

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

In the Matter of Request for Amendment 2 of the
Site Certificate for the Obsidian Solar Center

)
)
) FINAL ORDER
)

June 13, 2025

Final Order

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ABBREVIATIONS AND ACRONYMS

AC	Alternating Current
ACEC	Area of Critical Environmental Concern
APLIC	Avian Power Line Interaction Committee
ASC	Application for Site Certificate
BLM	Bureau of Land Management
BMP	Best Management Practices
BPA	Bonneville Power Administration
CMMP	Cultural Mitigation and Monitoring Plan
certificate holder	Obsidian Solar Center LLC
DAMP	Dust Abatement Management Plan
dBA	A-weighted decibel
Department	Oregon Department of Energy
DC	Direct Current
DEQ	Oregon Department of Environmental Quality
DOGAMI	Oregon Department of Geology and Mineral Industries
DPO	Draft Proposed Order
DSL	Department of State Lands
EFSC or Council	Energy Facility Siting Council
EFU	Exclusive Farm Use
ESCP	Erosion and Sediment Control Plan
F&W	Fish and Wildlife
GSU	Generation Step Up
HMA	Habitat Mitigation Area
HMP	Habitat Mitigation Plan
HVAC	Heating Ventilation and Air Conditioning
IDP	Inadvertent Discovery Plan
kV	kilovolt
LCDC	Oregon Land Conservation and Development Commission
LCZO	Lake County Zoning Ordinance
LLC	Limited Liability Company
M	Meters
MEC	Midstate Electric Cooperative
MOA	Memorandum of Agreement
MW	Megawatts
MWh	Megawatt hours
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O&M	operations and maintenance
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation

ABBREVIATIONS AND ACRONYMS

ORBIC	Oregon Biodiversity Information Center
ORS	Oregon Revised Statutes
OSC	Obsidian Solar Center
OWRD	Oregon Water Resources Department
Parent Companies	Obsidian Renewables, LLC and Lindgren Development, Inc.
pRFA	Preliminary Request for Amendment
PGE	Portland General Electric Company
POI	point of inter-connection
PV	photovoltaic
RAI	Request for Additional Information
RFA1	Request for Amendment 1
RFA2	Request for Amendment 2
RNA	Research Natural Area
RNWCP	Revegetation and Noxious Weed Control Plan
ROW	Right-of-Way
SAG	Special Advisory Group (Lake County Board of Commissioners)
SCADA	Supervisory Control and Data Acquisition System
SHPO	Oregon State Historic Preservation Office
SMP	Spill Management Plan
SOLV Energy	SOLV Energy LLC
T&E	Threatened and Endangered
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WLIP	Working Lands Improvement Program
WSA	Wilderness Study Area

1 **I. INTRODUCTION**

2
3 On April 11, 2025, Obsidian Solar Center LLC (certificate holder), a subsidiary of Obsidian
4 Renewables, LLC, and Lindgren Development, Inc., filed Request for Amendment 2 of the Site
5 Certificate for Obsidian Solar Center (RFA2).

6
7 As described below, Obsidian Solar Center (facility) is an approved but not yet-constructed solar
8 photovoltaic power generation facility with up to 400 megawatts (MW) of generating capacity
9 to be located within a 4,091-acre site in Lake County.

10
11 As described in Section II.A., *Requested Amendment*, the certificate holder seeks approval from
12 the Energy Facility Siting Council (EFSC or Council) to extend the construction commencement
13 deadline by 3 years, from February 25, 2025 to February 25, 2028. The request would also
14 extend the completion deadline, which is established as three years from the commencement
15 date.

16
17 In accordance with Oregon Administrative Rule (OAR) 345-027-0372, the Energy Facility Siting
18 Council (Council) issues this Final Order approving RFA2, subject to existing, new, and amended
19 conditions.

20
21 **I.A. SITE CERTIFICATE PROCEDURAL HISTORY**

22
23 At its meeting on February 25, 2022, the Council issued its Final Order on the Application for
24 Site Certificate for the Obsidian Solar Center (Final Order on ASC) and issued a Site Certificate
25 authorizing Obsidian Solar Center LLC to construct and operate the facility within an
26 approximately 3,921-acre site in Lake County. The Site Certificate was executed by the Council
27 and certificate holder on March 18, 2022.

28
29 On November 17, 2023, the Council approved its Final Order on Request for Amendment 1 of
30 the Obsidian Solar Center Site Certificate (Final Order on RFA1) and issued the First Amended
31 Site Certificate. The Final Order on RFA1 expanded the approved site boundary to include an
32 additional 169 acres, for a total of 4,091 acres, and authorized modifications to previously
33 approved facility components. The First Amended Site Certificate was executed by the Council
34 and certificate holder on December 28, 2023.

35
36 **I.B. NAME AND ADDRESS OF CERTIFICATE HOLDER**

37
38 *Certificate Holder*

39
40 Obsidian Solar Center LLC
41 5 Centerpointe Drive, Suite 255
42 Lake Oswego, Oregon 97035

Parent Companies of the Certificate Holder

Obsidian Renewables, LLC
5 Centerpointe Drive, Suite 255
Lake Oswego, Oregon 97035

Lindgren Development, Inc.
260 Townsend St.
San Francisco, California 94107

I.C. APPROVED FACILITY

The Obsidian Solar Center (facility) is an approved but not yet-constructed solar photovoltaic power generation facility with up to 400 MW of nominal generating capacity, with related or supporting facilities including a 50 MW battery energy storage system.

The facility must be designed, constructed and operated substantially as described in the site certificate.¹ The First Amended Site Certificate authorizes the facility to be designed and constructed based on the specifications and details presented in Table 1 below.

