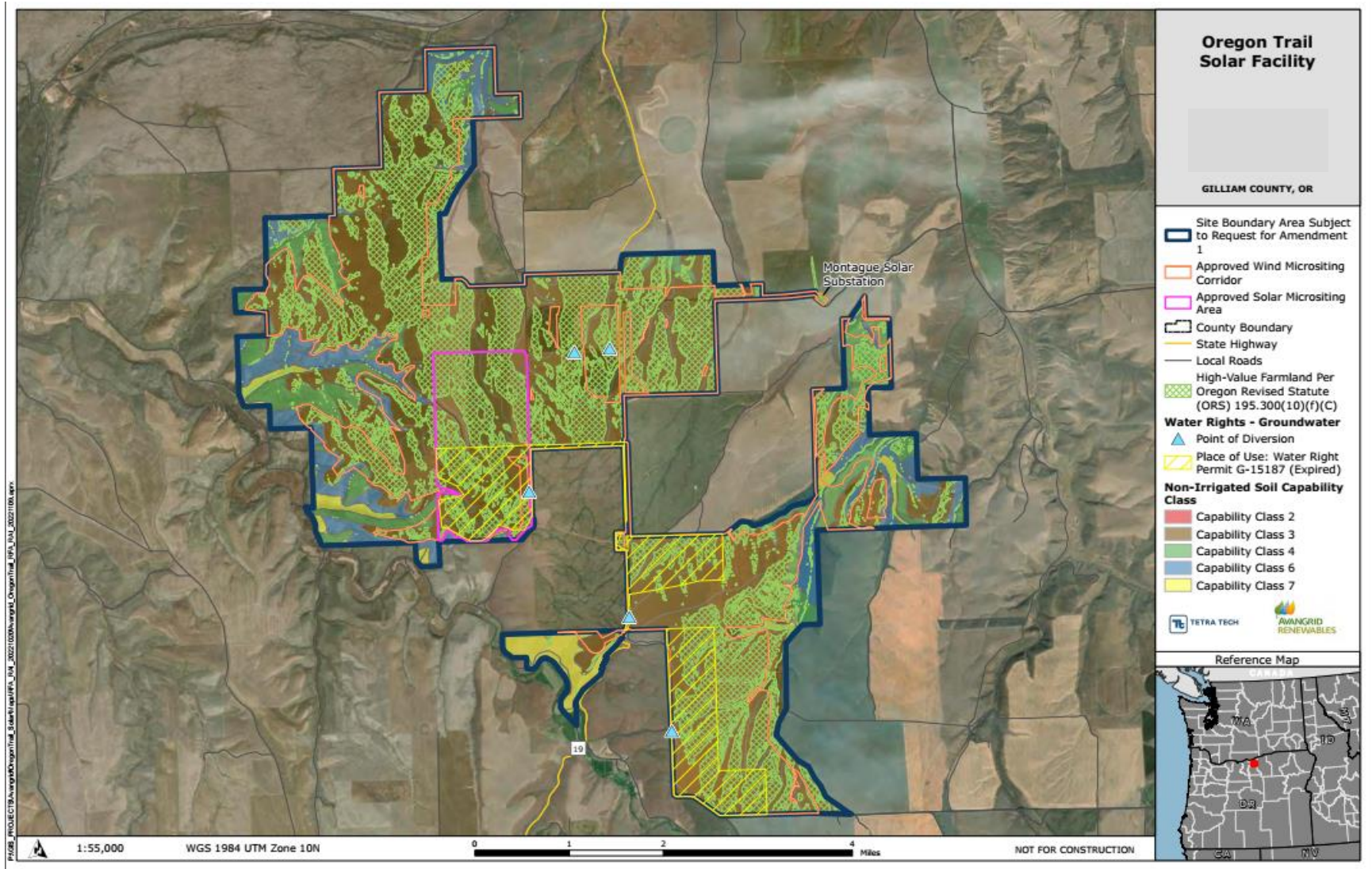
<sup>13</sup> MWPAMD5 Final Order on RFA5 2020-09-25. Section III.A.3., P. 36.

1 Soils within the site boundary are non-irrigated high value farmland per ORS 195.300(10)(f)(c)  
2 and predominately Natural Resource Conservation Service Capability Class 3<sup>14</sup>, as presented in  
3 Figure 6 below. All three soil types have an erosion K factor of 0.64 (high) with a wind erosion  
4 potential ranging from 3-5 (low-to-moderate) and a low risk of collapsing or shrinking soils.  
5 Land uses within the analysis area are predominately used for private non-irrigated agriculture  
6 for dryland wheat production or rangeland.

---

<sup>14</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Natural Resources Conservation Service (NRCS). 2022b. *Web Soil Survey*. U.S. Department of Agriculture. Accessed May 2022.  
<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

1 Figure 6: Land Use Soil Classification within Analysis Area



2



1 *Potential Impacts to Soil*

2  
3 Potential construction related impacts to soils include vegetation removal and ground  
4 disturbance resulting from the use of heavy equipment and haul trucks to deliver  
5 aggregates, concrete, water, turbine and solar components, cranes, support structures, creation  
6 and expansion of access roads, and other related construction equipment needed to construct  
7 wind, solar and related and supporting facility components. Potential operational impacts on soils  
8 could include erosion due to drainage of stormwater or repair or maintenance of underground  
9 facilities, and inadvertent spills of small amounts of chemicals used at the facility.

10  
11 Potential impacts to soils from operation of the facility include soil loss resulting from erosion due  
12 to water or wind, tracking and impacts to soils due to creating and maintenance of access roads,  
13 use of heavy equipment, grading, trenching, and excavation. Preliminary assessment of the soils  
14 indicates that there is a moderate-to-moderately high (wind) to high (water) erosion risk for soils  
15 within the site boundary. Other potential risks to soils includes the potential for loess deposits to  
16 be identified in the required preconstruction site-specific geotechnical analysis. There is some soil  
17 collapse potential for loess deposits because loess has a structure that is sometimes susceptible  
18 to collapse and/or swelling, but the risk is considered to be low.

19  
20 *Existing Site Certificate Conditions*

21  
22 Council previously imposed site certificate conditions to minimize, avoid, and mitigate potential  
23 adverse impacts to soils and to also mitigate any risk of soil contamination during facility  
24 construction and retirement. Condition 92 requires the certificate holder to revegetate areas of  
25 temporary impact to prevent future drought conditions and any associated loss of vegetation  
26 could increase the potential for dust storms. Condition 80 requires that the certificate holder  
27 comply with erosion control measures required by the facility's NPDES 1200-C construction  
28 permit and an Erosion and Sediment Control Plan (ESCP) and the implementation of Best  
29 Management Practices (BMPs) designed to prevent and control erosion and impacts to soils.

30  
31 Council previously imposed site certificate conditions to minimize, avoid, and mitigate potential  
32 adverse impacts to soils and to also mitigate any risk of soil contamination during facility  
33 operations. Council previously imposed Condition 44 requiring that during operation of the  
34 facility, the certificate holder shall restore areas that are temporarily disturbed during facility  
35 maintenance or repair activities using the same methods and monitoring procedures described in  
36 the Revegetation Plan required per Condition 92. Condition 80 also requires that prior to  
37 operation of the facility, the certificate holder shall prepare and provide to ODOE a Spill  
38 Prevention Control and Countermeasures (SPCC) Plan to protect soils from accidental spills. In the  
39 *Final Order on Montague Wind Project Request for Amendment 4*, Council also added Condition  
40 85 to require operational inspections, monitoring, maintenance and repairs to all facility  
41 components for erosion and sediment control measures and the implementation of BMPs  
42 designed to minimize and prevent erosion during operations and maintenance of the facility. The  
43 Council also imposed and amended Condition 87 as part of the Final Order on Montague Wind

1 Request for Amendment 4, to include the washing of solar panels during facility operation,  
2 subject to the DEQ recommended restrictions, as an acceptable practice, which would require an  
3 approved Water Pollution Control Facility (WPCF) permit that would be secured by a third-party  
4 contractor, which is allowed in accordance with OAR 345-022-022-0110(3) and (4).

5  
6 The Department recommends Council amend Condition 80 to clarify the timing of the condition  
7 requirement (preconstruction or construction) and to clarify applicability (the topsoil  
8 management plan requirement referenced below is a Land Conservation and Development  
9 Commission (LCDC) requirement under OAR 660-033-0130(37)(b)(B) specific to wind facilities in  
10 EFU zoned land).

11  
12 **Recommended Amended Condition 80:**

13 (a) Prior to construction, the certificate holder shall:

14 (i) ~~Before beginning construction of the wind energy generation components, the~~  
15 ~~certificate holder shall~~ If final facility design includes wind energy generation  
16 components, submit to the Department and Gilliam County Planning Director for  
17 review and approval a topsoil management plan including how topsoil will be  
18 stripped, stockpiled, and clearly marked in order to maximize topsoil preservation  
19 and minimize erosion impacts. [OAR 660-033-0130(37)(b)(B)]. The topsoil  
20 management plan may be incorporated into the final Erosion and Sediment Control  
21 Plan, required under sub(ii) or may be provided to the Department as a separate  
22 plan.

23 (ii) If final facility design includes wind or solar energy generation components, obtain a  
24 National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge  
25 General Permit #1200-C from the Oregon Department of Environmental Quality.

26 (b) During construction, ~~t~~The certificate holder shall conduct all ~~construction~~ work in  
27 compliance with an Erosion and Sediment Control Plan (ESCP) satisfactory to the  
28 Department and Oregon Department of Environmental Quality and as required under  
29 the National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge  
30 General Permit #1200-C. The certificate holder shall include in the ESCP any procedures  
31 necessary to meet local erosion and sediment control requirements or storm water  
32 management requirements.

33 (c) Prior to beginning facility operation, the certificate holder shall provide the Department  
34 a copy of an operational SPCC plan, if required pursuant to OAR 340-141-0001 to -0240.  
35 [MWP Final Order on ASC, AMD5, ~~Sept 2020~~; OTS AMD1]

36  
37 **Conclusions of Law**

38  
39 Based on the recommended findings of fact and compliance with existing and recommended  
40 amended conditions, the Department recommends that Council find that the facility, with  
41 proposed RFA1 changes, will comply with the Council's Soil Protection standard.

42  
43 **III.E. Land Use: OAR 345-022-0030**

1 (1) To issue a site certificate, the Council must find that the proposed facility complies with  
2 the statewide planning goals adopted by the Land Conservation and Development  
3 Commission.

4  
5 (2) The Council shall find that a proposed facility complies with section (1) if:

6 \*\*\*

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

9  
10 (A) The proposed facility complies with applicable substantive criteria as described in  
11 section (3) and the facility complies with any Land Conservation and Development  
12 Commission administrative rules and goals and any land use statutes directly  
13 applicable to the facility under ORS 197.646(3);

14  
15 (B) For a proposed facility that does not comply with one or more of the applicable  
16 substantive criteria as described in section (3), the facility otherwise complies with  
17 the statewide planning goals or an exception to any applicable statewide planning  
18 goal is justified under section (4); or

19  
20 (C) For a proposed facility that the Council decides, under sections (3) or (6), to  
21 evaluate against the statewide planning goals, the proposed facility complies with  
22 the applicable statewide planning goals or that an exception to any applicable  
23 statewide planning goal is justified under section (4).

24  
25 (3) As used in this rule, the “applicable substantive criteria” are criteria from the affected  
26 local government’s acknowledged comprehensive plan and land use ordinances that are  
27 required by the statewide planning goals and that are in effect on the date the applicant  
28 submits the application. If the special advisory group recommends applicable  
29 substantive criteria, as described under OAR 345-021-0050, the Council shall apply them.  
30 If the special advisory group does not recommend applicable substantive criteria, the  
31 Council shall decide either to make its own determination of the applicable substantive  
32 criteria and apply them or to evaluate the proposed facility against the statewide  
33 planning goals.

34  
35 (4) The Council may find goal compliance for a proposed facility that does not otherwise  
36 comply with one or more statewide planning goals by taking an exception to the  
37 applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide  
38 planning goal pertaining to the exception process or any rules of the Land Conservation  
39 and Development Commission pertaining to the exception process, the Council may take  
40 an exception to a goal if the Council finds:

41  
42 (a) The land subject to the exception is physically developed to the extent that the land is  
43 no longer available for uses allowed by the applicable goal;

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

5  
6 (c) *The following standards are met:*

7  
8 (A) *Reasons justify why the state policy embodied in the applicable goal should not*  
9 *apply;*

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

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

16 \*\*\*

17 **Findings of Fact**

18 The Council must apply the Land Use standard in conformance with the requirements of ORS  
19 469.504. Under ORS 469.504(1)(b)(B), the Council may find compliance with statewide planning  
20 goals if the Council finds that the amendment request "...does not comply with one or more of  
21 the applicable substantive criteria as described in section (3), the facility otherwise complies  
22 with the statewide planning goals or an exception to any applicable statewide planning goal is  
23 justified under section."

24  
25 The analysis area for potential land use impacts includes the area within and extending ½-mile  
26 from the site boundary area subject to the changes proposed in RFA1 (see DPO Figure 2).

27  
28 For amendments requesting to extend construction deadlines, the Department and Council  
29 evaluate whether there have been "changes in fact or law" since the site certificate was issued  
30 to determine whether, based on changes in fact or law, the facility would continue to satisfy  
31 requirements of the standard.

32  
33 **III.E.1 Local Applicable Substantive Criteria**

34  
35 "Applicable substantive criteria" previously recommended by the Council appointed Special  
36 Advisory Group (SAG), Gilliam County Court, were based on the zoning provisions and goals and  
37 policies established in the Gilliam County Zoning and Land Development Ordinance (GCZO) and  
38 Gilliam County Comprehensive Plan (GCCP), as amended in 2017. Neither the GCZO or GCCP  
39 have changed since the Council's previous analysis. Therefore, the Council may rely on its  
40 previous findings and conclusions of law as evaluated in the Final Order on Request for

1 Amendment 4 and 5 of the Montague Wind Power Facility.<sup>15</sup> The applicable substantive criteria  
 2 from GCZO and goals and policies from GCCP are presented below in **Error! Reference source n**  
 3 **ot found.**, *Gilliam County Applicable Substantive Criteria*.  
 4

**Table 2: Gilliam County Applicable Substantive Criteria**

<b>Article 4 – Use Zones</b>	
Section 4.020	Exclusive Farm Use
Section A	High Value Farmland
Section C	Planning Director Review
Section D	Conditional Uses Permitted
Section H	Specific Review Criteria
Section J	Property Development Standards
<b>Article 7 – Conditional Uses</b>	
Section 7.010	Authorization to Grant or Deny Conditional Uses
Section A	General Approval Criteria
Section 7.020	Standards Governing Conditional Uses
Section A	Conditional Uses, Generally
Section Q	Conditional Uses in Exclusive Farm Use Zones
<b>Article 8 – Supplementary Provisions</b>	
Section 8.030	Clear Vision Areas
Section 8.040	Outdoor Lighting Standards
Section 8.050	Sign Regulations
Section 8.100	Off-Street Parking Requirements
Section A	Number of Parking Spaces Required
Section 8.140	Site Plan Review
Section A	Purpose
Section E	Detailed Plan
Section F	Outdoor Storage and Activities, if Permitted in the Zone
Section G	Topographic Information
Section H	Drainage Plan
Section I	Identification of Proposed Trash Storage Locations
Section J	Location of All Existing and Proposed Utilities
Section K	Elevation Drawings
Section L	Approval Standards
Section M	The Development Will Not Result In Traffic Volumes that Will Reduce the Performance Standard
Section N	The Development Will Not Adversely Affect Agricultural or Forestry Uses
Gilliam County Comprehensive Plan (GCCP)	
(Goal 2) Land Use Planning – Policy 7	
(Goal 3) Agricultural Lands – Policy 3	

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<sup>15</sup> MWPAPPDoc157 MWP Final Order 2010-09-10, pp.43-57. MWPAMD4Doc23 Final Order with Attachments 2019-09-06, pp. 78-95.

**Table 2: Gilliam County Applicable Substantive Criteria**

(Goal 5) Natural Resources – Policies 2 and 12
(Goal 6) Air, Water, and Land Resources Quality – Policies 6 and 7
(Goal 8) Recreation – Policy 3
(Goal 12) Transportation – Policies 10 and 14
(Goal 13) Energy Conservation – Policy 3

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III.E.2 Directly Applicable State Rules and Statutes

There have been no changes in LCDC rules or statutes since the Council’s prior analysis. Council’s prior findings of fact and conclusions of law are incorporated here by reference.<sup>16</sup>

III.E.3 Goal 3 Exception

OAR 345-022-0030

*(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 (emphasis added), 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*

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<sup>16</sup> Id.

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

3  
4 Council previously granted an exception, pursuant to ORS 469.504(1)(b)(B) and OAR 345-022-  
5 0030(4)(c), to the statewide planning goal embodied in Goal 3, *Agricultural Lands*, for use of up  
6 1,228 acres of agricultural lands, including use of more than 12 acres of high value farmland and  
7 more than 20 acres of arable lands, for solar photovoltaic energy generation components.

8  
9 Council previously found that reasons justifying taking a goal exception included that the facility  
10 would result in: 1) substantial local economic benefit; 2) minimal loss to productive agriculture;  
11 3) no impact to lands with water rights; and 4) unique site selection based on proximity to grid  
12 integration infrastructure.<sup>17</sup>

13  
14 Council previously found that the evidence provided on the record of Request for Amendment  
15 4 and 5 of the Montague Wind Power Facility demonstrated that the siting of solar facility  
16 components on up to 1,228 acres within the Oregon Trail solar micrositing area would have  
17 minimal environmental impacts and would have beneficial social, economic and energy  
18 consequences. Council also previously determined that the siting of solar photovoltaic energy  
19 components on agricultural lands within the solar micrositing area would not impact overall  
20 land use compatibility in the area or materially alter land use patterns on adjacent lands.

21  
22 RFA1 includes new facts and evidence to supplement the “local economic benefit” and  
23 “minimal loss to productive agriculture” reasons, based on the SAG’s observations during  
24 construction of the Montague Solar Facility, a facility procedurally connected to the Oregon  
25 Trail Solar facility via Final Order on Amendment 4 and 5 of the Montague Wind Power Facility.

26  
27 In response to the SAG’s letter<sup>18</sup>, evidence of local economic spending from the Montague Solar  
28 Facility was provided in RFA1 to demonstrate the level and type of local economic benefit  
29 anticipated for Oregon Trail Solar, if constructed. For example, over 17 local businesses were  
30 used by contractors and subcontractors, including RV parks, fuel providers, hardware stores,  
31 rock suppliers, hotels and restaurants, during the construction of the Montague Solar facility<sup>19</sup>.  
32 Certificate holder also provided a 2022 property tax statement for Montague Solar facility  
33 demonstrating an annual payment of approx. \$840,000 to the county (RFA1 Attachment 11,

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<sup>17</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06, pp. 78-90 Findings and conclusions of Final Order on Amendment 4 of the Montague Wind Power Facility are incorporated by reference into this section.

<sup>18</sup> See Gilliam County comments provided in Attachment B-1 of this order.

<sup>19</sup> OTSAMD1Doc8 Complete RFA1 2022-12-18. Attachment 11, Attachment 1- Local Suppliers Used by Montague Solar

1 Attachment 2).<sup>20</sup> To address the SAG’s comments on minimizing impacts to agriculture,  
2 certificate holder provided evidence of consultation with underlying landowners on the solar  
3 facility layout and signed lease agreements for the solar micro-siting area (RFA1 Attachment 10).  
4

5 In addition, certificate holder proposes to implement a Community Donation Fund based on  
6 \$1,500/MW x 41 MW x 15 years (or \$922,500) with two specific, local entities to further  
7 address and demonstrate that the facility would result in unique local economic benefits and  
8 minimal loss to productive agriculture. The Community Donation Fund will be implemented  
9 through two executed Memorandums of Agreement (MOA) with the Port of Arlington (Port)  
10 and Gilliam County Soil and Water Conservation District (SWCD). Gilliam County (as the SAG),  
11 the Port, and SWCD confirmed support for the Community Donation Fund.<sup>21</sup>  
12

13 For the MOA with the Port, certificate holder will make a community donation of \$461,250 for  
14 the Port to implement worker housing projects in Gilliam County. For the MOA with SWCD,  
15 certificate holder will make a community donation of \$461,250 for SWCD to use for improving  
16 agricultural conservation practices such as irrigation efficiency upgrades, annual grass  
17 treatments, and cross-fencing. The terms of the MOAs require that: certificate holder remit full  
18 payment to each entity within 60-days of the start of facility construction; each entity report to  
19 certificate holder on the status of projects implemented by April 15 of every year for 10-years  
20 or less if the funds are spent prior to the end of the 10-year period; and that the funds be  
21 utilized on or before 10-years from the date of receipt of the donation payment. Draft MOAs  
22 are provided in Attachment B-2 of this order.<sup>22</sup>  
23

24 Based on the evidence provided in RFA1 Attachments 10 and 11 and in the certificate holder’s  
25 response to Gilliam County DPO comments, as referenced above, and because the programs  
26 would provide a direct local economic benefit, where the SWCD would provide a clear  
27 agricultural benefit that would not otherwise be implemented without the siting of the solar  
28 facility components, the Department recommends Council find that “local economic benefit”  
29 continues to be a reason justifying the Council’s prior exception to Goal 3.  
30

31 The Department recommends Council impose the following condition to ensure that the  
32 commitments represented in RFA1 Attachment 11 and certificate holder response to Gilliam  
33 County DPO comments are implemented promptly prior to construction of solar facility  
34 components:  
35

36 **Recommended Land Use Condition: If the final facility design includes solar**  
37 **photovoltaic energy generation components, the certificate holder shall:**

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<sup>20</sup> OTSAMD1Doc8 Complete RAF1 2022-12-18. Attachment 11, Attachment 1- Local Suppliers Used by Montague Solar

<sup>21</sup> OTSAMD1 Complete RFA1 2022-12-19 Attachment 5 of Attachment 11. OTSAMD1 Email Correspondence with Judge Farrar. 2022-12-16.

<sup>22</sup> OTSAMD1 DPO Certificate holder Letter to Gilliam County 2023-01-19.



- 1 a. Within 60-days of approval of Final Order on Amendment 1, provide to the  
2 Department copies of fully executed Memorandums of Agreement (MOA)  
3 substantially similar to the draft MOAs provided in Attachment F of Final Order on  
4 Amendment 1 and consistent with the pre-construction payment requirement under  
5 (b) of this condition. Substantive changes to the MOA shall be reviewed and  
6 approved by Council.
- 7 b. Prior to construction, provide to the Department evidence that the Community  
8 Donation Funds have been issued to the Port of Arlington and Gilliam County Soil  
9 and Watershed Council consistent with the findings presented in the Final Order on  
10 Amendment 1.
- 11 c. In the annual report to the Department (Condition 21), for the first 10-years of  
12 operation, unless Donation Funds are expended prior to the 10-year period, provide  
13 copies of the annual reports obtained under the executed MOAs per sub (b) that  
14 demonstrate the status of projects completed during the reporting year and the  
15 schedule and description of projects to be completed in the next reporting year.

16 In addition to proposing the Community Donation Fund, RFA1 also identifies that 41 MW of  
17 solar photovoltaic energy generation components would not require more than 400 acres of  
18 the approved 1,228 acre micro-siting area, which substantially reduces the agricultural impact  
19 Council previously evaluated and approved. This also supports continued reliance on the  
20 “minimal impact to productive agriculture” reason.

21  
22 Council’s prior findings identified that the solar micro-siting area would use agricultural lands of  
23 four property owners (*Athearn, Holtz, Weatherford, and Weedman*) where those lands are  
24 currently used for cultivation of dryland winter wheat. Within the subject tracts of these  
25 property owners, there is approximately 9,684 acres available for agricultural use; within  
26 Gilliam County, there is over 700,000 acres available for agricultural use. Council found that the  
27 approximately 28 percent loss of agricultural lands within the subject tracts, and less than 1  
28 percent loss in Gilliam County overall, was minimal. The landowners, with the exception of  
29 Athearn, would maintain lands available for agricultural use and, based on lease payments from  
30 the certificate holder, would receive a net benefit in revenue compared to the value of dryland  
31 wheat cultivation. Landowner letters were provided on the record from Holtz, Athearn,  
32 Weatherford and Weedman which confirmed support of the solar micro-siting area and  
33 confirmed ability to maintain a sufficient level of agricultural operations and access. Based on  
34 the amount of available lands within the subject tracts and within Gilliam County, and  
35 landowner statements provided in RFA5 Attachment 4 and on June 5, 2020 from certificate  
36 holder, the Council found that the solar micro-siting area would result in minimal impacts to  
37 agriculture within Gilliam County and concludes that this argument is a relevant “reason”  
38 justifying a Goal 3 exception.<sup>24</sup>  
39

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<sup>24</sup> MWPAMD5 Final Order on RFA5 2020-09-25., pp. 91-97.

1 In conclusion, the creation of the Community Donation Fund to be implemented through  
2 executed MOAs with the Port and SWCD result in direct local economic benefits and implement  
3 measures to minimize impacts to productive agriculture in the county. Further, construction of  
4 41 MWs of solar power generation results is significantly less impact to arable land than what  
5 was previously evaluated and approved for the 1,228 acre solar micro-siting area.  
6  
7

### 8 **Conclusions of Law**

9

10 Based on the foregoing recommended findings and the evidence in the record, and subject to  
11 compliance with existing and recommended new and amended site certificate conditions, the  
12 Department recommends Council find that the facility, with proposed changes, continues to  
13 comply with the Land Use standard.  
14

### 15 **III.F. Protected Areas: OAR 345-022-0040**

16

17 *(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate*  
18 *for a proposed facility located in the areas listed below. To issue a site certificate for*  
19 *a proposed facility located outside the areas listed below, the Council must find that,*  
20 *taking into account mitigation, the design, construction and operation of the facility*  
21 *are not likely to result in significant adverse impact to the areas listed below.*  
22 *References in this rule to protected areas designated under federal or state statutes*  
23 *or regulations are to the designations in effect as of May 11, 2007:*  
24

25 *(a) National parks, including but not limited to Crater Lake National Park and Fort*  
26 *Clatsop National Memorial;*  
27

28 *(b) National monuments, including but not limited to John Day Fossil Bed National*  
29 *Monument, Newberry National Volcanic Monument and Oregon Caves National*  
30 *Monument;*  
31

32 *(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et*  
33 *seq. and areas recommended for designation as wilderness areas pursuant to 43*  
34 *U.S.C. 1782;*  
35

36 *(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon*  
37 *Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart*  
38 *Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath,*  
39 *Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper*  
40 *Klamath, and William L. Finley;*  
41

42 *(e) National coordination areas, including but not limited to Government Island,*  
43 *Ochoco and Summer Lake;*  
44

1 *(f) National and state fish hatcheries, including but not limited to Eagle Creek and*  
2 *Warm Springs;*

3  
4 *(g) National recreation and scenic areas, including but not limited to Oregon Dunes*  
5 *National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon*  
6 *Cascades Recreation Area, and Columbia River Gorge National Scenic Area;*

7  
8 *(h) State parks and waysides as listed by the Oregon Department of Parks and*  
9 *Recreation and the Willamette River Greenway;*

10  
11 *(i) State natural heritage areas listed in the Oregon Register of Natural Heritage*  
12 *Areas pursuant to ORS 273.581;*

13  
14 *(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine*  
15 *Sanctuary, OAR Chapter 142;*

16  
17 *(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers*  
18 *designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed*  
19 *as potentials for designation;*

20  
21 *(l) Experimental areas established by the Rangeland Resources Program, College of*  
22 *Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site,*  
23 *the Starkey site and the Union site;*

24  
25 *(m) Agricultural experimental stations established by the College of Agriculture,*  
26 *Oregon State University, including but not limited to: Coastal Oregon Marine*  
27 *Experiment Station, Astoria Mid-Columbia Agriculture Research and Extension*  
28 *Center, Hood River Agriculture Research and Extension Center, Hermiston Columbia*  
29 *Basin Agriculture Research Center, Pendleton Columbia Basin Agriculture Research*  
30 *Center, Moro North Willamette Research and Extension Center, Aurora East Oregon*  
31 *Agriculture Research Center, Union Malheur Experiment Station, Ontario Eastern*  
32 *Oregon Agriculture Research Center, Burns Eastern Oregon Agriculture Research*  
33 *Center, Squaw Butte Central Oregon Experiment Station, Madras Central Oregon*  
34 *Experiment Station, Powell Butte Central Oregon Experiment Station, Redmond*  
35 *Central Station, Corvallis Coastal Oregon Marine Experiment Station, Newport*  
36 *Southern Oregon Experiment Station, Medford Klamath Experiment Station, Klamath*  
37 *Falls;*

38  
39 *(n) Research forests established by the College of Forestry, Oregon State University,*  
40 *including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett*  
41 *Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the*  
42 *Marchel Tract;*

1 (o) Bureau of Land Management areas of critical environmental concern,  
2 outstanding natural areas and research natural areas;

3  
4 (p) State wildlife areas and management areas identified in OAR chapter 635,  
5 Division 8.  
6

7 **Findings of Fact**

8  
9 Impacts to protected areas are evaluated based on identification of protected areas, pursuant  
10 to OAR 345-022-0040, within the analysis area and an evaluation of the following potential  
11 impacts during facility construction and operation: excessive noise, increased traffic, water use,  
12 wastewater disposal, visual impacts of facility structures or plumes, and visual impacts from air  
13 emissions.  
14

15 In accordance with OAR 345-001-0010(59)(e) and consistent with the study area boundary, the  
16 analysis area for protected areas is 20 miles surrounding the site boundary.  
17

18 *Protected Areas identified within the Analysis Area*

19  
20 The certificate holder conducted an updated review of protected areas under this standard  
21 which included an updated search of existing databases and information to determine that  
22 there have been no changes in fact or law pursuant to the resources listed as designated  
23 protected areas under OAR 345-022-0040(1)(a) – (n). The sources relied upon for the updated  
24 search are presented in Table 3, *Protected Areas in Analysis Area* below. The Department  
25 evaluated and verified the sources relied upon to identify protected areas within the analysis  
26 area confirm that no new protected areas have been designated since Council’s previous  
27 analysis and confirm the protected areas the certificate holder has identified within the analysis  
28 area. For these reasons, the Department recommends that Council continue to rely on previous  
29 findings for the sources relied upon and the identification of protected areas requiring  
30 evaluation under this Council standard, which are presented in this section for reference.

**Table 3: Protected Areas in Analysis Area**

Protected Area	Management Entity	Citation	OAR Reference	Distance and Direction from Nearest Turbine
Horn Butte ACEC	BLM	BLM 2022 <sup>25</sup>	OAR 345-022-0040(1)(o)	5.4 miles

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<sup>25</sup> Bureau of Land Management (BLM) 2022. Areas of Critical Environmental Concern. Available online at: <https://www.blm.gov/programs/planning-and-nepa/planning-101/special-planning-designations/acec>  
Accessed by the Department 2022-11-22.

**Table 3: Protected Areas in Analysis Area**

Protected Area	Management Entity	Citation	OAR Reference	Distance and Direction from Nearest Turbine
John Day River Wildlife Refuge	ODFW	ORS 2022 <sup>26</sup>	OAR 345-022-0040(1)(d)	5.9 miles
John Day State Scenic Waterway	OPRD	OPRD 2022 <sup>27</sup>	OAR 345-022-0040(1)(k)	5.8 miles
John Day Wild and Scenic River	BLM	NPS 2022 <sup>28</sup>	OAR 345-022-0040(1)(k)	5.8 miles
Willow Creek Wildlife Area	ODFW	ODFW 2022 <sup>29</sup>	OAR 345-022-0040(1)(p)	14.4 miles
Ferry Canyon ACEC	BLM	BLM 2022 <sup>30</sup>	OAR 345-022-0040(1)(o)	16.4 miles
Boardman Research Natural Area	DOD	USGS 2020 <sup>31</sup>	OAR 345-022-0040(1)(o)	20.8 miles

1  
2 As part of the analysis for this amendment request, the certificate holder provided an updated  
3 map and assessment of protected areas within the OTS analysis area as presented in Figure 7  
4 below.  
5

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<sup>26</sup> ORS 501.425 John Day River Wildlife Refuge. Available online at: [https://oregon.public.law/statutes/ors\\_501.425](https://oregon.public.law/statutes/ors_501.425) Accessed by the Department 2022-11-23.

<sup>27</sup> Oregon Parks and Recreation Department (OPRD) 2022. Oregon State Scenic Waterway and Water Courses. Available online at: [https://www.arcgis.com/home/webmap/viewer.html?url=https%3A%2F%2Fmaps.prd.state.or.us%2Farcgis%2Frest%2Fservices%2FAdmin\\_boundaries%2FAD\\_SCENIC\\_WATERWAYS%2FFeatureServer%2F0&source=sd](https://www.arcgis.com/home/webmap/viewer.html?url=https%3A%2F%2Fmaps.prd.state.or.us%2Farcgis%2Frest%2Fservices%2FAdmin_boundaries%2FAD_SCENIC_WATERWAYS%2FFeatureServer%2F0&source=sd) Accessed by the Department 2022-11-23

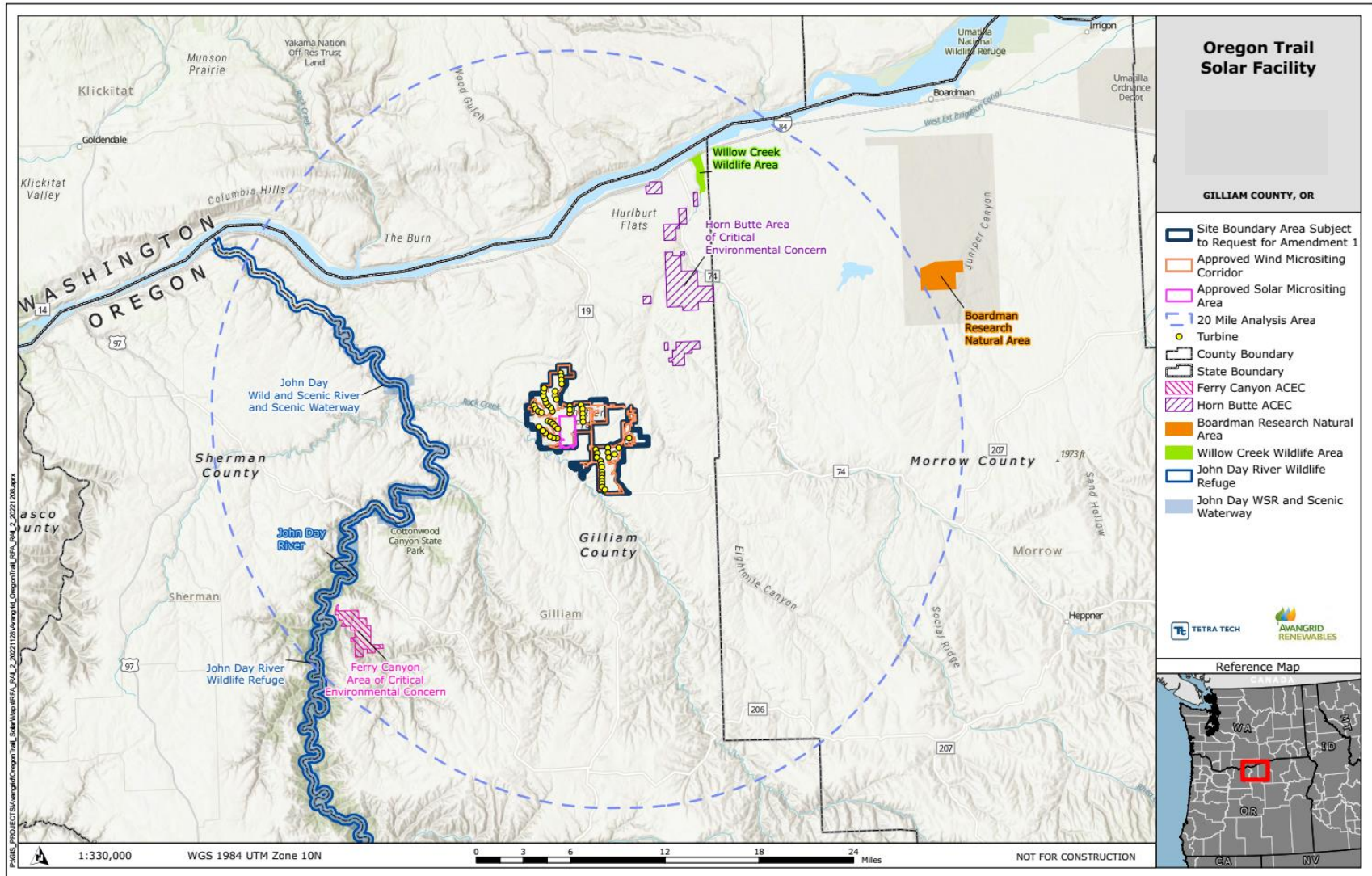
<sup>28</sup> National Park Service (NPS) 2022. Wild and Scenic Rivers. Available online at: <https://nps.maps.arcgis.com/apps/View/index.html?appid=ff42a57d0aae43c49a88daee0e353142> Accessed by the Department 2022-11-22.

<sup>29</sup> Oregon Department of Fish and Wildlife (ODFW). 2022. Visit ODFW Wildlife Areas. Available online at: <https://myodfw.com/visit-odfw-wildlife-areas> Accessed by the Department 2022-11-22.

<sup>30</sup> Bureau of Land Management (BLM) 2022. BLM National Data. Available online at: <https://gbp-blm-egis.hub.arcgis.com/search?groupIds=c4000e9c4f214219a7f39d07aaf43292> Accessed by the Department 2022-11-22.

<sup>31</sup> U.S. Geological Survey (USGS) 2020. Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PADUS) 2.1: U.S. Geological Survey. Available online at: <https://maps.usgs.gov/padus/> Accessed by the Department 2022-11-22.

Figure 7: Protected Areas Identified within the Analysis Area





1 Based upon the updated analysis and identification of protected areas for the OTS RFA1  
2 analysis area, the Department evaluated the following 7 protected areas as summarized briefly  
3 below:

4  
5 Horn Butte Area of Critical Environmental Concern (ACEC)

6 Located 5.4 miles northeast from the nearest turbine location, the Horn Butte is a designated  
7 ACEC under the U.S. Bureau of Land Management (BLM). “Areas of Critical Environmental  
8 Concern or ACEC designations highlight areas where special management attention is needed to  
9 protect important historical, cultural, and scenic values, or fish and wildlife or other natural  
10 resources. ACECs are areas within existing public lands that require special management to  
11 protect important and relevant values. ACECs can protect important resources, unique scenic  
12 landscapes, and people and property from hazards on public lands.”<sup>32</sup> The Horn Butte ACEC is  
13 designated and managed under the BLM’s 2015 John Day Basin Resource Management Plan<sup>33</sup>  
14 The ACEC covers 7,152 acres and was designated as an ACEC in the 2015 plan.<sup>34</sup> Previously  
15 designated through the BLM’s Two Rivers Resource Management Plan in 1986, this ACEC was  
16 designated for its long-billed curlew nesting habitat, a management plan was prepared in 1989  
17 proposing land acquisition, livestock management, noxious weed control and seasonal closure  
18 of the area to OHVs.<sup>35</sup> While the ACEC designation was official in 2015, the previous designation  
19 in 1986 makes this site a protected area under this Council standard.

20  
21 John Day Wild and Scenic River

22 Located approximately 5.9 miles from the nearest turbine location, the John Day River was  
23 designated in 1988. Three John Day River segments are designated as Wild and Scenic through  
24 the Omnibus Wild and Scenic River Act of 1988. The designated Wild and Scenic River segment  
25 along the John Day within the analysis area are described in, and currently managed under the  
26 BLM 2015 John Day Basin Resource Management Plan, is the Lower John Day River Segment as  
27 described below:

28  
29 *Lower John Day River mainstem; from Tumwater Falls upstream to Service Creek*  
30 *The segment is designated as “Recreational” and is comprised of colorful canyons, broad*  
31 *valleys, and breathtaking terrain. This segment offers notable steelhead and smallmouth*

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<sup>32</sup> Bureau of Land Management (BLM) 2022. Areas of Critical Environmental Concern. Available at:  
<https://www.blm.gov/programs/planning-and-nepa/planning-101/special-planning-designations/acec> Accessed by  
the Department 2022-11-23.

<sup>33</sup> Bureau of Land Management (BLM) 2015. John Day Basin Resource Management Plan. Available at:  
<https://www.blm.gov/or/districts/prineville/plans/johndayrmp/files/JDB/AMS/CH3-SpecialManDes.pdf> Accessed  
by the Department 2022-11-23.

<sup>34</sup> Bureau of Land Management (BLM) 2022. BLM List of Designated ACECs. Available at  
[https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.blm.gov%2Fsites%2Fblm.gov%2Ffiles%2Fplanningandnepa\\_aceclist.xlsx&wdOrigin=BROWSELINK](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.blm.gov%2Fsites%2Fblm.gov%2Ffiles%2Fplanningandnepa_aceclist.xlsx&wdOrigin=BROWSELINK) Accessed by the Department 2022-11-23.

<sup>35</sup> Bureau of Land Management (BLM) 2015. John Day Basin Resource Management Plan. Available at:  
<https://www.blm.gov/or/districts/prineville/plans/johndayrmp/files/JDB/AMS/CH3-SpecialManDes.pdf>  
Accessed by the Department 2022-11-23.

1 *bass fishing, and is comprised with relatively calm waters with few rapids; and sites of*  
2 *archeological, historical and paleontological interest.*<sup>36</sup>

3  
4 John Day State Scenic Waterway

5 Designated under ORS 390.826 (7)(a) the John Day Scenic Waterway extends along the John  
6 Day River from its confluence with Parrish Creek downstream to Tumwater Falls [at about R.M.  
7 10]. The same segment of the John Day River that is designated as Wild and Scenic River (WSR),  
8 located upstream and south of Tumwater Falls, is also designated as a State Scenic Waterway  
9 pursuant to the Oregon State Scenic Waterways Act, ORS 390.805-390.925. Under the State  
10 Scenic Waterways Act, the river segments in the analysis area have been classified as a Scenic  
11 River Area, i.e., river segments that are “ accessible by roads in places but contain related  
12 adjacent lands and shorelines still largely primitive and undeveloped except for agriculture and  
13 grazing. Scenic River Areas are administered to preserve their undeveloped character, maintain  
14 or enhance their high scenic quality, recreation, fish, and wildlife values while allowing  
15 continued agricultural use.” This protected area is located approximately 5.8 miles from the  
16 nearest turbine location.

17  
18 John Day River Wildlife Refuge

19 ORS 501.425 (formerly ORS 418.214) designated the John Day River Wildlife Refuge as “ a  
20 wildlife refuge within the area that is one-fourth mile from the high-water flowline along the  
21 John Day River from the Columbia River south to its junction with Thirty Mile Creek.”<sup>37</sup>  
22 Designated in 1993 and managed by the Oregon Department of Fish and Wildlife as a state  
23 designated wildlife area. The John Day Wildlife Refuge is designated as a protected area due to  
24 its refuge qualities of mule deer, elk, and black bears, along with peregrine falcons, bald eagles  
25 and anadromous fish. This protected area is located approximately 5.8 miles from the nearest  
26 turbine location.

27  
28 Willow Creek Wildlife Area

29 The Willow Creek Wildlife Area is a state wildlife and management area designated as a  
30 protected area under OAR 345-022-0040(1)(p), and is located along the Columbia River. The  
31 Willow Creek Wildlife Area is bounded to the north by Interstate 84 and extends south to the  
32 confluence of the Willow Creek. Located approximately 14.4 miles from the nearest turbine  
33 location, the Willow Creek Wildlife area is one of four Columbia Basin Wildlife Areas and the  
34 only one of the four located in the OTS analysis area under this standard. These wildlife areas

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<sup>36</sup> Bureau of Land Management (BLM) 2015. John Day Basin Resource Management Plan. Available at:  
<https://www.blm.gov/or/districts/prineville/plans/johndayrmp/files/JDB/AMS/CH3-SpecialManDes.pdf> Accessed  
by the Department 2022-11-23.

<sup>37</sup> Oregon Laws. ORS 501.425. Available online at: [https://oregon.public.law/statutes/ors\\_501.425](https://oregon.public.law/statutes/ors_501.425) Accessed by the  
Department 2022-11-23.



1 are managed by ODFW<sup>38</sup>. Management agreements for these areas were initially established  
2 between 1971 and 1977 between the ODFW and Federal agencies which own the lands. The  
3 Columbia Basin Wildlife Areas provide an important land base for the conservation and  
4 recreation of fish and wildlife within a highly privatized and altered landscape and play an  
5 important role for the fall and spring migrations of waterfowl in addition to resident upland  
6 game bird production.<sup>39</sup>

7  
8 The Willow Creek Wildlife Area is managed for wildlife and recreation, including:

- 9 • Wildlife: red-tailed hawk, American kestrel, spotted sandpiper, Wilson's snipe, savannah  
10 sparrow, white crowned sparrow, California quail, mallards, widgeon, great blue heron,  
11 great egret; for extensive list see Appendix C in the Columbia Basin Wildlife Areas  
12 Management Plan.
- 13 • Recreation: Fishing, hunting, boating, river access and boat ramp, hiking and access to  
14 scenic views.<sup>40</sup>

15 The management plan for the Columbia Basin Wildlife Area indicates that the purpose of these  
16 designated areas is to “protect, enhance, and manage fish and wildlife habitats indicative of the  
17 region to support fish and wildlife population levels while providing hunting, trapping, angling,  
18 and other wildlife oriented recreational opportunities for present and future generations.”<sup>41</sup>

#### 19 20 Ferry Canyon ACEC

21 Located approximately 16.4 miles from the nearest turbine location, Ferry Canyon ACEC covers  
22 2,364 acres along the John Day River approximately 15 miles northwest of Condon, Oregon.  
23 This ACEC was designated in 2012 and is managed under the BLM’s 2015 Prineville District John  
24 Day Basin Resource Management Plan<sup>42</sup>. Per the plan, the ACEC is managed for wildlife and not  
25 for scenic quality and does not identify any important scenic resources or values for the area.<sup>43</sup>  
26 According to the BLM, “Areas of Critical Environmental Concern or ACEC designations highlight

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<sup>38</sup> Oregon Department of Fish and Wildlife (ODFW). 2022. Columbia Basin Wildlife Areas Map. Available online at:  
<https://myodfw.com/sites/default/files/2019-03/Columbia%20Basin%20wildlife%20areas%20features%20and%20ownership%20maps.pdf> Accessed by the  
Department 2022-11-23.

<sup>39</sup> Oregon Department of Fish and Wildlife (ODFW). 2022. Willow Creek Wildlife Area Visitors' Guide. Available  
online at: <https://myodfw.com/willow-creek-wildlife-area-visitors-guide> Accessed by the Department 2022-11-23.

<sup>40</sup> Ibid.

<sup>41</sup> Oregon Department of Fish and Wildlife (ODFW). 2021. Columbia Basin Wildlife Areas Management Plan.  
Available online at:

[https://www.dfw.state.or.us/wildlife/management\\_plans/wildlife\\_areas/docs/columbia\\_basin.pdf](https://www.dfw.state.or.us/wildlife/management_plans/wildlife_areas/docs/columbia_basin.pdf) Accessed by  
the Department 2022-11-30.

<sup>42</sup> Bureau of Land Management (BLM) 2015. John Day Basin Record of Decisions and Resource Management Plan.  
Prineville District.

<sup>43</sup> MWPAMD4Doc17 Complete Request for Amendment 4, Exhibit L: Protected Areas. 2019.

1 areas where special management attention is needed to protect important historical, cultural,  
2 and scenic values, or fish and wildlife or other natural resources”.<sup>44</sup>

3

#### 4 Boardman Research Natural Area (RNA)

5 Located approximately 20.8 miles from the facility, the Boardman Research Natural Area is a  
6 part of a federal system of RNA's established for research and educational purposes. In these  
7 areas, natural features are preserved for scientific purposes and natural processes are allowed  
8 to dominate. Their main purposes are to provide:

9 1. Baseline areas against which effects of human activities can be measured.

10 2. Sites for study of natural processes in undisturbed ecosystems; and

11 3. Gene pool preserves of organisms, especially rare and endangered types.

12 Federal Research Natural Areas provide a unique system of publicly owned and protected  
13 examples of undisturbed ecosystems where scientists can conduct research with minimal  
14 interference and reasonable assurance that investments in long-term studies will not be lost to  
15 logging, land development, or similar activities. The Boardman RNA is administered by the  
16 Commanding Officer, Naval Air Station, Whidbey Island (Oak Harbor, Wash.) which is under the  
17 U.S. Department of Defense (DOD).<sup>45</sup>

18

19 Council has previously evaluated all of the above-listed protected areas under this standard  
20 within the 20-mile analysis area and determined there were no significant visual, noise, traffic,  
21 water use or wastewater impacts to any protected area as a result of facility construction. For  
22 these reasons, the Department’s updated evaluation for this amendment request focuses on  
23 the potential impacts to those previously evaluated protected areas that are closest to the  
24 facility (within 10 miles): Horn Butte ACEC, John Day Wild and Scenic River, John Day River  
25 Wildlife Refuge, and John Day State Scenic Waterway.

26

#### 27 *Potential Impacts on Protected Areas*

28

29 The following potential impacts on the identified protected areas during construction and  
30 operation of the facility, with facility components, have previously been evaluated by Council:  
31 visual impacts of facility structures or plumes, visual impacts from air emissions, operational  
32 noise, in addition to increased traffic, water use, wastewater disposal as a result of facility  
33 construction and operation.

34

#### 35 *Potential Visual Impacts of Facility Structures*

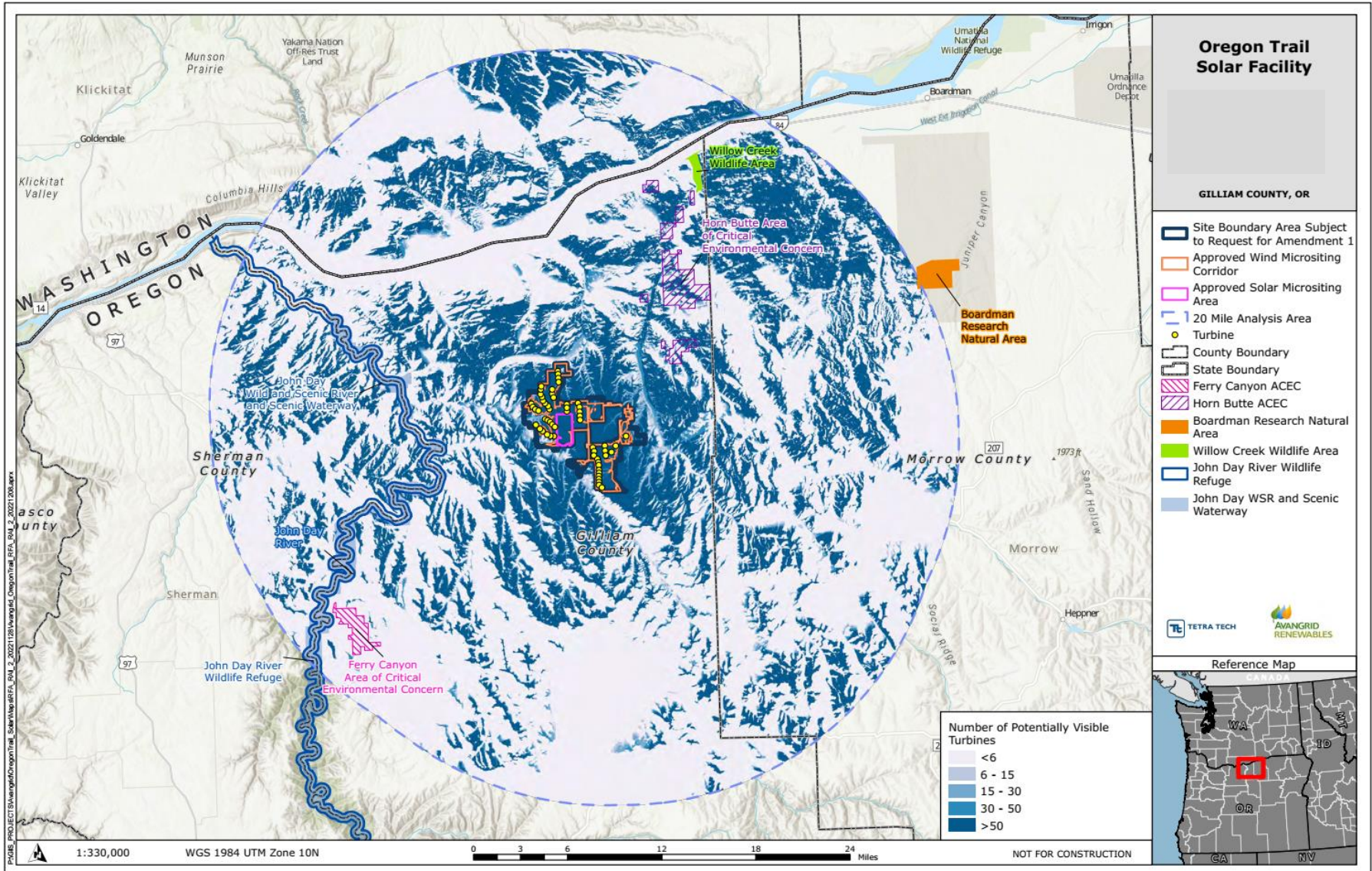
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<sup>44</sup> Bureau of Land Management (BLM) 2022. Areas of Critical Environmental Concern. Available online at:  
<https://www.blm.gov/programs/planning-and-nepa/planning-101/special-planning-designations/acec> Accessed by  
the Department on 2022-11-30.

<sup>45</sup> Supplement No. 17 to Federal Research Natural Areas in Oregon and Washington: A Guidebook for Scientists  
and Educators, Boardman RNA. Available online at:  
<https://andrewsforest.oregonstate.edu/sites/default/files/lter/pubs/pdf/pub285.pdf> Accessed by the Department  
2022-11-23.

1  
2 Facility components, which could result in visual impacts at protected areas within the analysis  
3 area, may include: wind turbines with a maximum blade tip height of 597 feet; a solar array of  
4 up to 400 acres within the approved micro-siting area up to 13-feet in height; battery storage  
5 systems extending up to 20-feet in height; and 100-foot tall 230 kV transmission line structures.  
6 The nearest protected area, Horn Butte Wildlife Area, managed by the Bureau of Land  
7 Management as an “Area of Critical Environmental Concern” (ACEC) to protect nesting habitat  
8 for the long-billed curlew. Horn Butte ACEC is located 5.4 miles from the nearest OTS turbine  
9 location. The John Day Wild and Scenic River, John Day River Wildlife Refuge, and John Day  
10 State Scenic Waterway are all located in the same general area and within 6 miles of the  
11 nearest OTS turbine location. The remaining protected areas are between 14-20 miles from the  
12 nearest turbine location, at which distance Council has previously determined no significant  
13 visual impact to protected areas. The certificate holder completed an updated visual impact  
14 assessment for this amendment request, as represented in Figure 8. This updated analysis is  
15 based on a worst-case scenario modeled for MWP AMD4 which included more turbines of same  
16 height (56 turbines versus OTS 16 turbines) and a larger facility footprint (that included the  
17 locations of the 16 turbines) than OTS. The model used is for determining the “zone of visual  
18 impacts” (ZVI) and Table 4 below summarizes the potential visibility of the nearest facility  
19 turbine based on this analysis.

Figure 8: Protected Areas and Visibility of Facility Components Per ZVI





**Table 4: Protected Areas and Visibility of Wind Turbines**

Protected Area	Distance and Direction to Nearest Turbine (Miles)	Range of Potential Visibility of Turbine Locations <sup>1</sup>
Horn Butte ACEC	5.4 miles NE	<6 to >50
John Day Wild and Scenic River	5.8 miles NW/W/SW	<6 to >50
John Day State Scenic Waterway	5.8 miles NW/W/SW	<6 to >50
John Day Wildlife Refuge	5.9 miles SW	<6 to >50
Willow Creek Wildlife Area	14.4 miles NE	<6
Ferry Canyon ACEC	16.4 miles SW	<6
Boardman Research Natural Area	20.8 miles NW	<6
1. MWP RFA5 reduced the maximum number of turbines from 81 to 16 and the 16 turbines can be positioned using a combination of the 57 previously evaluated turbine locations in the wind micro-siting corridor within the OTS Facility Site Boundary.		

2

3 Council previously evaluated potential visual impacts on protected areas as a result of facility  
4 components and determined that there would be no significant visual impacts to protected  
5 areas<sup>46</sup>. All identified protected areas identified within the analysis area have been previously  
6 evaluated by Council and no new protected areas were identified by the certificate holder or  
7 the Department as part of the evaluation of this amendment request. In order to minimize any  
8 potential visual impacts to protected areas, Council previously imposed Conditions 102  
9 (reduction of visual impacts), 103 (maintenance of character of similar buildings in the area/  
10 usage of low-reflective, neutral colors), and 104 (reduction of exterior nighttime lighting). These  
11 conditions will continue to apply to the facility. The updated ZVI and the review of potential  
12 visual impacts from facility components on these protected areas does not identify any  
13 additional or increased visual impacts. For these reasons, the Department recommends that  
14 Council continue to rely on previous findings that facility structures and components will not  
15 have a significant visual impact to protected areas within the analysis area.

16

### 17 *Potential Visual Impacts from Air Emissions*

18

19 There should be no visual impacts from air emissions because the facility will not generate  
20 plumes, smoke or emissions as a renewable solar and wind energy generating facility.  
21 Construction of the facility could result in some dust emissions during road construction,  
22 foundation installation, final cleanup, reclamation, and restoration. Certificate holder proposes  
23 to implement dust control measures in the ESCP. Operation of the facility is not expected to  
24 result in significant emissions. The Council has previously evaluated potential visual impacts  
25 from air emissions and concluded that there will be no significant impacts to protected areas  
26 from facility construction or operation. The requested amendment and changes in site

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<sup>46</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06

1 certificate conditions will not change these facts. For these reasons, the Department  
2 recommends that Council rely on previous findings for this amendment request.

3  
4 *Potential Noise Impacts*

5  
6 The significance of potential noise impacts to identified protected areas is based on the  
7 magnitude and likelihood of the impact on the affected human population or natural resources  
8 that uses the protected area. Potential noise impacts from construction and operation of the  
9 facility are evaluated at the closest protected areas: Horn Butte Wildlife Area, John Day Wildlife  
10 Refuge, John Day Wild and Scenic River, and John Day State Scenic Waterway, to determine the  
11 likelihood of potential significant adverse impacts. The closest facility components would be  
12 approximately 5.8 miles from the John Day River and 5.4 miles from the Horn Butte ACEC. The  
13 facility is required to comply with OAR 340-035-0035 per existing site certificate conditions.

14  
15 *Construction*

16  
17 Council has previously found that total composite equipment noise levels, based on equipment  
18 operating for each construction phase (i.e. clearing, excavation, foundation, erection, finishing)  
19 and a typical usage factor for each piece of equipment, would result in a maximum noise level  
20 of 90 A-weighted decibels (dBA) at 50 feet, and would attenuate to approximately 60 dBA at  
21 1,500 feet based on an attenuation rate of 6 dBA per doubling of distance<sup>47</sup>. For reference,  
22 noise levels at 60 dBA are equivalent to a vacuum cleaner at 10 feet or a data processing  
23 center, with a moderately loud subjective impression.

24  
25 Based on noise attenuation, construction related noise levels at the nearest protected areas,  
26 located approximately 6 miles from the nearest facility components, would be approximately  
27 30 dBA.<sup>48</sup> Noise levels of 30 dBA are equivalent to a soft whisper at 5 feet, with a quiet  
28 subjective impression<sup>49</sup>. Council previously imposed Condition 106 to reduce noise impacts  
29 during construction by requiring the use of exhaust mufflers on combustion engine-powered  
30 equipment, limiting the noisiest operation of heavy construction equipment to daylight hours,  
31 and requiring that the certificate holder establish a noise complaint response system. Council  
32 has previously found that with conditions, the construction of the facility would not result in  
33 any significant noise impacts to protected areas. The requested amendment and changes in site  
34 certificate conditions will not change these facts. For these reasons, the Department  
35 recommends that Council rely on previous findings for this amendment request.

36  
37 *Operation*

---

<sup>47</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06.Pages 106-107; MWPAPPDoc1. ASC Exhibit X. 2010-04-27.

<sup>48</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06.Pages 106-107.

<sup>49</sup> MWPAPPDoc1. ASC Exhibit X. 2010-04-27; MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06.Pages 106-108.

1 Council has previously evaluated the operation noise impacts from the facility and found it to  
2 be inaudible from the nearest protected areas<sup>50</sup>. The previous Council evaluation was based on  
3 noise modeling for more turbines (48) and a larger footprint than the OTS footprint and  
4 number of turbines (16), solar array and Battery Energy Storage System (BESS)<sup>51</sup>. Updated noise  
5 modelling for the OTS facility shows an expected decibel level of 36 dBA or less at 2 miles  
6 distance beyond the site boundary.<sup>52</sup> Based on prior analysis, Council has previously determined  
7 that at 5 miles distance, noise generated during operation of the facility components would be  
8 unlikely to be audible and as such would not be likely to cause a significant adverse impact from  
9 noise.<sup>53</sup>

10  
11 No changes are being proposed to equipment type or location than what has previously been  
12 evaluated and approved by Council as a result of prior Council evaluation<sup>54</sup>. Council has  
13 previously imposed Conditions 107 (adherence with OAR 340-035-0035 noise requirements),  
14 and 108 (reduction of operations noise impacts) to ensure that noise impacts to protected  
15 areas from the Oregon Trail Solar (OTS) facility will not be significant. These conditions will  
16 continue to apply to the OTS site certificate. The requested amendment and changes in site  
17 certificate conditions will not change these facts: there are no new protected areas identified in  
18 the OTS analysis area for this amendment, and there are no changes in equipment of  
19 operational noise that would result in a change in Council's previous findings that operational  
20 noise from the facility would attenuate to below a significant impact on any protected area. For  
21 these reasons, the Department recommends that Council rely on previous findings for this  
22 amendment request.

### 23 24 *Potential Traffic Impacts*

25  
26 Council previously found that construction and operation traffic for the OTS facility will be  
27 located on roads that are at least 2 miles from the closest protected area (Horn Butte ACEC).  
28 Council previously evaluated the potential traffic impacts to protected areas, access roads and  
29 traffic effects associated with construction or operation of the facility and found that no  
30 significant traffic impacts to protected areas would occur. As part of the updated evaluation for  
31 this amendment request, the Department reviewed roads and access for construction and  
32 operation and confirmed that the certificate holder will continue to rely on the same primary  
33 access roads: Oregon Hwy 19, Old Tree Road, Baseline and Lone and Weatherford Roads,  
34 Bottemiller Lane and Middle Rock Creek Lane. These access routes are presented in relation to  
35 protected areas in Figure 9 below.

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<sup>50</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06.Pages 106-108.

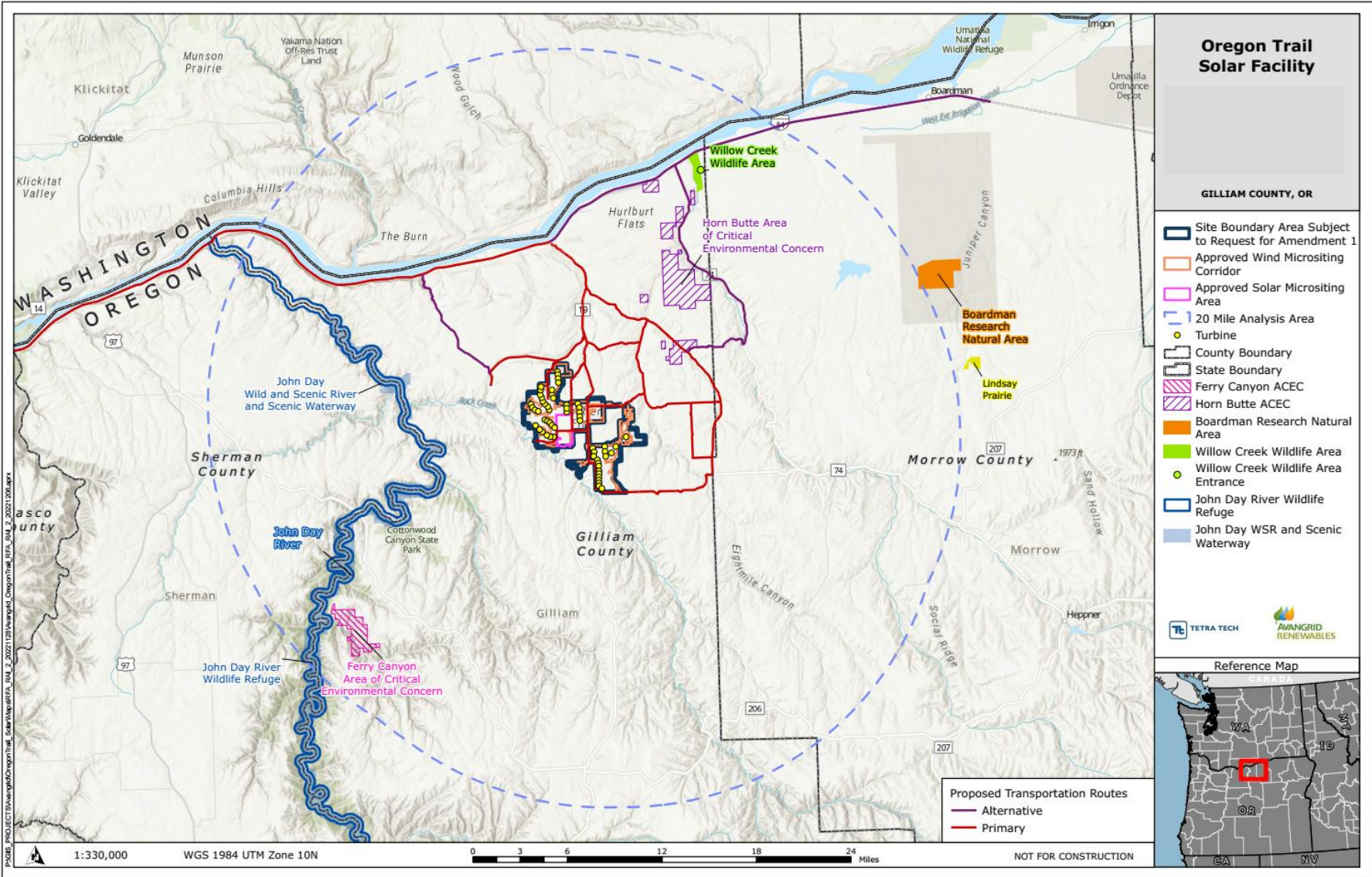
<sup>51</sup> Ibid.

<sup>52</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Confidential Noise Submittal Figure 1.

<sup>53</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06; MWPAMD4Doc17 Complete Request for Amendment 4. Exhibit X.

<sup>54</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06.Pages 106-108; MWPAPPDoc1. ASC Exhibit X. 2010-04-27.

Figure 9: Protected Areas and Transportation Routes





1            *Construction and Operation*

2  
3    The certificate holder has previously stated that construction related traffic would not exceed  
4    31,920 truck trips, assuming a 12-month construction timeline, and 20 workdays per month.  
5    During facility operation, it is expected that a permanent work force of approximately 10 to 30  
6    staff will use the same road system. Council has previously found that due to the distance from  
7    the closest protected area, the construction and operation of the facility would not result in any  
8    significant traffic impacts to protected areas. The certificate holder has affirmed that they will  
9    continue to rely upon the previously approved route with no changes that could alter Council’s  
10   previous findings that the construction and operation of the facility would not result in  
11   significant traffic-related impacts to protected areas, and more specifically to Horn Butte ACEC.  
12   The requested amendment and changes in site certificate conditions will not change these  
13   facts. For these reasons, the Department recommends that Council rely on its previous findings  
14   for this amendment request.

15  
16   *Potential Water Use and Wastewater Disposal Impacts*

17  
18            *Construction and Operation*

19  
20   No water used on the site during construction or operation would be discharged into streams,  
21   wetlands or other water bodies. Council previously approved the certificate holder to use up to  
22   18,300,000 gallons of water during construction of the facility<sup>55</sup>. The certificate holder intends  
23   to source the water from the City of Arlington; no water will be sourced from protected areas.  
24   No cleaning solvents or other additives will be utilized for the solar array washwater during  
25   operation of the facility. Water used to clean the solar array will be discharged to the ground  
26   for evaporation or infiltration and subject to a WPCF-1700-B permit and would not be drawn  
27   from, or discharged into, any protected areas.

28  
29   Council has previously found that water use and disposal during construction and operation of  
30   the facility, as amended, would not affect water quantity or water quality within any protected  
31   area. The requested amendment and changes in site certificate conditions will not change these  
32   facts. For these reasons, the Department recommends that Council rely on its previous findings  
33   for this amendment request.

34  
35   **Conclusions of Law**

36  
37   Based on the foregoing recommended findings, the Department recommends that Council  
38   continue to find that the design, construction and operation of the Oregon Trail Solar facility  
39   would not be likely to result in significant adverse impacts to any protected areas, in  
40   compliance with the Council’s Protected Area standard.

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<sup>55</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06.

1 **III.G. Retirement and Financial Assurance: OAR 345-022-0050**

2  
3 *To issue a site certificate, the Council must find that:*

- 4
- 5 *(1) The site, taking into account mitigation, can be restored adequately to a useful, non-*
- 6 *hazardous condition following permanent cessation of construction or operation of*
- 7 *the facility.*
- 8 *(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a*
- 9 *form and amount satisfactory to the Council to restore the site to a useful, non-*
- 10 *hazardous condition.*

11  
12 **Findings of Fact**

13  
14 Per OAR 345-027-0375(2)(d), for any request for amendment making a decision to grant or  
15 deny issuance of an amended site certificate, Council must determine that the preponderance  
16 of evidence on the record supports the conclusion that the amount of the bond or letter of  
17 credit required under OAR 345-022-0050 is adequate.

18  
19 For amendments requesting to extend construction deadlines, the Department and Council  
20 evaluate whether there have been “changes in fact or law” since the site certificate or amended  
21 site certificate was issued to determine whether, based on changes in fact or law, the facility  
22 would continue to satisfy requirements of the standard. For this standard, the Council may,  
23 depending on the methods used to evaluate the decommissioning estimate, evaluate whether  
24 there have been changes in unit costs or labor rates that would affect the previous site  
25 restoration estimate and whether there have been any changes in the certificate holder’s  
26 corporate structure that would impact the likelihood that the certificate holder would continue  
27 to demonstrate a likelihood of obtaining a bond or letter of credit in the amount necessary for  
28 site restoration.

29  
30 *Restoration of the Site Following Cessation of Construction or Operation*

31  
32 OAR 345-022-0050(1) requires the Council to find that the facility site can be restored to a  
33 useful non-hazardous condition at the end of the facility’s useful life, or if construction of the  
34 facility were to be halted prior to completion. In ASC Exhibit W, the certificate holder estimates  
35 the facility’s useful life to be “at least 40 years”.<sup>56</sup>

36  
37 A summary of high-level tasks and actions is presented in Table 5: *Facility Decommissioning*  
38 *Tasks and Cost Estimate* below and generally includes the following:

39  
40 *Wind Facility:*

---

<sup>56</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06, Section III.G. Retirement and Financial Assurance: OAR 345-022-0050.

- 1 • Nacelles and rotors would be removed, and the turbine towers would be dismantled.  
2 Pad-mounted transformers and related aboveground equipment would be removed.  
3 Concrete turbine tower and transformer pads and underground foundations would be  
4 removed to a minimum depth of three feet below grade. Gravel or crushed rock would  
5 be removed from adjacent turbine pad areas.
- 6 • Electrical components including substations, collector lines, and transmission lines,  
7 along with their support structures would be dismantled.
- 8 • All aboveground 230 kV and 34.5 kV transmission lines, SCADA lines, and support  
9 structures would be removed. Underground transmission lines and communication  
10 cables that are at least three feet below grade would be left in place. At a depth of three  
11 feet, underground components and foundations are not expected to interfere with  
12 farming practices or crop root growth.
- 13 • All excavated areas would be backfilled with topsoil. The surface would be graded. The  
14 affected areas, including areas temporarily disturbed during site restoration activities,  
15 would be replanted with native plant seed mixes or agricultural crops, as appropriate,  
16 based on the use of surrounding lands. Demolition waste material would be transported  
17 for disposal at authorized sites. Fluids would be drained onsite and transported offsite  
18 for disposal at a licensed facility, if flow batteries are selected for the BESS. Containers  
19 would be recycled or disposed at an approved facility.

20  
21 *Solar Facility:*

- 22 • Separating solar modules from the posts, directly loading the modules into a truck or  
23 roll-off container for offsite disposal or recycling, removing the posts from the ground,  
24 and recycling them as scrap metal;<sup>57</sup>
- 25 • Decommissioning the transformers and disposing them offsite;
- 26 • Underground electrical collector cables that are at least three feet below grade would  
27 be left in place;
- 28 • Fluids associated with the battery storage system would be drained and transported  
29 offsite for recycling, self-contained battery components would be removed and  
30 disposed of or recycled by a qualified vendor; and
- 31 • Access roads would be removed, and the entire footprint of the solar array and battery  
32 storage system would be reseeded; and
- 33 • Perimeter fence removal.

34  
35 The Department reviewed the above-summarized tasks and actions with the more-detailed  
36 line-item breakdown presented in RFA1 Section 6.7 and Attachment 12: Updated Retirement  
37 Cost Estimate and compared those details against the information presented in RFA1 (Project  
38 Description), (Project Location – Disturbance) and G (Materials Inventory) as well as the

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<sup>57</sup> Consistent with how the concrete turbine and transformer pads and underground foundations would be removed, the Department expects the certificate holder to remove solar module posts, including concrete foundations, to a minimum depth of three feet below grade.

1 descriptions in the Final Order on RFA4 and RFA5 for the Montage Wind Power Facility. RFA1  
 2 Attachment 12. Updated Retirement Cost Estimate was generated by Tetra Tech’s engineer and  
 3 cost estimator and is presented as decommissioning estimates for solar and wind facilities.  
 4 Based on review of these materials, the Department affirms that the information is consistent  
 5 across relevant exhibits. For this reason, the Department recommends Council find that the  
 6 tasks and actions accurately represent facility decommissioning and site restoration.

7  
 8 *Estimated Cost of Site Restoration*  
 9

10 Table 5: *Facility Decommissioning Tasks and Cost Estimate* is divided into wind facility  
 11 components and solar facility components. Related or supporting facilities, which include  
 12 shared related or supporting facilities, has a separate section, yet the total facility  
 13 decommissioning costs includes cumulative decommissioning costs.<sup>58</sup> The numbers in the  
 14 brackets after major phase or component line items is consistent with RFA1 Attachment 12.

**Table 5: Facility Decommissioning Tasks and Cost Estimate**

Task or Component	Quantity	Unit Cost (\$) <sup>1</sup>	Unit	Estimate (\$)
<b>Solar Facility Components</b>				
<b>Mobilization / Demobilization [1.1]</b>				
<i>Equipment Mob</i>	1	40,600.00	Lump Sum	\$40,600.00
<i>Site Facilities</i>	1	2,200.00	Lump Sum	\$2,200.00
<i>Crew Mob &amp; Site Setup</i>	3	8,578.85	Day	\$25,736.55
<i>Crew Demob &amp; Site Cleanup</i>	2	8,578.85	Day	\$17,157.70
<i>Subtotal =</i>				<b>\$85,694.25</b>
<b>Site Facilities [1.2.1]</b>	2	1,305.00	Month	<b>\$2,610.00</b>
<b>Field Management [1.2.2]</b>	2	56,636.78	Month	<b>\$113,273.56</b>
<b>Solar Array Retirement [1.5]</b>				
<i>Fence Removal</i>	16,018.00	1.38	Linear Feet	\$22,104.84
<i>Inverter / Transformer Removal</i>	12	5,530.20	Each	\$66,362.40
<i>Remove Foundations To Subgrade</i>	12	2,916.01	Each	\$34,992.12
<i>Solar Panel Removal &amp; Disposal</i>	82,000.00	7.10	Each	\$582,200.00
<i>Solar Rack (Trackers) &amp; Post Removal</i>	1	415,396.42	Lump Sum	\$415,396.42
<i>Subtotal =</i>				<b>\$1,121,055.78</b>
<b>Solar Site Restoration - Partial Site Seeding [1.6]</b>				
<i>Decompact Roads</i>	15,443.00	0.98	Linear Feet	\$15,134.14

<sup>58</sup> Cumulative decommissioning costs represent 16 wind turbines and related or supporting facilities, and 400 acres of solar photovoltaic energy generation components. This is an conservative, over-estimate because the facility would have either 16 wind turbines or 400 acres of solar photovoltaic energy generation components, or some combination of wind and solar that does not exceed 16 wind turbines/400 acres. Due to the difficulty in assessing a worst-case combination of wind and solar technologies, the evaluate represents an overestimate covering the decommissioning cost for both technology types at full build-out.