Table 1: Facility Component Summary

Component and Design Standard	Unit	Approved	
		PV Only	PV & Storage (Dispersed)
Site Boundary			
Site Size	acres	4,091	
Micrositing Area Size	acres	3,921	
Max Permanent Impact	acres	3,588	
Solar Components			
3 MW AC Blocks	each	160	
PV Solar Modules mounted on single-axis tracker system			
Approx. total number (assumes 390w)	modules	1,326,858	1,742,572
Mounting height	feet	4	
Max Height at full-tilt	feet	7	
Row spacing	feet	15	
Approx. total number of posts (Steel with non-specular, galvanized finish)	each	187,545	246,444

¹ Mandatory Condition OAR 345-025-0006(3), see General Standard Condition 3 (GEN-GS-02).

Table 1: Facility Component Summary

Component and Design Standard	Unit	Approved	
		PV Only	PV & Storage (Dispersed)
Solar Inverter Units with integrated transformers (Power Electronics FS3000M or Similar)	each	160	
Inverter station dimensions	feet (LxWxH)	30 x 8 x 5	
Transformer oil	Gallons (each)	800	
Home-run cables	each	160	
34.5 kV Electrical Collection System			
34.5 kV Collector line length (above and below ground)	miles	5,000	
138 kV Collector Line Length (above ground)	miles	3.2	
Approx. Total number of poles	each	33	
Max Height	feet	80	
Related or Supporting Facility Components			
Transmission Line			
138 kV gen-tie (Max corridor length)	miles	3.2	
Corridor width (for entire length)	feet	60	
Quantity of Poles	each	47	
Height of structures	feet	80	
Collector Substations			
Max Quantity	each	4	
Max Height	feet	10	
Site Size (each)	acres	1	
Step up Transformer – Transformer Oil	Gallons (each)	800	
138/500 kV Step-Up Substation (Containing: a control building, two 138/500 kV transformers - 1 138 kV input structure, up to two 138 kV circuit breakers, two 500 kV circuit breakers, 500 kV output structures)			
max quantity	each	1	
transformer oil (each)	gallons	50,000	
100 foot tall interconnection structures (quantity)	each	65	

Table 1: Facility Component Summary

Component and Design Standard	Unit	Approved	
		PV Only	PV & Storage (Dispersed)
site size (each) – if in Area D	acres	3	
site size (each) – if in Area E	acres	12	
Operations and Maintenance Building			
Max Quantity	each	2	
Approx. site size (each)	acres	0.5	
Approx. Dimensions	H x W x L; feet	14 x 50 x 50	
Battery Energy Storage System (Long-Duration Flow Batteries)			
Approx. total battery Storage Enclosures/steel framed structures	each	n/a	134
Approx. Dimensions	H x W x L; feet	n/a	30 x 50 x 67
Redox Electrolyte Fluid	gallons/MW	n/a	14,000
Facility Roads			
Total Length	miles	50	
Minimum Width (perimeter roads)	feet	20, with 10-foot defensible space/clearance	
Minimum Width (internal roads)	feet	12	
Perimeter Fence (chain link)			
Length	miles	21.5	
Height (including 1 foot of barbed wire)	feet	7	
Source: OSCAMD1Doc19 Final Order and Attachments 2023-11-17, Tables 1 and 2, Attachment A, Tables 1 and 2.			

As presented in Attachment 1, *Second Amended Site Certificate*, of this Order, the Council incorporates this table as Table 1 of the Site Certificate, with additional specifications related to fire clearance areas and access roads. As presented in Section III.C., *Structural Standard*, and Section III.N., *Wildfire Prevention and Risk Mitigation*, based on the results of a 2023 Geotechnical Engineering Report,² the Council requires that the certificate holder design and construct any internal access roads needed for fire access to support emergency vehicle loading and provide all-weather access to the site.

² The 2023 Geotechnical Report recommends that unsurfaced roadways, particularly in or near the playas identified on site, will be difficult, if not impossible to access during wet weather and that scarification, moisture treatment, and recompaction of road surfaces will likely be needed as roadways deteriorate. The report recommends that roads that require all-weather access and roads subjected to fire truck loading should be surfaced with aggregate or pavement. OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 25-26.