**Table 5: Facility Decommissioning Tasks and Cost Estimate**

<b>Task or Component</b>	<b>Quantity</b>	<b>Unit Cost (\$) <sup>1</sup></b>	<b>Unit</b>	<b>Estimate (\$)</b>
<i>Spot Grade Disturbed Areas</i>	90.00	306.18	Acres	\$27,556.20
<i>Remove stone after erection</i>	90	500.00	Acres	\$45,000.00
<i>Subtotal =</i>				<b>\$87,690.34</b>
<b>Solar Facility Subtotal</b>				<b>\$1,410,323.93</b>
<b>Wind Facility Components</b>				
<b>Equipment &amp; Facilities Mob / Demob [1.1]</b>				
<i>Equipment Mob</i>	1	40,600	Lump Sum	\$40,600.00
<i>Site Facilities</i>	1	2,200	Lump Sum	\$2,200.00
<i>Crew Mob &amp; Site Setup</i>	3	8,579	Day	\$25,736.55
<i>Crew Demob &amp; Site Cleanup</i>	2	8,579	Day	\$17,157.70
<i>Mob-Erection Sub</i>	1	797,500	Lump Sum	\$797,500.00
<i>Subtotal =</i>				<b>\$883,194.25</b>
<b>Site Facilities [1.2.1]</b>	4	1,305.00	Month	<b>\$5,220.00</b>
<b>Field Management [1.2.2]</b>	4	56,636.78	Month	<b>\$226,547.12</b>
<b>Construct &amp; Remove Temporary Crane Pads [1.5]</b>				
<i>Crane Pad 4" Stone 8" depth</i>	1600	36.93	Ton	\$59,088.00
<i>Crane Pad 2" Stone 6" depth</i>	1,200.00	40.25	Ton	\$48,300.00
<i>Remove stone after erection</i>	16.00	1,335.42	Each	\$21,366.72
<i>Subtotal =</i>				<b>\$128,754.72</b>
<b>Wind Turbine Generation (WTG) Removal [1.6]</b>				
<i>Remove Top, Nacelle, Rotor</i>	16.00	22,000.00	Each	\$352,000.00
<i>Remove Base &amp; Mid</i>	16.00	11,000	Each	\$176,000.00
<i>Subtotal =</i>				<b>\$528,000.00</b>
<b>WTG Sizing &amp; Loadout [1.7]</b>				
<i>Oil Removal &amp; Disposal</i>	16	282.89	Each	\$4,526.24
<i>Demo &amp; Prepare For Shipment Offsite</i>	4,576.00	34.89	Ton	\$159,656.64
<i>Blade T&amp;D</i>	608	130	Ton	\$79,040.00
<i>Scrap Trucking Cost</i>	4,576.00	75	Ton	\$343,200.00
<i>Subtotal =</i>				<b>\$586,422.88</b>
<b>WTG Foundation Removal [1.8]</b>				
<i>Remove Cylindrical Pedestal</i>	320	50.71	Cubic Yd.	\$16,227.20
<i>Remove Top 2' Of Octagonal Base</i>	2400	52.1	Cubic Yd.	\$125,040.00
<i>Concrete Transport Offsite</i>	2720	13.52	Cubic Yd.	\$36,774.40
<i>Subtotal =</i>				<b>\$178,041.60</b>
<b>Pad Mount Transformer Removal [1.9]</b>				
<i>Oil Removal &amp; Disposal</i>	16	1,397.60	Each	\$22,361.60
<i>Remove &amp; Loadout Transformer</i>	16	121.41	Each	\$1,942.56

**Table 5: Facility Decommissioning Tasks and Cost Estimate**

<b>Task or Component</b>	<b>Quantity</b>	<b>Unit Cost (\$) <sup>1</sup></b>	<b>Unit</b>	<b>Estimate (\$)</b>
<i>Scrap Trucking Cost</i>	128	75.00	Ton	\$9,600.00
<i>Remove Foundations To Subgrade</i>	16	39.08	Each	\$625.28
<i>Subtotal =</i>				<b><i>\$34,529.44</i></b>
<b>MET Tower Removal [1.10]</b>				
<i>Structure Demo</i>	2	2,732.93	Each	\$5,465.86
<i>Remove Foundation</i>	30	52.1	Cubic Yd.	\$1,563.00
<i>Concrete Transport Offsite</i>	30	13.52	Cubic Yd.	\$405.60
<i>Scrap Trucking Cost</i>	16	75.00	Ton	\$1,200.00
<i>Subtotal =</i>				<b><i>\$8,634.46</i></b>
<b>Site Restoration - Partial Site Seeding [1.12]</b>				
<i>Private Access Road Removal (New Roads)</i>	19	6,407.85	Mile	\$121,749.15
<i>Re-Seed Road Beds</i>	46	500.00	Acre	\$23,000.00
<i>Re-Seed Turbine Locations</i>	32	500	Acre	\$16,000.00
<i>Subtotal =</i>				<b><i>\$160,749.15</i></b>
<b>Related or Supporting Facilities</b>				
<b>Substation [1.3.1]</b>				
<i>Fence Removal</i>	1	1,358.13	Day	\$1,358.13
<i>Transformer Removal/Oil Remove-Disposal</i>	1	95,087.02	Each	\$95,087.02
<i>Remove Control Building</i>	1	2,589.06	Each	\$2,589.06
<i>Transmission Line Retirement <sup>2</sup></i>	1	19,972.49	Lump Sum	\$19,972.49
<i>UG Utility &amp; Ground Removal</i>	2	1,358.13	Day	\$2,716.26
<i>Remove Foundations To Subgrade</i>	500	30.38	Cubic Yd.	\$15,190.00
<i>Restore Yard- Regrade - Reveg - Misc. Material Disposal</i>	1	71,408.83	Lump Sum	\$71,408.83
<i>Subtotal =</i>				<b><i>\$208,321.79</i></b>
<b>230 kV Transmission Line Retirement 3 [1.3.2]</b>				
<i>Structure Removal</i>	0	4,737.31	Each	\$0.00
<i>Remove Foundations To Subgrade</i>	0	5,248.94	Each	\$0.00
<i>Subtotal =</i>				<b><i>\$0.00</i></b>
<b>Above Ground Collector Line Removal (OH, 34.5 KV)</b>				
<i>Collector Line Removal</i>	36,960.00	2.79	Linear Feet	\$103,118.40
<i>Utility Pole Removal</i>	185	520.16	Each	\$96,229.60
<i>Subtotal =</i>				<b><i>\$199,348.00</i></b>
<b>DC Storage Retirement [1.4]</b>				
<i>Battery Removal &amp; Disposal</i>	100	2,171.51	MW	\$217,151.00

**Table 5: Facility Decommissioning Tasks and Cost Estimate**

<b>Task or Component</b>	<b>Quantity</b>	<b>Unit Cost (\$) <sup>1</sup></b>	<b>Unit</b>	<b>Estimate (\$)</b>
<i>Structure &amp; Components Removal</i>	100	882.48	MW	\$88,248.00
<i>Subtotal =</i>				<b>\$305,399.00</b>
<b>O&amp;M Building Removal [1.11]</b>				
<i>Structure Demo</i>	40	273.29	Ton	\$10,931.60
<i>Remove Foundations To Subgrade</i>	320	39.08	Cubic Yd.	\$12,505.60
<i>Trucking - Per Load</i>	2	1,375	Each	\$2,750.00
<i>Subtotal =</i>				<b>\$26,187.20</b>
Oregon Trail Solar Facility Max Potential Decommissioning Cost (Cost) <i>Subtotal =</i>				<b>\$4,889,673.54</b>
<b>Decommissioning Subtotal for Wind and Solar (94% of Total Cost)</b>				<b>\$4,584,274.54</b>
<b>Decommissioning Total for Battery (6% of Total Cost)</b>				<b>\$305,399.00</b>
<b>Certificate Holder Applied Contingencies</b>				
<i>Home Office, Project Management (5% Of Cost)</i>	5		Percent	\$244,483.68
<i>Contractor OH &amp; Fee (13% Of Cost)</i>	13		Percent	\$635,657.56
<i>Applicant Contingency Subtotal =</i>				<b>\$880,141.24</b>
Total Certificate Holder Contingencies for Wind and Solar (94% of total contingencies)				<b>\$827,332.76</b>
Total Certificate Holder Contingencies for Battery (6% of total contingencies)				<b>\$52,808.47</b>
Subtotal of Cost and Certificate Holder Contingencies (Q4 2022 Dollars) - <i>Rounded to nearest \$1</i>				<b>\$5,769,815</b>
Total Certificate Holder Contingencies for Wind and Solar (94% of total contingencies)				<b>\$5,411,607</b>
Total Certificate Holder Contingencies for Battery (6% of total contingencies)				<b>\$358,207</b>
Subtotal of Cost and Certificate Holder Contingencies (Q4 2022 Dollars)				<b>\$5,769,814.78</b>
<i>Performance Bond</i>	1		Percent	\$57,698.15
<i>Adjusted Gross Cost</i>				<b>\$5,827,512.92</b>
<b>Department Applied Contingencies</b>				
<i>Department Administration and Project Management</i>	10		Percent	\$582,751.29
<i>Future Development Contingency</i>	10		percent	\$547,786.21
	20 (Battery)		percent	\$69,930.16
	<i>subtotal</i>			\$617,716.37
<i>ODOE Contingency Subtotal =</i>				<b>\$1,200,467.66</b>
Total Site Restoration Cost with Department Contingencies (Q4 2022 Dollars) <i>Rounded to nearest \$1</i>				<b>\$7,027,981</b>

**Table 5: Facility Decommissioning Tasks and Cost Estimate**

Task or Component	Quantity	Unit Cost (\$) <sup>1</sup>	Unit	Estimate (\$)
Notes: 1. Unit Costs in Q4 2022 dollars 2. This line item is for the transmission line structures associated with the substation 3. 230 kV Transmission Line constructed and included in bonding for MWP/MSF facility. Line items here are placeholders for shared related or supporting facilities, if they are later transferred to be reflected in this facility's bonding.				

1  
 2 As presented in Table 5: *Facility Decommissioning Tasks and Cost Estimate*, the Department  
 3 recommends Council add a 10 percent contingency cost for both the administrative and project  
 4 management expenses, and a future development contingency (less the decommissioning  
 5 estimate of the Battery/DC Storage System, which the Department recommends have a 20  
 6 percent contingency be applied). A performance bond of 1 percent is also recommended to be  
 7 applied. For all types of energy facilities, the subtotal of line-item costs, including contractor's  
 8 overhead, profit and insurance costs, and specialty contract costs is increased by one percent to  
 9 account for the cost of a performance bond that would be posted by the contractor as  
 10 assurance that the work would be completed as agreed, if the facility needed to be retired  
 11 absent the certificate holder.

12  
 13 The 10 percent contingency for administrative and management expenses is recommended to  
 14 cover the anticipated direct costs borne by the State in the course of managing site restoration  
 15 and would include the preparation and approval of a final retirement plan, obtaining legal  
 16 permission to proceed with demolition of the facility, legal expenses for protecting the State's  
 17 interest, preparing specification bid documents and contracts for demolition work, managing  
 18 the bidding process, negotiations of contracts, and other tasks.

19  
 20 The 10 percent future development contingency the Department recommends Council apply to  
 21 all tasks, actions and certificate holder contingencies, with the exception of the cost of the  
 22 Battery Storage System where a 20 percent future development contingent is necessary to be  
 23 applied to account for uncertainty in the decommissioning estimate of the Battery Storage  
 24 System because, if site restoration becomes necessary, it might be many years in the future  
 25 where there is uncertainty of continued adequacy of the retirement cost estimate. For all types  
 26 of energy facilities, the subtotal of line-item costs, including contractor's overhead, profit and  
 27 insurance costs, and specialty contract costs is increased by one percent to account for the cost  
 28 of a performance bond that would be posted by the contractor as assurance that the work will  
 29 be completed as agreed.

30  
 31 Therefore, the Department recommends that Council find that \$7.03 million (Q4 2022 dollars)  
 32 is a reasonable estimate of an amount satisfactory to restore the site to a useful, nonhazardous  
 33 condition.

34  
 35 *Ability of the Certificate Holder to Obtain a Bond or Letter of Credit*  
 36



1 OAR 345-022-0050(2) requires the Council to find that the certificate holder continues to have a  
2 reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to  
3 restore the site of the facility to a useful non-hazardous condition. EFSC annually approves the  
4 bond and letter of credit forms as well as financial institutions that certificate holders can use to  
5 issue these financial instruments. Upon request, the list of institutions and the financial  
6 instrument forms can be evaluated and updated more frequently by EFSC. Under Amended  
7 Condition 32, the certificate holder is required to use only preapproved financial institutions  
8 and financial forms approved by EFSC. The bond or letter of credit must remain in force until  
9 the certificate holder has fully restored the site.

10  
11 As discussed in Section III.B., *Organizational Expertise*, the project-specific LLC certificate  
12 holder, Oregon Trail Solar, LLC is a wholly owned subsidiary of Avangrid Renewables. Oregon  
13 Trail Solar, LLC relies upon the organizational expertise of Avangrid Renewables to demonstrate  
14 that it has the ability to construct, operate and retire the facility in compliance with site  
15 certificate conditions and Council standards. Avangrid Renewables LLC, is the parent company  
16 to several other EFSC-approved and operational facilities, including the Montague Wind Power  
17 Facility (certificate holder - Montague Wind Power Facility, LLC) and the Montague Solar Facility  
18 (certificate holder - Montague Solar, LLC) which share a site certificate history with OTS as well  
19 as the related or supporting facilities. Montague Wind Power Facility has been in commercial  
20 operation since October 2019 and construction of the Montague Solar Facility began in March  
21 2021. As part of pre-construction and operational compliance for these facilities the certificate  
22 holders have submitted bonds or letter of credit that are issued to the certificate holder project  
23 specific LLC's. Therefore, the Department recommends that because of the parent company's  
24 record of compliance for other EFSC facility bonding, that the certificate holder has a  
25 reasonable ability to obtain a bond or letter of credit.

26 Further, RFA1 Attachment 13 includes an updated financial assurance July 2022 letter from  
27 Liberty Mutual Surety, an Aon Risk Services and Liberty Mutual Insurance Company. The letter  
28 indicates that the certificate holder's parent company, Avangrid Renewables, LLC, is a valued  
29 client and is qualified for issuance of a single bond in the amount of \$10 million and an  
30 aggregate capacity of \$200 million. Therefore, the Department also recommends that the  
31 certificate holder would be able to obtain a bond in the amount necessary to restore the site to  
32 a useful non-hazardous condition (approx. \$7.03 million).

33  
34 Based on the updated Q4 2022 unit costs in RFA1 and line items for facility decommissioning,  
35 the Department recommends Council find that \$7.03 million (Q4 2022 dollars) is a reasonable  
36 estimate of an amount to restore the Oregon Trail Solar facility to a useful, non-hazardous

1 condition following permanent cessation of construction or operation.<sup>59</sup> As described above  
2 and in accordance with Condition 32, construction cannot begin until the Department receives  
3 a satisfactory bond or letter of credit. Council previously imposed Condition 32 consistent with  
4 Mandatory Condition OAR 345-025-0010(8), the Department recommends amending this  
5 condition below to reflect the updated retirement cost estimate, unit costs, as well as the EFSC-  
6 approved bond and letter of credit forms.

7  
8 **Recommended Amended Condition 32:**

9 Before beginning construction of the facility, the certificate holder shall submit to the State  
10 of Oregon through the Council a bond or letter of credit in the amount described herein  
11 naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The  
12 bond or letter of credit will be issued for an amount that is either ~~\$7.033.1~~ million (~~4<sup>th</sup> 1<sup>st</sup>~~  
13 ~~Quarter 2019~~ 2022 dollars), to be adjusted to the date of issuance as described in (b), or the  
14 amount determined as described in (a). The certificate holder shall adjust the amount of the  
15 bond or letter of credit on an annual basis thereafter as described in (b).

16 (a) The certificate holder may adjust the amount of the bond or letter of credit based on  
17 the final design configuration of the facility, and both the battery storage or turbine  
18 types selected by applying the unit costs and general costs illustrated in Table 5 of the  
19 Final Order on AMD1 2 of Attachment A 2 in the Final Order on Amendment 5 and  
20 calculating the financial assurance amount as described in that order, adjusted to the  
21 date of issuance as described in (b) and subject to approval by the Department. The  
22 certificate holder may adjust the amount of the bond or letter of credit under (a) if  
23 opting to construct only a portion of the facility.

24 (b) ~~The certificate holder shall adjust the amount of the bond or letter of credit, using the~~  
25 ~~following calculation and subject to approval by the Department:~~

26 ~~(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in~~  
27 ~~1<sup>st</sup> Qtr 2019 dollars) to present value, using the U.S. Gross Domestic Product~~  
28 ~~Implicit Price Deflator, Chain Weight, as published in the Oregon Department of~~  
29 ~~Administrative Services' "Oregon Economic and Revenue Forecast" or by any~~  
30 ~~successor agency (the "Index") and using the average of the 1st Quarter and 2<sup>nd</sup>~~  
31 ~~Quarter 2019 index values (to represent mid-2019 dollars) and the quarterly index~~  
32 ~~value for the date of issuance of the new bond or letter of credit. If at any time the~~  
33 ~~Index is no longer published, the Council shall select a comparable calculation to~~  
34 ~~adjust mid-2019 dollars to present value.~~

35 (c) The certificate holder shall adjust the amount of the bond or letter of credit, using the  
36 following calculation and subject to approval by the Department:

---

<sup>59</sup> Cumulative decommissioning costs represent 16 wind turbines and related or supporting facilities, and 400 acres of solar photovoltaic energy generation components. This is an conservative, over-estimate because the facility would have either 16 wind turbines or 400 acres of solar photovoltaic energy generation components, or some combination of wind and solar that does not exceed 16 wind turbines/400 acres. Due to the difficulty in assessing a worst-cast combination of wind and solar technologies, the evaluate represents an overestimate covering the decommissioning cost for both technology types at full build-out.

- 1 (i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in  
 2 ~~mid-2019~~2022 dollars) to present value, using the U.S. Gross Domestic Product  
 3 Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of  
 4 Administrative Services' "Oregon Economic and Revenue Forecast" or by any  
 5 successor agency (the "Index") and using the ~~average of the 2<sup>nd</sup> Quarter and 3<sup>rd</sup>~~  
 6 ~~Quarter 2019 index values (to represent mid-2004 dollars)~~ and the quarterly index  
 7 value for the date of issuance of the new bond or letter of credit. If at any time the  
 8 Index is no longer published, the Council shall select a comparable calculation to  
 9 adjust ~~mid-2019~~2022 dollars to present value.
- 10 (ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond  
 11 amount to determine the adjusted Gross Cost.
- 12 (iii) Add 10 percent of the adjusted Gross Cost (ii) for the adjusted administration and  
 13 project management costs, add 20 percent of the adjusted Gross Cost of the Solar  
 14 Generation and Battery Storage System (ii) and 10 percent of the adjusted Gross  
 15 Cost of all other facility components(ii) for the adjusted future developments  
 16 contingency.
- 17 (iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the  
 18 resulting total to the nearest \$1,000 to determine the adjusted financial assurance  
 19 amount.
- 20 (d) The certificate holder shall use a form of bond or letter of credit approved by the  
 21 Council.
- 22 (e) The financial institution issuing of the bond or letter of credit must be on the Council's  
 23 pre-approved financial institution list. ~~The certificate holder shall use an issuer of the~~  
 24 ~~bond or letter of credit approved by the Council.~~
- 25 (f) The certificate holder shall describe the status of the bond or letter of credit in the  
 26 annual report submitted to the Council under Condition 21.
- 27 (g) The bond or letter of credit shall not be subject to revocation or reduction before  
 28 retirement of the facility site.  
 29 [MWP AMD5, OTS AMD1~~Sept 2020~~]

30 **Conclusions of Law**

31 Subject to compliance with existing and amended conditions, the Department recommends  
 32 Council find that the Oregon Trail Solar facility could be restored adequately to a useful, non-  
 33 hazardous condition following permanent cessation of construction or operation, as well as find  
 34 that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a  
 35 form and amount satisfactory to the Council to restore the site to a useful, non-hazardous  
 36 condition.

37 **III.H. Fish and Wildlife Habitat: OAR 345-022-0060**

38

1 *To issue a site certificate, the Council must find that the design, construction and operation of*  
2 *the facility, taking into account mitigation, are consistent with:*

3  
4 *(1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-*  
5 *0025(1) through (6) in effect as of February 24, 2017*

6 \*\*\*

7  
8 **Findings of Fact**

9 The EFSC Fish and Wildlife Habitat standard requires the Council to find that the design,  
10 construction, and operation of a facility is consistent with Oregon Department of Fish and  
11 Wildlife’s (ODFW) habitat mitigation goals and standards, as set forth in OAR 635-415-0025.  
12 This rule creates requirements to mitigate impacts to fish and wildlife habitat, based on the  
13 quantity and quality of the habitat as well as the nature, extent, and duration of the potential  
14 impacts to the habitat. The rule also establishes a habitat classification system based on the  
15 value the habitat would provide to a species or group of species. There are six habitat  
16 categories; Category 1 being the most valuable and Category 6 the least valuable.  
17 Council has previously evaluated the facility under this standard, and with conditions, found  
18 that it would meet ODFW habitat mitigation goals and standards.<sup>60,61</sup>

19  
20 For amendments requesting to extend construction deadlines, the Department and Council  
21 evaluate whether there have been “changes in fact or law” since the site certificate was issued  
22 to determine whether, based on changes in fact or law, the facility would continue to satisfy  
23 requirements of the standard. For RFA1, certificate holder conducted updated literature  
24 searches, agency coordination, and generated updated habitat categorization maps.<sup>62</sup> Sources,  
25 databases and references searched included:

- 26 • Oregon Biodiversity Information Center (ORBIC). 2022. Rare, Threatened and  
27 Endangered Species of Oregon. Institute for Natural Resources, Portland State  
28 University, Portland, Oregon. 133 pp.
- 29 • Oregon Department of Fish and Wildlife (ODFW) 2021. Oregon Department of Fish and  
30 Wildlife Sensitive Species List. Available online at:  
31 [http://www.dfw.state.or.us/wildlife/diversity/species/docs/Sensitive\\_Species\\_List.pdf](http://www.dfw.state.or.us/wildlife/diversity/species/docs/Sensitive_Species_List.pdf)  
32 Accessed June 2022.
- 33 • Oregon Department of Fish and Wildlife (ODFW). 2021. Threatened, Endangered and  
34 Candidate Fish and Wildlife Species. Available online at:  
35 [https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened\\_and\\_Endanger](https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened_and_Endanger)  
36 [ed\\_Species.pdf](https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened_and_Endanger) Accessed June 2022.

37

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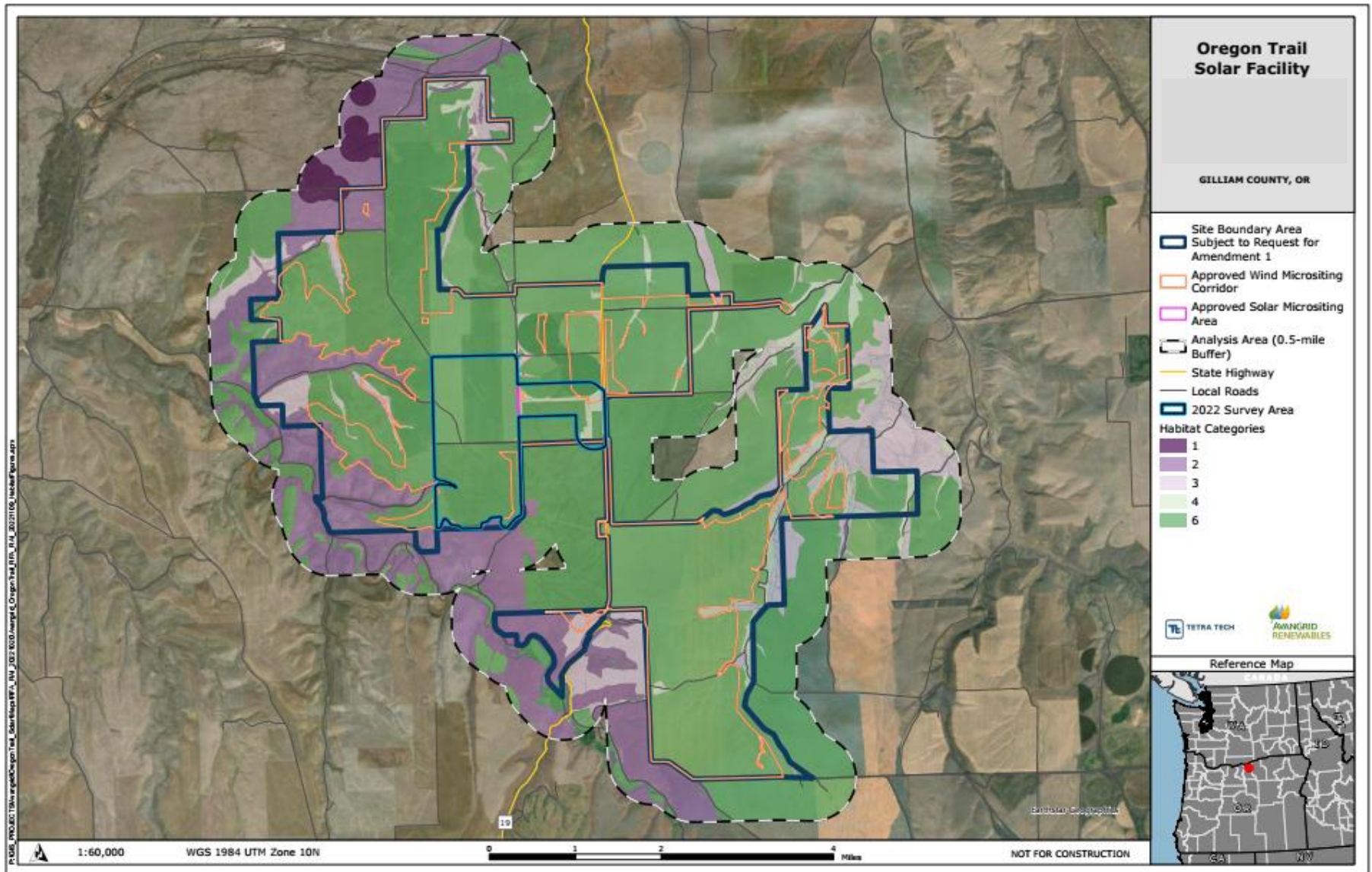
<sup>60</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06

<sup>61</sup> MWPAMD5Doc12 Final Order on RFA5 2020-09-25

<sup>62</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Attachment 9: Oregon Trail Solar Facility 2022 Habitat and Rare Plant Survey Report.

1 Results of a 2022 ORBIC search identified no new occurrences of Washington Ground Squirrel  
2 (WGS) within the analysis area. Using current data layers and results of a 2022 field survey, a  
3 habitat categorization map was generated for the RFA1 site boundary, as presented in Figure 10  
4 below.  
5

Figure 10: Habitat Categories within RFA1 Analysis Area



1 As presented in Figure 10, habitat categories within the RFA1 analysis area include Category 1,  
 2 2, 3, 4 and 6. The solar micro-siting area contains Category 6 habitat. Because Category 6 habitat  
 3 does not require mitigation or have a mitigation goal under the standard, there are no habitat  
 4 mitigation requirements applicable to the solar micro-siting area. The wind micro-siting area  
 5 contains Category 2, 3, 4 and 6 habitat. The mitigations goals for Category 2, 3 and 4 are as  
 6 follows.<sup>63</sup>

7  
 8 *"Habitat Category 2" is essential habitat for a fish or wildlife species, population, or unique*  
 9 *assemblage of species and is limited either on a physiographic province or site-specific basis*  
 10 *depending on the individual species, population or unique assemblage.*

11 *(h) The mitigation goal if impacts are unavoidable, is no net loss of either habitat quantity*  
 12 *or quality and to provide a net benefit of habitat quantity or quality.*

13  
 14 *"Habitat Category 3" is essential habitat for fish and wildlife, or important habitat for fish*  
 15 *and wildlife that is limited either on a physiographic province or site-specific basis,*  
 16 *depending on the individual species or population.*

17 *(a) The mitigation goal is no net loss of either habitat quantity or quality.*

18  
 19 *"Habitat Category 4" is important habitat for fish and wildlife species.*

20 *(a) The mitigation goal is no net loss in either existing habitat quantity or quality.*

21  
 22 To meet these mitigation goals for wind facility impacts, the certificate holder is required to  
 23 mitigate temporary, temporary and permanent habitat impacts, as presented in Table 6 below.

**Table 6: Estimated OTS Habitat Mitigation Area Requirements<sup>64</sup>**

Category / Impact Type/ Mitigation Area	Updated Habitat Mitigation Plan Estimates November 2022		
	Wind (acres)	Solar (acres)	Mitigation Requirement
<b>Category 2</b>			
Footprint Impacts	1.01	0.0	(1.01 acres x 2)
Temporary Impacts to SSA	0.20	0.0	(0.20 acre x 2)
Mitigation Area	2.42	0.0	-
<b>Category 3</b>			
Footprint Impacts	0.44	0.0	(0.44 acres x 1)
Temporary Impacts to SSA	0.09	0.0	(0.09 acre x 1)
Mitigation Area	0.53	0.0	-
<b>Category 4</b>			

<sup>63</sup> OAR 635-415-0025(2)-(4)

<sup>64</sup> MWPAPPDoc157 MWP Final Order 2010-09-10, pp.108-110. MWPAMD4Doc23 Final Order with Attachment 2019-09-06, pp. 130-132.

**Table 6: Estimated OTS Habitat Mitigation Area Requirements<sup>64</sup>**

Category / Impact Type/ Mitigation Area	Updated Habitat Mitigation Plan Estimates November 2022		
	Wind (acres)	Solar (acres)	Mitigation Requirement
Footprint Impacts	0.63	0.0	(0.63 acre x 1)
Temporary Impacts to SSA	0.0	0.0	(0.0 acre x 1)
Mitigation Area	0.63	0.0	-
<b>Total</b>			
Mitigation Area	<b>3.58 (4 - Rounded up to Nearest Whole Acre)</b>		

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*Measures to avoid or prevent impacts to habitat*

Temporary impacts to habitat will be based upon restoration of vegetation and habitat through the implementation of wildlife monitoring and revegetation plans. Permanent impacts to habitat will be mitigated through the completion and implementation of a final Habitat Mitigation Plan (HMP). A draft amended is provided in Attachment C of this order. Council previously approved the draft HMP in the Final Order on the ASC for the Montague Wind Power Facility and Final Order on Amendment 4 of the Montague Wind Power Facility.<sup>65</sup> The changes to the draft HMP are proposed by the Department and are intended to clarify the applicability of the HMP requirements to impacts that would occur within the wind micro-siting area, if the final facility design includes wind facility components. The Department also recommends that the final HMP include quantitative success criteria (rather than the existing narrative summary) to support the Department’s evaluation of success of meeting the mitigation goals.

The draft amended HMP included as Attachment C of this order includes a fully executed and recorded Declaration of Conservation Easement and habitat map of mitigation area. The habitat map demonstrates that there are approximately 6 acres available for mitigation, and includes grasslands, shrub-steppe and undesignated habitat types. The Department recommends Council find that, based on the evidence provided in RFA1 Attachment 15, incorporated in the draft amended HMP, the certificate holder demonstrates an ability to obtain a mitigation area to satisfy the applicable mitigation goals for Category 2, 3 and 4 habitat, if wind facility components are constructed.

Council has previously imposed conditions to avoid or minimize potential impacts to fish and wildlife habitat as a result of construction and operation of the facility as summarized below:

- Condition 91 requires the certificate holder to adhere to the requirements of a Wildlife Monitoring and Mitigation Plan (WMMP). An amended WMMP is provided as

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<sup>65</sup> MWPAPPDoc157 MWP Final Order 2010-09-10, pp.108-110. MWPAMD4Doc23 Final Order with Attachment 2019-09-06, pp. 130-132.



1 Attachment D of this order, including revisions proposed by the Department to clarify  
2 that specific components of the WMMP (post construction fatality study, short- and  
3 long-term raptor surveys and WGS surveys) would only apply if final facility design  
4 includes wind facility components.

- 5 • Condition 94 requires that the certificate conduct pre-construction Washington ground  
6 squirrel surveys, and requires that survey results be provided to the Department and  
7 ODFW for review and coordination to ensure adequate protection of the species.
- 8 • Conditions 95 require the certificate holder to conduct pre-construction plant surveys,  
9 wildlife surveys, avian use surveys, and raptor nest surveys.
- 10 • Condition 96 requires avoidance of construction impacts to raptors during the nesting  
11 season.
- 12 • Condition 98 restricts the location of construction activities by avoiding sensitive  
13 habitat.
- 14 • Condition 99 addresses facility design measures to reduce potential adverse effects to  
15 avian species.
- 16 • Condition 100 requires the certificate holder to instruct personnel about sensitive  
17 species, exclusion areas, permit requirements and other environmental issues.

18  
19 **Conclusions of Law**

20 Based on the foregoing recommended findings of fact and conclusions, and subject to  
21 compliance with existing site certificate conditions, the Department recommends that Council  
22 continue to find that the facility, with proposed changes, would continue to comply with the  
23 Council’s Fish and Wildlife Habitat standard.

24 **III.I. Threatened and Endangered Species: OAR 345-022-0070**

25  
26 *To issue a site certificate, the Council, after consultation with appropriate state agencies,*  
27 *must find that:*

28  
29 *(1) For plant species that the Oregon Department of Agriculture has listed as*  
30 *threatened or endangered under ORS 564.105(2), the design, construction and*  
31 *operation of the proposed facility, taking into account mitigation:*

32  
33 *(a) Are consistent with the protection and conservation program, if any, that the*  
34 *Oregon Department of Agriculture has adopted under ORS 564.105(3); or*

35  
36 *(b) If the Oregon Department of Agriculture has not adopted a protection and*  
37 *conservation program, are not likely to cause a significant reduction in the*  
38 *likelihood of survival or recovery of the species; and*

39  
40 *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as*  
41 *threatened or endangered under ORS 496.172(2), the design, construction and*

1                    *operation of the proposed facility, taking into account mitigation, are not likely to*  
2                    *cause a significant reduction in the likelihood of survival or recovery of the species.*

3  
4    **Findings of Fact**

5    For the purposes of this standard, threatened and endangered species are those identified as  
6    such by either the Oregon Department of Agriculture or the Oregon Fish and Wildlife  
7    Commission.<sup>66</sup>

8  
9    The analysis area for threatened or endangered plant and wildlife species, as established in the  
10   The Project Order, is the area within the site boundary for this RFA1.

11  
12   A part of this amendment request, the certificate holder conducted an updated desktop  
13   analysis and database searches for the RFA1 analysis area. Updated species data was obtained  
14   by the certificate holder from the U.S. Fish and Wildlife Service (USFWS) Information, Planning,  
15   and Conservation System (IPaC) list of threatened, endangered, proposed, and candidate  
16   species that may be present within 5 miles of the facility site boundary and from the Oregon  
17   Biodiversity Information Center (ORBIC) database query. As part of their updated review for  
18   RFA1, the certificate holder reviewed the following resources to identify an updated list of state  
19   threatened and endangered plant and animal species that may be affected by the facility and  
20   the requested amendment:

- 21        • Oregon Department of Agriculture (ODA) 2022. Oregon’s Threatened, Endangered, and  
22        Candidate Plants. Available online at:  
23        <https://www.oregon.gov/oda/programs/PlantConservation/Pages/AboutPlants.aspx>  
24        Accessed June 2022.
- 25        • Oregon Department of Agriculture (ODA) 2022. Oregon Listed Plants by County for  
26        Gilliam County. Available online at:  
27        <http://www.oregon.gov/ODA/programs/PlantConservation/Pages/ListedPlants.aspx>  
28        Accessed June 2022.
- 29        • Oregon Department of Fish and Wildlife (ODFW) 2021. Oregon Department of Fish and  
30        Wildlife Sensitive Species List. Available online at:  
31        [http://www.dfw.state.or.us/wildlife/diversity/species/docs/Sensitive\\_Species\\_List.pdf](http://www.dfw.state.or.us/wildlife/diversity/species/docs/Sensitive_Species_List.pdf)  
32        Accessed June 2022.
- 33        • Oregon Department of Fish and Wildlife (ODFW). 2021. Threatened, Endangered and  
34        Candidate Fish and Wildlife Species. Available online at:  
35        [https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened\\_and\\_Endanger](https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened_and_Endanger)  
36        [ed\\_Species.pdf](https://www.dfw.state.or.us/wildlife/diversity/species/docs/Threatened_and_Endanger) Accessed June 2022.

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<sup>66</sup> Although the Council’s standard does not address federally-listed threatened or endangered species, certificate holders must comply with all applicable federal laws, including laws protecting those species, independent of the site certificate.

- 1 • Oregon Biodiversity Information Center (ORBIC). 2022. Rare, Threatened and  
2 Endangered Species of Oregon. Institute for Natural Resources, Portland State  
3 University, Portland, Oregon. 133 pp.
- 4 • Tetra Tech Inc. 2022. Oregon Trail Solar 2022 Habitat and Rare Plants Survey Report. See  
5 OTS RFA1, Attachment 9: *Oregon Trail Solar Facility 2022 Habitat and Rare Plants Survey*  
6 *Report*.

7  
8 Updated ORBIC search results are included in RFA1 Attachment 14 and IPaC results are  
9 presented in OTS RFA1, Attachment 16.

#### 10 11 *Field Survey*

12 The certificate holder has previously conducted surveys within the OTS wind microsites areas  
13 under this standard in 2009, 2010, 2017 and 2018. As part of this amendment request, the  
14 certificate holder also conducted a field survey of the OTS solar microsites area in May 2022  
15 using the Intuitive Controlled Survey method<sup>67</sup>. The 2022 field survey focused on T&E plants,  
16 with incidental observations of T&E wildlife, specifically to determine the presence of  
17 Washington Ground Squirrel (WGS) or suitable habitat within the solar microsites area.  
18 However, the field survey verified that this solar microsites area is all agricultural lands and  
19 due to historic disturbance, is unlikely habitat for WGS. The 2022 and previous field survey  
20 results identified no target species, including Laurence’s Milkvetch, a state listed (Threatened  
21 and Endangered (T&E) Species) protected under the Council T&E Species standard within the  
22 Oregon Trail Solar approved wind or solar microsites areas. The 2022 field survey did not  
23 identify the presence of any T&E plants in the solar microsites area. No incidental observations  
24 of WGS were made and the agricultural lands are not considered Category 1 or 2 habitat for  
25 WGS under Council’s Fish and Wildlife Standard.

#### 26 27 *Reviewing Agency Coordination*

28 The certificate holder has previously coordinated with ODFW and ODA as part of prior analyses  
29 under this Council standard in 2009, 2017 and 2018. As part of the Department’s evaluation of  
30 this amendment request, the certificate holder and Department consulted with ODFW and ODA  
31 on the 2022 desktop review, field survey and report for the solar microsites area, and  
32 reviewed previous ODFW and ODA comments, and the existing site certificate conditions for  
33 any potential changes in fact or law that could alter Council’s previous findings that the facility  
34 would not significantly impact T&E species. The Department also received written comments  
35 from ODFW and ODA on this amendment request for T&E species to validate certificate holder  
36 proposed conclusions, updated search and survey results, existing site certificate conditions  
37 and any potential revisions to those conditions based upon 2022 updated analysis. Consultation  
38 by Department with ODFW for RFA1 was conducted on October 13, 2022<sup>68</sup> and included a

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<sup>67</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Attachment 9: Oregon Trail Solar Facility 2022 Habitat and Rare Plants Survey Report.

<sup>68</sup> OTSAMD1Doc4 pRFA Reviewing Agency Comment ODFW FW and TE Comments\_Somers 2022-10-18

1 review of ODFW’s list of threatened and endangered species and confirmed that ODFW identified  
2 one likely T&E species, WGS, as potentially present within the OTS analysis area. The  
3 Department also consulted with ODA on October 21, 2022 and verified that ODA has previously  
4 identified the potential for Laurent’s Milkvetch within the analysis area<sup>69</sup>.

5  
6 *Threatened and Endangered Species in OTS Analysis Area*

7 As noted above, the site boundary contains potentially suitable habitat for WGS, however no  
8 WGS colonies have been identified during field surveys within the approved micro-siting area for  
9 wind or during the 2022 plant survey of the approved OTS solar micro-siting area. An updated  
10 review of ODA and ORBIC sources confirmed the potential habitat for one listed T&E plant  
11 species, Laurent’s milkvetch. No other potential T&E species have been identified through field  
12 surveys or agency consultation as occurring within the RFA1 analysis area under this Council  
13 Standard. These findings, and the findings from previous and 2022 surveys were reviewed and  
14 discussed with ODFW and ODA to support the following findings and recommendations:

- 15 • ODFW confirmed that the analysis area (area within and extending 5-miles from the site  
16 boundary) contains suitable habitat for WGS.
- 17 • ODFW confirmed that protocol-level surveys were completed in 2017 and 2018 for the  
18 OTS wind micro-siting area and in 2020 for the OTS solar micro-siting area which  
19 confirmed that no WGS or WGS colonies were present.
- 20 • ODFW confirmed that protocol-level surveys have not been conducted recently (or  
21 within 3-years) for the wind-micro-siting area, which contains suitable WGS habitat.  
22 Surveys for WGS are considered viable for use in the construction of projects for a  
23 three-year period, but if WGS are encountered in the project area during surveys, ODFW  
24 requests that the certificate holder revisit the known existing WGS colonies within this  
25 3-year period to ensure that the WGS have not moved into the project area.
- 26 • ODA concurred with the methods and findings of the 2022 Rare Plants Survey  
27 conducted for the OTS solar micro-siting area, and its conclusions that no Laurent’s  
28 Milkvetch or other T&E plant species were identified as present in the 2022 survey.
- 29 • ODA confirmed that based on the extent of historic and active agriculture, the siting of  
30 approved micro-siting corridors within the site boundary, and the negative (for T&E plant  
31 species, including Laurent’s milkvetch) findings from prior surveys within the approved  
32 wind and solar micro-siting areas, ODA considers the likelihood of future occurrences of  
33 Laurence’s milkvetch within previously surveyed areas to be low.
- 34 • ODA recommended that if Laurent’s milkvetch are incidentally identified during other  
35 preconstruction or construction activity at the site, that the occurrence(s) be avoided  
36 via mapping and flagging, based on a 100-foot buffer, unless otherwise reviewed and  
37 approved by the Department and ODA.
- 38 • ODA also recommended that the final revegetation plan include a requirement to  
39 consult with ODA on revegetation, weed treatment and restoration in areas in proximity

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<sup>69</sup> OTSAMD1Doc4-2 pRFA Reviewing Agency Comment ODAg TE Comments\_Brown 2022-10-21

1 to incidental identification of occurrences of Laurent’s Milkvetch during other  
2 preconstruction surveys or construction activities.

3  
4 Previous field surveys have not identified any T&E species as present within the approved  
5 micrositing area. Updated analysis, 2022 field surveys and agency consultation did not result in  
6 identifying any new or additional T&E species that would change Council’s previous findings.  
7 For all of these reasons, the Department recommends that Council continue to rely on previous  
8 findings, with 2022 updates and updated ODA and ODFW review, that no T&E species have  
9 been identified as present within the RFA1 analysis area.

10  
11 *Potential Impacts to Identified Threatened and Endangered Species*

12  
13 *Washington Ground Squirrel*

14 The certificate holder has previously committed to avoiding all WGS in final facility design. No  
15 facility components will be placed within active Category 1 WGS habitat mapped prior to  
16 construction. During micrositing, laydown areas, turbines, roads, and collector lines and other  
17 temporary and permanent disturbance will be located outside Category 1 WGS habitat to  
18 protect this species.

19  
20 Council previously imposed Site Certificate Condition 94 and 95(c) to require the protection of  
21 WGS colonies and a buffer around identified colonies, and by doing so would avoid any  
22 significant impacts to WGS. ODFW review for this amendment request recommended that  
23 preconstruction WGS survey required under Condition 94 be amended to ensure that WGS  
24 species and associated habitat to be delineated to ensure impacts are avoided. In the agency  
25 consultation for this amendment request, ODFW recommended the changes to existing site  
26 certificate Condition 94 will ensure that impacts to WGS are avoided, as proposed above under  
27 the Fish and Wildlife standard

28  
29 For these reasons the Department recommends that Council continue to find that the facility  
30 will not result in any significant impacts to WGS because no significant impacts are expected to  
31 occur that could cause a significant reduction in the likelihood of the survival or recovery of this  
32 species.

33  
34 *Recommended Amended Conditions*

35 As part of the Department’s evaluation of this amendment request, and updated survey  
36 information, the Department recommends that Council approve the following amendments to  
37 site certificate conditions 94 and 95 solely to provide clarification on requirements for WGS  
38 survey area, validity or prior survey results, and necessity to check for changes in location of  
39 WGS burrows if identified during preconstruction surveys and construction does not commence  
40 within 12-months of those surveys. These changes were discussed as part of the consultation  
41 with ODFW and ODA under this standard. ODFW provided specific comments “ODFW considers

1 the area adjacent to Category 1 WGS habitat plus a 4,875-foot buffer as Category 2 habitat<sup>70</sup>,”  
2 that have been incorporated into the revisions proposed by the Department to Condition 94:

3  
4 **Recommended Amended Condition 94:** Prior to construction of facility components or  
5 a phase of components that will occur within suitable Washington ground squirrel  
6 (WGS) habitat, the certificate holder shall conduct protocol-level surveys for WGS within  
7 1000 feet of any ground disturbing activity. Survey reports shall be submitted to the  
8 Department and ODFW for review and concurrence.

9 Suitable WGS habitat can be defined as any terrestrial habitat that has not been  
10 developed (i.e. active agricultural lands), particularly shrub-steppe and grassland  
11 habitats. Protocol-level surveys include two sets of surveys at least two weeks  
12 apart, in the active squirrel season (March 1 to May 31). If a single or multiple  
13 WGS burrows are identified, the delineation of Category 1 habitat shall be based  
14 on a 785-foot buffer from those burrows, excluding areas of habitat types not  
15 suitable for WGS foraging or burrow establishment. Protocol-level surveys are  
16 valid for three (3) years. If construction does not commence the year following  
17 the protocol-level survey, any active burrows or colonies shall be checked prior  
18 to the year of construction to evaluate any changes that may occur in the  
19 location and delineation of Category 1.

20  
21 ~~The certificate holder shall determine the boundaries of Category 1 Washington ground~~  
22 ~~squirrel (WGS) habitat based on the locations where the squirrels were found to be~~  
23 ~~active in the most recent WGS survey prior to the beginning of construction in habitat~~  
24 ~~suitable for WGS foraging or burrow establishment (“suitable habitat”). The certificate~~  
25 ~~holder shall hire a qualified professional biologist who has experience in detection of~~  
26 ~~WGS to conduct surveys using a survey protocol approved by the Oregon Department of~~  
27 ~~Fish and Wildlife (ODFW). The biologist shall survey all areas of suitable habitat where~~  
28 ~~permanent facility components would be located or where construction disturbance~~  
29 ~~could occur. Except as provided in (a), the biologist shall conduct the protocol surveys in~~  
30 ~~the active squirrel season (March 1 to May 31) in 2010 and in the active squirrel seasons~~  
31 ~~in subsequent years until the beginning of construction in suitable habitat. The~~  
32 ~~certificate holder shall provide written reports of the surveys to the Department and to~~  
33 ~~ODFW and shall identify the boundaries of Category 1 WGS habitat. The certificate~~  
34 ~~holder shall not begin construction within suitable habitat until the identified~~  
35 ~~boundaries of Category 1 WGS habitat have been approved by the Department.~~  
36 ~~Category 1 WGS habitat includes the areas described in (b) and (c).~~

37 ~~(a) The certificate holder may omit the WGS survey in any year if the certificate~~  
38 ~~holder avoids all permanent and temporary disturbance within suitable habitat~~  
39 ~~until a WGS survey has been completed in the following year and the boundaries~~  
40 ~~of Category 1 habitat have been determined and approved based on that survey.~~

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<sup>70</sup> OTSAMD1Doc4 pRFA Reviewing Agency Comment ODFW FW and TE Comments\_Somers 2022-10-18

- 1 ~~(b) Category 1 WGS habitat includes the area within the perimeter of multiple active~~  
2 ~~WGS burrows plus a 785-foot buffer, excluding areas of habitat types not~~  
3 ~~suitable for WGS foraging or burrow establishment. If the multiple burrow area~~  
4 ~~was active in a prior survey year, then Category 1 habitat includes the largest~~  
5 ~~extent of the active burrow area ever recorded (in the current or any prior year~~  
6 ~~survey), plus a 785-foot buffer.~~  
7 ~~(c) Category 1 WGS habitat includes the area containing single active burrow~~  
8 ~~detections plus a 785-foot buffer, excluding areas of habitat types not suitable~~  
9 ~~for WGS foraging or burrow establishment. Category 1 habitat does not include~~  
10 ~~single burrow areas that were found active in a prior survey year but that are not~~  
11 ~~active in the current survey year.~~

12  
13 As previously noted, the certificate holder has committed to avoiding impacts to Category 1  
14 habitat. To ensure that no Category 1 habitat is impacted as a result of facility construction the  
15 Department recommends the following revisions to existing Condition 95:

16  
17 **Recommended Amended Condition 95**

18 The certificate holder shall implement measures to mitigate impacts to sensitive wildlife  
19 habitat during construction including, but not limited to, the following:

- 20  
21 (a) The certificate holder shall not construct any facility components within areas of  
22 Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.  
23 (b) ~~Before beginning construction, but no more than two years prior to the~~  
24 ~~beginning of construction of the facility, the certificate holder shall hire a~~  
25 ~~qualified professional biologist to conduct a survey of all areas to be disturbed by~~  
26 ~~construction for threatened and endangered species. The certificate holder shall~~  
27 ~~provide a written report of the survey and a copy of the survey to the~~  
28 ~~Department, the Oregon Department of Fish and Wildlife (ODFW), and the~~  
29 ~~Oregon Department of Agriculture (ODA). If the surveys identify the presence of~~  
30 ~~threatened or endangered species within the survey area, the certificate holder~~  
31 ~~shall implement appropriate measures to avoid a significant reduction in the~~  
32 ~~likelihood of survival or recovery of the species, as approved by the Department,~~  
33 ~~in consultation with ODA and ODFW.~~  
34 (c) Before beginning construction of the facility, the certificate holder's qualified  
35 professional biologist shall survey the Category 1 Washington ground squirrel  
36 habitat to ensure that the sensitive use area is correctly marked with exclusion  
37 flagging and avoided during construction. The certificate holder shall maintain  
38 the exclusion markings until construction has been completed.  
39 (d) ~~Before beginning construction of the facility, certificate holder's qualified~~  
40 ~~professional biologist shall complete the avian use studies that began in~~  
41 ~~September 2009 at six plots within or near the facility site as described in the~~  
42 ~~Final Order on the Application. The certificate holder shall provide a written~~  
43 ~~report on the avian use studies to the Department and to ODFW.~~



- 1 (e) Before beginning construction of the facility, certificate holder’s qualified  
2 professional biologist shall complete raptor nest surveys within the raptor nest  
3 survey area as described in the Final Order on the Application. The purposes of  
4 the survey are to identify any sensitive raptor nests near construction areas and  
5 to provide baseline information on raptor nest use for analysis as described in  
6 the Wildlife Monitoring and Mitigation Plan referenced in Condition 91. The  
7 certificate holder shall provide a written report on the raptor nest surveys and  
8 the surveys to the Department and to ODFW. If the surveys identify the presence  
9 of raptor nests within the survey area, the certificate holder shall implement  
10 appropriate measures to assure that the design, construction and operation of  
11 the facility are consistent with the fish and wildlife habitat mitigation goals and  
12 standards of OAR 635-415-0025, as approved by the Department, in consultation  
13 with ODFW.
- 14 (f) In the final design layout of the facility, the certificate holder shall locate facility  
15 components, access roads and construction areas to avoid or minimize  
16 temporary and permanent impacts to high quality native habitat and to retain  
17 habitat cover in the general landscape where practicable.

18  
19 *Laurent’s Milkvetch*

20 Council has previously evaluated the potential impacts of the facility on T&E plant species and  
21 concluded that the facility would not result in any significant impacts to Laurent’s milkvetch  
22 because no Laurent’s milkvetch was identified within the microsite area, and additional  
23 survey of the OTS solar microsite area would be required prior to construction. This  
24 requirement was fulfilled through the completion of the 2022 field survey and resulted in no  
25 findings of Laurent’s milkvetch in the OTS solar microsite area. As noted above, the 2017 and  
26 2018 surveys of the OTS wind microsite area did not identify any Laurent’s milkvetch. Council  
27 has previously found that construction, operation, and maintenance of the facility, taking into  
28 account the required mitigation measures, was not likely to cause a significant reduction in the  
29 likelihood of survival or recovery of Laurent’s milkvetch. As noted above, ODA consultation  
30 concluded that the likelihood of Laurent’s milkvetch within the OTS wind and solar microsite  
31 areas is low, and therefore, additional preconstruction T&E plant surveys are unnecessary given  
32 the expected construction commencement to occur within 3 years. The Department’s  
33 evaluation also concurs with ODA’s findings and notes that any potential impacts would be  
34 mitigated below a significant impact through avoidance, and the approval and implementation  
35 of the final Revegetation and Noxious Weed Plan, as approved by ODA and the Department, as  
36 required under the existing site certificate.

37  
38 For these reasons, the Department recommends that Council continue to rely on previous  
39 findings of no significant impacts on T&E species that could cause a significant reduction in the  
40 likelihood of the survival or recovery of this or any other T&E plant species.

1 **Conclusions of Law**

2 Based on the foregoing findings of fact and conclusions, and subject to compliance with the  
3 existing and amended site certificate conditions, the Department recommends that Council  
4 continues to find that the facility continues to comply with the Council’s Threatened and  
5 Endangered Species standard.

6 **III.J. Scenic Resources: OAR 345-022-0080**

7  
8 *(1) Except for facilities described in section (2), to issue a site certificate, the Council*  
9 *must find that the design, construction and operation of the facility, taking into*  
10 *account mitigation, are not likely to result in significant adverse impact to scenic*  
11 *resources and values identified as significant or important in local land use plans,*  
12 *tribal land management plans and federal land management plans for any lands*  
13 *located within the analysis area described in the project order.*

14 \*\*\*

15 **Findings of Fact**

16 The analysis area for the Scenic Resources standard is the area within and extending 10-miles  
17 from the site boundary.<sup>71</sup> The analysis area includes parts of three Oregon counties (Gilliam,  
18 Sherman, and Morrow), one Washington County (Klickitat), two Oregon municipalities  
19 (Arlington and Lone), lands administered by state agencies (Oregon Parks and Recreation  
20 Department (OPRD) and Oregon Department of Fish and Wildlife (ODFW)) and lands  
21 administered by federal agencies (Bureau of Land Management (BLM), National Park Service  
22 (NPS) and U.S. Department of Interior (USDO)). There are no tribal lands within the analysis  
23 area.

24  
25 In applying the standard set forth in OAR 345-022-0080(1), the Council assesses the visual  
26 impacts of facility structures on significant or important scenic resources described in “local  
27 land use plans, tribal land management plans and federal land management plans for any lands  
28 located within the analysis area described in the project order.” For purposes of this rule, the  
29 Council considers “local land use plans” includes applicable state land use and management  
30 plans.

31  
32 A total of 14 relevant land management plans were identified and reviewed for areas within the  
33 analysis area are presented in Table 7 below. As presented, all of the plans were evaluated in a  
34 prior Council order to identify potential scenic resources. As part of the Department’s  
35 evaluation of RFA1, the Department confirmed that none of the plans have been amended or  
36 updated since the prior Council evaluation. No new scenic resources have been identified and  
37 Council has previously found that no scenic resources would be significantly impacted as a

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<sup>71</sup> The site boundary includes 15,094 acres including two separate micro-siting areas for wind and solar energy facility components (12,638 acres for wind facility components and 1,228 acres for solar facility components).

- 1 result of facility construction or operation. The locations of important or significant scenic
- 2 resources located within the analysis area are shown in Figure 11<sup>72</sup> below.
- 3

**Table 7: Land Use Management Plans for Lands within 20-Mile Protected Areas Analysis Area**

Agency	Plan(s)			Important or Significant Scenic Resource <sup>1</sup>	Management Criteria Identified in Plan
	Plan	Plan Date	New or Updated Plan Since 2018 (Yes or No?)		
Local (County)					
Gilliam County	Gilliam County Comprehensive Plan and County Zoning and Land Development Ordinance <sup>73</sup>	2017	No	No	NA
Morrow County	Morrow County Comprehensive Land Use Plan <sup>74</sup>	2016	No	No	
Sherman County	Sherman County Comprehensive Land Use Plan <sup>75</sup>	2007	No	No	
Klickitat County, WA	Klickitat County Comprehensive Plan	1979	No	No	
	Klickitat County Energy Overlay Zone Ordinance: Natural Resources/Energy Comprehensive Plan <sup>76</sup>	2005	No	No	

<sup>73</sup> Gilliam County. 2017b. Gilliam County Comprehensive Plan. Available online at:

[http://www.co.gilliam.or.us/government/planning\\_department/2017\\_comprehensive\\_plan\\_and\\_zoning\\_ordinance.php#revize\\_document\\_center\\_rz404](http://www.co.gilliam.or.us/government/planning_department/2017_comprehensive_plan_and_zoning_ordinance.php#revize_document_center_rz404)  
 Accessed by the Department 2022-11-10.

<sup>74</sup> Morrow County. 2016. Morrow County Comprehensive Land Use Plan. Available online at:

[https://www.co.morrow.or.us/sites/default/files/fileattachments/planning/page/991/8\\_of\\_19\\_-\\_mc\\_comp\\_plan\\_-\\_goal\\_8.pdf](https://www.co.morrow.or.us/sites/default/files/fileattachments/planning/page/991/8_of_19_-_mc_comp_plan_-_goal_8.pdf) Accessed by the Department 2022-11-10.

<sup>75</sup> Sherman County. 2007. Comprehensive Land Use Plan, Sherman County, Oregon. Originally published in 1994. Revised June 2007. Available at:

<https://scholarsbank.uoregon.edu/xmlui/handle/1794/9297> Accessed by the Department 2022-11-10.

<sup>76</sup> Klickitat County. 2005. Energy Overlay Zone Ordinance. March 15. Available online at:

[https://library.municode.com/wa/klickitat\\_county/codes/code\\_of\\_ordinances?nodeId=TIT19ZO\\_CH19.39ENOVZO](https://library.municode.com/wa/klickitat_county/codes/code_of_ordinances?nodeId=TIT19ZO_CH19.39ENOVZO)  
 Accessed by the Department. 2022-11-10.

	Roosevelt Community Subarea Plan	1990	No	No	
Local (City)					
Arlington	City of Arlington Comprehensive Plan <sup>77</sup>	2015	No	No	NA
Ione	City of Ione Comprehensive Plan	1987	No	No	
State					
OPRD	Cottonwood Canyon State Park Comprehensive Plan <sup>78</sup>	2011	No	Yes (Cottonwood Canyon State Park/Recreation Area)	NA
ODFW	Columbia Basin Wildlife Areas Management Plan <sup>79</sup>	2008	No	No <sup>2</sup>	NA
ODOT	Oregon Highway Plan: Including Amendments November 1999 through May 2015	2015	No	No	NA
Federal					
BLM	John Day River Basin Record of Decision and Resource Management Plan	2015	No	Yes <sup>3</sup> (John Day Wild and Scenic River)	In managing scenic qualities, including those of the John Day River, the BLM uses a Visual Resource Management (VRM) system to inventory and manage these values....

<sup>77</sup> City of Arlington. 2015. City of Arlington Comprehensive Plan. Amended 2015. Available online at: [https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/19501/Arlington\\_002-15\\_Adoption.pdf?sequence=1&isAllowed=y](https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/19501/Arlington_002-15_Adoption.pdf?sequence=1&isAllowed=y) Accessed by the Department: 2022-11-16.

<sup>78</sup> Oregon Parks and Recreation Department (OPRD). 2011. Cottonwood Canyon State Park Comprehensive Plan. July. Available online at: <https://www.oregon.gov/oprd/PRP/Documents/PLA-Adopted-Cottonwood-2011.pdf> Accessed by the Department: 2022-11-16.

<sup>79</sup> ODFW (Oregon Department of Fish and Wildlife). 2008. Columbia Basin Wildlife Area Management Plan. Available online at: [https://www.dfw.state.or.us/wildlife/management\\_plans/wildlife\\_areas/docs/CBWA%20Plan%202008.pdf](https://www.dfw.state.or.us/wildlife/management_plans/wildlife_areas/docs/CBWA%20Plan%202008.pdf) Accessed by the Department: 2022-11-16.

					The BLM uses the VRM process to preserve scenic qualities on public lands, but has no control over development of private lands along any portion of the river
NPS	Lewis and Clark National Historic Trail, Comprehensive Plan for Management and Use <sup>80</sup>	1982	No	No <sup>4</sup>	NA
	Oregon Trail Comprehensive and Management Use Plan, Oregon National Historic Trail <sup>81</sup>	1999	No	Yes (Fourmile Canyon/ONHT)	“Protective corridor extending ¼ mile on either side of the main trail ruts...dependent on the amount of public land surrounding the individual trail segments”
USDOI	Omnibus Oregon Wild and Scenic Rivers Act of 1988 <sup>82</sup>	1988	No	No	NA
Notes:					

<sup>80</sup> National Park Service (NPS). 1982. Lewis and Clark National Historic Trail, Comprehensive Plan for Management and Use. United States Department of the Interior National Park Service. January. Available online at: <https://home.nps.gov/lecl/learn/management/upload/LECL-Foundations-Document-508.pdf> Accessed by the Department 2022-11-16.

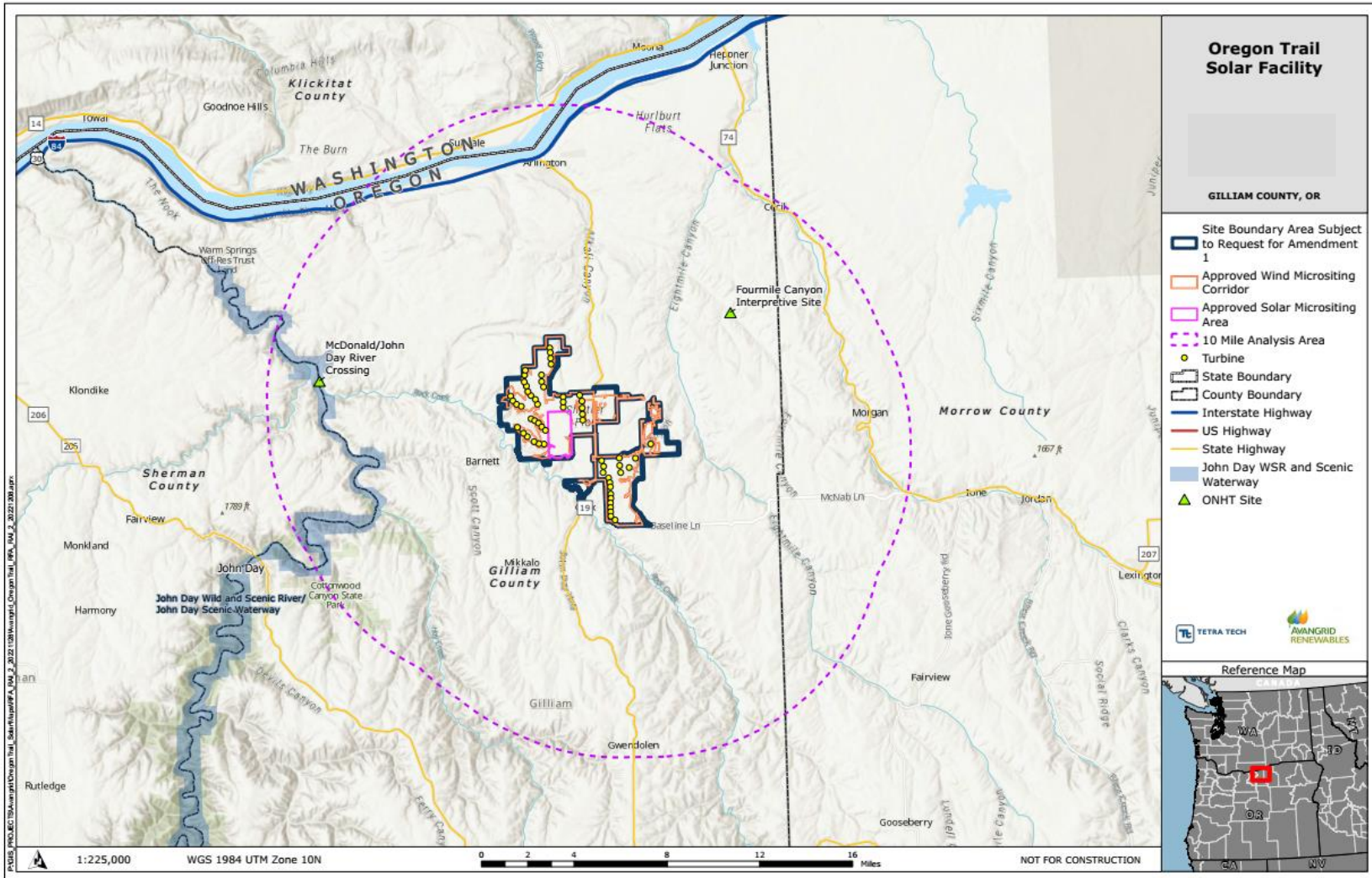
<sup>81</sup> NPS (U.S. National Park Service). 1999. Oregon Trail Comprehensive Management and Land Use Plan Available online at: [https://www.nps.gov/oreg/getinvolved/upload/Comprehensive\\_Management\\_Plan-508.pdf](https://www.nps.gov/oreg/getinvolved/upload/Comprehensive_Management_Plan-508.pdf) Accessed by the Department: 2022-11-16.

<sup>82</sup> United States, Congress, S.2148 - Omnibus Oregon Wild and Scenic Rivers Act of 1988. 1988. <https://www.congress.gov/Bill/100thCongress/Senate-Bill/2148/Congress> Accessed by the Department 2022-11-10.

1. In RFA1, the certificate holder identifies that important or significant resources within the analysis area include “BLM land.” In order for a resource to be an important or significant scenic resource protected under the standard, the resource must be identified in a land management plan with scenic resources or values and management or development criteria. The general category of “BLM land” is not further evaluated in this order.
2. In RFA1, the certificate holder identifies that important or significant resources within the analysis area includes ODFW-managed John Day Wildlife Refuge and Willow Creek Wildlife Area. As determined in Final Order on the ASC for the Montague Wind Power Facility, the management plan that covers the area of these two resources does not include any scenic resources or values for the resources. Therefore, they are not important or significant scenic resources under the standard.
3. In RFA1, the certificate holder identifies that important or significant resources within the analysis area includes the McDonald (John Day) Crossing/ONHT. As determined in Final Order on the ASC for the Montague Wind Power Facility, the management plan that covers the area of this resource does not include any scenic resources or values for the resource. Therefore, it is not an important or significant scenic resources under the standard.
4. In RFA1, the certificate holder identifies that important or significant resources within the analysis area includes the Lewis and Clark National Historic Trail. As determined in Final Order on the ASC for the Montague Wind Power Facility, the management plan that covers the area of this does not include any scenic resources or values for the resources. Therefore, they are not important or significant scenic resources under the standard.



Figure 11: Important or Significant Scenic Resources within the Analysis Area



1 Based on review of local, state and federal land management webpages for the local, state and  
 2 federal land management agencies referenced above, the Department recommends Council  
 3 find that there are no local, state or federal land management plans that have been updated or  
 4 include new important or significant scenic resources not evaluated in a prior Council order.  
 5

6 *Important or Significant Scenic Resources Within Analysis Area*

7 As part of the Final Order on Montague Wind Project Request for Amendment 4, Council  
 8 evaluated a larger facility footprint, with a larger analysis area, that includes the OTS analysis  
 9 area and identified and evaluated the following scenic resources under this standard: Willow  
 10 Creek Wildlife Area, Fourmile Canyon ONHT site, Cottonwood Canyon State Park, John Day Wild  
 11 and Scenic Waterway, John Day Wildlife Refuge, McDonald (John Day) Crossing/ONHT site,  
 12 ONHT, Lewis and Clark National Historic Trail. As part of the prior evaluation, Council previously  
 13 determined that the construction and operation of the facility would not have a significant  
 14 impact on any of these scenic resources under this standard.  
 15

16 As part of the updated evaluation for this amendment request, the certificate holder identified  
 17 scenic resources within the OTS 10-mile analysis area as including only a portion of the John  
 18 Day Wild and Scenic River and included two resources associated with the Oregon National  
 19 Historic Trail (ONHT) including the Fourmile Canyon/ONHT Interpretive Site and the McDonald  
 20 (John Day River) Crossing/ONHT site. These three resources were previously evaluated by  
 21 Council in the Final Order on Montague Wind Request for Amendment 4, and no significant  
 22 impacts were found to result from facility construction or operation. Based upon the  
 23 Department’s review of the above-listed plans and scenic resources located within the 10-mile  
 24 OTS analysis area, the Department evaluated the following Scenic Resources for potential  
 25 impacts per Council’s Scenic Resources standard (See Table 8 below).

**Table 8: Important or Significant Scenic Resources within the 10-mile Scenic Resources Analysis Area**

Scenic Resource	Distance from Nearest Turbine	Land Management Plan	Findings from ZVI Analysis
John Day Wild and Scenic River/Waterway	5.8-5.9 miles	2015 BLM John Day Basin Resource Management Plan	No significant impact
Cottonwood Canyon State Park/Recreation Area	5.7 miles	2011 Cottonwood Canyon State Park Comprehensive Plan	No significant impact

26  
 27 A brief description of the above-listed scenic resources under this standard is presented below:  
 28

29 *John Day Wild and Scenic River/Waterway*

30  
 31 The areas designated as the John Day Wild and Scenic River/Waterway are included in the BLM  
 32 John Day River Basin Resources Management Plan (2015) and designated under the Wild and  
 33 Scenic River Act of 1988 as a wild and scenic river, and as previously noted, these areas are

1 located approximately 6 miles NW/W/SW from the nearest turbine location. The segment of  
2 the John Day River included in the federal Wild Scenic River (WSR) system and covered by the  
3 John Day River Basin Resources Management Plan begins at Tumwater Falls, near river mile 10,  
4 and extends upstream through the Facility’s analysis area (to approximately RM 40 at the  
5 Cottonwood Bridge where State Highway 206 crosses the John Day River). The WSR designation  
6 applies to the river itself and to federal lands managed by the BLM that are within ¼ mile of each  
7 bank. The segments’ outstanding remarkable values include scenic, recreation, fish, wildlife,  
8 geological, paleontological, and archaeological resources.<sup>83</sup> This same segment of the John Day  
9 River, located upstream and south of Tumwater Falls, is also designated as a State Scenic  
10 Waterway pursuant to the Oregon State Scenic Waterways Act, ORS 390.805-390.020. The  
11 Scenic Waterway designation encompasses the river itself and the lands that lie within ¼ mile of  
12 its high-water line. Under the State Scenic Waterways Act, the river segments in the analysis  
13 area have been classified as a Scenic River Area, i.e., river segments that are:

14 *...accessible by roads in places but contain related adjacent lands and shorelines still*  
15 *largely primitive and undeveloped except for agriculture and grazing. Scenic River*  
16 *Areas are administered to preserve their undeveloped character, maintain or enhance*  
17 *their high scenic quality, recreation, fish, and wildlife values while allowing continued*  
18 *agricultural use.*

19

#### 20 *Cottonwood Canyon State Park*

21

22 Cottonwood Canyon State Park is located on the John Day River, between Wasco and Condon in  
23 north Central Oregon. Located approximately 5.7 miles southwest from the nearest facility  
24 turbine, the park is under the management of the Oregon Parks and Recreation Department  
25 (OPRD), under an approved management plan adopted in 2011<sup>84</sup>. OPRD included a scenic  
26 landscape assessment in the 2011 plan which states the objective is to “preserve and add to  
27 Cottonwood’s beauty, wildness, and heritage”<sup>85</sup>. The 2011 plan included a scenic assessment  
28 that designated the Cottonwood Canyon State Park as a Class III, Rural resource with a  
29 management goal of preserving and enhancing the scenic character of Cottonwood Canyon.  
30 Cottonwood Canyon State Park covers 10 miles of John Day River bottomlands and is in an area  
31 that is comprised of state lands intermixed with over 10,000 acres of federal, BLM-managed  
32 lands within Sherman and Gilliam counties. It is the second largest state park in the Oregon  
33 parks system with an approved plan that plan reflects the need for a limited development  
34 profile that maximizes the values of landscape protection and carefully managed access for a  
35 variety of recreation interests: hikers, campers, equestrians, hunters, fishermen,

---

<sup>84</sup> Oregon Parks and Recreation Department (OPRD) 2011. Cottonwood Canyon State Park Comprehensive Plan.  
Available online:

[https://cottonwoodcanyon.files.wordpress.com/2011/07/cottonwood\\_canyon\\_20110712\\_low.pdf](https://cottonwoodcanyon.files.wordpress.com/2011/07/cottonwood_canyon_20110712_low.pdf)

Accessed by the Department 2012-12-13.

<sup>85</sup> Ibid.

1 rafters/kayakers and includes a campground and cabin rentals.<sup>86</sup> The plan emphasizes scenic  
2 values, management consistent with federal and state Wild and Scenic goals, interpretation, to  
3 provide opportunities for visitors to experience scenic views and recreational opportunities.  
4 Management of the landscape is based on the following classifications and designations: State  
5 Scenic Waterway/Scenic designation, Federal Wild and Scenic River/Recreation designation,  
6 BLM Wilderness Study Area (BLM lands south of highway), State Wildlife Refuge (along the river  
7 and out ¼ mile from the river), State Conservation Strategy/Lower John Day Opportunity Area  
8 (south of highway), and BLM John Day River Study area.<sup>87</sup>

9

10 Visual Impacts to Scenic Resources

11

12 Under the Scenic Resources standard, pursuant to OAR 345-021-0010(r)(C), potential visual  
13 impacts at identified resources from loss of vegetation or alteration of landscape and from  
14 facility structures or plumes during facility-related construction and operations are evaluated.  
15 Previous analysis of potential visual impacts from the facility relied on a Zone of Visual Influence  
16 (ZVI) analysis to model the “worst case” line-of-sight visibility for 81 wind turbines at 597 feet in  
17 height and 100-foot tall 230-kV transmission line structures included in the Final Order on  
18 Request for Amendment 4 for the Montague Wind Project. In 2020, the Final Order on Request  
19 for Amendment 5 for the Montague Wind Project reduced the maximum number of turbines  
20 evaluated from 81 to 57, with 16 to be sited within the OTS micro-siting area. In this scenario,  
21 potential visual impacts to previously evaluated protected areas were reduced from what was  
22 evaluated in the Final Order on Montague Wind Request for Amendment 4, but still represent a  
23 potential worst-case scenario for OTS. As part of the updated analysis for this amendment  
24 request, the certificate holder has provided an updated ZVI map for predicting potential visual  
25 impacts to scenic resources relying on the worst-case scenario modeled for Montague Wind  
26 Request for Amendment 4, and updated for the OTS analysis area, as presented in Figure 12  
27 below:

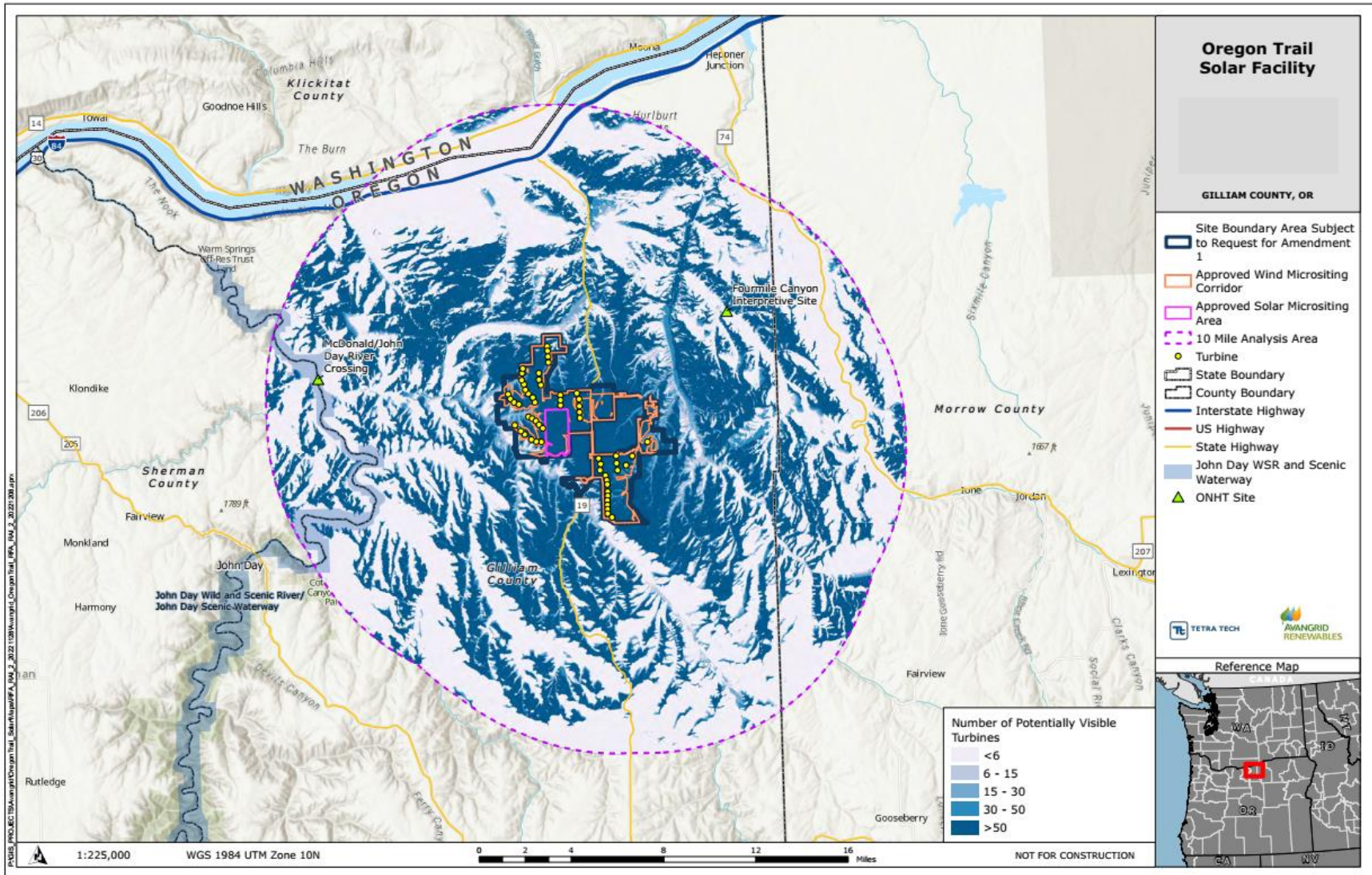
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<sup>86</sup> Ibid.

<sup>87</sup> Oregon Parks and Recreation Department (OPRD) 2011. Cottonwood Canyon State Park Comprehensive Plan. Available online: [https://cottonwoodcanyon.files.wordpress.com/2011/07/cottonwood\\_canyon\\_20110712\\_low.pdf](https://cottonwoodcanyon.files.wordpress.com/2011/07/cottonwood_canyon_20110712_low.pdf) Accessed by the Department 2012-12-13. Pg. 110.



Figure 12: Scenic Resources and Potential Visibility of Facility Structures



1 *Facility Structures*

2 In order to evaluate potential visual impacts of the wind turbines and the 230 kV transmission  
3 line structures at scenic resources identified as significant or important within the analysis area,  
4 the certificate holder provided, and Council considered, a “zone of visual influence” (ZVI)  
5 analysis. Because the solar array and battery storage system are not expected to be visible from  
6 any designated scenic resource, the ZVI focused on the potential visual impacts as a result of  
7 the 597-foot turbines and the 100-foot tall 230 kV transmission line. As showing in the ZVI map,  
8 while there are potential small, limited areas along the canyon wall and rim where OTS turbines  
9 might be visible, they will be in the distance and no facility components will be visible from the  
10 river, or the majority of the John Day Wild and Scenic River areas within the river canyon. Based  
11 on the location of the Cottonwood Canyon State Park and the updated ZVI prepared for this  
12 amendment request, there would be no facility components visible from the OTS facility from  
13 locations within this park. For these reasons, the Department recommends that Council  
14 continue to rely on previous findings of no significant impact to these scenic resources.

15  
16 OTS RFA1 does not seek to enlarge the existing site boundary, location or physical components  
17 of the facility from what was previously evaluated and approved by Council. There are no new  
18 scenic resources or updated or new plans for these resources since Council’s evaluation under  
19 the Final Order on Montague Wind Project Request for Amendment 4. Because no new scenic  
20 resources, or new or updated plans, have been identified since Council’s approval of the OTS  
21 site certificate, and because the requested amendment does not propose any changes to  
22 previously approved wind, solar and transmission line components or facility design, and  
23 because previous Council evaluation of scenic resources resulted in findings of no significant  
24 impacts to scenic resources, the Department recommends that Council rely on previous  
25 findings and continue to find that, with existing site certificate conditions, there are no new or  
26 additional significant impacts to scenic resources resulting from OTS facility structures.

27  
28 *Loss of Vegetation*

29 Construction of the facility will result in temporary and permanent vegetation loss. Operation  
30 of the facility will result in permanent vegetation loss from the footprint of facility components.  
31 Council has previously considered and evaluated the potential visual impacts on identified  
32 scenic resources as a result of a temporary or permanent loss of vegetation and found that with  
33 conditions, the visual impacts from temporary and permanent vegetation loss would not be  
34 likely to result in a significant adverse impact to any scenic resources identified within the  
35 analysis area. As previously noted, the closest scenic resource is 5.7 miles from the nearest  
36 turbine location. Because the amendment request does not involve any changes in facility  
37 layout, structures or components the Department recommends that Council continue to rely on  
38 previous findings that with existing conditions, the loss of vegetation resulting from facility  
39 construction or operation will not have a significant impact on any scenic resources within the  
40 analysis area.