1 **I.D. APPROVED SITE DESCRIPTION**

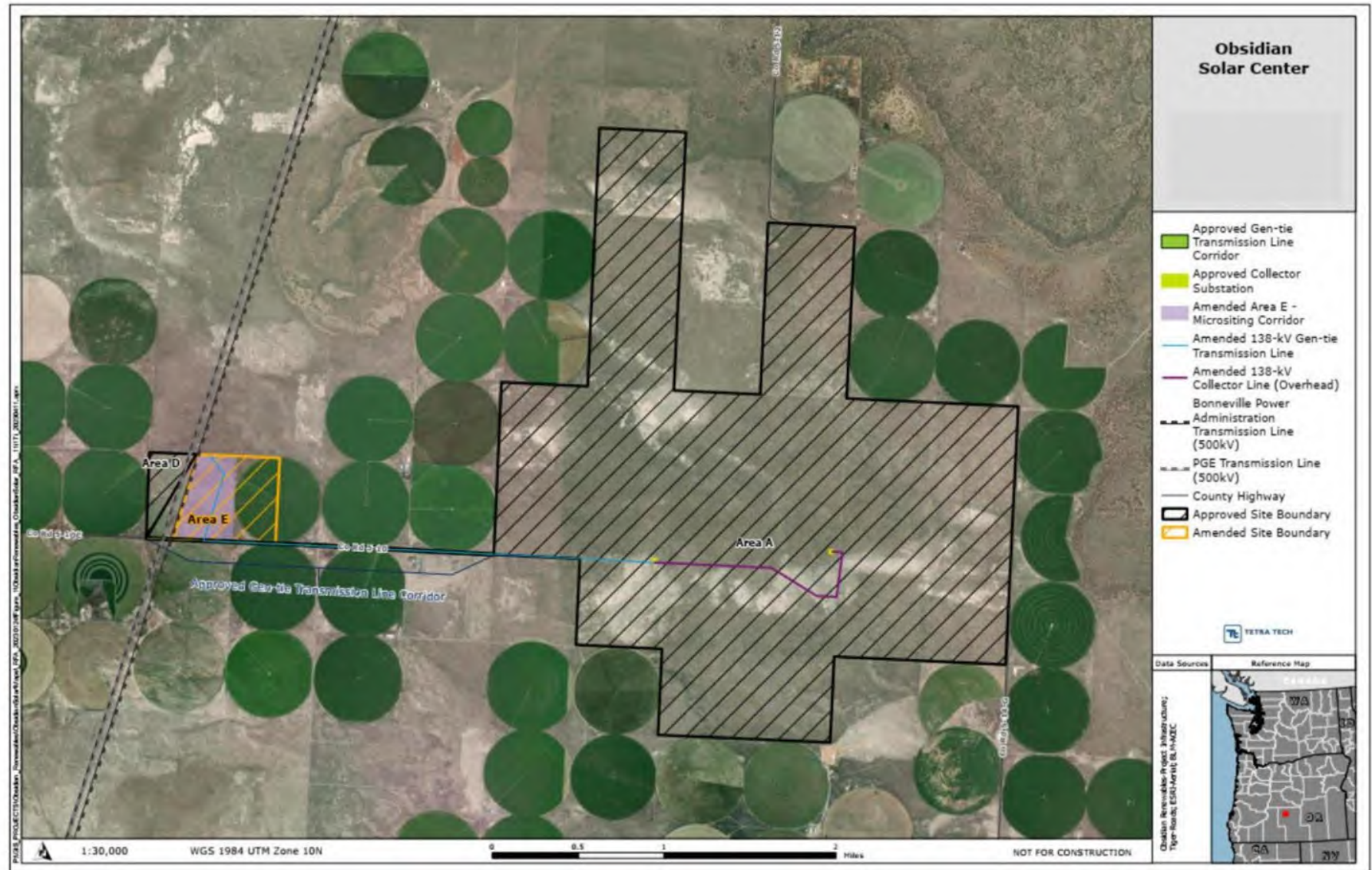
2
3 The approved site boundary encompasses approximately 4,091 acres in Lake County. The site is
4 located approximately 10 miles east of the unincorporated community of Fort Rock and eight
5 miles northwest of the unincorporated community of Christmas Valley. As shown in Figure 1,
6 below, the site consists of Areas A, D, and E, as well as an approved transmission line corridor
7 connecting the three areas.

8
9 Area A includes approximately 3,863 acres in Township 26 South, Range 16 East, Sections 4, 5,
10 8, 9, 15, 16, 17, 20, 21, and 22 and would be accessed from Oil Dri Road (County Road 5-14G)
11 and County Road 5-12A. Area A contains 640 acres of public land owned by the Oregon
12 Department of State Lands, the remainder is privately owned. The certificate holder has
13 designated approximately 332 acres within Area A as avoidance areas, which will remain
14 undisturbed by construction activities to avoid impacts to soils and other resources. The
15 certificate holder is authorized to construct the approved solar arrays anywhere within the
16 remaining portions of Area A.

17
18 Area D includes approximately 44 acres of private land in Township 26 South, Range 15 East,
19 Sections 13. Area E, which was added to the site by the Final Order on RFA1, includes
20 approximately 169 acres of private land. Access to Areas D and E is provided via Connley Lane.
21 The certificate holder is authorized to construct a substation and interconnection facilities in
22 either Area D or E.

23
24 An approximately 3.2-mile long, 60-foot-wide, transmission line corridor connects a collector
25 substation site within Area A to Areas D and E. Approximately 1.5 miles of the corridor is
26 located within an existing transmission easement within the right-of-way of Connley Lane.
27

Figure 1: Approved Site Boundary and Vicinity



II. AMENDMENT PROCESS

Under OAR 345-027-0350(3), an amendment is required to extend the construction beginning or completion deadlines specified in a site certificate. The Type A review process is the default review process for requests for site certificate amendment unless the certificate holder requests, and the Council approves, review under the Type B review process.³ Under OAR 345-027-0357(8), in determining whether a request for amendment justifies review under the Type B review process, the Department and Council may consider factors including, but not limited to: the complexity of the proposed change; the anticipated level of public interest in the proposed change; the anticipated level of interest by reviewing agencies; the likelihood of significant adverse impact; and the type and amount of mitigation, if any, required to address those impacts.

In RFA2, the certificate holder included a Type B Review Amendment Determination Request (Type B Review ADR), requesting that the amendment be reviewed under the Type B review process. The certificate holder argued that there were no changes to the site boundary or facility components that would require the evaluation of new or different resources or impacts from what was previously evaluated, and that the requested deadline extensions are administrative in nature and lack complexity. The certificate holder also argued that it expects interest from the public and reviewing agencies in the proposed amendment to be low because the Council has evaluated the potential adverse impacts from the facility and imposed conditions and mitigation requirements to avoid, minimize, and mitigate those impacts, in part in response to reviewing agency recommendations and public comments. The certificate holder noted that only one public comment was received in response to the previous amendment proceeding on Request for Amendment 1 (RFA1), and that no concerns regarding RFA2 were raised in preliminary comments provided by the Oregon Department of Fish and Wildlife, the Oregon Department of Agriculture, and the Lake County Planning Department.⁴

On February 26, 2025, the Department issued its Type B Review ADR determination concurring that the Type B process was justified based on its evaluation of the factors listed under OAR 345-027-0357(8).⁵

II.A. REQUESTED AMENDMENT

The certificate holder seeks approval to extend the construction commencement and completion deadlines established in General Standard Condition 1 (GEN-GS-01).

³ OAR 345-027-0351. A key procedural difference between the Type A and Type B review process is that the Type A review requires a public hearing on the Draft Proposed Order (DPO) and provides an opportunity for persons who comment on the DPO to request a contested case proceeding on the Department's proposed order. Other differences between the Type A and Type B review process relate to the amount of time afforded to the Department to make its determination of completeness of the amendment and issue the DPO.

⁴ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 4.0.

⁵ OSCAMD2Doc11-00 pRFA2 Type B Determination Letter 2025-02-26.

1 Under OAR 345-027-0385(1), a request for an amendment to extend the deadlines for
2 beginning or completing construction of the facility must include an explanation of the need for
3 an extension. In RFA2, the certificate holder explains that, in order to operate the facility, it
4 needs to obtain an interconnection agreement with a transmission provider to transmit the
5 output of the facility to the regional grid. While the certificate holder initially proposed to
6 design the facility to interconnect with a 500-kV transmission line operated by Portland General
7 Electric (PGE), the Final Order on RFA1 authorized an alternate location for interconnection
8 facilities, so that the facility could interconnect with a Bonneville Power Administration (BPA)
9 transmission line in the same corridor. The certificate holder explains that the deadline
10 extensions proposed in RFA2 are needed because interconnection and transmission discussions
11 with BPA would not be completed early enough to start construction by February 25, 2025.⁶
12

13 Several studies are required for BPA to determine whether a large generating facility meets the
14 technical requirements for interconnection with the BPA transmission grid and the
15 requirements of the National Environmental Policy Act. Technical studies include an
16 Interconnection Feasibility Study, Interconnection System Impact Study, and Interconnection
17 Facilities Study. A Feasibility Study for the facility was issued in November 2020, and the System
18 Impact Study was published in September 2021. The certificate holder also signed an
19 Environmental Study Agreement with BPA in September 2022. In November 2023, the
20 certificate holder received a 20% design, cost estimates, and a schedule for the construction of
21 the required interconnection infrastructure and was granted Bypass status in the BPA
22 interconnection queue reform process. The certificate holder represents that it is working
23 collaboratively with BPA to advance substation design and value engineering work in
24 connection with transmission infrastructure upgrades and is diligently pursuing resolution of
25 issues related to interconnection but is not able, at this time, to provide an estimated date for
26 execution of a final interconnection agreement.⁷
27

28 To provide additional time to obtain the interconnection agreement with BPA, the certificate
29 holder requests that the construction commencement deadline be extended by three years, to
30 February 25, 2028. Because General Standard Condition 1 requires construction to be
31 completed within three years of construction commencement, the proposed change would
32 effectively extend it by three years as well.
33

34 No other changes to the site boundary, or to the design, construction, operation, or retirement
35 of the facility are proposed; however, RFA2 includes several proposed changes to plans and site
36 certificate conditions intended to ensure conformity with the deadline extension and address
37 changes in fact and law that have occurred since the site certificate was executed.
38

39 **II.B. SCOPE OF COUNCIL REVIEW**

40

⁶ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 3.0.

⁷ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 1.1.

Under OAR 345-027-0375(2)(b) and (e), in making a decision to grant or deny a request for an amendment to extend the deadlines for beginning or completing construction, the Council must determine that the preponderance of evidence on the record supports the following conclusions:

- After considering any changes in facts or law since the date the current site certificate was executed, the facility complies with all laws and Council standards applicable to an original site certificate application.
- The amount of the bond or letter of credit required under OAR 345-022-0050 is adequate.

The findings of fact and conclusions of law provided in this order in Section III., *Evaluation of Council Standards*, support these conclusions.

II.C. COUNCIL REVIEW PROCESS

II.C.1. Request for Amendment

On November 20, 2024, the Department received the preliminary Request for Amendment 2 (pRFA2).⁸ On November 27, 2024, the Department issued a Public Notice of Receipt of pRFA2 in accordance with OAR 345-027-0360(2).

In RFA2 Attachments 1-3, comment letters are provided from the Lake County Planning Department, Oregon Department of Fish and Wildlife (ODFW), and Oregon Department of Agriculture Native Plant Conservation Program. On December 3, 2024, the Department requested additional comments from these, and other reviewing agencies for the facility, including:

- Northwest Power Planning Council
- Oregon Office of State Fire Marshal
- Oregon Department of Agriculture
- Oregon Department of Fish and Wildlife
- Oregon Department of State Lands
- Oregon Department of Environmental Quality
- Oregon Department of Land Conservation and Development
- Oregon Department of Geology and Mineral Resources
- Oregon Public Utilities Commission

On the same date, the Department notified Cultural and Natural Resources staff of the Klamath Tribes, Confederated Tribes of Warm Springs, and Burns Paiute Tribe of receipt of pRFA2.

⁸ OSCAMD2Doc02-00 - 04 pRFA2 Public Notice 2024-11-27.

1 No substantive responses were provided to the Department’s requests; however, the Lake
2 County Planning Department provided a letter indicating support for the project.⁹

3
4 On December 11, 2024, the Department notified the certificate holder that pRFA2 was
5 incomplete and provided a first set of Requests for Additional Information (RAI1). On January
6 23, 2025, and February 21, 2025, the certificate holder provided responses to RAI1.

7
8 On February 24, 2025, the Department issued a second set of RAIs (RAI2). The certificate holder
9 provided responses to RAI2 on March 27, 2025.

10
11 During the review of pRFA2, the Department solicited additional reviewing comments from the
12 Oregon Department of Fish and Wildlife and the State Historic Preservation Office on specific
13 issues of concern. Responses are summarized in Section III.H., *Fish and Wildlife Habitat*, and
14 Section III.K., *Historic, Cultural, and Archaeological Resources*, below. Copies of all written
15 comments are included in Attachment C to this order.

16
17 On April 1, 2025, the Department notified the certificate holder that Request for Amendment 2
18 was complete and requested that the certificate holder provide a consolidated Request for
19 Amendment that includes all revisions to the preliminary request for amendment and all
20 additional information requested by the Department before the determination of
21 completeness, as provided in OAR 345-027-0363(6). The Department received the consolidated
22 complete RFA2 on April 11, 2025. On April 16, 2025, the Department issued Public Notice of the
23 Complete Request for Amendment and Draft Proposed Order as required by OAR 345-027-
24 0365.