41  
42 *Measures to avoid or minimize impacts to scenic resources*

43

1 Council has previously found that with conditions, the OTS facility is not likely to result in a  
2 significant adverse impact to the scenic resources and values identified as significant or  
3 important in local land use plans, tribal land management plans and state or federal land  
4 management plans for any lands located within the analysis area. In order to ensure that  
5 temporary vegetation loss will be restored through the certificate holder’s implementation of a  
6 final, Habitat Mitigation and Revegetation Plan, the Council previously imposed site certificate  
7 condition 92. Based on compliance with condition 92, and the distance of facility components  
8 from the nearest identified scenic resource, the Council previously found that visual impacts  
9 from temporary and permanent vegetation loss would not be likely to result in a significant  
10 adverse impact at any significant or important scenic resources identified within the analysis  
11 area. In order to reduce potential visual impacts, including impacts to scenic resources, Council  
12 previously imposed site certificate conditions 102-104 to minimize and avoid visual impacts.  
13 Condition 102 was imposed to minimize visual impacts from facility component finish,  
14 vegetative clearing and facility signage; Condition 103 to minimize visual impacts from the  
15 substation and O&M buildings; Condition 104 to minimize visual impacts from nighttime  
16 lighting. These conditions will continue to apply to the OTS site certificate and the  
17 Department’s evaluation for this amendment concludes that the requested changes will not  
18 result in any new potential impacts to scenic resources from the construction and operation of  
19 the facility.  
20

21 Council has previously found that the OTS facility complies with the Scenic Resources standard  
22 and was not likely to result in any significant adverse impacts to any scenic resources identified  
23 and evaluated within the analysis area. There are no changes in facility design, layout or  
24 components that would alter this finding, nor have there been any new scenic resources or new  
25 or updated land management plans, that could potentially change Council’s previous findings  
26 under this standard. For these reasons, the Department recommends that, with existing site  
27 certificate conditions 92 and 102-104, the Council continue to rely on previous findings that the  
28 OTS facility will not have a significant impact on any scenic resources within the analysis area.  
29

### 30 **Conclusion of Law**

31  
32 Based on the foregoing findings, the Department recommends that Council continue to find  
33 that the design, construction, and operation of the Oregon Trail Solar facility would comply with  
34 the Council’s Scenic Resources standard.  
35

### 36 **III.K. Historic, Cultural, and Archaeological Resources: OAR 345-022-0090**

37  
38 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*  
39 *Council must find that the construction and operation of the facility, taking into account*  
40 *mitigation, are not likely to result in significant adverse impacts to:*  
41

42 *(a) Historic, cultural or archaeological resources that have been listed on, or would*  
43 *likely be listed on the National Register of Historic Places;*  
44



1 (b) For a facility on private land, archaeological objects, as defined in ORS  
2 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and

3  
4 (c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).

5  
6 (2) The Council may issue a site certificate for a facility that would produce power from  
7 wind, solar or geothermal energy without making the findings described in section (1).  
8 However, the Council may apply the requirements of section (1) to impose conditions on  
9 a site certificate issued for such a facility.

10  
11 **Findings of Fact**

12  
13 The analysis area for the Historic, Cultural and Archaeological Resources standard is the area  
14 within the site boundary for direct impacts assessment and extending 1 mile outside the site  
15 boundary for assessing potential indirect impacts on built environment resources and Historic  
16 Properties of Religious and Cultural Significance to Indian Tribes (HPRCSIT). While the analysis  
17 area lies within the ceded lands of the Confederated Tribes of the Umatilla Indian Reservation  
18 (CTUIR) and the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO),  
19 the CTUIR have actively engaged in the review of the facility and have conducted previous  
20 Traditional Use Studies to identify HPRCSITs eligible for listing on the National Register of  
21 Historic Places (NRHP) within the analysis area for the OTS facility.

22  
23 *Discovery Measures and Findings*

24  
25 The certificate holder has previously conducted desktop reviews and archival research including  
26 a search of the Oregon SHPO archaeological records database and the Oregon Historic Sites  
27 database for the entire analysis area. Seven separate field surveys were conducted within (parts  
28 of) the OTS analysis area from 2010 through 2018, including two field surveys each in 2017 and  
29 2018. In addition, the certificate holder conducted additional field investigations in 2019 for  
30 aboveground historic resources, at the request of the Oregon State Historic Preservation Office  
31 (SHPO). The certificate holder has previously conducted literature and field surveys to evaluate  
32 the potential presence of cultural, historic or archeological resources within most of the OTS  
33 wind and solar micro-siting areas as part of the evaluation conducted for the original Montague  
34 Wind Power Facility ASC, the Baseline Wind Energy Project ASC (application withdrawn), and  
35 Montague Wind Power Facility Phase 1 pre-construction surveys, and subsequent amendments  
36 4 and 5.

37  
38 Previously identified resources within the analysis area include 1 archaeological site  
39 (35GM306), 5 historic built-environment properties, 3 HPRCSITs, and two intact segments of  
40 the Oregon National Historic Trail (ONHT). Built environment resources consisted of historic-era  
41 farmsteads and structures (Weatherford Barn, 68040 Highway 19, 69180 Weatherford Road,  
42 69064 Weatherford Road, 69398 Berthold Road); and the historic site (35GM306) meets the  
43 definition for consideration as an archaeological site as defined by ORS 358.905(1)(c). Previous  
44 findings included documented consultation with Indian Tribes, SHPO concurrence on both

1 archaeological and historic-built environment resources and included the completion of a  
2 historic resources survey to SHPO standards for assessing indirect impacts to historic structures.  
3 These documents demonstrate compliance with this Council standard in addition to SHPO  
4 standards.

5

6 *Updated Discovery Measures for this Amendment Request*

7

8 An updated archival search and desktop review conducted for the analysis area by the  
9 certificate holder and included a search of SHPO databases completed on October 18, 2022 and  
10 confirmed no additional or new resources have been identified within the site boundary.

11

12 Additional field surveys for portions of the OTS solar area were conducted in 2020 and 2021  
13 (Sheldon 2020; King 2021) for previously unsurveyed portions and have been submitted to  
14 SHPO. No new or additional archaeological sites and one historic-era archaeological object  
15 were identified as a result of these studies. The archaeological object was a piece of historic  
16 farm equipment and determined not eligible for NRHP listing and is not considered to be  
17 significant and therefore no additional assessment is required under this Council standard.

18

19 Additional coordination with the CTUIR was conducted by the certificate holder and the  
20 Department for this amendment request and did not result in the identification of any new  
21 HPRCSITs or cultural resources within the OTS analysis area<sup>88</sup>. CTWSRO was notified of the  
22 amendment request and provided no response, but in the past has deferred to CTUIR for  
23 review of this facility.

24

25 As a result of previous and updated review of the analysis area, in RFA1 the certificate holder  
26 identified one archaeological site, five built-environment resources and within the analysis  
27 area: Weatherford Barn, four historic farmsteads at 68040 Highway 19, 69180 Weatherford  
28 Road, 69064 Weatherford Road, and 69398 Berthold Road, and archaeological site 35GM306, in  
29 addition to the 3 previously identified CTUIR HPRCSITs. All of these resources were previously  
30 identified and evaluated in prior Council actions. These resources are summarized below:

31

32 *Previously Identified and Evaluated Resources*

33

34 *Archaeological Sites or Objects per ORS 358.905(1)*

35

36 Site 35GM306

37 One archeological site (35GM306) has been previously identified and evaluated for potential  
38 NRHP eligibility. 35GM306 is an historic debris scatter previously identified and evaluated by  
39 the certificate holder. The certificate holder recommended that the archeological site not be  
40 eligible for NRHP listing. In 2012, SHPO concurred with the recommendation. Because the site is

---

<sup>88</sup> OTSAMD1Doc4-3 pRFA Reviewing Agency Comment CTUIR\_Ferman 2022-10-27.

1 not considered NRHP eligible, it is not considered a significant resource under this Council  
2 standard and no additional assessment is required.

3  
4 Historic Built-environment Resources

5 The certificate holder previously evaluated the NRHP eligibility of the historic built environment  
6 resources and concluded that 68040 Highway 19, 69180 Weatherford Road, and 69064  
7 Weatherford Road were not eligible for listing on the NRHP. Weatherford Barn. The  
8 Weatherford Barn was a single structure located in an agricultural field north of Bottemiller  
9 Road and west of Oregon Highway 19. It was previously determined eligible for NRHP listing but  
10 has since been removed by the landowner, and therefore not impacted by the OTS facility. For  
11 these reasons the properties are not considered significant resources under this Council  
12 standard and no additional assessment is required.

13  
14 *Previously Determined NRHP-eligible Resources*

15  
16 Oregon National Historic Trail (ONHT) Segments

17 The ONHT is the emigrant route used from 1841 to about 1869 from Independence, Missouri to  
18 the Oregon Territory, with sections of the approximate route that are located ½ mile outside of  
19 the approved OTS site boundary. The ONHT passes through multiple jurisdictions and  
20 ownerships across 6 states and extends over 2,130 miles. Most visible remnants of the ONHT  
21 have been destroyed by agriculture or overlain with modern transportation facilities but some  
22 remnants still remain on private and public lands. Two discontinuous, visually intact remnants  
23 (trail ruts) were recorded within the OTS analysis area. In general, the ONHT is managed for its  
24 historic and archaeological values and resources<sup>89</sup> and while considered by the certificate  
25 holder to be likely NRHP-eligible, not all sites along the trail are NRHP-eligible, and these 2  
26 segments are not currently listed on the NRHP. Consistent with past certificate holder  
27 representation, these 2 ONHT segments will be treated as NRHP-eligible.

28  
29 69398 Berthold Road

30 The farmstead complex located at 69398 Berthold Road consists of a collection of farm  
31 buildings, including a residence, a detached garage, a grain elevator and silo, an outbuilding, a  
32 barn, and a shed. The property is located approximately 1 mile southwest, and outside of, the  
33 OTS site boundary. The property was originally documented in 2010 as a part of the Baseline  
34 surveys (Ragsdale et al., 2011). The property has been determined eligible for NRHP listing.

35  
36 CTUIR HPRCSITs

37 A total of 3 CTUIR Historic Properties of religious and Cultural Significant to Indian Tribes  
38 (HPRCSIT) have been previously identified within the OTS analysis area. *Tiqaxtiqax* is a 56,573

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<sup>89</sup> U.S. National Park Service (NPS) 1999. Oregon Trail Comprehensive Management and Land Use Plan Available online at: [https://www.nps.gov/oreg/getinvolved/upload/Comprehensive\\_Management\\_Plan-508.pdf](https://www.nps.gov/oreg/getinvolved/upload/Comprehensive_Management_Plan-508.pdf) Accessed by the Department: 2022-11-16.

1 acre HPRCSIT within the analysis area that includes contributing sites of shrub-steppe environments related to cultural practices deemed significant by the CTUIR. In August 2015, the United State Department of the Interior determined this HPRCSIT NRHP-eligible. The historic district includes contributing sites related to the seasonal round of the CTUIR and is home to the First Foods gathering areas essential to both the culture and religion of CTUIR. *Alaḡála* and *Ulikš*, were also identified as within the OTS analysis area and are considered likely National Register of Historic Places (NRHP) eligible, and are considered part of this historic district. While the locations and character of the HPRCSITs are considered confidential and are not disclosed in this order, the potential impacts from the OTS facility construction and operation to these HPRCSITs have been previously evaluated by Council and are evaluated for any potential changes in impacts as a result of this amendment request.

12  
13 *Potential Impacts to Significant Resources*

14  
15 Direct impacts to archaeological, historic or cultural resources could include temporary and permanent disturbance to the resource. Indirect impacts could include impacts from facility noise and visibility to integrity of the resource – integrity aspects include location, setting, design, materials, workmanship, feeling, and association. Because impacts to ineligible archaeological sites and objects are not considered significant, the following evaluation of impacts has been limited to those determined to be NRHP eligible or likely eligible and are briefly discussed below.

22  
23 ONHT

24 Potential impacts to the ONHT could include direct and indirect impacts resulting from construction activities and facility operations. These 2 segments were previously documented and evaluated by SHPO, determined to be likely-eligible for NRHP listing. In the Final Order on Montague Wind Request for Amendment 4, and based upon SHPO review and concurrences, Council found there were no direct or indirect impacts on these two ONHT resources. The locations of OTS turbines have been previously evaluated and this amendment request does not propose any changes in location of facility components or site access. The trail segments remain over ½ mile (approximately 2,750 feet) from the nearest facility turbine location and no direct impacts would occur and can be prevented through avoidance. The distance of ½ mile from the OTS site boundary and nearest potential turbine, ensure avoidance and at that distance, no indirect impacts are likely to result from construction or operations of the facility. For these reasons, the Department recommends that Council continue to rely on previous findings that the facility will not have a significant direct or indirect impact on these two segments of the ONHT.

38  
39 69398 Berthold Road

40 Potential facility impacts were evaluated by the certificate holder and the Council in 209 and 41 2020 and because the property is outside the site boundary it was determined there were no direct impacts. While some turbines may be visible from the property, further evaluation by 42 SHPO determined that the facility would result in no significant indirect impacts to this 43

1 property.<sup>90</sup> For these reasons the Council has previously found that the facility construction and  
2 operation would have no direct or indirect impacts to this NRHP eligible resource. Because this  
3 amendment request does not propose any changes in facility components or locations from  
4 what has been previously evaluated, the Department recommends that the Council continue to  
5 find that the OTS facility will not have any significant indirect or direct impacts on this property.  
6

#### 7 CTUIR HPRCSITs

8 Council has previously found that potential impacts from the facility components to the  
9 HPRCSITs described above could include direct and indirect impacts. Past coordination with the  
10 CTUIR on the 3 CTUIR NRHP-eligible HPRCSITs (*Alaʔála, Ulíkš and Tiqaxtiqax*) identified  
11 potential direct and indirect impacts to these resources. These impacts have been mitigated to  
12 below a significant impact through mitigation measures as described below.  
13

#### 14 *Protection Measures*

15  
16 Council has previously imposed site certificate conditions 47 -51 to ensure that no significant  
17 impacts would result from the construction and operation of the OTS facility. Condition 47  
18 requires the certificate holder to buffer, avoid and flag all known and identified resources  
19 within 200 feet of any construction area. Condition 48 requires avoidance of any intact  
20 segments of the ONHT, if any segments are encountered during construction of the facility.  
21 Condition 49 requires the completion of surveys for any previously unsurveyed areas within the  
22 final microsite area for the facility, to SHPO standards, and prior to construction and  
23 avoidance maps to be provided to the Department prior to construction based on final facility  
24 design. Condition 50 was imposed by Council in response to CTUIR comments over potential  
25 impacts to the 3 CTUIR HPRCSITs. Condition 51 established the requirements in the event of an  
26 inadvertent discovery of cultural resources during construction.  
27

28 As noted above, Council imposed Condition 50 to address CTUIR comments and request that  
29 CTUIR monitors be on site during construction of the facility. As part of this amendment  
30 request, the certificate holder has requested to revise the site certificate condition 50,  
31 specifically 50(b) for the requirement of cultural resources monitoring during construction.  
32 Condition 50(b) requires monitoring of ground disturbance at depths of 12 inches or  
33 greater. Monitoring under the same requirement at the adjacent Montague Solar Facility  
34 occurred where soils throughout the area were observed to be extensively disturbed from  
35 historic land use, evidenced by a lack of stratigraphy and observed mixing of soils. Based on  
36 these observations, the archaeological sensitivity of the area where construction occurred was  
37 assessed to be low by Tetra Tech’s and CTUIR’s qualified Project Archaeologists and cultural  
38 resource monitors. These observations are the basis of requesting the amendment to the OTS  
39 site certificate for Condition 50. RFA1 provides the following justification to support this  
40 change: “*proposed revision to Condition 50(b) does not change the type of mitigation, nor does*

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<sup>90</sup> MWPAMDDoc5-3 pRFA Reviewing Agency Comment SHPO Aboveground Schwartz 2019-03-01.

1 *it remove the cultural resource monitoring requirement, but rather, provides greater discretion*  
2 *to the cultural resources monitor team, including the CTUIR, on determining when the*  
3 *requirements can be reduced*<sup>91</sup>. The certificate holder has represented, and CTUIR has  
4 confirmed, that the proposed changes to condition 50(b) were developed in consultation with  
5 CTUIR and has CTUIR approval. Requested and recommended changes to Condition 50 is  
6 presented below:  
7

8 **Recommended Condition 50:** During construction, the certificate holder shall:

- 9 (a) Ensure that a qualified archeologist, as defined in OAR 736-051-0070, instructs  
10 construction personnel in the identification of cultural materials and avoidance of  
11 accidental damage to identified resource site.  
12 (b) Employ a qualified cultural resource monitor to conduct monitoring of ground  
13 disturbance at depths of 12 inches or greater during grading, trenching, or drilling  
14 activities. The qualifications of the selected cultural resources monitor shall be  
15 reviewed and approved by the Department, in consultation with the CTUIR Cultural  
16 Resources Protection Program. In the selection of the cultural resources monitor to  
17 be employed during construction, preference shall be given to citizens of the CTUIR.  
18 ~~Ground disturbance at depths 12 inches or greater shall not occur without the~~  
19 ~~presence of the approved cultural resources monitor.~~ If any cultural resources are  
20 identified during monitoring activities, the steps outlined in the Inadvertent  
21 Discovery Plan, as provided in Attachment ~~HG~~ of the Final Order on Amendment ~~51~~  
22 should be followed. The Certificate Holder may modify the cultural monitoring plan  
23 in consultation with the CTUIR and notification to the Department. The certificate  
24 holder shall report to the Department in its semi-annual report a description of the  
25 ground disturbing activities that occurred during the reporting period, dates cultural  
26 monitoring occurred, and shall include copies of monitoring forms completed by the  
27 cultural resource monitor. [MWP AMD5, Sept 2020, OTS AMD1]

28  
29 As part of the evaluation of this requested change, the Department also coordinated with the  
30 CTUIR on the proposed changes, and the CTUIR submitted written comments in support of the  
31 changes to the monitoring requirements<sup>92</sup>. The intent of these changes is to allow the CTUIR  
32 and the certificate holder to have more discretion on when cultural resources monitoring is  
33 needed, and when it can be terminated based on mutual agreement that it is no longer needed  
34 during facility construction.  
35

36 For all of these reasons, and because the requested amendment will not result in any changes  
37 to facility design, construction or operations previously evaluated and approved by Council, the  
38 Department recommends that Council continue to rely on previous findings for the  
39 identification of resources, identification and assessment of potential impacts, and with

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<sup>91</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Section 6.11

<sup>92</sup> OTSAMD1Doc4-3 pRFA Reviewing Agency Comment CTUIR\_Ferman 2022-10-27

1 proposed changes, the conditions imposed by Council to avoid or minimize impacts to  
2 resources under this Council standard.

3

4 **Conclusions of Law**

5

6 Based on the foregoing analysis, and subject to compliance with existing and amended  
7 conditions, the Department recommends that Council continue to find that the facility, with  
8 proposed changes, would continue to comply with the Council’s Historic, Cultural, and  
9 Archaeological Resources Standard.

10 **III.L. Recreation: OAR 345-022-0100**

11

12 *(1) Except for facilities described in section (2), to issue a site certificate, the Council must*  
13 *find that the design, construction and operation of a facility, taking into account*  
14 *mitigation, are not likely to result in a significant adverse impact to important*  
15 *recreational opportunities in the analysis area as described in the project order. The*  
16 *Council shall consider the following factors in judging the importance of a recreational*  
17 *opportunity:*

18

- 19 *(a) Any special designation or management of the location;*
- 20 *(b) The degree of demand;*
- 21 *(c) Outstanding or unusual qualities;*
- 22 *(d) Availability or rareness;*
- 23 *(e) Irreplaceability or irretrievability of the opportunity.*

24

\*\*\*94

25

26 **Findings of Fact**

27

28 The Recreation standard requires the Council to find that the design, construction, and  
29 operation of a facility would not likely result in significant adverse impacts to “important”  
30 recreational opportunities within the analysis area. The criteria for determining whether a  
31 recreational opportunity is important are provided under OAR 345-022-0100(1)(a)-(e). The  
32 analysis area for impacts to recreational opportunities is the area within and extending five  
33 miles from the site boundary.

34

35 Impacts to important recreational opportunities from construction and operation of the facility  
36 were previously evaluated in the Final Order on Amendment 4 of the Site Certificate for the

---

<sup>94</sup> The facility is not a special criteria facility under OAR 345-0015-0310; therefore, OAR 345-022-0100(2) is not applicable.



1 Montague Wind Power Facility, and subsequently determined to not be impacted by the  
2 certificate holder's Request for Amendment 5.<sup>95</sup>

3  
4 Recreational Opportunities within the Analysis Area

5  
6 In Request for Amendment 4 of the Site Certificate for the Montague Wind Power Facility, the  
7 Council evaluated potential impacts to the following important recreational resources:

- 8 • Fourmile Canyon Interpretive Site, Oregon National Historic Trail
- 9 • Blue Mountain Scenic Byway,
- 10 • John Day Wildlife Refuge
- 11 • John Day River
- 12 • Cottonwood Canyon State Park,
- 13 • McDonald and John Day Crossing Interpretive Site, Oregon National Historic Trail<sup>96</sup>

14  
15 Following the separation of the Oregon Trail Solar Facility from the Montague Wind Power  
16 Facility in Request for Amendment 5 of the Site Certificate for the Montague Wind Power  
17 Facility, only the Fourmile Canyon Interpretive Site and Cottonwood Canyon State Park remain  
18 within the analysis area. No previously unevaluated recreational opportunities in the analysis  
19 area have been identified.

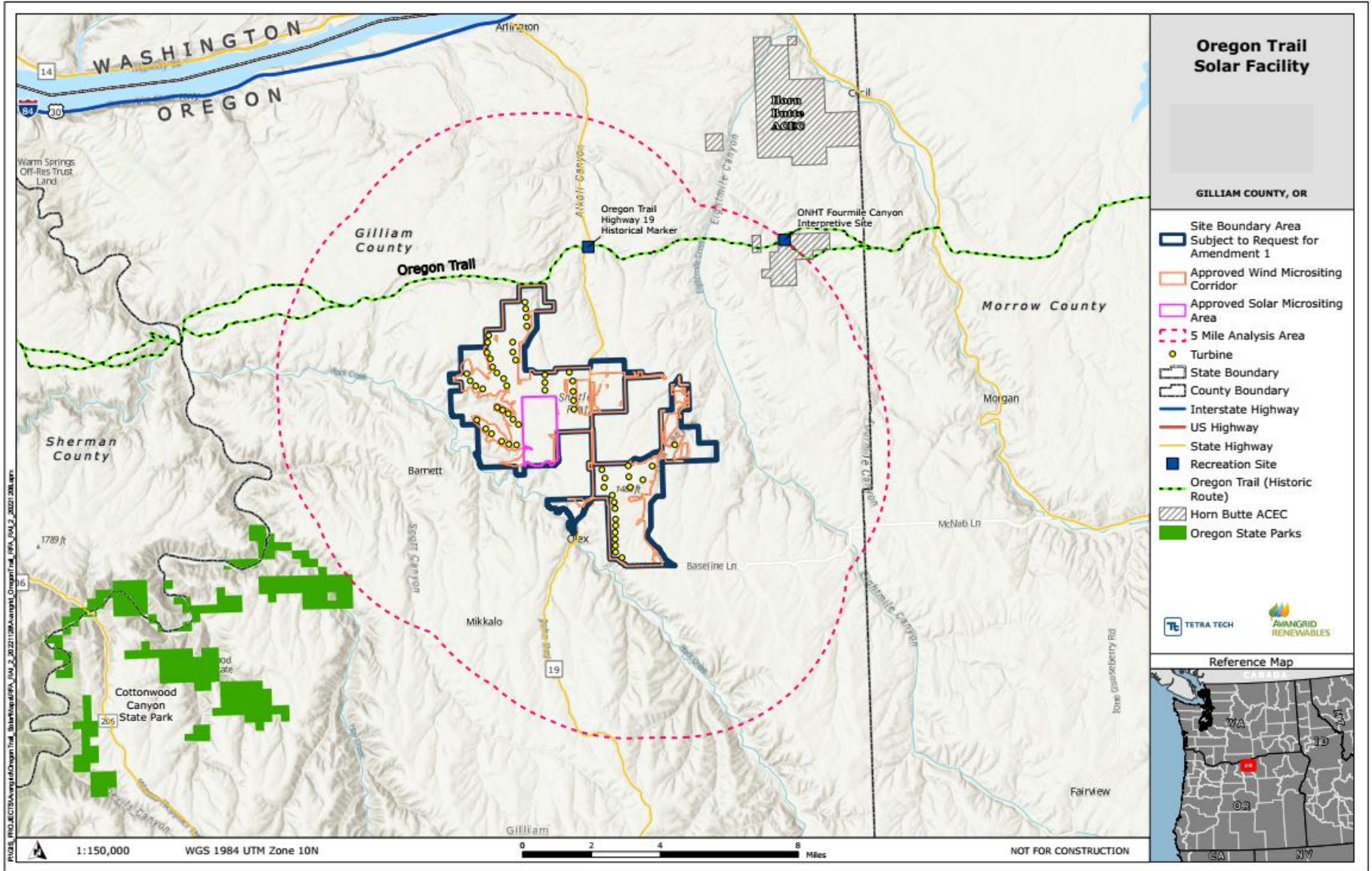
20  
21 Figure 13 below, shows the proposed facility and analysis area in relation to recreational  
22 opportunities in the vicinity.

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<sup>95</sup> MWPAMD5Doc12 Final Order on RFA5 2020-09-25. Page 115.

<sup>96</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 162.

Figure 13: Important Recreational Opportunities in Analysis Area



1 *Oregon National Historic Trail (ONHT) Fourmile Canyon Interpretive Site*

2  
3 The ONHT Fourmile Canyon Interpretive Site is a recreational opportunity located  
4 approximately 5 miles from the OTS site boundary. The site provides public viewing of an intact  
5 remanent of the ONHT, and an interpretive display. Although the degree of demand for this  
6 recreational opportunity is low, the Council previously found the site to be an important  
7 recreational opportunity based on its rare and irreplaceable characteristics.<sup>97</sup>

8  
9 *Cottonwood Canyon State Park*

10  
11 Cottonwood Canyon State Park is an 8,000-acre park that provides recreational opportunities  
12 such as hiking, camping, horseback riding, hunting, and boat and fishing access to the John Day  
13 River. Approximately 12.5 acres of the park are located within the analysis area with the  
14 remainder located more than 5 miles from the site boundary. Because the park has a special  
15 designation and is not common or replaceable, the Council has previously evaluated the park as  
16 an important recreational opportunity under the Council’s standard.<sup>98</sup>

17  
18 Evaluation of Potential Impacts to Important Recreation Opportunities

19  
20 Under the Council’s Recreation standard, the Council must find that, taking into account  
21 mitigation, the facility, with proposed changes, is not likely to result in a significant adverse  
22 impact to identified important recreational opportunities.

23  
24 *Direct Loss to Recreational Opportunities*

25  
26 A direct loss to a recreational opportunity occurs when construction or operation of the facility  
27 alters a resource so that it no longer exists in its current state. Because both important  
28 recreational opportunities in the analysis area are approximately 5 miles from the site  
29 boundary, the Department recommends that Council continue to find that the construction and  
30 operation of the facility would not result in direct loss at either of the important recreational  
31 opportunities.

32  
33 *Indirect Loss to Recreational Opportunities*

34  
35 An indirect loss to a recreational opportunity occurs when construction or operation of the  
36 facility impacts access or use of a resource due to increased noise, traffic, visual impacts, or  
37 other reasons.

38  

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<sup>97</sup> MWPAPPD157 MWP Final Order 2010-09-10. Page 77.

<sup>98</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 162.

1 *Potential Noise Impacts to Recreational Opportunities*

2 Construction noise would produce localized, short-duration noise levels similar to those  
3 produced by any large construction project with heavy construction equipment. Noise during  
4 operation would be generated by wind turbines and electric equipment associated with wind  
5 and solar power generation and battery storage.

6  
7 The Council previously found that noise from the facility is not likely to result in significant  
8 adverse impacts to any important recreational opportunities in the analysis area.<sup>99</sup> The Council  
9 also imposed Site Certificate Condition 106 which requires combustion engine powered  
10 equipment to be equipped with exhaust mufflers; requires operation of the noisiest  
11 construction equipment to be restricted to daylight hours; and requires that the certificate  
12 holder establish a noise complaint response system, including a system for the certificate  
13 holder to receive and resolve noise complaints. Condition 108 requires other measures to  
14 ensure compliance with noise control regulations during operations.

15  
16 The changes in Request for Amendment 1 of the Site Certificate for the Oregon Trail Solar  
17 Facility are not expected to change the type or number or noise sources proposed to be  
18 constructed and operated as part of the proposed facility and are not expected to increase  
19 noise impacts that may occur. Given that there are no increases in expected noise levels or  
20 other changes that would affect the Council’s previous conclusions, the Department  
21 recommends that Council continue to rely on its finding that noise from the facility is not likely  
22 to result in significant adverse impacts to any important recreational opportunities in the  
23 analysis area.

24  
25 *Potential Traffic Impacts to Recreational Opportunities*

26 The Fourmile Canyon Interpretive Site is located on Fourmile Road, which can be accessed from  
27 I-84 via Oregon Route 19 or from Highway 74 via Fairview Lane to the East. Oregon Route 19 is  
28 Oregon Route 19 will be the primary transportation route for construction workers and delivery  
29 vehicles during construction of the facility. While the estimated 180 daily roundtrips to the site  
30 estimated to occur during peak construction months could result in some minor delays along  
31 these routes, the Council previously found that these traffic impacts would be less than  
32 significant.<sup>100</sup>

33  
34 Cottonwood Canyon State Park is primarily accessed via State Route 206, which is not expected  
35 to be affected by construction or operation of the proposed facility.

36  
37 As discussed in Section III.M, the Council previously imposed Site Certificate Conditions 28, 73,  
38 74, 81, and 42 to mitigate impacts on traffic safety from the facility, and determined that,  
39 subject to compliance with those conditions, construction and operation of the facility is not

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<sup>99</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 163.

<sup>100</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 164.

1 likely to result in any significant adverse impacts on traffic safety. There are no changes to  
2 facility design or construction that would increase traffic related impacts, and accordingly,  
3 the Department recommends that the Council continue to find that construction and operation  
4 of the facility is not likely to result in a significant adverse impact in access to important  
5 recreational opportunities in the analysis area.

6  
7 *Potential Visual Impacts to Recreational Opportunities*

8 In support of Request for Amendment 1 of the Oregon Trail Solar Facility, the certificate holder  
9 provided an updated zone of visual influence (ZVI) analysis based on the highest impact layout  
10 for the 57 previously approved turbine locations within the site boundary.

11 Potential visibility is summarized below:

12  
13 The Fourmile Canyon Interpretive Site is approximately 6.8 miles from the nearest approved  
14 turbine location, and between 6 and 15 wind turbines could potentially be visible from the  
15 Fourmile Canyon Interpretive Site. Consistent with previous analysis evaluated in MWP RFA4,  
16 the site directs viewers towards the southernmost trail segment extending up an adjacent  
17 foothill located to the west. The Council previously imposed Site Certificate Condition 105,  
18 which imposed setback requirements to mitigate head-on views of the facility from the  
19 interpretive site, but this condition was deleted after the affected areas were removed from  
20 the micrositing corridor.<sup>101</sup>

21  
22 At its closest point, Cottonwood Canyon State Park is approximately 5.7 miles from the nearest  
23 approved wind turbine location and the certificate holder's ZVI analysis indicates that 0 to 5  
24 wind turbines could potentially be visible from the portion of the park within the analysis area,  
25 with more limited or no visibility in lower elevation portions of the park along the John Day  
26 River which are the park's most important use areas. The Council previously found that any  
27 impacts to the park would be less than significant because visual impacts in high-use areas  
28 would be minimal.<sup>102</sup>

29  
30 Because there are no changes to the proposed facility design included as part of RFA 1 that  
31 would increase visual impacts from facility components, the Department recommends that  
32 Council find that the facility is not likely to result in significant adverse visual impacts on  
33 important recreational opportunities.

34  
35 **Conclusions of Law**

36  
37 Based on the foregoing findings of fact and conclusions, and subject to compliance with existing  
38 site certificate conditions, the Department recommends that Council continue to find that the

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<sup>101</sup> MWPAMD5Doc12 Final Order on RFA5 2020-09-25, Page 119.

<sup>102</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 112.

1 facility, with changes proposed Request for Amendment 1, would continue to comply with the  
2 Council’s Recreation standard.

3 **III.M. Public Services: OAR 345-022-0110**  
4

5 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*  
6 *Council must find that the construction and operation of the facility, taking into account*  
7 *mitigation, are not likely to result in significant adverse impact to the ability of public*  
8 *and private providers within the analysis area described in the project order to provide:*  
9 *sewers and sewage treatment, water, storm water drainage, solid waste management,*  
10 *housing, traffic safety, police and fire protection, health care and schools.*

11  
12 *(2)The Council may issue a site certificate for a facility that would produce power from*  
13 *wind, solar or geothermal energy without making the findings described in section (1).*  
14 *However, the Council may apply the requirements of section (1) to impose conditions on*  
15 *a site certificate issued for such a facility.*

16 \*\*\*  
17

18 **Findings of Fact**  
19

20 The analysis area for potential impacts to public services from construction and operation of  
21 the facility is the area within and extending 10-miles from the site boundary. Communities in  
22 the analysis area include the City of Arlington and the unincorporated communities of Olex and  
23 Rock Creek in Gilliam County.

24  
25 In its Final Orders on Request for Amendment 4 and Request for Amendment 5 of the  
26 Montague Wind Facility, the Council found that, based on compliance with previously imposed  
27 site certificate conditions, the facility would comply with the Council’s Public Services  
28 Standard.<sup>103</sup>  
29

30 The construction deadline extension and amendment of Site Certificate Condition 50(b)  
31 proposed in Request for Amendment 1 of the Site Certificate for the Oregon Trail Solar are not  
32 expected to increase impacts on the ability of public and private service providers to supply  
33 sewer and sewage treatment, water, stormwater drainage, solid waste management, housing,  
34 traffic safety, police and fire protection, health care, and schools.  
35

36 In the Application for Site Certificate for the Montague Wind Power Facility, the certificate  
37 holder estimated that during construction of the Montague Wind Power Facility, approximately  
38 200 workers would be employed at the site on average during a 12-month construction period.  
39 During peak construction months, a maximum of 475 workers were expected to be employed

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<sup>103</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06, Page 172; MWPAMD5Doc12 Final Order on RFA5 2020-09-25, Page 105.

1 at the site. Assuming that up to 30 percent of the workforce would be hired locally (i.e. from  
2 Gilliam, Sherman, or Morrow Counties in Oregon or Klickitat County in Washington), the  
3 construction of the facility would result in an average of 140 and maximum of 333 workers  
4 temporarily relocating to the area. During operation, the facility is expected to employ between  
5 10 and 30 workers. Assuming 50 percent of these workers are hired locally and an average  
6 household size of the facility would result in 45 residents permanently relocating to the area.<sup>104</sup>  
7

8 While the Oregon Trail Solar Facility only consists of a portion of the originally approved facility,  
9 the previous estimates continue to be relevant to this evaluation because multiple phases or  
10 segments of the project may be under construction simultaneously.  
11

### 12 *Sewer and Sewage Treatment*

13

14 During construction of the facility, the certificate holder proposes to dispose of sanitary wastes  
15 using portable toilets that would be maintained and serviced by a licensed contractor. Sanitary  
16 wastes would be transported by truck for disposal at a local treatment facility. During  
17 operation, sanitary wastes would be disposed of using the onsite septic system constructed to  
18 serve the shared Montague Solar O&M building.  
19

20 Site Certificate Condition 28 requires the certificate holder to obtain or ensure that its  
21 contractors obtain all necessary federal, state and local permits or approvals required for  
22 construction, operation and retirement of the facility. This includes all permits and approvals  
23 required for the transport and disposal of sanitary wastes and for the construction of septic  
24 systems.  
25

26 The Council previously found that based on compliance with site certificate conditions, the lack  
27 of impacts on public or private sewer systems, and the relatively small volume of wastes  
28 expected to be disposed of through local sewage treatment facilities, that the amendment  
29 request is not likely to have a significant adverse impact on the ability of local public and private  
30 providers to provide sewer and sewage treatment services.<sup>105</sup> Because there have been no  
31 changes to the facility design that would impact sewer and sewage treatment services, the  
32 Department recommends that the Council continue to rely on these findings.  
33

### 34 *Stormwater and Wastewater Drainage*

35

36 During construction of the facility, stormwater and wastewater drainage would be managed  
37 according to the certificate holder's existing National Pollutant Discharge Elimination System

---

<sup>104</sup> MWPAMD4Doc17 Complete Request for Amendment 4, Exhibit U, Page U-5.

<sup>105</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06, Page 170.



1 1200-C (NPDES 1200-C) construction permit and its associated erosion and sediment control  
2 plan.

3  
4 During operation, wastewater from washing solar modules or wind turbine blades will be  
5 allowed to infiltrate soils or evaporate and is not expected to discharge into waters of this state.  
6 Wastewater discharges would be managed according to a General Water Pollution Control  
7 Facilities Permit (WPCF 1700-B). The Council previously imposed Site Certificate Condition 87,  
8 which as amended by the Final Order on Request for Amendment 4 of the Montague Wind  
9 Power Site Certificate requires the certificate holder to ensure there is no runoff of wash water  
10 from the site or discharges to surface waters, storm sewers or dry wells and prohibits use of  
11 detergents containing acids, bases, metal brighteners or phosphates.

12  
13 The Council previously found that because the facility will not discharge stormwater runoff or  
14 wastewater into a public or private drainage system, and because existing permits and  
15 conditions require the certificate holder to avoid discharges into waters of the state and  
16 manage wastewater discharge in accordance with state law, the facility is not likely to have a  
17 significant adverse impact on stormwater and wastewater drainage services. Because there  
18 have been no changes to the facility design that would impact stormwater and wastewater  
19 drainage services, the Department recommends that the Council continue to rely on these  
20 findings.

21  
22 *Water Use*

23  
24 In its Request for Amendment 4 of the Site Certificate for the Montague Wind Power Facility  
25 the certificate holder estimated that construction of the facility would require up to 120,000  
26 gallons of water per day for dust control and road compaction. The total amount of water  
27 required for construction of the facility is approximately 36.8 million gallons.<sup>106</sup>

28  
29 During operation, the certificate holder estimates that it will need approximately 430,000  
30 gallons of water per year for washing solar modules and wind turbine blades and up to 5,000  
31 gallons per year for sanitary uses at the Montague Solar O&M building.<sup>107</sup>

32  
33 RFA1 Attachment 3 includes an August 3, 2022 letter from the City of Arlington Public Works  
34 Department, the service provider expected to provide water from its existing water right for  
35 construction of the facility and for washing of facility components. The letter states that the  
36 City can provide up to 40 million gallons of water during construction and up to 500,000 gallons  
37 of water per year for maintenance, but meeting the demand will require the City to lease a  
38 temporary pump station and truck fill station pending development of a permanent pump  
39 station. The letter also states that, while the City anticipates being able to meet demand for the

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<sup>106</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 166.

<sup>107</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 167.

1 facility, it will prioritize City uses of the water, including supplying water to the City Golf Course  
2 and meeting other City irrigation needs.<sup>108</sup>

3  
4 The Council previously imposed site certificate condition 86:

5  
6 86 During facility operation, the certificate holder shall obtain water for on-site uses from  
7 an on-site well located near the Montague Solar O&M building. The certificate holder  
8 shall construct the on-site well subject to compliance with the provisions of ORS  
9 537.765 relating to keeping a well log. The certificate holder shall not use more than  
10 5,000 gallons of water per day from the on-site well. The certificate holder may use  
11 other sources of water for on-site uses subject to prior approval by the Department.