25 26 **II.C.2. Draft Proposed Order**

27
28 The Draft Proposed Order (DPO) was issued on April 16, 2025. A Public Notice of the Draft
29 Proposed Order was issued concurrently with the DPO. The notice was distributed to all
30 persons on the Council’s general mailing list, to the special mailing list established for the
31 facility (i.e. individuals that have signed up to receive electronic notices from the Department
32 for the Obsidian Solar Center or all EFSC energy facilities), to an updated list of property owners
33 supplied by the certificate holder¹⁰, and to a list of reviewing agencies as defined in OAR 345-
34 001-0010(52). The Public Notice of the Draft Proposed Order initiated a 30-day public comment
35 period on the RFA2 and the DPO and established 5:00 p.m. Pacific Time (PT) on May 16, 2025,
36 as the deadline for written comments.

37

⁹ OSCAMD2Doc03-01 pRFA2 Reviewing Agency Comment Lake County 2024-12-19

¹⁰ OSCAMD2Doc15-02 Request for Amendment 2 Section 10 2025-04-11. Certificate holder states that it requested the most recent property tax assessment roll from the Lake County Assessor on October 31, 2024 and obtained the data on November 1, 2024. Certificate holder confirmed on April 9, 2025 that there had been no changes since November 1, 2024.

1 The Department received three written comments on the DPO during the comment timeframe.
2 The first comment was provided by the Lake County Planning Director on May 9, 2025, and
3 reiterates the County's support for the project. The two other comments, provided by Leeroy
4 Horton and Jeremiah Thorsted on May 16, 2025, are identical in content and both express
5 opposition to the project and the requested time extension. All comments were transmitted to
6 the Council for their consideration and are included as Attachment B to this order.
7

8 **II.C.3. Proposed Order**

9
10

11 On May 29, 2025, the Department issued a Proposed Order recommending approval of RFA2.
12 Concurrent with issuing the Proposed Order, the Department issued public notice of the
13 Proposed Order to all persons on the Council's general mailing list; the reviewing agencies for
14 the facility; and property owners listed under OAR 345-027-0360(1)(f).
15

16 **II.C.4. Final Order**

17

18 On June 13, 2025, at its meeting in Salem, Oregon, the Council reviewed the Proposed Order
19 and public comments received on the record of the DPO. By the affirmative vote of four
20 Council members, the Council adopted the Proposed Order as its Final Order, approving the
21 Request, and authorizing issuance of an amended site certificate.
22

23 **III. EVALUATION OF COUNCIL STANDARDS**

24

25 Under ORS 469.401(2), the Council must include in an amended site certificate "conditions for
26 the protection of the public health and safety, for the time for completion of construction, and
27 to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS
28 469.503." The Council implements this statutory framework by adopting findings of fact,
29 conclusions of law, and conditions of approval concerning the ability of the certificate holder
30 and facility to continue to demonstrate compliance with EFSC standards set forth in OAR
31 Chapter 345, Divisions 22 and 24 as well as all other applicable statutes, rules and standards
32 (including those of other state or local agencies).
33

34 This Order includes the Council's analysis of whether the certificate holder and facility, with the
35 proposed construction deadline extension, would continue to meet each applicable Council
36 standard (with mitigation and subject to compliance with existing and amended conditions, as
37 applicable), based on the information in the record.
38

39 **III.A. GENERAL STANDARD OF REVIEW: OAR 345-022-0000**

40

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

1
2 (a) The facility complies with the requirements of the Oregon Energy Facility
3 Siting statutes, ORS 469.300 to 469.570 and 469.590 to 469.619, and the
4 standards adopted by the Council pursuant to 469.501 or the overall public
5 benefits of the facility outweigh any adverse effects on a resource or interest
6 protected by the applicable standards the facility does not meet as described
7 in section (2);

8
9 (b) Except as provided in OAR 345-022-0030 for land use compliance and
10 except for those statutes and rules for which the decision on compliance has
11 been delegated by the federal government to a state agency other than the
12 Council, the facility complies with all other Oregon statutes and administrative
13 rules identified in the project order, as amended, as applicable to the issuance
14 of a site certificate for the proposed facility. If the Council finds that applicable
15 Oregon statutes and rules, other than those involving federally delegated
16 programs, would impose conflicting requirements, the Council shall resolve
17 the conflict consistent with the public interest. In resolving the conflict, the
18 Council cannot waive any applicable state statute.

19
20 ***

21 (4) In making determinations regarding compliance with statutes, rules and
22 ordinances normally administered by other agencies or compliance with
23 requirements of the Council statutes if other agencies have special expertise,
24 the Department of Energy shall consult with such other agencies during the
25 notice of intent, site certificate application and site certificate amendment
26 processes. Nothing in these rules is intended to interfere with the state's
27 implementation of programs delegated to it by the federal government.¹¹

28 29 **III.A.1. Findings of Fact**

30
31 Under OAR 345-027-0385(4) the Council may grant no more than two amendments to extend
32 the deadline for beginning construction of a facility. RFA2 is the first deadline extension
33 requested by the certificate holder. Accordingly, the Council may grant the extension if it finds
34 that the requirements of OAR 345-022-0000, the Council's General Standard of Review, are
35 met.

36
37 The General Standard requires the Council to find that a facility complies with all applicable
38 laws, rules, and standards, or the overall public benefits of the facility outweigh any adverse
39 effects on a resource or interest protected by the applicable standards the facility does not
40 meet. The scope and applicability of standards, laws, rules, and ordinances that must be
41 considered in making a decision to grant or deny issuance of an amended site certificate are
42 established under OAR 345-027-0375. As described in Section II.B., *Scope of Council Review*, for

¹¹ OAR 345-022-0000, effective August 29, 2023.

1 a request to extend the construction deadlines established by the site certificate, OAR 345-027-
2 0375 requires the Council to conclude, after considering any changes in facts or law since the
3 date the current site certificate was executed, that the facility continues to comply with all laws
4 and Council standards applicable to an original site certificate application.

5
6 As described in the sections that follow, the Council finds that a preponderance of evidence on
7 the record supports the conclusion that the facility would continue to comply with the
8 applicable requirements of ORS chapter 469, siting standards adopted by the Council under
9 OAR chapter 345, and all other Oregon statutes and administrative rules applicable to an
10 original site certificate application. The specific requirements for granting an extension of a
11 deadline for construction commencement are discussed further below.

12 13 *Construction Deadlines*

14
15 Under OAR 345-025-0006(4), the Council must impose conditions specifying the dates by which
16 the certificate holder must begin and complete construction. In the Final Order on the ASC, the
17 Council imposed Condition GEN-GS-01, requiring the certificate holder to begin construction by
18 February 25, 2025, and to complete construction within three years of the construction
19 commencement date.

20
21 In RFA2, the certificate holder requests the Council to amend Condition GEN-GS-01, and other
22 related language in the site certificate, to extend the date by which construction must begin by
23 three years, to February 25, 2028. This change would also effectively extend the construction
24 completion deadline, which is set to three years after the date of construction
25 commencement.¹²

26
27 Under OAR 345-027-0385(1), a request for an amendment to extend the deadlines for
28 beginning or completing construction of the facility must be submitted to the Department
29 before the applicable construction deadline, but no earlier than twelve months before the
30 applicable construction deadline. The preliminary Request for Amendment was submitted on
31 November 20, 2024, approximately three months prior to the construction commencement
32 date established in Condition GEN-GS-01. Because the preliminary request was submitted
33 within 12 months of the applicable deadline, the Council finds the request was submitted
34 timely.

35
36 The Council finds that the certificate holder continues to comply with the standards, laws, rules,
37 and ordinances applicable to an original site certificate application; and, that the certificate
38 holder timely requested an extension of the deadline for beginning construction. Therefore, the
39 Council grants the construction commencement and completion deadline extension and
40 amends General Standard Condition 1 (GEN-GS-01) to reflect the extension. The Council also
41 amends General Standard Condition 1 (GEN-GS-01) to clarify that construction commencement

¹² OSCAMD2Doc15-00 RFA2 2025-04-11, Section 6.0, 8.0.

1 is defined as completing \$250,000 work at the site, following satisfactory completion of
2 preconstruction requirements, as presented below.

3
4 **Amended General Standard Condition 1 (GEN):**

5 The certificate holder shall begin and complete construction of the facility by the
6 following dates; specified in the site certificate.

- 7 a. Construction of the facility shall commence ~~within three years after the date of~~
8 ~~Council action~~ on or before February 25, 2025. Within 7 days of construction
9 commencement, the certificate holder shall provide the Department written
10 verification of the construction commencement date and that it has met the
11 construction commencement deadline by satisfying applicable preconstruction
12 conditions and completing at least \$250,000 of work at the site.
13 b. Construction of all facility components shall be completed within three years after
14 construction commencement identified in section (a) of this condition. Within 7
15 days of construction completion, the certificate holder shall provide the Department
16 written verification that it has met the construction completion deadline.

17 [GEN-GS-01]
18

19 **III.A.2. Conclusions of Law**

20
21 The Council, after considering changes in facts or law since the date the current site certificate
22 was executed, finds that the facility complies with all laws and Council standards applicable to
23 an original site certificate application, and that, subject to existing, new, and amended site
24 certificate conditions described in this Order, the facility, with the proposed deadline extension,
25 complies with the Council's General Standard of Review.
26

27 **III.B. ORGANIZATIONAL EXPERTISE: OAR 345-022-0010**

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

41
42 *(2) The Council may base its findings under section (1) on a rebuttable*
43 *presumption that an applicant has organizational, managerial and technical*

1 expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and
2 proposes to design, construct and operate the facility according to that
3 program.

4
5 (3) If the applicant does not itself obtain a state or local government permit or
6 approval for which the Council would ordinarily determine compliance but
7 instead relies on a permit or approval issued to a third party, the Council, to
8 issue a site certificate, must find that the third party has, or has a reasonable
9 likelihood of obtaining, the necessary permit or approval, and that the applicant
10 has, or has a reasonable likelihood of entering into, a contractual or other
11 arrangement with the third party for access to the resource or service secured
12 by that permit or approval.

13
14 (4) If the applicant relies on a permit or approval issued to a third party and the
15 third party does not have the necessary permit or approval at the time the
16 Council issues the site certificate, the Council may issue the site certificate
17 subject to the condition that the certificate holder shall not commence
18 construction or operation as appropriate until the third party has obtained the
19 necessary permit or approval and the applicant has a contract or other
20 arrangement for access to the resource or service secured by that permit or
21 approval.

22
23 * * * * *

24 25 **III.B.1. Findings of Fact**

26
27 Obsidian Solar Center LLC (certificate holder) is owned by Obsidian Renewables, LLC and
28 Lindgren Development, Inc. (parent companies). Obsidian Renewables, LLC has developed,
29 financed, or permitted several utility-scale solar facilities in the Pacific Northwest, including
30 other facilities in southeast Oregon and Lake County. Lindgren Development, Inc. is a subsidiary
31 of Swinerton Incorporated. Swinerton Incorporated subsidiaries Swinerton Builders and SOLV
32 Energy, LLC own over 1 gigawatt of solar projects and manage over 8 gigawatts of renewable
33 assets across 26 states.¹⁴

34
35 The Council previously imposed the following conditions to ensure compliance with the
36 Organizational Expertise standard:

- 37
38 • Organizational Expertise Condition 1 (GEN-OE-01) requires the certificate holder to
39 notify the Department of any changes to its parent companies that would affect its
40 access to technical or financial expertise and resources.

41

¹³ OAR 345-022-0010, effective April 2, 2025.

¹⁴ OSCAMD1Doc9 Request for Amendment 1 2023-08-01, Section 7.2.