12  
13 Because the certificate holder has identified appropriate sources of water that are adequate to  
14 meet need during construction and operation of the facility without requiring new water rights,  
15 the Department recommends the Council find that construction and operation of the facility is  
16 not likely to significantly affect the ability of service providers in the analysis area to provide  
17 water to their customers.

18  
19 *Solid Waste Management*

20  
21 Solid wastes expected to be generated during construction of facility include concrete wastes,  
22 wood wastes, scrap metal, packaging materials for facility components and electrical  
23 equipment, and erosion control materials such as straw wattles and silt fencing.<sup>109</sup> The Council  
24 previously imposed site certificate conditions 111 and 112 requiring that, during construction  
25 and operation, the certificate holder develop and implement a solid waste management plan  
26 that includes measures for minimizing solid wastes and recycling wastes to the extent  
27 possible.<sup>110</sup>

28  
29 Solid waste disposal for the facility during construction and operation of the facility will be  
30 provided by private contract with a local commercial hauler or haulers.<sup>111</sup> The certificate holder  
31 has not identified who these haulers will be or what landfill wastes will be hauled to, but the  
32 public landfill nearest to the facility is the Columbia Ridge Landfill in Arlington which is owned  
33 and operated by Waste Management Disposal Services of Oregon. Approximately 320 million  
34 tons of wastes are processed at the Columbia Ridge Land Landfill annually.<sup>112</sup>

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<sup>108</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Attachment 3.

<sup>109</sup> MWPAMD4Doc17 Complete Request for Amendment 4. Exhibit V, Page V-4.

<sup>110</sup> MWPAPPDoc157 MWP Final Order 2010-09-10. Page 119.

<sup>111</sup> MWPAPPDoc157 MWP Final Order 2010-09-10. Page 119.

<sup>112</sup> Waste Management. Columbia Ridge Landfill and Green Energy Plant Factsheet. August 2022. Accessed December 5, 2022 at: <https://www.wmnorthwest.com/landfill/pdf/columbiaridge.pdf>

1 Construction wastes could also contain hazardous materials such as unused solvents; used oil,  
2 used hydraulic fluids, spent fluids, oily rags, and spent lead acid or nickel-cadmium batteries.<sup>113</sup>  
3 Chemical Waste Management of the Northwest also operates a hazardous wastes facility in  
4 Arlington. The hazardous waste facility has remaining permitted capacity of 3.7 million cubic  
5 yards.<sup>114</sup>  
6

7 Solid wastes expected to be generated during operation include industrial wastes from  
8 maintenance and replacement of batteries associated with the battery energy storage system.  
9 The certificate holder estimates that batteries would need to be replaced every 7 years. The  
10 Council previously imposed site certificate condition 116 to address the safe handling and  
11 transport of batteries.<sup>115</sup>  
12

13 There has been no change to the facility that is expected to result in the generation of  
14 additional solid wastes. Subject to compliance with previously imposed conditions to minimize  
15 solid wastes and ensure the appropriate transport and disposal of all non-recyclable wastes, the  
16 Department recommends the Council find that construction and operation of the facility is not  
17 likely to significantly impact the ability of local service providers to provide solid waste  
18 management services.  
19

## 20 *Housing*

21

22 As described above, an estimated 140 workers on average are expected to relocate to the area  
23 surrounding the site during construction with a maximum of 333 workers temporarily  
24 relocating to the area during peak construction months. During operation of the facility, an  
25 estimated 15 households are expected to permanently relocate to the area.  
26

27 In support of the Application for Site Certificate for the Montague Wind Facility, the certificate  
28 holder provided data showing that in 2000, there were approximately 2,000 vacant housing  
29 units available in the Gilliam, Morrow, and Sherman Counties in Oregon and Klickitat County in  
30 Washington. Updated housing data has not been considered in subsequent amendments. As  
31 shown in Table 9 below, the total number of housing units in the four-county area where the  
32 construction workforce is likely to reside has increased in the past 20 years, but the number of  
33 vacant units has remained stable, increasing slightly to 2,144 in 2020. Only a portion of these

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<sup>113</sup> Final Order on Request for Amendment 4 of the Site Certificate for the Montague Wind Power Facility, page 176.

<sup>114</sup> Chemical Waste Management Inc., Chemical Waste Management of the Northwest Factsheet. Undated. Accessed December 5, 2022 at: [https://www.wmsolutions.com/pdf/factsheet/CWM\\_Arlington.pdf](https://www.wmsolutions.com/pdf/factsheet/CWM_Arlington.pdf)

<sup>115</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 167.

- 1 vacant units are likely to be available for short- to medium-term rental to accommodate
- 2 construction workers.

**Table 9: Total Housing Supply and Vacancy Rates for Gilliam, Morrow, Sherman, and Klickitat Counties, 2000-2020**

County	2000			2010			2020		
	Total Units	Vacant Units	Vacancy Rate	Total Units	Vacant Units	Vacancy Rate	Total Units	Vacant Units	Vacancy Rate
Gilliam	1,043	224	21.5%	1,156	292	25.3%	1,095	229	20.9%
Morrow	4,276	500	11.7%	4,442	526	11.8%	4,717	503	10.7%
Sherman	935	138	14.8%	918	141	15.4%	918	92	10.0%
Klickitat (WA)	8,633	1,157	13.4%	9,786	1,459	14.9%	10,533	1,320	12.5%
<b>Total</b>	<b>14,887</b>	<b>2,020</b>	<b>13.6%</b>	<b>16,302</b>	<b>2,418</b>	<b>14.8%</b>	<b>17,263</b>	<b>2,144</b>	<b>12.4%</b>

Sources: 2000 data provided in Application for Site Certificate on the Montague Wind Power Facility; Table U-2, Housing Supply in Counties and Communities within the Analysis Area, citing U.S. Census Bureau, 2000. 2010 and 2020 data from U.S. Census Bureau, 2010 Census Redistricting Data (P.L. 94-171), Table H1. Accessed December 5, 2022 at: <https://data.census.gov/>

3  
 4 Most construction workers are expected to lodge at motels, hotels, RV parks, and campgrounds  
 5 during the construction period. The certificate holder previously estimated there were  
 6 approximately 1,100 rooms and/or campsites within commuting distance of the site.<sup>116</sup>

7  
 8 The Council previously found that based on the information provided by the certificate holder,  
 9 and subject to compliance with the existing and recommended site certificate conditions, the  
 10 Council finds that the facility was not likely to result in significant adverse impacts to the ability  
 11 of public and private providers within the analysis area to provide housing. Because there have  
 12 been no significant change in housing supply or the number of persons expected to relocate to  
 13 the vicinity of the site on a temporary or permanent basis, the Department recommends that  
 14 the Council may continue to rely on this finding.

15  
 16 *Health Care and Schools*

17  
 18 As described above, the construction and operation of the facility could result in the addition of  
 19 up to 45 new permanent residents to the local population. The Council previously found that  
 20 this small number of new permanent residents was not result in significant adverse impacts to

<sup>116</sup> MWPAPPDoc157 MWP Final Order 2010-09-10. Page 120.

1 providers of health care or schools in the analysis area.<sup>117</sup> Because there have been no changes  
2 to the facility that are expected to increase the number of permanent employees at the facility,  
3 the Department recommends the Council continue to rely on these findings.

4  
5 *Traffic Safety*

6  
7 In its Request for Amendment 4 of the Site Certificate for the Montague Wind Project, the  
8 certificate holder assumed that construction of the facility would last approximately 18 months  
9 and would result in a peak of 360 trips to and from the facility site.

10  
11 The Council previously imposed site certificate holder to obtain all necessary permits prior to  
12 beginning construction of any new State Highway approaches or Utility Crossings (Condition  
13 70), to design and construct new access roads and improved existing roads in compliance with  
14 standards approved by the Gilliam County Roads Department (Condition 71), to design and  
15 construct roads to meet specified width and compaction standards (Condition 72), to  
16 implement measures to reduce traffic impacts during construction of the facility (Condition 73),  
17 to avoid parking or storage of equipment or machinery within County road rights of way  
18 without approval from the County (Condition 74), and to repair any unusual damage or wear to  
19 County Roads caused by the construction of the facility (Condition 75). The Council previously  
20 found that based on compliance with these conditions, the construction and operation of the  
21 facility was not likely to result in a significant adverse impact to traffic safety.<sup>118</sup>

22  
23 *Air Traffic Safety*

24  
25 The only public airport in the analysis area is the Arlington Municipal Airport, which is located  
26 approximately 8.5 miles from the facility site.

27  
28 As part of Request for Amendment 4, the certificate holder provided a glare analysis conducted  
29 in accordance with the FAA's Interim Policy for review of solar energy systems projects on  
30 federally obligated airports (78 Federal Register 63276), demonstrating that the solar array is  
31 unlikely to cause significant glint or glare issues for the Arlington Municipal Airport.<sup>119</sup> We note  
32 that FAA's interim guidance and the final guidance that replaced it only apply to on-airport solar  
33 development and that the facility is not located at the Arlington Municipal Airport or within its  
34 final 2-mile approach path.

35  
36 The Council previously imposed Site Certificate Condition 64, which requires the certificate  
37 holder to submit, prior to the beginning of construction of the facility, a Notice of Proposed  
38 Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon

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<sup>117</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 171.

<sup>118</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 169.

<sup>119</sup> MWPAMD4Doc17 Complete Request for Amendment 4. Attachment R-2.

1 Department of Aviation identifying the final locations of turbine towers and meteorological  
2 towers to determine if the structure(s) are a hazard to air navigation and aviation safety. The  
3 Council previously found that, subject to compliance with this condition, the facility was not  
4 likely to result in a significant adverse impact to air traffic safety.<sup>120</sup> Because there have not  
5 been changes to the facility that are likely to impact air traffic, the Department recommends  
6 the Council continue to rely on these previous findings.

7  
8 *Fire Service Providers*  
9

10 The facility is located within the boundaries of the North Gilliam County Rural Fire Protection  
11 District. The Council previously imposed Site Certificate Conditions requiring the certificate  
12 holder to develop and implement fire safety plans in consultation with the District and meet  
13 annually with the District to discuss emergency planning (Condition 60), to provide a site plan  
14 and emergency contact information to the District (Condition 61), to ensure that construction  
15 personnel are trained in fire prevention and response (Condition 62) and to ensure that  
16 permanent employees receive fire prevention and response training from qualified instructors  
17 annually (Condition 63.)<sup>121</sup> Based on compliance with these conditions, the Council previously  
18 found that, based on compliance with these conditions, the construction and operation of the  
19 facility was not likely to result in a significant adverse impact on fire protection services.<sup>122</sup> No  
20 changes to the facility that are expected to increase risk of fire or demand on fire protection  
21 services are proposed as part of this amendment.

22  
23 In support of Request for Amendment 1 of the Site Certificate for the Oregon Trail Solar Facility,  
24 the certificate holder provided an updated service provider letter from the Gilliam County Fire  
25 Services Coordinator. The letter states that the proposed amendment is not expected to impact  
26 county fire services.<sup>123</sup>

27  
28 The certificate holder also provided a Wildfire Mitigation Plan for the facility as part of Request  
29 for Amendment 1 of the Oregon Trail Solar Facility. The evaluation of baseline and seasonal  
30 wildfire risk and identification of high-risk areas for wildfire are discussed further in Section  
31 IV.N., *Wildfire Prevention and Risk Mitigation*, of this order. This Section also discusses the  
32 implementation of an operational Wildfire Mitigation Plan (WMP), which is imposed under  
33 recommend amended Condition 60.

34  
35 Based on compliance with new and previously imposed conditions, the Department  
36 recommends that the Council find that the facility is not likely to result in a significant adverse  
37 impact on fire protection services.

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<sup>120</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 169.

<sup>121</sup> MWPAPPDoc157 MWP Final Order 2010-09-10. Pages 138-139.

<sup>122</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Page 171.

<sup>123</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Attachment 3.

1 *Police Protection and Emergency Response*

2  
3 Police protection at the facility would be provided by the Gilliam County Sheriff's Office. The  
4 Council previously imposed conditions requiring the certificate holder to develop and  
5 implement a site health and safety plan and to include local first responders in any emergency  
6 drill or tower rescue trainings provided at the facility (Condition 77). The Council also imposed  
7 Site Certificate Condition 78 which requires the certificate to provide on-site security during  
8 construction of the facility, to maintain communication protocol between the certificate  
9 holder's security personnel and the Gilliam County Sheriff's Office, and to ensure that law  
10 enforcement personnel have up-to-date emergency contact information for the facility.<sup>124</sup>

11  
12 There are no changes to the facility that are expected to increase demand for policing or  
13 security services. In support of Request for Amendment 1 of the Site Certificate for the Oregon  
14 Trail Solar Facility, the certificate holder provided an updated letter from the Gilliam County  
15 Sheriff's Office indicating that the amendment would not affect the ability of the Sheriff's Office  
16 to provide services to the facility.<sup>125</sup>

17  
18 Based on compliance with previously imposed conditions, the Department recommends that  
19 the Council find that the facility is not likely to result in significant adverse impacts to police  
20 services.

21  
22 The Department recommends Council amend Condition 76 and 78 solely to clarify the existing  
23 language and support Department and certificate holder interpretation during implementation.  
24 None of the condition language changes are intended to represent a substantive change to the  
25 previously imposed requirements.

26  
27 **Recommended Amended Condition 76:** The certificate holder shall:

28 (a) Prior to construction, submit to the Department a copy of contractor site health  
29 and safety plan(s) that informs workers and others on-site about first aid  
30 techniques and what to do in case of an emergency and that includes important  
31 telephone numbers and the locations of on-site fire extinguishers and nearby  
32 hospitals.

33 (b) During construction, the certificate holder shall require that all on-site construction  
34 contractors ~~develop and implement a~~ the site health and safety plan submitted per  
35 sub(a) of this condition, ~~that informs workers and others on-site about first aid~~  
36 ~~techniques and what to do in case of an emergency and that includes important~~  
37 ~~telephone numbers and the locations of on-site fire extinguishers and nearby~~  
38 ~~hospitals.~~ The certificate holder shall ensure that construction contractors have  
39 personnel on-site who are first aid and CPR certified.

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<sup>124</sup> MWPAPPDoc157 MWP Final Order 2010-09-10. Pages 169-170

<sup>125</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Attachment 3.

1 (g) If final facility design includes wind facility components, The certificate holder  
2 shall ensure that construction contractors have personnel on-site who are  
3 trained and equipped for tower rescue ~~and who are first aid and CPR certified.~~  
4

5 **Recommended Amended Condition 78:** The certificate holder shall:

6 (a) Prior to construction, provide to the Department a protocol for communication  
7 that will occur during construction between certificate holder’s on-site security  
8 and Gilliam County Sheriff’s Office.

9 (b) During construction ~~of the facility,~~ the certificate holder shall provide on-site  
10 security within the facility site boundary, and shall establish good  
11 communications between on-site security personnel and the Gilliam County  
12 Sheriff’s Office by establishing a communication protocol between the security  
13 personnel and the Sherriff’s office. ~~The communication protocol shall be sent to~~  
14 ~~the Department prior to construction.~~

15 (c) During operation, the certificate holder shall ensure that appropriate law  
16 enforcement agency personnel have an up-to-date list of the names and  
17 telephone numbers of facility personnel available to respond on a 24-hour basis  
18 in case of an emergency on the facility site. The list shall also be sent to the  
19 Department.  
20

21 **Conclusions of Law**

22  
23 Based on the foregoing analysis, and subject to the existing conditions, the Department  
24 recommends Council find that the facility, with proposed changes, would continue to comply  
25 with the Council’s Public Services Standard.  
26

27 **IV.N Wildfire Prevention and Risk Mitigation: OAR 345-022-0115**

28  
29 *(1) To issue a site certificate, the Council must find that:*

30  
31 *(a) The applicant has adequately characterized wildfire risk within the analysis*  
32 *area using current data from reputable sources, by identifying:*

33  
34 *(A) Baseline wildfire risk, based on factors that are expected to remain*  
35 *fixed for multiple years, including but not limited to topography,*  
36 *vegetation, existing infrastructure, and climate;*

37  
38 *(B) Seasonal wildfire risk, based on factors that are expected to remain*  
39 *fixed for multiple months but may be dynamic throughout the year,*  
40 *including but not limited to, cumulative precipitation and fuel moisture*  
41 *content;*

42  
43 *(C) Areas subject to a heightened risk of wildfire, based on the*  
44 *information provided under paragraphs (A) and (B) of this subsection;*



1  
2 *(D) High-fire consequence areas, including but not limited to areas*  
3 *containing residences, critical infrastructure, recreation opportunities,*  
4 *timber and agricultural resources, and fire-sensitive wildlife habitat; and*  
5

6 *(E) All data sources and methods used to model and identify risks and*  
7 *areas under paragraphs (A) through (D) of this subsection.*  
8

9 *(b) That the proposed facility will be designed, constructed, and operated in*  
10 *compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire*  
11 *Mitigation Plan must, at a minimum:*  
12

13 *(A) Identify areas within the site boundary that are subject to a*  
14 *heightened risk of wildfire, using current data from reputable sources,*  
15 *and discuss data and methods used in the analysis;*  
16

17 *(B) Describe the procedures, standards, and time frames that the*  
18 *applicant will use to inspect facility components and manage vegetation*  
19 *in the areas identified under subsection (a) of this section;*  
20

21 *(C) Identify preventative actions and programs that the applicant will*  
22 *carry out to minimize the risk of facility components causing wildfire,*  
23 *including procedures that will be used to adjust operations during periods*  
24 *of heightened wildfire risk;*  
25

26 *(D) Identify procedures to minimize risks to public health and safety, the*  
27 *health and safety of responders, and damages to resources protected by*  
28 *Council standards in the event that a wildfire occurs at the facility site,*  
29 *regardless of ignition source; and*  
30

31 *(E) Describe methods the applicant will use to ensure that updates of the*  
32 *plan incorporate best practices and emerging technologies to minimize*  
33 *and mitigate wildfire risk.*  
34

35 \*\*\*  
36

37 **Findings of Fact**  
38

39 The Wildfire Prevention and Risk Mitigation standard requires the Council to find the certificate  
40 holder has adequately characterized wildfire risk associated with a facility; and that the facility  
41 would be operated in compliance with a Council-approved wildfire mitigation plan. Because the  
42 effective date of OAR 345-022-0115 was July 29, 2022, and the preliminary Request for  
43 Amendment 1 (pRFA1) was submitted in August 2022, this standard applies to the facility. The  
44 OTS site certificate includes any combination of previously approved wind and solar facility

1 components within previously approved site boundary area (13,867 acres), the 9,424-acre wind  
2 micrositing corridor, and the 1,228-acre solar micrositing area. In RFA1 Section 6.14, the  
3 certificate holder evaluates wildfire risk within the solar micrositing area, and the OTS area  
4 subject to RFA1 (13,734 acres) which excludes the operational 230-kV line (133 acres), as  
5 discussed in Section II.B., *Amendment Review Process*, in this order. The 0.5-mile wildfire  
6 analysis area is approximately 28,959 acres from the OTS area subject to RFA1.<sup>126</sup>

#### 7 8 *Characterization of Wildfire Risk within Analysis Area*

9  
10 To adequately characterize the wildfire risk within the analysis area as required under OAR 345-  
11 022-0115(1)(a), the certificate holder used data from the Oregon Community Wildfire Planning  
12 Tool (CWPP) and the Wildfire Risk Explorer accessed via the Oregon Explorer which is an online  
13 planning tool maintained in partnership with the Oregon Department of Forestry, Oregon State  
14 University Institute for Natural Resources, and the U.S. Forest Service (USFS).<sup>127</sup> The  
15 Department and certificate holder also referenced the 2018 Pacific Northwest Quantitative  
16 Wildfire Risk Assessment: Methods and Results to explain data inputs and assumptions for the  
17 CWPP. The certificate holder also includes information from the National Wildfire Coordinating  
18 Group (NWCG), who provide national leadership to enable interoperable wildland fire  
19 operations among its federal, state, local, tribal, and territorial partners. The certificate holder  
20 also evaluated fire regimes of Columbia Plateau grasslands and steppe communities using 2012  
21 U. S. Forest Service data and climate and weather data from the National Oceanic and  
22 Atmospheric Administration (NOAA).

23  
24 Based upon the certificate holder and Department evaluation of baseline and seasonal fire risk,  
25 areas subject to heightened fire risk, and high-fire consequence areas using current and  
26 reputable data sources and methods, the Department recommends Council find that the area  
27 within the site boundary and the analysis area without the facility on the landscape as having  
28 moderate wildfire risk.

#### 29 30 *IV.N.1. Baseline Fire Risk [OAR 345-022-0115(1)(a)(A)]*

31  
32 The certificate holder and Department evaluated baseline wildfire risk within the analysis area,  
33 based on factors that are expected to remain fixed for multiple years, including topography of  
34 the site, vegetation, existing infrastructure, regional climate, and the Burn Probability.

#### 35 36 *Topography*

37  

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<sup>126</sup> OAR 345-001-0010(34)(c).

<sup>127</sup> As of November 16, 2022, the Oregon Wildfire Risk Explore website states, “The Senate Bill 762 statewide wildfire risk map and homeowner risk reports are unavailable while the map is being updated. The maps presented here are from the 2018 Quantitative Wildfire Risk Assessment and the rest of this site is still ready for you to explore.” [https://tools.oregonexplorer.info/OE\\_HtmlViewer/index.html?viewer=wildfire](https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfire) Accessed 11-16-2022.

1 The site boundary and surrounding analysis area are located in the Columbia Plateau, which  
2 consists of a large plateau underlain by a series of basalt flows. The top of the plateau tends to  
3 be relatively flat to gently rolling, but streams have dissected the plateau into steep-sided  
4 canyons. Elevations at the site range from approximately 600 feet in Alkali Canyon and Rock  
5 Creek to 1,200 feet above mean sea level on the plateau under the south side of the site.<sup>128</sup>  
6 The majority (99.7 percent) of the area within the analysis area and site boundary have less  
7 than a 25-degree slope, with the above-mentioned canyon areas having steeper slopes.  
8 Potential wildfires would generally travel quicker on steeper slopes and slower on the flatter  
9 portions of land within analysis area. The wildfire analysis area has primarily flat topography  
10 but has areas of steeper topography including in Alkali Canyon in the north along Cedar Springs  
11 Lane, Cow Canyon in the east, and along Rock Creek to the west and south which runs parallel  
12 to Middle Rock Creek Lane, the locations of these areas are illustrated below in Figure 14:  
13 Wildfire Analysis Area Topography and Infrastructure.

#### 14 15 *Vegetation*

16  
17 As discussed in the Final Order on RFA 4 and in Section III.H., *Fish and Wildlife Habitat*, of this  
18 order, the majority of the habitat classification within the site boundary and micro-siting areas is  
19 category 6 habitat because it is considered developed agricultural lands. Fuel model groups  
20 describe the fire-carrying fuel type of the surface fuels. The groups are broad categories (grass,  
21 shrub, timber, timber litter, timber understory, and slash/blowdown) of burnable fuels based  
22 on descriptions of live and dead vegetation that represent distinct fuel types, size classes, and  
23 load distributions (amounts).<sup>129</sup> RAF1 Figure 10B, illustrates the broad fuel model groups  
24 (vegetation type), that is derived from data from the Oregon CWPP Planning Tool and indicates  
25 that 49 percent the vegetation within the solar micro-siting area is low load dry climate grass  
26 (Fuel Model 102) and 48 percent is agricultural fields (Fuel Model 93).<sup>130</sup> The primary carrier of  
27 fire for Fuel Model 102 is grass where the fuelbed is more continuous. The agricultural field  
28 (Fuel Model 93) is land maintained in a non-burnable condition such as irrigated annual  
29 cropland. A further discussion of Fuel Model Groups and Fuel Models which describe the  
30 composition and characteristics of fire fuels is provided below under the evaluation of Seasonal  
31 Wildfire Risk.

#### 32 33 *Existing Infrastructure*

34  
35 Understanding the type and location of existing infrastructure informs the overall baseline  
36 wildfire risk prior to the facility being on the landscape, because and as discussed in the below  
37 sections, the addition of infrastructure to the landscape, including the facility, will increase the  
38 wildfire risk at the site. The existing infrastructure in the solar micro-siting area includes a

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<sup>128</sup> MWPAMD4Doc17 Complete Request for Amendment 4 2019-04-05, Exhibit H Geology and Seismicity.

<sup>129</sup> [https://tools.oregonexplorer.info/OE\\_HtmlViewer/index.html?viewer=wildfireplanning](https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfireplanning) Access 11-21-2022

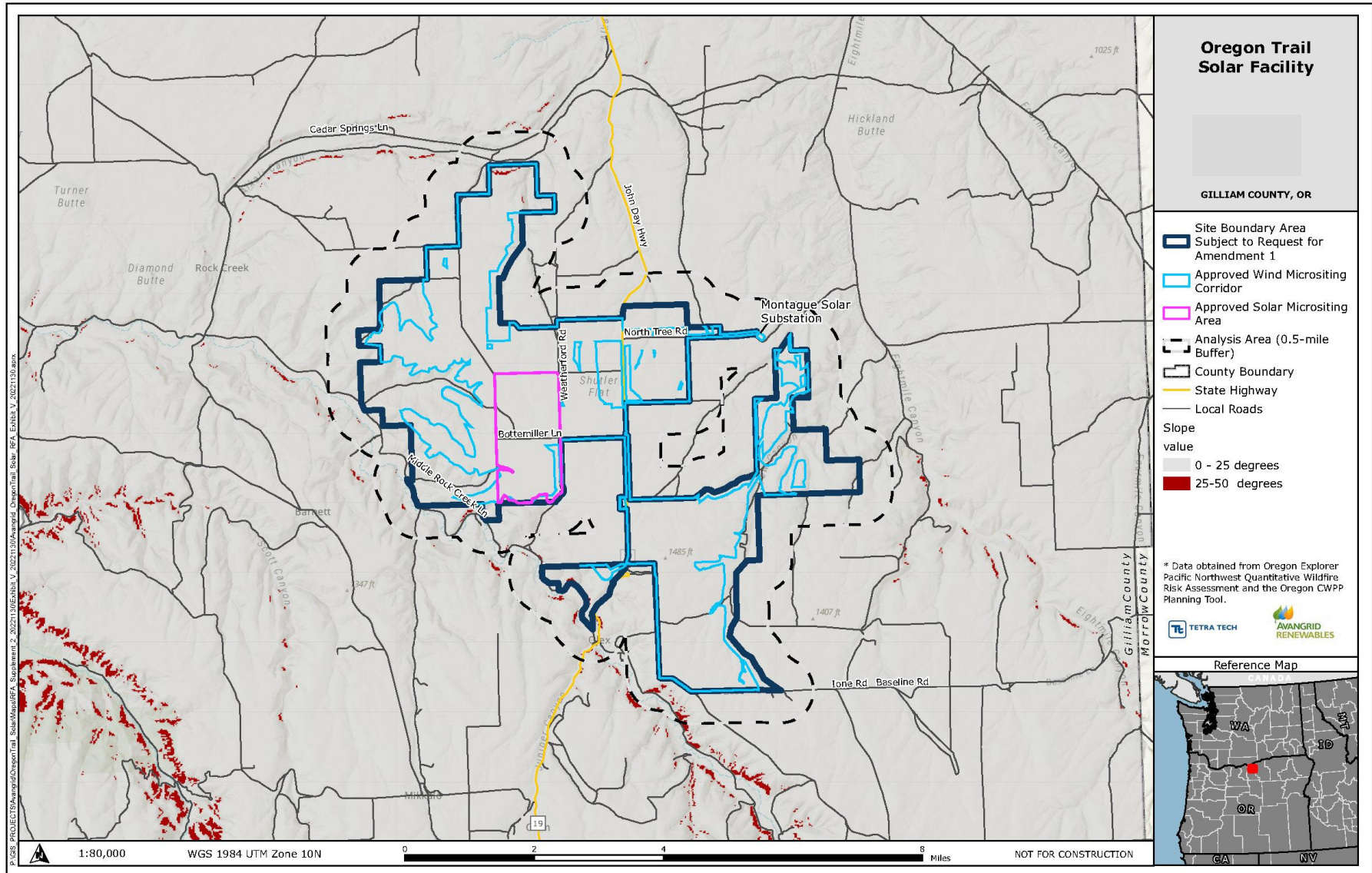
<sup>130</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.14.1.

1 distribution line and one residence along Bottemiller Lane. As illustrated in Figure 14: Wildfire  
2 Analysis Area Topography and Infrastructure, the existing infrastructure within the area subject  
3 to OTS RFA1 includes a distribution line, residences, and agricultural structures along  
4 Weatherford Road and John Day Highway (Highway 19) running north to south in the middle as  
5 well as a distribution line along Bottemiller Lane. In between Weatherford Road and John Day  
6 Highway in the north are additional agricultural production properties. There is also a  
7 distribution line along North Tree Road in the north that runs east to west. In the eastern  
8 corner, there is a distribution line over a road in a slight canyon connecting areas of wind  
9 turbines. In the southwest corner just east of Middle Rock Creek Lane there is a distribution  
10 line.

11  
12 Existing structures outside of the area subject to OTS RFA1 but within the wildfire analysis area  
13 to the north in Alkali Canyon along Cedar Springs Lane include distribution lines, and the  
14 Palouse River & Coulee City railroad mainline and yard. Also, in the north within the wildfire  
15 analysis area are wind turbines that run parallel and across to Weatherford Road. The  
16 southwestern portion of the wildfire analysis area includes residences, agricultural properties,  
17 and distribution lines along Middle Rock Creek Lane to where it meets John Day Highway to the  
18 south. The southern portion of the wildfire analysis area includes residences and distribution  
19 lines following Baseline/Ione Road. To the east outside of the area subject to OTS RFA1 but  
20 within the wildfire analysis area, are existing infrastructure including wind turbines. The roads  
21 throughout the wildfire analysis area would act as firebreaks. These include Bottemiller,  
22 Weatherford Road, John Day Highway, North Tree Road, Middle Rock Creek Lane, Cedar Springs  
23 Lane, and Baseline Lane/Ione Road.

24

Figure 14: Wildfire Analysis Area Topography and Infrastructure



1

1 *Regional Climate*

2  
3 The facility site boundary and analysis area are within the southern portion of the Columbia  
4 Plateau. The Columbia Plateau ecoregion is made up of lowlands, with an arid climate, cool  
5 winters, and hot summers.<sup>131</sup> Arid regions receive little precipitation, less than 10 inches of rain  
6 per year, and semi-arid regions receive 10 to 20 inches of rain per year.<sup>132</sup> Based on data from  
7 NOAA, the total average annual precipitation for the area is 14 inches per year which is  
8 indicative of a semi-arid climate.

**Table 10: Summary of Monthly Normal Temperature and  
Precipitation at the Condon Station (1991-2020)**

Month	Max Temp (°F)	Avg Temp (°F)	Precip (Inch)
January	40.2	33	1.81
February	44.2	35.7	1.26
March	51.5	41.3	1.2
April	57.9	46.3	1.3
May	66.7	54.2	1.65
June	73.4	60	1.11
July	84.1	68.3	0.39
August	83.9	68.1	0.38
September	75	60.5	0.47
October	61.2	49.3	1.17
November	48	39.3	1.51
December	39	32.1	1.82

Source: OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.14.1, Table 7.  
NOAA, National Centers for Environmental Information. Condon Station, OR US  
USC00351765

9  
10 *Burn Probability*

11  
12 Burn Probability shows the likelihood of a wildfire greater than 250 acres burning a given  
13 location, based on wildfire simulation modeling. This is an annual burn probability, adjusted to  
14 be consistent with the historical annual area burned. Viewing local small fires in conjunction  
15 with this layer can give a more comprehensive view of local fire history and potential. The burn  
16 probability classes range from nonburnable (a majority of non-burnable fuel types such as  
17 water, agriculture, or urban) to very high burn probability, which indicates a greater than 1-in-  
18 50 chance of a wildfire >250 acres in a single year.<sup>133</sup> The solar micro siting area, area subject to  
19 RFA1, and wildfire analysis area all have burn probabilities consisting of primarily zero  
20 (agricultural areas) or high probability (1-in-500 to 1-in-100). However, there is also an area of

<sup>131</sup> <https://oregonconservationstrategy.org/ecoregion/columbia-plateau/>. Accessed 10-20-2022.

<sup>132</sup> <https://www.nps.gov/subjects/geology/arid-landforms.htm>. Accessed 10-20-2022.

<sup>133</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.14.1.



1 higher burn probability (1-in-100 to 1-in-50) south of the area subject to RFA1, but within the  
2 wildfire analysis area between Upper Rock Creek Road and Baseline Lane.

3  
4 *IV.N.2. Seasonal Wildfire Risk [OAR 345-022-0115(1)(a)(B)]*  
5

6 The certificate holder evaluated seasonal wildfire risk within the analysis area and site  
7 boundary using factors that are expected to remain fixed for multiple months but may be  
8 dynamic throughout the year, including cumulative annual and monthly precipitation, Fuel  
9 Moisture Content, and an evaluation of Average Flame Length which is the average length of  
10 flames expected during a fire, given local fuel and weather conditions.

11  
12 *Precipitation*  
13

14 A summary of precipitation is provided above under Regional Climate evaluated for Baseline  
15 Fire Risk. See also Table 10: *Summary of Monthly Normal Temperature and Precipitation at the*  
16 *Condon Station (1991-2020)*, above. Based on available climate data for the Condon station  
17 approximately 18 miles south of the area subject to OTS RFA1, the driest months on average  
18 based on the monthly normal precipitation between 1991 and 2020 are July, August, and  
19 September with averages of 0.39, 0.38, and 0.47 inches per month, respectively. All other  
20 months average between 1 and 2 inches of precipitation per month. The total average annual  
21 precipitation for the area is 14 inches per year, which is indicative of a semi-arid climate  
22

23 *Fuel Moisture Content/Fuel Modeling*  
24

25 Fuel moisture content varies depending on changes in weather (both seasonally and during  
26 short periods) and determination of exact fuel-moisture values at any time is complicated by  
27 both the nature of the fuels and their responses to the environment. The higher the fuel  
28 moisture content, the more difficult it is for fires to ignite and propagate. Living plants and dead  
29 fuels respond differently to weather changes; the drying and wetting processes of dead fuels  
30 are such that the moisture content of these fuels is strongly affected by weather changes.  
31 These moisture contents are influenced by precipitation, air moisture, air and surface  
32 temperatures, wind, cloudiness, as well as by fuel factors such as surface-to-volume ratio,  
33 compactness, and arrangement. Fuel moisture content is dynamic throughout the year and also  
34 throughout the day, hence a proxy to characterize seasonal wildfire risk. Fuel models describe  
35 the types of vegetation that are responsible for fire spread and are used in fire behavior  
36 modeling and is also a good proxy for to demonstrate Fuel Moisture Content.  
37

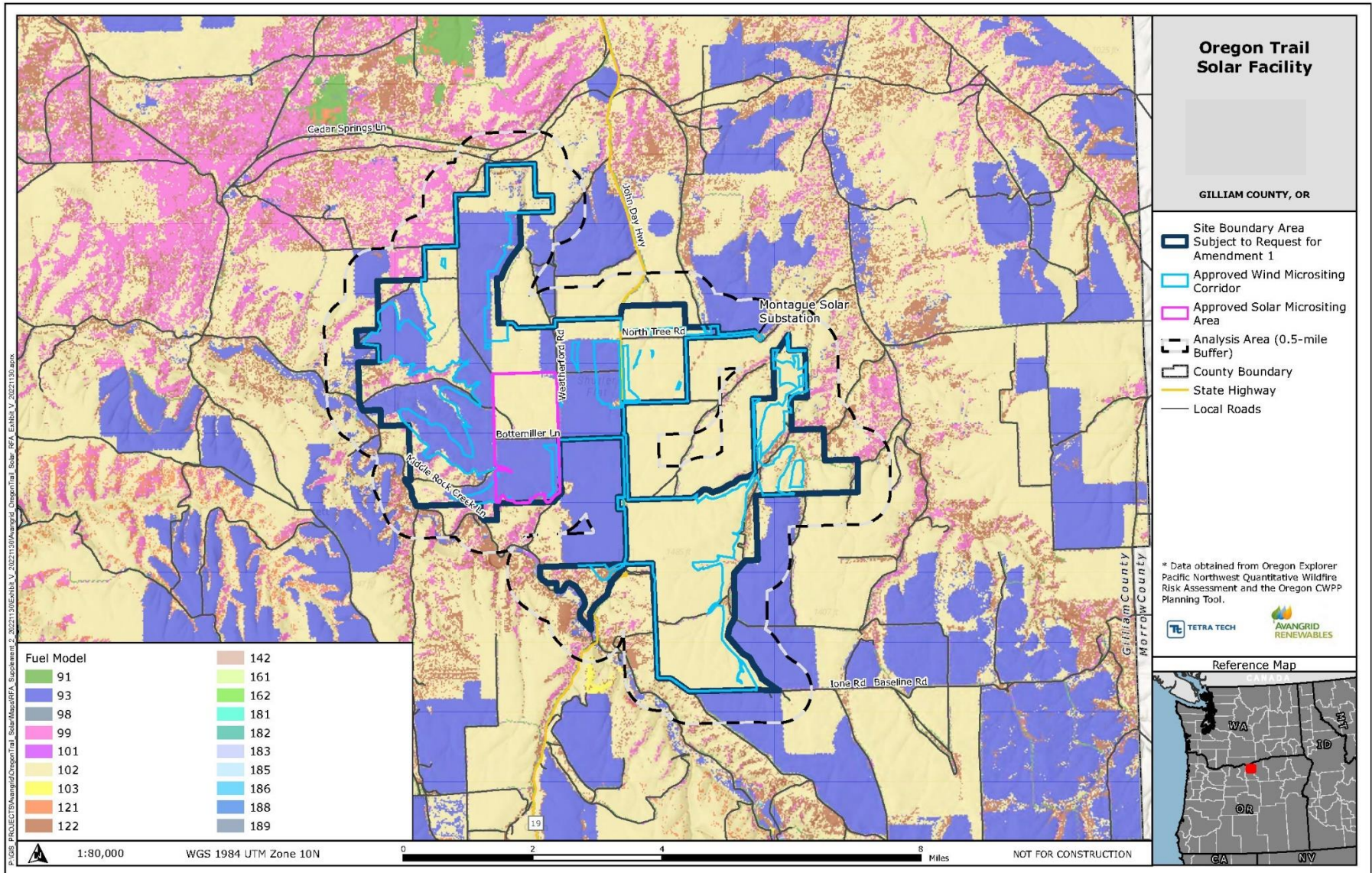
38 Figure 15: *Oregon CWPP Fuel Models in Analysis Area*, illustrates the predominant fuel models  
39 in the analysis area. As illustrated in Figure 15, the predominant fuel models are 93 and 102,  
40 with spots of 99 and 122. Below is a summary description of the vegetation type and fire  
41 behavior associated with each fuel model number:

- 42 • Fuel Model 93 - Primarily irrigated agriculture
- 43 • Fuel Model 102 - Grassland, primarily grass with some small amounts of fine, dead fuel,  
44 any shrubs do not affect fire behavior

- 1
  - 2
  - 3
  - 4
- Fuel Model 99 - Low load, dry climate grass, barren
  - Fuel Model 122 - Moderate grass load, dry climate grass-shrub, shrubs are 1-3 feet high, spread rate high and flame length is moderate



Figure 15: Oregon CWPP Fuel Models in Analysis Area



1

1 The Northwest Interagency Coordination Center (NWCC) Predictive Services group provides fire  
2 weather advisories (such as Red Flag Warnings) and fuel and fire behavior advisories (including  
3 fuel status reports and fuel moisture content predictions) for each predictive service area (PSA)  
4 in the northwest. The area subject to RFA1 is located within PSA E3 (NIFC 2022a). During  
5 construction and operation, fire danger forecasts would be monitored, and facility activities and  
6 mitigation measures would be adjusted based on their annual variations under the methods  
7 and measures identified in the Wildfire Mitigation Plan (WMP), discussed further below.