- 1 • Organizational Expertise Condition 2 (PRE-OE-01) requires the certificate holder to
2 provide the qualifications of its selected contractor prior to construction and
3 demonstrate that the contractor has substantial experience in design, engineering and
4 construction of similar facilities.
5
- 6 • Organizational Expertise Condition 3 (GEN-OE-02) requires the certificate holder to
7 contractually require all contractors and subcontractors to comply with the terms and
8 conditions of the site certificate.
9
- 10 • Organizational Expertise Condition 4 (GEN-OE-03) establishes that the certificate holder
11 is legally responsible for site certificate compliance, including matters of non-
12 compliance.
13
- 14 • Organizational Expertise Condition 5 (GEN-OE-04) requires the certificate holder to
15 report any matters of site certificate non-compliance to the Department within 72 hours
16 of discovery.
17
- 18 • Organizational Expertise Condition 6 (CON-OE-01) requires a qualified construction
19 manager or qualified designated representative to be on site during ground disturbance
20 activities to manage compliance with site certificate requirements. The certificate
21 holder shall notify the Department within 72 hours after any change to the on-site
22 construction manager.
23
- 24 • Organizational Expertise Condition 7 (PRO-OE-01) requires the certificate holder to
25 notify the Department of the identity, contact information, and qualifications of the
26 facility/asset manager prior to beginning operation of the facility and provides
27 requirements for qualifications.
28
- 29 • Organizational Expertise Condition 8 (OPR-OE-01) requires the certificate holder to
30 ensure that the qualified facility/asset manager is responsible for managing compliance
31 with operational site certificate requirements.
32

33 The certificate holder has not reported any changes to its parent companies under
34 Organizational Expertise Condition 1 (GEN-OE-01) and has not reported receipt of any
35 regulatory citations by the certificate holder or its parent companies.¹⁵
36

37 The Organizational Expertise Standard allows Council to consider a certificate holder's access to
38 technical expertise when assessing whether the certificate holder complies with the standard.
39 Given the reliance on the parent company, the Council finds it is appropriate to supplement site
40 certificate conditions to authorize the Department and Council to adjust the facility
41 decommissioning estimate and the associated amount of financial assurance the certificate
42 holder must provide, should non-compliance and operability issues lead to a circumstance

¹⁵ OSCAMD1Doc9 Request for Amendment 1 2023-08-01, Section 7.2.

1 where the certificate holder is unable to fulfil its obligation to decommission the facility based
2 on a Council approved retirement plan and set of EFSC site certificate conditions.

3
4 The process of designing, constructing and operating a facility in compliance with an EFSC
5 issued Site Certificate is costly. Resolving compliance issues is costly. Decommissioning the
6 facility and restoring the site to a useful, nonhazardous condition was previously estimated at
7 over \$38 million.

8
9 To protect the State from risk that \$38 million is no longer adequate to decommission the
10 facility and restore the site due to failure to comply and or operate the facility in a manner that
11 protects public health and safety, the Council amends Organizational Expertise Condition 5
12 (GEN-OE-04), as presented below:

13
14 **Amended Organizational Expertise Condition 5 [GEN]:** ~~In addition to the requirements~~
15 ~~of OAR 345-026-0170, within 72 hours after discovery of incidents or circumstances that~~
16 ~~violate the terms or conditions of the site certificate, the certificate holder must report~~
17 ~~the conditions or circumstances to the Department.~~

18 The certificate holder shall, as soon as reasonably possible:

- 19 a. Report incidents or circumstances that may violate the terms or conditions of the
20 site certificate, terms or conditions of any order of the Council, to the Department.
21 In the report to the Department, the certificate holder shall provide all pertinent
22 facts including an estimate of how long the conditions or circumstances existed, how
23 long they are expected to continue before they can be corrected, and whether the
24 conditions or circumstances were discovered as a result of a regularly scheduled
25 compliance audit;
- 26 b. Initiate and complete appropriate action to correct the conditions or circumstances
27 and to minimize the possibility of recurrence;
- 28 c. Submit a written report within 30 days of discovery to the Department. The report
29 must contain:
 - 30 i. A discussion of the cause of the reported conditions or circumstances;
 - 31 ii. The date of discovery of the conditions or circumstances by the responsible
32 party;
 - 33 iii. A description of immediate actions taken to correct the reported conditions or
34 circumstances;
 - 35 iv. A description of actions taken or planned to minimize the possibility of
36 recurrence; and
 - 37 v. For conditions or circumstances that may violate the terms or conditions of a
38 site certificate, an assessment of the impact on the resources considered under
39 the standards of OAR Chapter 345 Divisions 22 and 24 as a result of the
40 reported conditions or circumstances.
- 41 d. Upon receipt of the written report in sub(c) of this condition, the Department may
42 review the facility record for incidents or circumstances reported or reportable
43 under sub(a) related to public health and safety, the environment, or other
44 resources protected under Council standards. If these incidences are determined by

1 the Department to impact the adequacy of the facility decommissioning cost, the
2 Department or Council may adjust the contingencies identified in Final Order on
3 RFA1 Table 9 and request that the certificate holder promptly provide an updated
4 bond or letter of credit in the adjusted amount.

5 [OAR 345-029-0010, GEN-OE-04]

6
7 As presented in Section III.G., Retirement and Financial Assurance, the Council also amends
8 Retirement and Financial Assurance Condition 4 to provide the Department and Council
9 authority to adjust the contingencies applied to the retirement estimate, consistent with
10 amended Organizational Expertise Condition 5(d) above.

11 12 **III.B.2. Conclusions of Law**

13
14 Based on the analysis above, and subject to compliance with existing site certificate conditions,
15 the Council finds that the certificate holder continues to have access to the organizational
16 expertise needed to construct, operate and retire the facility, with the proposed deadline
17 extension, in compliance with Council standards and conditions of the site certificate.
18 Accordingly, the Council finds that the certificate holder continues to comply with the
19 Organizational Expertise Standard.