8

### 9 *Flame Length*

10

11 According to the 2018 Oregon Wildfire Risk Explorer, Average Flame Length shows the average  
12 length of flames expected, given local fuel and weather conditions. Flame lengths have  
13 potential to exceed the mapped values shown, even under normal weather conditions. Flame  
14 length is commonly used as a direct visual indication of fire intensity and is a primary factor to  
15 consider for firefighter safety and for gauging potential impacts to resources and assets. It can  
16 also guide mitigation work to reduce the potential for catastrophic fires by showing where work  
17 can be done to reduce higher potential flame lengths/fire intensities to lower flame lengths/fire  
18 intensities. Approximately half of the solar micro siting area has a modeled average flame length  
19 of 0 feet (49.9 percent) followed by 43 percent that is 0 to 4 feet. The area subject to RFA1 has  
20 more areas of 4 to 8 feet (22.1 percent) of average flame length including the entire eastern  
21 half.<sup>134</sup> (See also RFA1 Figure 10D) The average flame length modeled throughout the wildfire  
22 analysis area ranges from 0 to 8 feet and the rate of fire spread can be high, the areas of higher  
23 flame length are along Middle Rock Creek Lane in the west and south and along local roads  
24 throughout the area.

25

### 26 *IV.N.3. Areas of Heightened Wildfire Risk*

27

28 Under OAR 345-022-0115(1)(a)(C), the Council must find that the certificate holder has  
29 adequately characterized wildfire risk within the analysis area using current data from  
30 reputable sources by identifying areas subject to a heightened risk of wildfire, based on the  
31 information provided in support of the baseline and seasonal wildfire risk evaluation under OAR  
32 345-022-0115(1)(a)(A) and (B) provided above.

33

34 Understanding the location and type of existing infrastructure at the site and analysis area  
35 helps determine the areas that are most subject to wildfire risk. According to the USFS Pacific  
36 Northwest Region Wildfire Risk Assessment (PNRA) Highly Valued Resources and Assets (HVRA)  
37 are the resources and assets on the landscape most likely to be protected from or enhanced by  
38 wildfire. Certain types of infrastructure are included as HVRA including transmission lines,  
39 railroads, roads, and historic buildings, etc.

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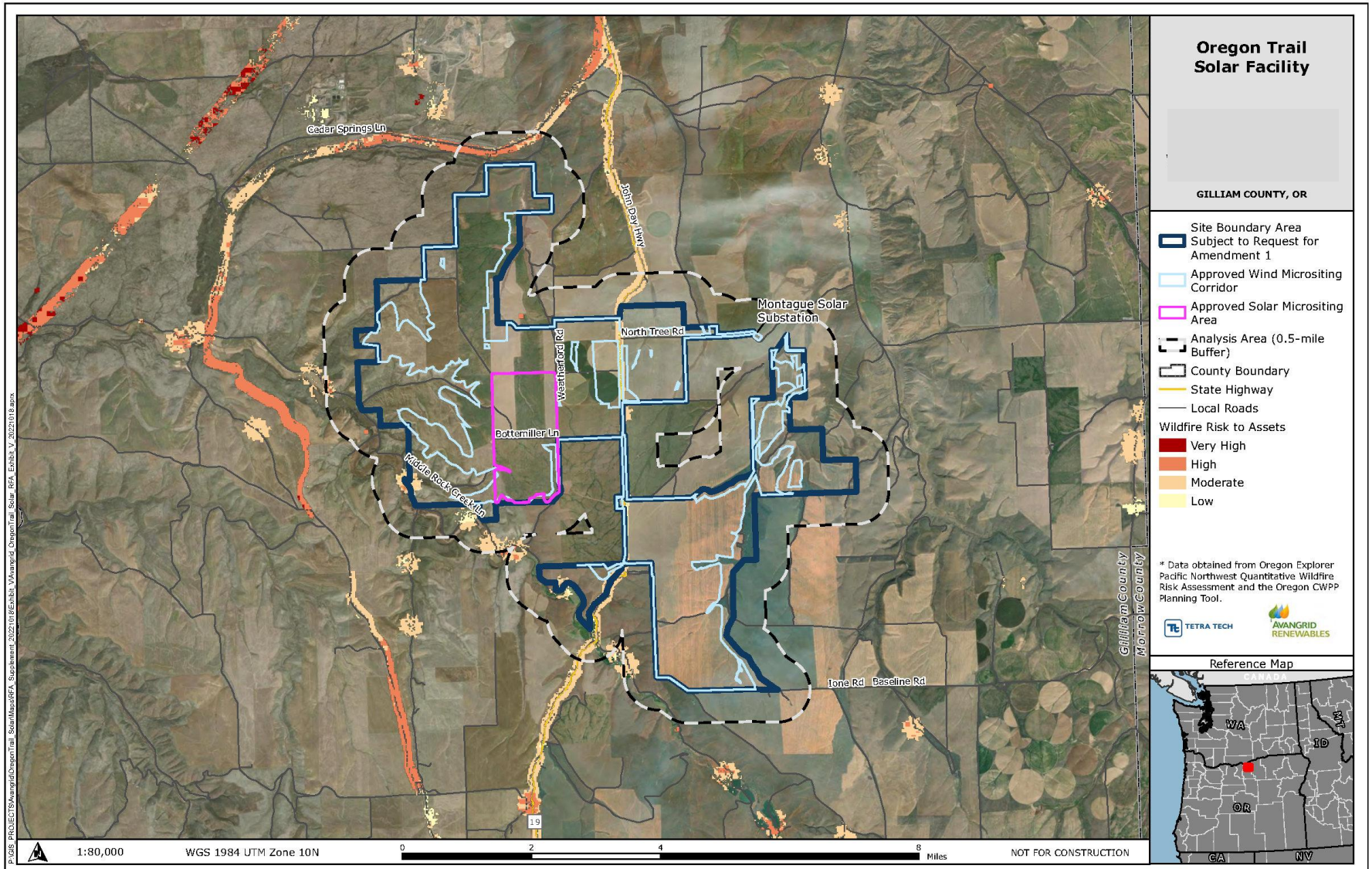
<sup>134</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.14.2 and Table 9.

1 The areas of heightened fire risk in the site boundary and analysis area are similar to the  
2 existing infrastructure (roads transmission lines, residences, etc.) that were described in Section  
3 IV.N.1. Baseline Fire Risk, above as well as shown on Figure 14: Wildfire Analysis Area  
4 Topography and Infrastructure.  
5

6 The certificate holder identifies areas of heightened risk in more detail using the CWPP Wildfire  
7 Risk to Assets, Potential Impacts to Infrastructure and Potential Impacts to People and Property  
8 datasets. Risk to Assets includes likelihood and consequences of wildfire on mapped highly  
9 valued assets including critical infrastructure, developed recreation, housing unit density  
10 (where people live), seed orchards, sawmills, and historic structures. This dataset considers the  
11 likelihood of fire (likelihood of burning), the susceptibility of assets to wildfire of different  
12 intensities, and the likelihood of those intensities. The CWPP Wildfire Risk to Assets dataset  
13 includes datasets for the Potential Impacts to Infrastructure and Potential Impacts to People  
14 and Property and is shown below in Figure 16: *Wildfire Risk to Assets / People in Analysis Area*.  
15 Each of these data sets data sets are also used in the Overall Fire Risk dataset, which is  
16 described below to identify High-Fire Consequence Areas.  
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Figure 16: Wildfire Risk to Assets / People in Analysis Area



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1        *IV.N.4. High-Fire Consequence Areas*

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3        Under OAR 345-022-0115(1)(a)(D), the Council must find that the applicant has adequately  
4        characterized wildfire risk within the analysis area using current data from reputable sources by  
5        identifying high-fire consequence areas, which include but are not limited to areas containing  
6        residences, critical infrastructure, recreation opportunities, timber and agricultural resources,  
7        and fire-sensitive wildlife habitat.

8  
9        Based on the 2018 CWPP Layer Descriptions and Values spreadsheet included with the PNRA  
10        report, the Overall Wildfire Risk layer is the product of the likelihood and consequence of  
11        wildfire on all mapped highly valued resources and assets combined: critical infrastructure,  
12        developed recreation, housing unit density, seed orchards, sawmills, historic structures, timber,  
13        municipal watersheds, vegetation condition, and terrestrial and aquatic wildlife habitat. Risk  
14        ratings range from very high wherein many resources are vulnerable, to beneficial, where fires  
15        may improve resources such as timber stands or wildlife habitat.<sup>135</sup> The Department  
16        recommends that the use of this 2018 CWPP data layers meets the necessary input  
17        requirements of OAR 345-022-0115(1)(a)(D).<sup>136</sup>

18  
19        Below, Figure 17: *Overall Fire Risk / High-Fire Consequence Areas*, illustrates this data set, which  
20        overlaps with the previous maps of infrastructure, people, and property. As anticipated, high  
21        and moderate risk areas are centered around the few steep slopes as described in baseline fire  
22        risk with shrub/scrub or herbaceous vegetation, farming structures, and infrastructure. Middle  
23        Rock Creek Lane, Berthold Road, and John Day Highway are the main corridors where pockets  
24        of moderate to high overall wildfire risk were modeled in the area subject to RFA1.

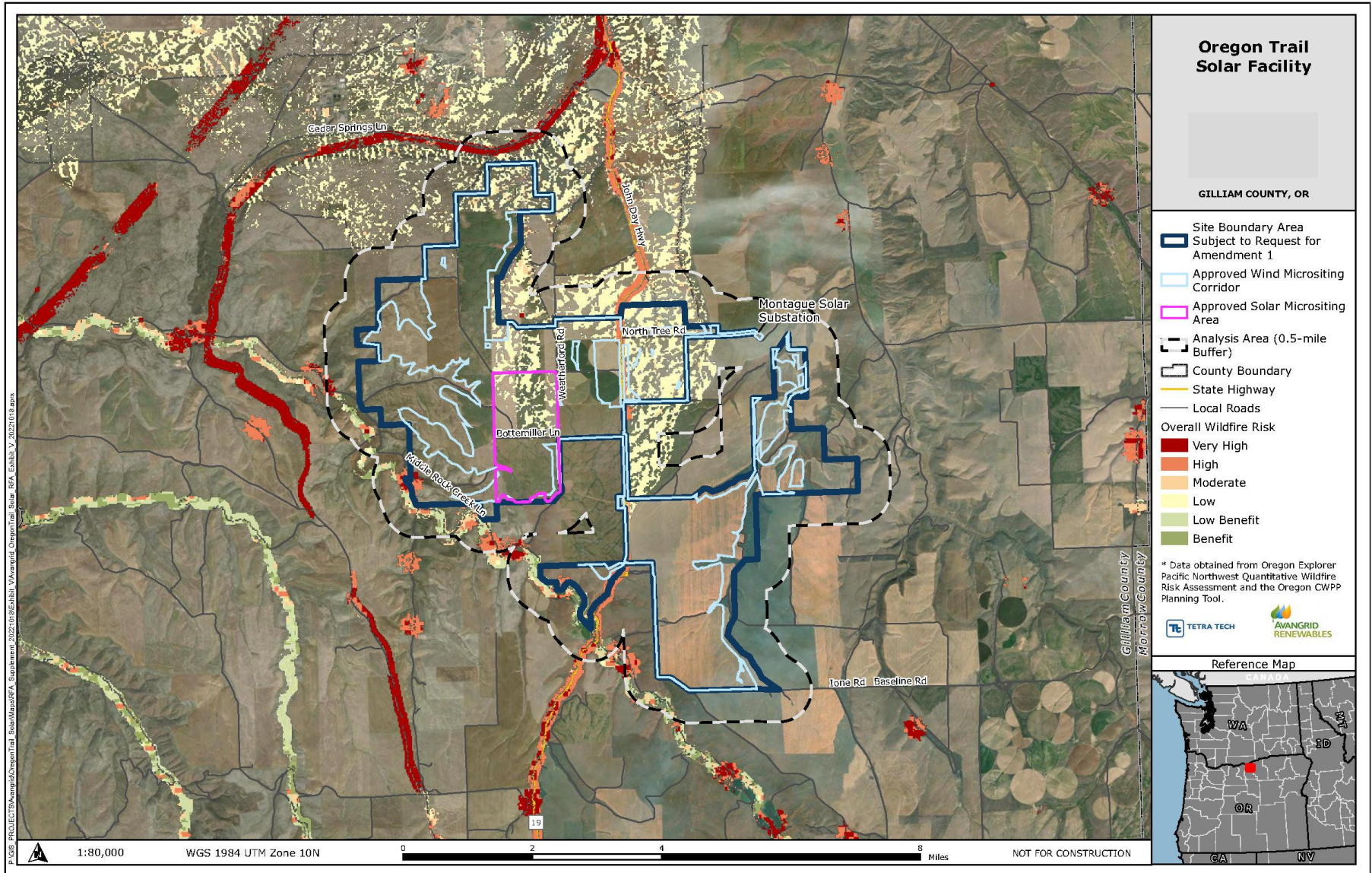
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<sup>135</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19, Section 6.14.4.

<sup>136</sup> The Department notes that much of the site boundary (82-88 percent) and analysis area (85 percent) in the 2018 CWPP data does not have mapped data.



Figure 17: Overall Fire Risk / High-Fire Consequence Areas



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1 *IV.N.5. Wildfire Mitigation Plan*

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3 Under OAR 345-022-0115(1)(b), the Council must find that the facility will be designed,  
4 constructed, and operated in compliance with a Wildfire Mitigation Plan (WMP) approved by  
5 the Council. The applicant’s Draft WMP is included Attachment 18 of RFA1.

6  
7 OAR 345-022-0115(1)(b)(A) requires the WMP to identify areas within the site boundary that  
8 are subject to a heightened risk of wildfire, using current data from reputable sources, and  
9 discuss data and methods used in the analysis. Section 2 of the WMP, Section IV.N.4. *High-Fire*  
10 *Consequence Areas*, and Section IV.N.3. *Areas of Heightened Wildfire Risk*, of this order identify  
11 these areas, which are the areas where there is existing infrastructure, people and property.

12  
13 OAR 345-022-0115(1)(b)(B) requires the description of procedures, standards, and time frames  
14 that the applicant will use to inspect facility components. Table 11: *Operational Inspections for*  
15 *Electrical Components*, as provided in the WMP describes the inspection type and schedule for  
16 facility components.

**Table 11: Operational Inspections for Electrical Components**

Inspection	Procedure	Standard	Time frame
Solar Inverter	Visual inspection of inverter and surrounding area.	SPCC Plan <sup>1, 2</sup> Manufacturer’s maintenance recommendations	Monthly SPCC Bi-annual Preventative Maintenance
Wind Turbine	Visual inspection of base of turbine and surrounding area.	SPCC Plan Site Certificate Condition 57	Monthly SPCC Bi-annual Preventative Maintenance
Substation	Visual inspection of MPT, APLIC measures, and surrounding area.	Manufacturer’s maintenance recommendations APLIC <sup>3</sup>	Monthly Yearly (APLIC)
BESS	Visual inspection of BESS, PCS, and surrounding areas	SPCC Plan	Monthly
Overhead electrical lines	Visual inspection of components, grounding, APLIC measures, vertical clearance distance between conductor and vegetation.	NERC <sup>4</sup> APLIC	Bi-annual
<ol style="list-style-type: none"> <li>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.</li> <li>2. Certificate Holder will developed an inspection checklist and program of electrical equipment based on manufacturer’s recommendations for individual components.</li> <li>3. Avian Power Line Interaction Committee.</li> <li>4. National Energy reliability Corporation (NERC), vegetation maintenance standard FAC-003-0.</li> </ol>			

1 OAR 345-022-0115(1)(b)(B) also requires the description of the procedures, standards, and time  
 2 frames that the applicant will use to manage vegetation. Table 12: *Vegetation Management*  
 3 *Procedures by Facility Component*, derived from the WMP outlines the procedure and schedule  
 4 for vegetation management. Condition 57 requires the certificate holder to construct turbines  
 5 and pad-mounted transformers on concrete foundations, to cover the ground within a 10-foot  
 6 radius with non-flammable material, and to maintain the non-flammable pad area covering  
 7 during operation of the facility.

**Table 12: 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.
Wind Turbine	Herbicide application on gravel pad around turbine pad and turbine access road to prevent vegetation.	Site Certificate Condition 57	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.

8  
 9 OAR 345-022-0115(1)(b)(C) requires the identification of preventative actions that the  
 10 certificate holder will carry out to minimize the risk of facility components causing wildfire.  
 11 Table 13: *Design Considerations for Fire Safety by Facility Component*, from the WMP outlines  
 12 these actions.

**Table 13: Design Considerations for Fire Safety by Facility Component**

Consideration	Solar Inverter	Wind Turbine	Substation	BESS	Overhead Lines
Electrical connections by qualified electricians	X	X	X	X	X



**Table 13: Design Considerations for Fire Safety by Facility Component**

Consideration	Solar Inverter	Wind Turbine	Substation	BESS	Overhead Lines
Inspections for mechanical integrity prior to energizations	X	X	X	X	X
Lighting protection	X	X	X	X	X
Corrosion protection	X	X	X	X	X
Strain relief of connecting cabling	X	X	X	X	X
Protection against moisture	X	X	X	X	X
Grounding systems	X	X	X	X	X
Limits on input voltage and power	X	X	X	X	X
Safety setback from structures	X <sup>2</sup>	X <sup>1</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>3</sup>
Technology specific design standards	X <sup>4</sup>	X <sup>5</sup>	X <sup>6</sup>	X <sup>7</sup>	X <sup>4</sup>
1. 110 percent of max turbine height setback from structures, Site Certificate Condition 41. 2. 50-foot setback from structures, Site Certificate Condition 41. 3. Vertical and horizontal clearances from structures depends on voltage of conductor. 4. NFPA 70. 5. NFPA 850. 6. IEEE 979. 7. NFPA 1, Chapter 52.					

1

2 OAR 345-022-0115(1)(b)(C) requires the identification of preventative programs that the  
 3 applicant will carry out to minimize the risk of facility components causing wildfire, including  
 4 procedures that will be used to adjust operations during periods of heightened wildfire risk.

5

6 The Draft WMP lists the programs that the certificate holder will implement at the facility,  
 7 which include:

8

9 OHSA-Compliant Fire Prevention Plan: All workers, contracting employees, and other personnel  
 10 performing official duties at the facility will conduct work under a Fire Prevention Plan that  
 11 meets applicable portions of 29 CFR 1910.39, 29 CFR 1910.155, 29 CFR 1910, subpart L. The Fire  
 12 Prevention Plan will ensure that:

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- 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

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 is the de-energized and physically locked or tagged in the de-energized positions to inadvertent events that could result in arc flash.

ISO 45001: The certificate holder’s parent company, Avangrid Renewables, is certified under ISO 45001 for health and safety in the operation of renewable energy generation facilities. ISO 45001 is an Occupational Health and Safety Management System (OHSMS) which provides a system for measuring and improving an organization’s health and safety impact.<sup>137</sup>

Site certificate condition 60 also requires that the certificate holder develop fire safety plan(s) in consultation with the North Gilliam County Rural Fire Protection District to minimize the risk of fire. Condition 62 requires training of construction personnel in fire prevention and response. Conditions 76 and 77 apply to construction and operation of the facility and require the certificate holder to implement of a site health and safety plan that informs employees and others on-site about first aid techniques and what to do in case of an emergency, including a contingency plan in a fire emergency, and that includes important telephone numbers and the locations of on-site fire extinguishers.

OR 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 in the event that a wildfire occurs at the facility site, regardless of ignition source. Table 14: *Additional Procedures to Minimize Wildfire Risk*, taken from the WMP lists the procedures that help protect these resources and providers.

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<sup>137</sup> <https://integrated-standards.com/compare-management-system-structure/compare-iso-9001-iso-14001-iso-45001/>. Accessed 12-21-2022.

1 Site certificate Condition 60, which is recommended to be amended as discussed below,  
 2 requires the certificate holder to develop and implement fire safety plans in consultation with  
 3 the North Gilliam County Rural Fire Protection District and meet annually with the District to  
 4 discuss emergency planning. Condition 61 requires the submission of a site plan and emergency  
 5 contact information to the District, Condition 62 ensures that construction personnel are  
 6 trained in fire prevention and response, and Condition 63 requires that permanent employees  
 7 receive annual fire prevention and response training from qualified instructors.

8  
 9 A summary of previously approved conditions and recommended amended conditions that  
 10 protect public health and safety are provided in Sections III.B., *Organizational Expertise*, III.C.,  
 11 *Structural Standard*, and III.P., *Public Health and Safety for Wind Energy Facilities*, in this order.

12  
 13 A summary of previously approved conditions and recommended amended conditions that  
 14 protect resources covered under Council standards are provided in Sections III.H., *Fish and*  
 15 *Wildlife Habitat*, III.K., *Historic, Cultural, and Archaeological Resources*, of this order.

**Table 14: Additional Procedures to Minimize Wildfire Risk**

Topic	Procedures
Public health and safety	The public will be excluded from the solar, substation, and BESS facilities by fencing. Turbine doors will be locked to prevent unauthorized entry. 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 Certificate Holder 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 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 wildlife between fields or into wildlife habitat. The two closest cultural sites are the Weatherford Barn and The Tree Site. The Weatherford Barn was deconstructed by the landowner and no longer exists, and The Tree Site is a buried resource that would not be exposed to wildfire.

16  
 17 OAR 345-022-0115(1)(b)(E) requires the description of methods the applicant will use to ensure  
 18 that updates of the plan incorporate best practices and emerging technologies to minimize and

1 mitigate wildfire risk.<sup>138</sup> The certificate holder indicates that it will track the industry groups and  
2 applicable design standards bulleted below to identify future technologies or best practices that  
3 could be implemented at the facility to minimize or mitigate wildfire risk at the facility:

- 4 • American Clean Power (ACP) - parent company is a member of ACP and participates in  
5 best practice development.
- 6 • National Electric Reliability Corporation (NERC) – certificate holder will follow NERC  
7 Standard FAC-003-0 for its vegetation management program of transmission lines or  
8 updates to this standard as approved by NERC.
- 9 • Avian Power Line Interaction Committee (APLIC) – parent company is a member of  
10 APLIC. An operational wildlife monitoring program will inspect for wildlife nesting on  
11 facilities that could cause fire, and take actions following applicable laws.

12  
13 As provided above, existing Condition 60 relates to the development and implementation of  
14 fire safety plans as well as coordination with the North Gilliam County Rural Fire Protection  
15 District. To consolidate these existing requirements with the requirements and representations  
16 in the Wildfire Mitigation Plan, the Department recommends amended Condition 60 as  
17 provided below. Further, as highlighted above, wildfire risk is dynamic with many factors that  
18 influence wildfire risk within an area or site. Wildfire risk also changes over time within an area  
19 and should therefore be periodically re-evaluated to assess any changes in risk at a site.

20  
21 The draft Wildfire Mitigation Plan (WMP) submitted by the certificate holder proposes to  
22 update the plan based on ongoing review of any new recommendations issued by American  
23 Clean Power, National Electric Reliability Corporation, OSBC and APLIC (WMP Table 5). The  
24 Department recommends that Council require that the plan be finalized prior to operation,  
25 based on final facility design and any updates to the recommendations provided by the data  
26 sources identified in WMP Table 5. The Department recommends Council amend the draft  
27 WMP to remove the certificate holder’s language to apply its sole discretion and financial  
28 impacts to the evaluation of whether updates to the WMP would be made.

29  
30 In addition, consistent with OAR 345-022-0115(1)(b)(E), the Department recommends the  
31 Council require that the certificate holder evaluate wildfire risk and response measures based

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<sup>138</sup> During the proceedings to adopt the Wildfire Prevention and Risk Mitigation Standard, the Council sought to maintain consistency with the wildfire mitigation rules adopted by the PUC to the extent possible. The PUC’s rules at OAR 860-300-0020(2), require Wildfire Mitigation Plans to be updated annually and filed with the OPUC. EFSC discussed its requirements for updating Wildfire mitigation Plans its May 27, 2022, meeting, where staff explained that the draft proposed rule language would require a Wildfire Mitigation Plan to be updated on a schedule proposed by the applicant. Council member Jenkins expressed support for this proposal, stating that Counties often require specific wildfire risk mitigation in their decisions and don’t follow up, and recommended that Council should avoid a similar pitfall by requiring plans to be updated. 2021-10-22-Item-G-Wildfire-Mitigation-Rulemaking-Staff-Report and 2022-05-26,27 FINAL meeting minutes, page 15.

1 on any new recommendations from the sources identified in WMP Table 5, to be reported to  
2 the Department in its annual report, as provided below.<sup>139</sup>

3  
4 **Recommended Amended Condition 60:**

- 5 (a) During construction ~~and operation~~ of the facility, the certificate holder shall develop  
6 and implement fire safety plan(s) in consultation with the North Gilliam County Rural  
7 Fire Protection District to minimize the risk of fire and to respond appropriately to  
8 any fires that occur on the facility site. In developing the fire safety plans, the  
9 certificate holder shall take into account the dry nature of the region and shall  
10 address risks on a seasonal basis. ~~For solar facility components, the certificate holder~~  
11 ~~shall address worker training requirements, inspections, vegetation management,~~  
12 ~~fire prevention and response equipment and potential mutual assistance in the case~~  
13 ~~of fire within or around the facility site boundary. The certificate holder shall meet~~  
14 ~~annually with local fire protection agency personnel to discuss emergency planning~~  
15 ~~and shall invite local fire protection agency personnel to observe any emergency drill~~  
16 ~~or tower rescue training conducted at the facility.~~
- 17 (b) Prior to operation of the facility, the certificate holder shall submit to the  
18 Department and the North Gilliam County Rural Fire Protection District, a final  
19 Wildfire Mitigation Plan (WMP) based on final facility design, new information from  
20 the data sources identified in WMP Table 5 and :
- 21 i. An updated wildfire risk assessment, taking into account the facility on the  
22 landscape.
  - 23 ii. Information substantially similar to those included in the WMP (Attachment E of  
24 the Final Order on RFA1), listed under OAR 345-022-0115(1)(b), taking into  
25 account wildfire risk with the facility on the landscape.
- 26 (c) During operation, the certificate holder shall:
- 27 i. Meet annually with local fire protection agency personnel to discuss emergency  
28 planning and shall invite local fire protection agency personnel to observe any  
29 emergency drill or tower rescue training conducted at the facility.
  - 30 ii. Implement the measures in the WMP.
  - 31 iii. In every annual report required under Condition 21 (OAR 345-026-0080), provide  
32 an updated WMP based on review of WMP Table 5 or confirm that WMP  
33 updates are not required because there have been no changes to the

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<sup>139</sup> The Department reiterates, as discussed under Baseline and Seasonal Wildfire Risk, Areas of Heightened Wildfire Risk, and High-Fire Consequence Areas, the data inputs and layers available on the Oregon Explorer take into account assets on the landscape including transmission lines, roads, and railroads. The data layers also include other developments such as agricultural and residences. If the facility is constructed it is likely that the facility would be included in one or more of these data sets, which would increase the wildfire risk at the site because it would be a development or asset on the landscape. This should be taken into consideration in the evaluation of future wildfire risk and does not necessarily mean that wildfire mitigation measures are not adequate.

1 recommendations from the data sources identified in WMP Table 5 during the  
2 reporting year.

- 3 iv. Submit an updated WMP to the North Gilliam County Rural Fire Protection  
4 District if substantive changes are made to the WMP as a result of the review  
5 under sub (c)(iii) of this condition.

6 [AMD5, Sept 2020, OTSAMD1 Date]

7 Based upon the Department’s evaluation of baseline and seasonal fire risk, areas subject to  
8 heightened fire risk, and high-fire consequence areas using current and reputable data sources  
9 and methods, the Department recommends Council find that the area within the site boundary  
10 is characterized as having moderate wildfire risk and the area within the analysis area as having  
11 moderate wildfire risk as well. Further, the Department recommends that Council find that  
12 facility will be designed, constructed, and operated in compliance with the Wildfire Mitigation  
13 Plan and approved the Plan.

14  
15 **Conclusions of Law**

16  
17 Based on the foregoing findings of fact and recommended site certificate conditions, the  
18 Department recommends that the Council find that the applicant has adequately characterized  
19 wildfire risk within the analysis area using current data from reputable sources and that the  
20 facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation  
21 Plan under OAR 345-022-0115(1).

22  
23 **III.O. Waste Minimization: OAR 345-022-0120**

24  
25 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*  
26 *Council must find that, to the extent reasonably practicable:*

27  
28 *(a) The applicant’s solid waste and wastewater plans are likely to minimize*  
29 *generation of solid waste and wastewater in the construction and operation of the*  
30 *facility, and when solid waste or wastewater is generated, to result in recycling and*  
31 *reuse of such wastes;*

32  
33 *(b) The applicant’s plans to manage the accumulation, storage, disposal and*  
34 *transportation of waste generated by the construction and operation of the facility*  
35 *are likely to result in minimal adverse impact on surrounding and adjacent areas.*

36  
37 *(2) The Council may issue a site certificate for a facility that would produce power from*  
38 *wind, solar or geothermal energy without making the findings described in section (1).*  
39 *However, the Council may apply the requirements of section (1) to impose conditions on*  
40 *a site certificate issued for such a facility.*

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43 **Findings of Fact**

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*Solid Waste*

Solid waste associated with construction of the facility includes construction materials, rock, gravel, water, concrete, steel, and assorted electrical equipment. Solid waste generated from construction could include hazardous materials, including unused solvents; 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). The battery storage system will include industrial materials, and if a lithium-ion system is selected (rather than a flow battery), these industrial materials introduced may include hazardous materials. Battery systems will require replacement during facility operation (6-7 year intervals for lithium-ion batteries and 20 years for flow batteries). When the battery modules require replacement, the facility operator will disconnect and de-energize the battery system prior to removal, and package the batteries for transport to a licensed disposal facility where they will either be recycled or properly disposed of. The certificate holder has identified that solid waste will be disposed of, and recycled to the extent possible, at the Waste Management’s Columbia Ridge Landfill; a licensed landfill that accepts municipal solid waste, industrial wastes, and special wastes. Additionally, the Waste Management Chemical Waste Management facility on Cedar Springs Lane (near Arlington) is a licensed facility capable of providing industrial and hazardous waste services<sup>140</sup>.

Council previously imposed Conditions 111 (construction) and 112 (operation) requiring that, during construction and operation, the certificate holder develop and implement a solid waste management plan. Existing site certificate Condition 116 will minimize potential health and safety impacts during onsite handling and transport of battery and battery waste during facility construction and operation.

*Wastewater*

During construction of the facility, the only wastewater expected to be generated would result from concrete washouts and sewage collected in portable toilets. The rinse water from concrete delivery truck washout will be handled in accordance with a prior agreement with ODEQ, and construction of the facility will be subject to the NPDES permit and its associated erosion and sediment control plan. Portable toilets will be managed by a third-party contractor in accordance with standard procedures. Council imposed site certificate condition 109 for portable toilets to be used during construction. Council also previously imposed condition 80, which requires the certificate holder to conduct construction activities in accordance with a NPDES 1200-C Stormwater permit, ensuring appropriate on-site handling of stormwater and measures to reduce erosion. The NPDES 1200-C permit requires the development and implementation of an erosion and sediment control plan (ESCP), including BMPs for controlling erosion during construction. The certificate holder maintains an existing National Pollutant Discharge Elimination System 1200-C (NPDES 1200-C) construction permit and its associated erosion and sediment control plan.

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<sup>140</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Section II.N. Waste Minimization.



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2 During operations, wastewater would be primarily generated from solar panel washing, and  
3 sanitation at the O&M building. For the solar array, periodic washing of the solar modules will  
4 occur. Solar array may be washed twice annually, and that the washwater used would not be  
5 heated or include detergents, and would not be expected to cause an impact to soils. Any  
6 washwater released to the ground would be allowed to evaporate and infiltrate. If equipment  
7 cleaning (including solar array washing) during facility operations becomes necessary, the  
8 facility's third-party contractor would need to obtain a Department of Environmental Quality  
9 (DEQ) General Water Pollution Control Facilities Permit (WPCF 1700-B) for washwater discharge  
10 of equipment cleaning. The WPCF-1700-B permit covers equipment cleaning activities that  
11 discharge washwater by means of evaporation, seepage, or irrigation, including both fixed and  
12 mobile washing operations.

13  
14 Council has previously imposed site certificate conditions 29 and 87 for the facility if a WPCF  
15 1700-B permit is determined to be necessary for facility operations. Condition 87 requires that  
16 the certificate holder to ensure that there is no runoff of wash water from the site or discharges  
17 to surface waters, storm sewers or dry wells. The certificate holder shall not use acids, bases or  
18 metal brighteners with the wash water and directed the certificate holder to use  
19 biodegradable, phosphate-free cleaners sparingly. Council has also previously imposed  
20 condition 110, requiring that the onsite septic system at the O&M building will have a discharge  
21 capacity of less than 2,500 gallons per day, and would be licensed and constructed in  
22 accordance with state law.

23  
24 The Department has evaluated the requested amendment and the prior analysis of solid waste  
25 and wastewater associated with construction and operation of the facility and waste  
26 management strategies and existing site certificate conditions designed to avoid and minimize  
27 potential impacts associated with solid waste or wastewater from facility construction or  
28 operations. The changes in this amendment request will not result in any changes to the types  
29 or quantities of solid waste or wastewater generated from the facility construction and  
30 operation, or the existing site certificate conditions intended to minimize potential impacts: site  
31 certificate conditions 29 (water pollution control facilities permit(s) adherence), 80 (NPDES  
32 1200- C permit and ESCP adherence), 87 (turbine blade and solar panel-washing runoff control),  
33 109 (onsite sewage handling), 110 (sanitary wastewater discharge/handling), 111 (construction  
34 waste management plan implementation), 112 (operations waste management plan  
35 implementation), and 116 (battery waste disposal). For these reasons, the Department  
36 recommends that Council rely on previous analysis and findings, that with the required  
37 conditions including the development of, implementation and adherence with, construction  
38 and operational waste management plans, appropriate waste and wastewater disposal,  
39 compliance with required permits, and required protocols for battery waste disposal, the  
40 facility will continue to meet the requirements of the waste minimization standard.

41  
42 **Conclusions of Law**

1  
2 Based on the foregoing analysis and subject to existing site certificate conditions, the  
3 Department recommends Council find that that facility, with proposed changes, would continue  
4 to comply with the Council’s Waste Minimization standard.  
5

6 **III.P. Public Health and Safety Standards for Wind Energy Facilities: OAR 345-024-0010**  
7

8 *To issue a site certificate for a proposed wind energy facility, the Council must find that*  
9 *the applicant:*

- 10  
11 *(1) Can design, construct and operate the facility to exclude members of the public from*  
12 *close proximity to the turbine blades and electrical equipment.*  
13 *(2) Can design, construct and operate the facility to preclude structural failure of the*  
14 *tower or blades that could endanger the public safety and to have adequate safety*  
15 *devices and testing procedures designed to warn of impending failure and to*  
16 *minimize the consequences of such failure.*  
17

18 **Findings of Fact**  
19

20 As described above, OAR 345-024-0010(2) requires the Council to find that the certificate holder  
21 can design, construct and operate the facility to preclude structural failure of the tower or  
22 blades that could endanger public safety. In other words, the Council must evaluate if the  
23 certificate holder has demonstrated that it has the ability to preclude a structural failure in the  
24 first place through design, construction and operation of the turbines. OAR 345-024-0010(2)  
25 does not establish a minimum setback requirement nor require that a certificate holder  
26 demonstrate an elimination of all public health and safety risk. Instead, it requires that the  
27 certificate holder design, construct and operate the facility to avoid structural failure, to have  
28 adequate mechanisms in place to warn of an impending failure, and to minimize the  
29 consequences of such failure.  
30

31 *Potential Public Health and Safety Impacts from Proximity to Turbine Blades*  
32

33 Council has previously found that the certificate holder has demonstrated that the OTS facility  
34 would be located entirely on private property. This would restrict public access to turbine and  
35 other facility component locations, including the battery storage systems. As part of Council’s  
36 previous evaluation, Council imposed site certificate Condition 64, requiring that the certificate  
37 holder obtain Federal Aviation Administration (FAA) and Oregon Department of Aviation final  
38 review and approval of final locations of turbines and met towers to ensure that they do not  
39 pose any air navigation hazards. Further conditions have been previously imposed by Council to  
40 exclude members of the public from close proximity to the facility and electrical equipment,  
41 including substations, solar array, battery storage and wind turbines, as specified in existing site  
42 certificate Conditions 66 thru 69.  
43

1 Site certificate Condition 66 requires that wind turbine access be prevented thru the use of  
2 locked doors for tower access and interior ladders. Condition 68 requires that pad mounted  
3 step-up transformers be installed in locked cabinets. Condition 69 safeguards against public  
4 entry to areas where there is electrical equipment by requiring the certificate holder to install  
5 fencing and locks and to ensure that both the battery storage system and solar array are  
6 enclosed in facing and protected with locks. Condition 67 is recommended for amendments by  
7 the Department to address the need to establish a clear inspection protocol that includes  
8 routine and documented inspections, maintenance and reporting requirements as presented  
9 below.

10  
11 *Potential Impacts from Structural Failure of the Tower or Blades and Safety Devices and Testing*  
12 *Procedures to Warn of Impending Failure*

13  
14 Council previously imposed Condition 27, specifying construction requirements for the approved  
15 facility. The requirements included a limit to the minimum above-ground blade tip clearance,  
16 total number of turbines at the facility, and maximum blade tip height restrictions, in order to  
17 satisfy the requirements of the Public Health and Safety Standards for Wind Energy Facilities  
18 (OAR 345-024-0010). Council also imposed Condition 58 that requires that the certificate holder  
19 install and maintain self-monitoring devices on each turbine, linked to sensors at the operations  
20 and maintenance building, to alert operators to potentially dangerous conditions, and the  
21 certificate holder shall immediately remedy any dangerous conditions. In addition, Condition 42  
22 established setback requirements for turbines, including a setback distance of at least 1,320 feet  
23 from residences and 110 percent of maximum blade tip height from public roads.

24  
25 As noted above, the Department is recommending amendments to existing Condition 67 to  
26 address the potential impacts from structural failure of wind components. The Department  
27 recommends Council find that the condition be amended to allow the Department to better  
28 evaluate and track a facility's monitoring, maintenance, inspection, response and reporting  
29 protocols due to increased awareness of potential safety and structural issues associated with  
30 wind facilities<sup>141</sup>. A clear protocol for safety inspections, monitoring, documentation and  
31 reporting will be supplemented by periodic inspections by ODOE compliance officers and are  
32 intended to identify and mitigate any structural issues that could lead to structural failure of  
33 wind turbines or their components during facility operations, prior to such an event occurring.  
34 By requiring a clear protocol for systems monitoring, and a 72-hour reporting requirement of  
35 any event, the Department recommends that Council continue to find that the wind  
36 components of the facility are designed and operated to prevent potential impacts from  
37 structural failure.

38  

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<sup>141</sup> [https://www.bloomberg.com/news/articles/2023-01-23/wind-turbine-collapses-punctuate-green-power-growing-pains?utm\\_source=website&utm\\_medium=share&utm\\_campaign=mobile\\_web\\_share](https://www.bloomberg.com/news/articles/2023-01-23/wind-turbine-collapses-punctuate-green-power-growing-pains?utm_source=website&utm_medium=share&utm_campaign=mobile_web_share) Accessed by the Department 2023-01-23.

1 **Recommended Amended Condition 67**

2 During operation of the facility, the certificate holder shall ~~have a safety monitoring~~  
3 ~~program and shall inspect all turbine and turbine tower components on a regular basis.~~  
4 ~~The certificate holder shall maintain or repair turbine and turbine tower components as~~  
5 ~~necessary to protect public safety~~ develop and implement an operational safety-  
6 monitoring program that includes regular inspections, maintenance, and reporting  
7 program to prevent structural or electrical failure of wind turbine foundations, towers,  
8 blades, or electrical equipment. Required elements of the operational safety-monitoring  
9 program include:

- 10 (a) Identify and conduct inspections and testing of wind facility components, including  
11 but not limited to foundations, towers, blades, nacelle, pad-mounted transformers,  
12 and SCADA system, consistent with manufacturers' recommendations and  
13 recognized and generally accepted good engineering practices (RAGAGEP) for  
14 frequency and process.
- 15 (b) Maintain records of each inspection and test performed. Records shall:
- 16 (i) Identify the date of the inspection or test, the name of the person who  
17 performed the inspection or test, the serial number or other identifier of the  
18 equipment on which the inspection or test was performed, a description of  
19 the inspection or test performed, and the results of the inspection or test.
- 20 (ii) Identify testing or inspection results that show deficiencies in equipment or  
21 operation issues that are outside acceptable limits or recommendations  
22 identified by the manufacturer. These issues must be corrected before  
23 further use, or in a safe and timely manner if precautions are taken to assure  
24 safe operation.
- 25 (iii) Be made available for inspection by the Department's Compliance Officer  
26 during site visits, or upon request from the Department..
- 27 (c) In the event of blade or tower failure, a structural or electrical issue that causes a  
28 fire or other safety hazard the certificate holder shall report the incident to the  
29 Department within 72 hours, in accordance with OAR 345-026-0170(1), and shall,  
30 within 30 days of the event, submit a report which contains:
- 31 (i) A discussion of the cause of the reported incident including results of on-site  
32 or remote inspections or investigations;
- 33 (ii) A description of immediate actions taken to correct the reported conditions  
34 or circumstances; and
- 35 (iii) A description of actions taken or planned to minimize the possibility of  
36 recurrence and a description of manufacturers' recommendations and  
37 recognized and generally accepted good engineering practices to avoid  
38 instances in the future.

39  
40 Based on the forgoing analysis, and subject to compliance with the existing and recommended  
41 amended condition, the Department recommends that Council continue to find that the  
42 certificate holder can design, construct and operate the facility to exclude members of the public  
43 from the close proximity to the turbine blades and electrical equipment. Additionally, based on

1 the previous analysis and existing and recommended amended conditions within the site  
2 certificate, the Department recommends that Council continue to find that the certificate holder  
3 can preclude structural failure of the tower or blades that could endanger the public safety and  
4 to have adequate safety devices and testing procedures designed to warn of impending failure  
5 and to minimize the consequences of such failure.

6  
7 **Conclusions of Law**

8  
9 Based on the reasoning above, and subject to compliance with the existing and amended Public  
10 Health and Safety standard conditions, the Department recommends that Council find that the  
11 facility, as amended, would continue to comply with the Council’s Public Health and Safety  
12 standards for wind energy facilities.

13  
14 **III.Q. Cumulative Effects Standard for Wind Energy Facilities: OAR 345-024-0015**

15  
16 *To issue a site certificate for a proposed wind energy facility, the Council must find that*  
17 *the applicant can design and construct the facility to reduce cumulative adverse*  
18 *environmental effects in the vicinity by practicable measures including, but not limited*  
19 *to, the following:*

20  
21 *(1) Using existing roads to provide access to the facility site, or if new roads are*  
22 *needed, minimizing the amount of land used for new roads and locating them to*  
23 *reduce adverse environmental impacts.*

24  
25 *(2) Using underground transmission lines and combining transmission routes.*

26  
27 *(3) Connecting the facility to existing substations, or if new substations are needed,*  
28 *minimizing the number of new substations.*

29  
30 *(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable*  
31 *wildlife in areas near turbines or electrical equipment.*

32  
33 *(5) Designing the components of the facility to minimize adverse visual features.*

34  
35 *(6) Using the minimum lighting necessary for safety and security purposes and using*  
36 *techniques to prevent casting glare from the site, except as otherwise required by the*  
37 *Federal Aviation Administration or the Oregon Department of Aviation.*

38  
39 Council has previously evaluated all wind components of the OTS facility under this standard  
40 and found that the facility design, construction, and operations would minimize cumulative  
41 adverse environmental effects in the vicinity through compliance with the requirements of the  
42 Council’s Siting Standards for Wind Energy Facilities. Specifically, the Council considered and

1 made findings regarding cumulative impacts of the facility related to (1) roads; (2) transmission  
2 lines and substations; (3) wildlife protection; (4) visual features; and (5) lighting.

3  
4 *Access Roads*

5 OAR 345-024-0015(1) encourages the use of existing roads for facility site access, minimizing  
6 the amount of land used for new roads, and locating new roads in such a manner that reduces  
7 adverse environmental impacts. The facility, and all access roads associated with the  
8 construction and operation of the facility, will be located entirely on private land. Numerous  
9 site certificate conditions include measures to avoid and minimize the potential impacts from  
10 the construction, improvement or use of access roads associated with the facility. Because the  
11 requested amendment does not request or propose any changes in the design, placement or  
12 use of access roads during construction and operation of the facility, and because existing site  
13 certificate condition require protection measures to minimize any adverse impacts from the use  
14 of these roads for wind facility components, the Department recommends that Council  
15 continue to rely on past findings that the certificate holder can design the wind components of  
16 the facility to reduce and prevent any cumulative impacts to, or resulting from the use of,  
17 access roads.

18  
19 *Transmission Lines and Substations*

20 OAR 345-024-0015(2) and (3) encourages wind facilities to utilize underground transmission  
21 lines, combine transmission line routes and minimize the number of new substations. Council  
22 has previously evaluated the potential impacts of the 230 kV transmission line. Council  
23 previously imposed Condition 89, which addressed reasonable steps to reduce or manage  
24 human exposure to electric and magnetic fields including requiring a 200-foot construction set  
25 back from any residence or other occupied structure, measured from the centerline of a  
26 proposed transmission line. Designing and maintaining all transmission lines so that alternating  
27 current electric fields do not exceed 9 kV per meter at one meter above the ground surface in  
28 areas accessible to the public. The requested amendment does not propose any changes in the  
29 alignment or construction or placement of previously approved transmission lines or  
30 substations. For these reasons the Department recommends that Council continue to rely on  
31 previous findings that the facility has been designed to minimize and avoid any significant  
32 adverse impacts from transmission lines or substations.

33  
34 *Wildlife Protection*

35 Council has previously found that the facility's wind turbines, solar array, and battery storage  
36 systems would be located within the micrositing corridor. These facility components would be  
37 constructed in predominantly Category 6 habitat and would be subject to the existing site  
38 certificate conditions. Completion of rare plant and habitat surveys conducted for this  
39 amendment request for the OTS solar micrositing corridor also determined that the solar  
40 micrositing area is predominately Category 6 habitat and no protected wildlife were identified  
41 in those 2022 surveys (See RFA1 Attachment 8). Existing site certificate conditions under  
42 Council's Fish and Wildlife Habitat standard and Threatened and Endangered Species standard  
43 will minimize or avoid impacts to wildlife. The final micrositing corridor for the OTS facility,  
44 previously approved by Council, has been sited to minimize and avoid impacts to wildlife.

1 Because no changes are proposed to facility components, placement or the approved  
2 micrositing corridors already approved for the facility in this amendment request, the  
3 Department recommends that Council continue to rely on previous findings under this standard  
4 for protection of wildlife associated with cumulative impacts from wind turbines.  
5

#### 6 *Visual Features*

7 Council has previously evaluated the potential visual impacts of the facility, including a review  
8 of the certificate holder’s visual impact assessment conducted under the Scenic Resources  
9 standard. Based on this evaluation, Council has previously imposed condition 102, requiring the  
10 certificate holder to uniformly paint turbine towers, nacelles, and rotors in a neutral white  
11 color; paint the substation structures in a low-reflectivity neutral color to blend with the  
12 surrounding landscape. Because the maximum height of solar components associated with the  
13 solar array will not exceed 20 feet in height, the Department recommends that Council  
14 continue to rely on previous findings that visual features will not have a significant impact.  
15

#### 16 *Lighting*

17 Council has previously evaluated the potential impacts of lighting as a result of construction and  
18 operation of the facility and has found that other than lighting on structures subject to the  
19 requirements of the Federal Aviation Administration or the Oregon Department of Aviation,  
20 that the requirements of existing site certificate condition 104 will reduce the visual impacts  
21 associated with lighting facility structures, including the battery storage system and the solar  
22 array. Because the requested amendment does not propose or require any changes in lighting  
23 for the facility, the Department recommends that Council continue to rely on previous findings  
24 that lighting of the facility or its components or supporting facilities will not have a significant  
25 impact.  
26

27 Because RFA1 does not propose any changes to facility design or components specific to wind  
28 than what has previously been evaluated by Council, and because there have been no changes  
29 in fact or law that would alter Council’s previous evaluation, the Department recommends that  
30 Council continue to rely on previous findings under this standard.  
31

#### 32 **Conclusions of Law**

33  
34 Based upon the Department’s review of the requested amendment, the Department  
35 recommends that the Council find that requested amendment will not impact the cumulative  
36 environmental effects of the components previously authorized for construction or otherwise  
37 change the facts upon which the Council relied in making findings for this standard regarding  
38 the cumulative environmental effects from the wind components of this facility.  
39

#### 40 **III.R. Other Applicable Regulatory Requirements Under Council Jurisdiction**

41  
42 Under ORS 469.503(3) and under the Council’s General Standard of Review (OAR 345-022-  
43 0000), the Council must determine whether any components in the amendment request would  
44 comply with “all other Oregon statutes and administrative rules...,” as applicable to the



1 issuance of an amended site certificate. This section addresses the applicable Oregon statutes  
2 and administrative rules that are not otherwise addressed in Council standards, including noise  
3 control regulations, regulations for removal or fill of material affecting waters of the state, and  
4 regulations for appropriating ground water.

5  
6 **III.R.1. Noise Control Regulations: OAR 340-035-0035**

7  
8 *(1) Standards and Regulations:*

9 \*\*\*

10 *(b) New Noise Sources:*

11 \*\*\*

12 *(A) New Sources Located on Previously Used Sites. No person owning or controlling a*  
13 *new industrial or commercial noise source located on a previously used industrial or*  
14 *commercial site shall cause or permit the operation of that noise source if the*  
15 *statistical noise levels generated by that new source and measured at an appropriate*  
16 *measurement point, specified in subsection (3)(b) of this rule, exceed the levels*  
17 *specified in Table 8, except as otherwise provided in these rules. For noise levels*  
18 *generated by a wind energy facility including wind turbines of any size and any*  
19 *associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies.*

20 \*\*\*

21  
22 **Findings of Fact**

23 The Oregon Department of Environmental Quality (DEQ) has adopted noise control regulations  
24 that are applicable to EFSC-jurisdictional energy facilities. OAR 340-035-0035 provides noise  
25 control regulations for industry and commerce. The DEQ noise rules set noise limits for new  
26 industrial or commercial noise sources based upon whether those sources would be developed  
27 on a previously used or previously unused site.<sup>142</sup>

28  
29 Under OAR 345-035-0035(1)(b)(B)(i), a new industrial or commercial noise source located on a  
30 previously unused industrial or commercial site may not increase ambient statistical noise  
31 levels L10 or L50 by more than 10 A-weighted decibel (dBA), or exceed the levels provided in  
32 Table 15 below.

---

<sup>142</sup> A “previously unused industrial or commercial site” is defined in OAR 340-035-0015(47) 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.

**Table 15: Statistical Noise Limits for Industrial and Commercial Noise Sources**

Statistical Descriptor <sup>1</sup>	Maximum Permissible Hourly Statistical Noise Levels (dBA)	
	Daytime (7:00 AM - 10:00 PM)	Nighttime (10:00 PM - 7:00 AM)
L50	55	50
L10	60	55
L1	75	60

Notes:  
 1. 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 340-035-0035, Table 8

1  
 2 Under OAR 340-035-0035(1)(b)(B)(iii), the increase in ambient statistical noise levels that result  
 3 from a wind energy facility may be based on actual measurements or may be based on an  
 4 assumed ambient background level of 26 dBA. The rule also allows for exceedances of the  
 5 standards described above if the person who owns the noise sensitive property where the  
 6 exceedance occurs a legally effective easement or real covenant that benefits the property on  
 7 which the wind energy facility is located. For noise sources other than a wind energy, the rules  
 8 require actual measurements to be used to determine ambient background levels and no  
 9 easements are contemplated.

10  
 11 Because the facility was originally approved as a wind facility and continues to include wind  
 12 turbines and other wind energy generation equipment along with solar components, the  
 13 Council previously evaluated the entire facility under the provisions of OAR 340-035-  
 14 0035(1)(b)(B)(iii).<sup>143</sup> The Council previously imposed Site Certificate Conditions 26, 107, and 108  
 15 to ensure compliance with the Noise Control Regulations:

16  
 17 Based on compliance with the conditions listed above, the Council previously found that the  
 18 facility would comply with the applicable noise control regulations under OAR 340-035-0035.  
 19 The facility, with proposed RFA1 changes, would not change the type or number or noise  
 20 sources to be constructed and operated as part of the facility and are not expected to increase  
 21 noise impacts that may occur.

22  
 23 *Potential Noise Impacts*

24  
 25 Under OAR 340-035-0035(5), noise generated during construction of the facility, or during  
 26 maintenance activities on facility components are exempt from the requirement to meet DEQ’s  
 27 noise standards. However, an evaluation of construction-related noise is presented in

---

<sup>143</sup> Final Order on MWP RFA5 pg. 190.

1 accordance with OAR Chapter 345 Division 21 information requirements and to inform the  
 2 construction-related noise analysis required under the Council’s Protected Areas and  
 3 Recreation standards.

4  
 5 As previously evaluated, typical construction equipment and predicted sound pressure for this  
 6 facility include, but is not limited to: air compressor (81 dBA at 50 ft), backhoe (85 dBA at 50 ft),  
 7 pile driver (101 dBA at 50 ft), grader (85 dBA at 50 ft), loader (79 dBA at 50 ft), saw (78 dBA at  
 8 50 ft), and trucks (91 dBA at 50 ft). Council previously found that total composite equipment  
 9 noise levels, based on equipment operating for each construction phase (i.e. clearing,  
 10 excavation, foundation, erection, finishing) and a typical usage factor for each piece of  
 11 equipment, would result in a maximum noise level of 90 dBA at 50 feet, and would attenuate to  
 12 approximately 60 dBA at 1,500 feet based on an attenuation rate of 6 dBA per doubling of  
 13 distance.

14  
 15 Council previously imposed Condition 106 requiring that, during construction, combustion  
 16 engine-powered equipment be equipped with exhaust mufflers; operation of noisiest  
 17 construction equipment be restricted to daylight hours; and requires that the certificate holder  
 18 establish a noise complaint response system, including a system for the certificate holder to  
 19 receive and resolve noise complaints.

20  
 21 Operational noise sources include wind turbines, the step-up transformer to be constructed at  
 22 the facility substation, battery storage system components, and solar array inverters.  
 23 Operational noise sources include wind turbines, substation step-up transformer, battery  
 24 storage system components, and solar array inverters. Other solar components, such as  
 25 tracking systems, are expected to produce de minimis sound levels. The modeled facility  
 26 components and their predicted operational sound levels include are presented in Table 16  
 27 below.

**Table 16: Noise Sources and Predicted Sound Power Levels**

Noise Source	Number of Sources	Maximum Sound Power Level at Source (dBA)
Wind Turbines	16	110
Step-up Transformer	1	98
Battery Storage System (10 MW Block)	10	102.2
Solar Array Inverter	102	95.5
Source: Request for Amendment 4 of the Site Certificate for the Montague Wind Power Facility		

28  
 29 As shown below in Figure 18: Noise Sensitive Receptors within 2-miles of Site Boundary, the  
 30 certificate holder provided an updated survey of noise sensitive receptors within 2-miles of  
 31 each wind turbine (representing the loudest facility noise source). The updated survey  
 32 identified two previously unidentified receptors within the analysis area, on Tax Lot

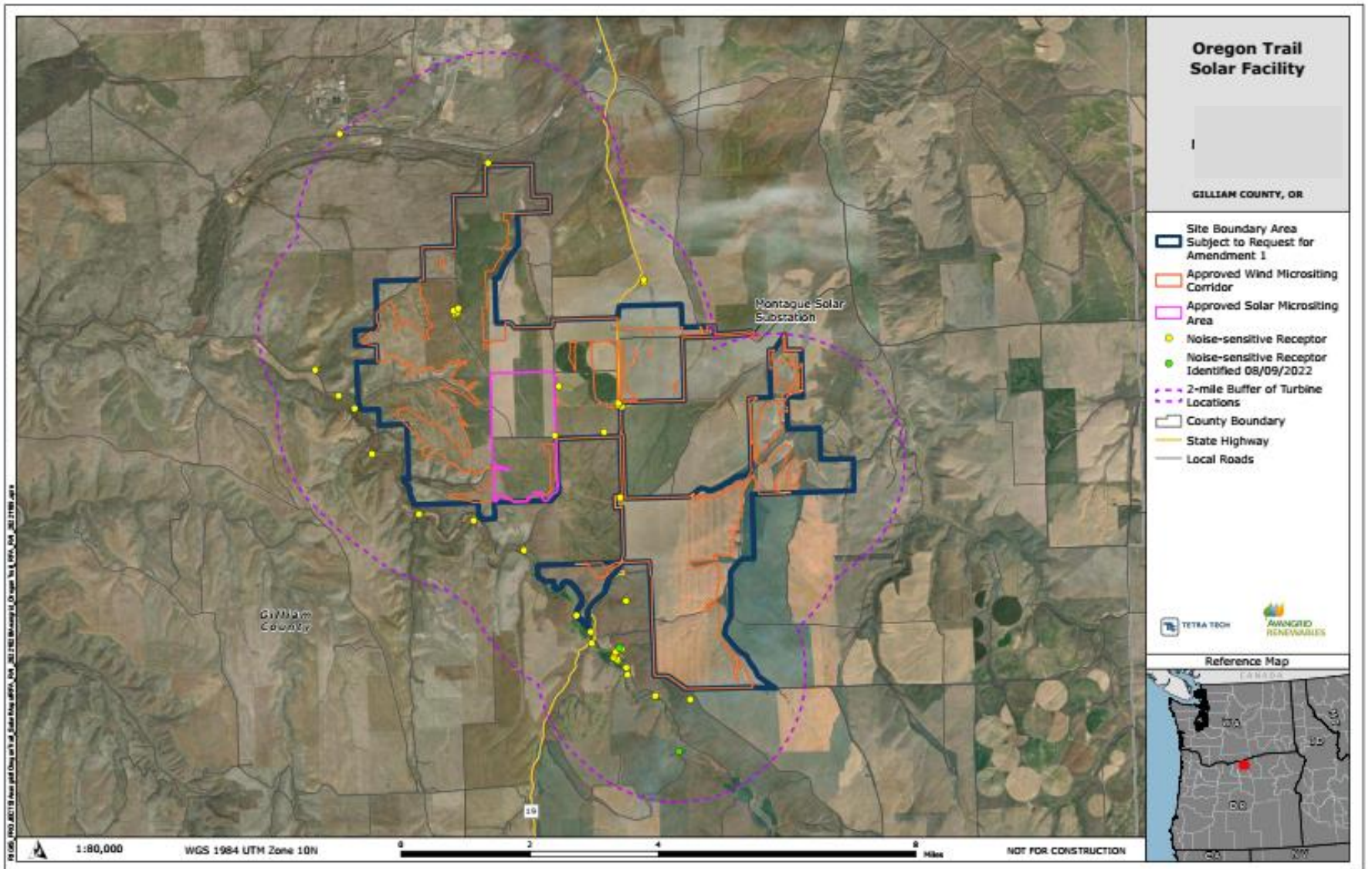
1 01S21E10AD-01301 and Tax Lot 01S21E0000-02900. Neither of the previously unidentified  
2 receptors are closer to facility components than the nearest receptors in previous analyses.  
3 Noise modelling showed that no exceedances of either the maximum allowable noise or  
4 ambient degradation standards were expected at the receptor located on Tax lot 01S21E10AD-  
5 01301. No exceedances of the maximum allowable noise standard at the receptor located on  
6 Tax Lot 01S21E0000-02900, however, the applicant’s modelling indicates that it may be subject  
7 to exceedances of the ambient noise degradation standards.<sup>144</sup>

8  
9 Based on the maximum noise levels above, the certificate holder conducted a noise analysis  
10 using methods described in ISO 9613-2 (1996) using CadnaA Version 2020 to predict sound  
11 levels at noise sensitive receptors within 2-miles of approved turbine locations. The model  
12 shows that noise from the facility was not expected to exceed the 50 dBA maximum allowable  
13 noise threshold under OAR 340-035-0035(1)(b) at any noise sensitive receptors, but ambient  
14 noise degradation standards would be potentially exceeded at two noise sensitive receptors.  
15 Both of these receptors are owned by participating landowners that have provided waivers in  
16 accordance with OAR 340-035-0035(1)(b)(iii)(III).

---

<sup>144</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Pages 66-67.

Figure 18: Noise Sensitive Receptors within 2-miles of Site Boundary



1 *Mitigation of Noise Impacts*  
2

3 The facility may potentially exceed the ambient antidegradation standard at more than one  
4 noise sensitive receptor due to wind turbine noise. For this facility, because it was originally  
5 approved through the proceedings that lead to the approval of the Montague Wind Power  
6 Facility, the certificate holder may rely on the wind rules under the Noise Control Regulation  
7 and may demonstrate compliance by obtaining noise waivers from underlying landowners. The  
8 noise analysis incorporates noise impacts from the Montague Wind Facility, Montague Solar  
9 Facility and Oregon Trail Solar facility. Because Montague Wind Facility (200 MW wind) is in  
10 operation, and is incorporated into the analysis, the certificate holder is allowed to rely on the  
11 rules based on the facility components constructed first. As is stated in the site certificate, the  
12 record of the proceedings that lead to the approval of the Oregon Trail Solar site certificate  
13 incorporate the 2010 ASC of the Montague Wind Power Facility and five subsequent Final  
14 Orders on Amendments, where the Council clarified that even though the previously approved  
15 facility components were being split across three site certificate, the certificate holder may not  
16 evaluate future impacts from each facility based on lessor impacts (impacts must be evaluated  
17 as approved).

18  
19 As described above, the Council previously imposed Site Certificate Condition 107, which  
20 requires the certificate holder to provide, prior to construction of the facility, a final noise  
21 analysis identifying the final locations of all noise-generating facility components, maximum  
22 sound power levels for the components, and verifies compliance with the noise control  
23 regulations as required by OAR 340-035-0035(1)(b)(B)(iii)(IV) and (VI). For any noise sensitive  
24 receptors within 1-mile of the site boundary, the analysis must demonstrate that noise from  
25 the facility will not increase ambient statistical noise levels L10 and L50 by more than 10 dBA  
26 unless signed landowner waivers have been obtained.

27  
28 **Conclusions of Law**  
29

30 Based on the findings above, and based on compliance with previously imposed and amended  
31 and recommended changes to existing site certificate conditions, the Department recommends  
32 the Council find that the Oregon Trail Solar facility would continue to comply with the Noise  
33 Control Regulations in OAR 340-035-0035(1)(b).

34  
35 ***III.R.2. Removal-Fill***  
36

37 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and the Oregon Department of  
38 State Lands (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill  
39 permit if 50 cubic yards or more of material is removed, filled, or altered within any “waters of  
40 the state.”<sup>145</sup> The Council, in consultation with DSL, must determine whether a removal-fill

---

<sup>145</sup> ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

1 permit is needed and if so, whether a removal-fill permit should be issued. The analysis area for  
2 wetlands and other waters of the state is the area within the site boundary.

3  
4 **Findings of Fact**

5 The site boundary includes 15,094 acres including two separate micrositing areas for wind and  
6 solar energy facility components (12,638 acres for wind facility components and 1,228 acres for  
7 solar facility components).

8  
9 Literature and field level surveys were conducted within the micrositing areas and confirmed  
10 that there are no “waters of the state” or wetlands that would be impacted by the facility.  
11 Council’s previous evaluation found that there were no wetlands identified in the micrositing  
12 areas evaluated at the time.

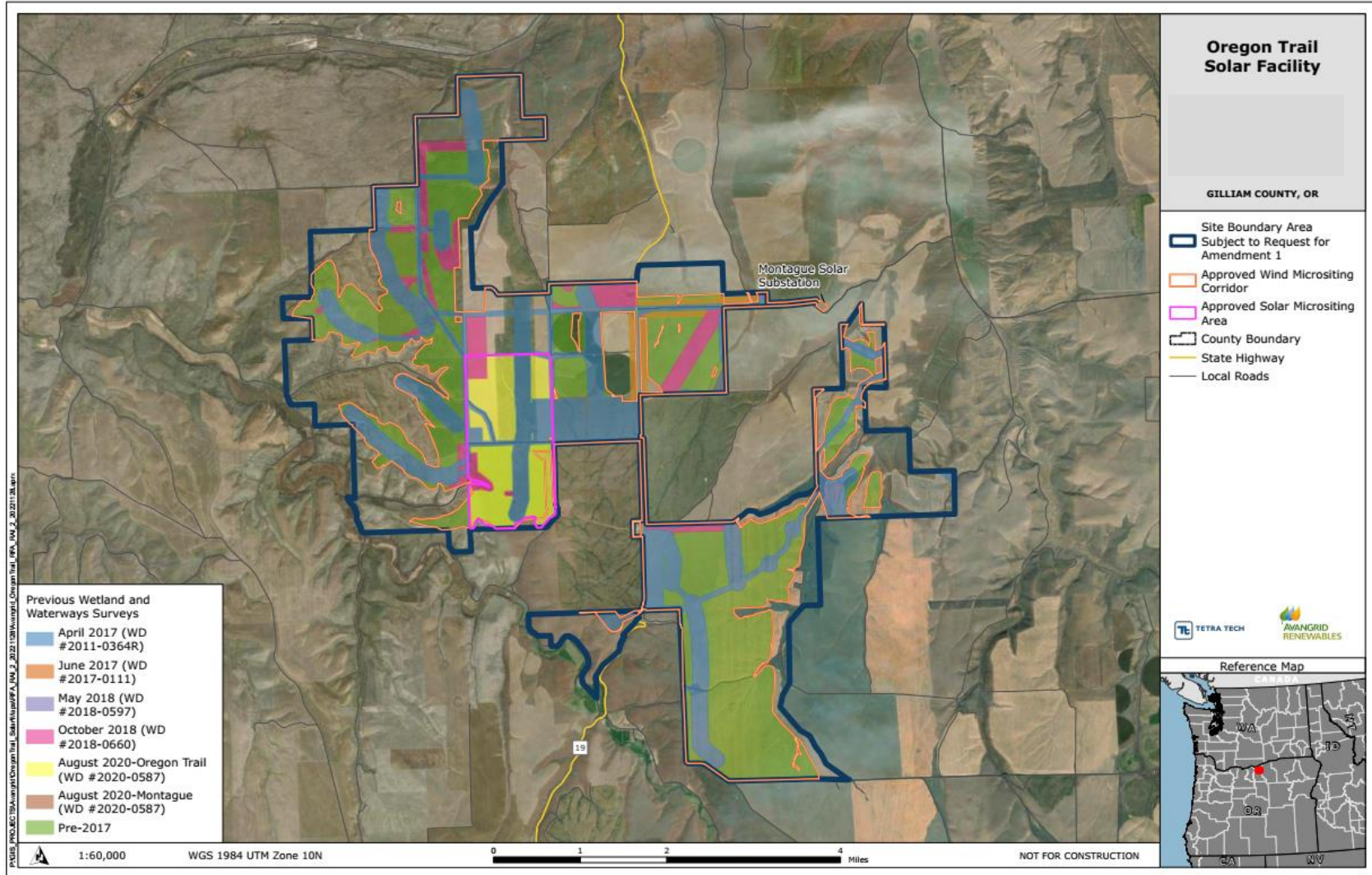
13  
14 A summary of the previously conducted surveys, report numbers and DSL Determinations is  
15 provided below:

- 16
- 17 • WD#2011-0364R (Survey conducted in April 2017). Report Dated July 7, 2017; DSL  
18 Concurrence Dated February 28, 2019. See Attachment J-3 to Exhibit J in MWP RFA4.
  - 19 • WD#2017-0111 (Survey conducted in June 2017). Report Dated July 10, 2017; DSL  
20 Concurrence Dated October 26, 2017. See Attachments J-1 and J-2 to Exhibit J in MWP  
21 RFA4.
  - 22 • WD#2018-0597 (Survey conducted in May 2018). Report Dated October 2018; DSL  
23 Concurrence Dated February 26, 2019. See Attachment J-4 to Exhibit J in MWP RFA4.
  - 24 • WD#2018-0660 (Survey conducted in October 2018). Report Dated December 2018; DSL  
25 Concurrence Dated March 5, 2019. See Attachment J-5 to Exhibit J in MWP RFA4.
  - 26 • WD#2020-0587 (Survey conducted in August 2020 for OTS and Montague Solar  
27 Facilities).

28  
29 Figure 19 shows the result of the pervious wetlands surveys and DSL determinations and the  
30 2022 survey of the solar micrositing area.



Figure 19: Previous DSL Wetland Determinations and Surveys within RFA1 Site Boundary Areas



1 As part of their updated review for this amendment request, the certificate holder conducted a  
2 wetlands and waters delineation of the OTS solar microsite area on April 21, 2022. The results  
3 of this delineation are reported in the *OTS Facility 2022 Wetlands and Non-wetland Waters*  
4 *Delineation* provided in RFA1 Attachment 10. The 2022 survey report concludes that no  
5 wetlands and one ephemeral drainage were identified in the study area during the wetland  
6 field investigation. The one ephemeral drainage is not identified as a jurisdictional water of the  
7 state. The certificate holder submitted the *OTS Facility 2022 Wetlands and Non-wetland Waters*  
8 *Delineation* report to DSL and the report was received by DSL on July 11, 2022, assigned DSL file  
9 number WD2022-0400, and written concurrence is pending. The Department contacted DSL on  
10 December 6, 2022<sup>146</sup> and obtained verbal concurrence on the findings of this report and  
11 determination. The *OTS Facility 2022 Wetlands and Non-wetland Waters Delineation Report*  
12 was also submitted by the certificate holder to the U.S. Army Corps of Engineers on July 29,  
13 2022 with a request for jurisdictional determination. This formal response is also pending.

14  
15 Council previously imposed Condition 83, which requires the certificate holder to conduct  
16 wetland surveys in any unsurveyed areas, prior to construction. Because multiple wetlands  
17 delineations have been conducted for the analysis area, with differing dates of DSL concurrence  
18 and Jurisdictional Determinations (JD) with varying dates of expiration for each, the  
19 Department recommends the following changes to Condition 83 to include the 5-year  
20 expiration date for DSL determinations, and the need for the certificate holder to obtain  
21 updated and current DSL determinations for all wetland surveys and determinations within the  
22 OTS final microsite corridor. The basis of this requirement is found in OAR 141-090-0045(1)  
23 and (3) which state:

- 24
- 25 (1) All JDs by the Department shall be in writing and, except as provided in section (2) of  
26 this rule, shall remain valid for a period of five years from the date of issuance. A JD may  
27 be revised by the Department prior to the expiration date if:  
28
  - 29 (3) Upon expiration, a report and JD are no longer valid for determining whether a state  
30 removal-fill authorization may be required.

31  
32 **Recommended Amended Condition 83:** ~~Before beginning construction of the facility, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility, and the areas that would be disturbed during construction and showing the wetlands and stream channels previously surveyed by CH2M HILL or HDR as described in the Final Order on the Application and the Final Order on Amendment #4. For areas to be disturbed during construction that lie outside of the previously surveyed areas, the certificate holder shall hire qualified personnel to conduct a pre-construction investigation to determine whether any jurisdictional waters~~

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<sup>146</sup> Personal Communication: December 6, 2022: Sarah Esterson (ODOE) phone conference with Chris Stevenson, Jurisdictional Coordinator, Department of State Lands (DSL).

1 ~~of the State exist in those locations within the proposed expanded site boundary. The~~  
2 ~~certificate holder shall provide a written report on the pre-construction investigation to~~  
3 ~~the Department and the Department of State Lands for approval before beginning~~  
4 ~~construction. The certificate holder shall ensure that construction and operation of the~~  
5 ~~facility will have no impact on any jurisdictional water identified in the pre-construction~~  
6 ~~investigation.~~

7  
8 Prior to construction of the facility, the certificate holder shall provide the Department  
9 with a final facility design map that demonstrates avoidance of all wetlands and WOS  
10 along with updated and/or current determinations by DSL in accordance with the  
11 following subparts:

- 12 (a) At least 6-months prior to construction within areas covered by WD 2011-0364R  
13 (expired May 2022), certificate holder shall submit a new wetland delineation report  
14 to DSL and obtain a new DSL determination.;  
15 (b) If construction activities are planned to occur within areas covered by WD 2018-  
16 0660, then, prior to March 2025, certificate holder must seek a renewal of WD 2018-  
17 0660;  
18 (c) If construction impacts are planned to occur within areas covered by WD2022-0400,  
19 certificate holder must provide the DSL determination to the Department and  
20 ensure it remains active/renewed through the date of construction commencement.  
21 (d) If any future DSL determinations evaluated under (a) – (c) of this condition identify  
22 wetlands or WOS that could be impacted by facility construction or operation and  
23 that would require a removal-fill permit, Council approval of a site certificate  
24 amendment with removal fill requirements must be obtained.  
25

26 The Department reviewed the 2022 wetlands survey and findings for the solar micro-siting area,  
27 consulted with DSL on the pending determination, and the findings of previous surveys and DSL  
28 determinations for areas within the OTS site boundary, and recommends that Council find that  
29 the certificate holder has demonstrated that they can design and construct the facility to avoid  
30 any wetlands or WOS impacts that would require a removal-fill permit. Condition 83 already  
31 requires that unsurveyed areas be surveyed prior to construction and that concurrence from  
32 DSL is obtained to verify accurate identification of jurisdictional waters, and avoidance unless  
33 removal-fill permit is obtained. With the recommended amended condition 83 that requires  
34 current and up-to-date DSL determinations be obtained prior to construction of the facility, for  
35 any that may have expired by the time facility construction is planned to commence, and the  
36 existing requirement that any unsurveyed areas be surveyed, and DSL determinations on those  
37 surveys be obtained prior to construction, the Department recommends that the Council  
38 continue to find that certificate holder has demonstrated that a removal-fill permit will not be  
39 required.

#### 40 41 **Conclusions of Law**

42 Based on the foregoing analysis, and in accordance with Oregon Removal-Fill Law (ORS 196.795  
43 through 196.990) and regulations (OAR 141-085-0500 through 141-085-0785), the Department

1 recommends that Council continue to find that a removal fill permit would not be needed for  
2 the facility.

3  
4 **III.R.3. Water Rights**

5  
6 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources  
7 Department (OWRD) administers water rights for appropriation and use of the water resources  
8 of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility,  
9 with proposed changes, would comply with the statutes and administrative rules identified in  
10 the project order. The project order identifies OAR 690, Divisions 310 and 380 (Water  
11 Resources Department permitting requirements) as the administrative rules governing use of  
12 water resources and water rights as applicable to the facility.

13  
14 **Findings of Fact**

15  
16 OWRD has adopted procedures and standards applicable to EFSC-jurisdictional energy facilities  
17 in OAR 690. These procedures and standards establish the evaluation of applications for a  
18 permit to appropriate surface water, ground water, to construct a reservoir and store water, to  
19 use reserved water, or to use water stored in a reservoir.

20  
21 This amendment request does not change the amount of water needed, or the water sources  
22 to be utilized, for facility construction operation beyond what was previously evaluated and  
23 approved by Council. The certificate holder has submitted, as part of the RFA1, updated letters  
24 from local sources to confirm that they will be able to provide the water necessary in the  
25 quantities previously approved for the facility. The City of Arlington provided an updated letter,  
26 dated August 3, 2022, that confirms the city still has the ability to provide the quantities  
27 approved for construction, operations and maintenance of the facility: up to 40,000,000 gallons  
28 for construction and 500,000 gallons per year for operations<sup>147</sup>. If the solar array is built and if  
29 the certificate holder washes the panels, the run-off water from washing is subject to a DEQ-  
30 issued WPCF permit 1700-B. WPCF permits are state-issued permits and would be under  
31 control of an EFSC-issued site certificate; however, if a WPCF permit is necessary, it would be  
32 secured by a third-party contractor, which is allowed in accordance with OAR 345-022-022-  
33 0110(3) and (4). If such a third-party permit is needed, existing Condition 29 requires that the  
34 certificate holder report to the Department any violations or compliance issues for such  
35 permits.

36  
37 Council has previously found that the certificate holder has demonstrated the ability to obtain  
38 adequate water resources needed for construction and operation of the facility and would not  
39 require a groundwater permit, surface water permit or water right transfer.<sup>148</sup> Based on the

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<sup>147</sup> OTSAMD1Doc8 Complete RFA1\_2022-12-19. Attachment 3: Letter from City of Arlington

<sup>148</sup> MWPAMD4Doc23 Final Order (Signed) with Attachments 2019-09-06. Section III.Q.3: Water Rights.

1 updated evaluation for this amendment request, the Department recommends that Council  
2 continue to find that the certificate holder can obtain and provide adequate water for  
3 construction and operation of the facility, and does not need a groundwater permit, surface  
4 water permit, or water right transfer. If such a permit is required by the certificate holder at a  
5 later time, a site certificate amendment would be required to review and consider such a  
6 permit application.

7

8 **Conclusions of Law**

9 Based on the foregoing recommended findings of fact and existing site certificate conditions,  
10 the Department recommends Council find that the facility does not need a groundwater  
11 permit, surface water permit, or water right transfer.

12

13

14

15

1 **IV. PROPOSED CONCLUSIONS AND ORDER**

2  
3 Based on the recommended findings of fact and conclusions included in this order, the  
4 Department recommends Council make the following findings:

- 5  
6 1. The facility, with proposed changes, complies with the requirements of the Energy  
7 Facility Siting Statutes ORS 469.300 to 469.520.  
8  
9 2. The facility, with proposed changes, complies with the standards adopted by Council  
10 pursuant to ORS 469.501, in effect on the date Council issues its Final Order.  
11  
12 3. The facility, with proposed changes, complies with all other Oregon statutes and  
13 administrative rules identified in effect on the date Council issues its Final Order.  
14

15 Accordingly, the Department recommends Council find that the facility, with proposed RFA1  
16 changes, complies with the General Standard of Review OAR 345-022-0000 and OAR 345-027-  
17 0375. The Department recommends that the Council find, based on a preponderance of the  
18 evidence on the record, that the site certificate may be amended as requested.  
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1 **Proposed Order**

2

3 The Department recommends that the Council approve Amendment 1 of the Oregon Trail Solar  
4 site certificate.

5

**Issued this 25<sup>th</sup> day of January 2023**

**The OREGON DEPARTMENT OF ENERGY**

*Todd Cornett*

6 Todd Cornett (Jan 25, 2023 15:48 PST)

7 Todd Cornett, Assistant Director for Siting

8

9 **ATTACHMENTS**

10

Attachment A: Draft First Amended Site Certificate (red-line)

Attachment B-1: Reviewing Agency Comments on preliminary RFA1

Attachment B-2: DPO Comments

Attachment C: Draft Amended Habitat Mitigation Plan

Attachment D: Draft Amended Wildlife Monitoring and Mitigation Plan

Attachment E: Wildfire Mitigation Plan

Attachment F: Draft Memorandum of Agreements Attachment G: Draft Inadvertent Discovery Plan

11






# OTSAMD1 Proposed Order on AMD1 2023-01-25

Final Audit Report

2023-01-25

Created:	2023-01-25
By:	Energy Siting (Energy.Siting@Oregon.gov)
Status:	Signed
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