20 21 **III.C. STRUCTURAL STANDARD: OAR 345-022-0020**

22
23 *(1) Except for facilities described in sections (2) and (3), to issue a site*
24 *certificate, the Council must find that:*

25
26 *(a) The applicant, through appropriate site-specific study, has adequately*
27 *characterized the seismic hazard risk of the site.*

28
29 *(b) The applicant can design, engineer, and construct the facility to avoid*
30 *dangers to human safety and the environment presented by seismic hazards*
31 *affecting the site, as identified in subsection (1)(a).*

32
33 *(c) The applicant, through appropriate site-specific study, has adequately*
34 *characterized the potential geological and soils hazards of the site and its*
35 *vicinity that could, in the absence of a seismic event, adversely affect, or be*
36 *aggravated by, the construction and operation of the proposed facility; and*

37
38 *(d) The applicant can design, engineer and construct the facility to avoid*
39 *dangers to human safety and the environment presented by the hazards*
40 *identified in subsection (c).*

41
42 *(2) The Council may not impose the Structural Standard in section (1) to*
43 *approve or deny an application for an energy facility that would produce*

1 *power from wind, solar or geothermal energy. However, the Council may, to*
2 *the extent it determines appropriate, apply the requirements of section (1) to*
3 *impose conditions on a site certificate issued for such a facility.*

4
5 * * * * *

6
7 **III.C.1. Findings of Fact**

8
9 The analysis area for the review of seismic and geologic hazards, as evaluated under the
10 Council’s Structural Standard, is the area within the site boundary. To inform the evaluation of
11 seismicity within the site, the certificate holder also assessed earthquakes within 50-miles from
12 the site boundary and faults outside the site boundary.

13
14 Seismic and geologic hazards at the site were evaluated through a 2018 preliminary assessment
15 and a 2023 Geotechnical Engineering Report which contains the results of site-specific
16 geotechnical investigation.

17
18 The 2018 assessment identified two fault zones, the Southeast Newberry Fault Zone and
19 Paulina Marsh Fault Zone, as the most likely sources of significant seismic activity in the analysis
20 area but concluded that faults within the zone have a low probability of generating damaging
21 levels of ground shaking in any given year. Other potential seismic or geologic hazards
22 identified at the site included potential volcanic eruption at the nearby Newberry Volcano,
23 flooding in low-lying areas such as washes and playas, the potential presence of collapsible,
24 expansive, liquefiable, and corrosive soils, and the potential for wind erosion.¹⁷

25
26 The 2023 Geotechnical Engineering Report verified that soils encountered during subsurface
27 exploration were similar to those described in published soil maps of the site.¹⁸ Soils underlying
28 the site have a moderate risk of liquefaction due to the presence of diatomaceous earth in the
29 otherwise silty and sandy soils. Under the 2019 Oregon Structural Specialty Code and ASCE 7-
30 16, the presence of liquefiable soils requires the application of Soil Site Class F, which generally
31 requires site-specific seismic analysis to determine appropriate engineering specifications and
32 may indicate the need for additional seismic mitigation.¹⁹ The site also has potential
33 geotechnical challenges including areas with shallow bedrock (less than 5 feet below ground
34 surface), playas, and moisture-sensitive subgrades.²⁰

35
36 The 2023 Geotechnical Engineering Report recommends that driven piles would be appropriate
37 to support the solar arrays, but that pre-drilling pilot holes may be required in areas with

¹⁶ OAR 345-022-0020, effective April 2, 2025.

¹⁷ OSCAPDoc4-08 ASC Exhibit H 2019-10-17, Attachment H-1.

¹⁸ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 3.

¹⁹ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 6-9.

²⁰ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 14.

1 shallow bedrock.²¹ Similarly, the report finds that substation equipment and transmission line
2 structures can be supported on drilled shaft foundations, but that drilling of foundations to
3 design depths could require the use of heavy-duty drilling equipment capable of penetrating
4 bedrock.²² The report finds that inverter and substation structures may be supported on driven
5 piles or isolated mat foundation systems, but recommends a minimum of two feet of
6 engineered fill be installed to support mat foundations to address moisture-sensitive subgrades
7 and soil conditions at the site.²³

8
9 Based on the findings of the 2023 Geotechnical Engineering Report described above, the
10 Council finds that, taking geotechnical considerations and design recommendations into
11 account, the certificate holder can design, engineer and construct the solar arrays and other
12 facility structures in a manner that avoids dangers to human safety and the environment
13 presented by the seismic and geologic hazards and conditions at the site.

14
15 The 2023 Geotechnical Engineering Report recommends that the use of native silt and clay soils
16 at the site is acceptable for traffic consisting of lightly loaded vehicles (10,000 lb. gross vehicle
17 weight) but raises concerns about the potential for the soils, even when compacted, to pump
18 and yield in wet conditions, which may increase the potential for erosion and deep rutting of
19 unsurfaced roadways to occur.²⁴ The report recommends that unsurfaced roadways,
20 particularly in or near the playas identified on site, will be difficult, if not impossible to access
21 during wet weather and that scarification, moisture treatment, and recompaction of road
22 surfaces will likely be needed as roadways deteriorate.²⁵ The report recommends that roads
23 that require all-weather access and roads subjected to fire truck loading should be surfaced
24 with aggregate or pavement.²⁶

25
26 In the ASC, the certificate holder represented that facility roads would be designed to act as fire
27 breaks and will be sufficiently sized for emergency vehicle access in accordance with 2014
28 Oregon Fire Code Section 503 and Appendix D. The certificate holder represented that access
29 roads within the solar arrays would be at least 12 feet wide and would be made of compacted
30 native soil. The certificate holder explained that there would be access provided to all collector
31 substations and that the certificate holder would install a 20-foot-wide perimeter road with an
32 additional 10-foot buffer to provide a 30-foot, noncombustible defensible space clearance
33 around the facility. These representations were incorporated into Table 1 of the Site Certificate.

34
35 Section 503.2.3. of the Oregon Fire Code requires roads used for fire access to be designed and
36 maintained to support the imposed loads of fire apparatus and to be surfaced as to provide all-
37 weather driving capabilities. Based on the findings in the 2023 Geotechnical Engineering

²¹ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg.16

²² OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 22

²³ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 23.

²⁴ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 25.

²⁵ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 10, 25.

²⁶ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 25-26.

Report, the Council finds that the use of compacted native soils is likely not appropriate for roads used for fire access, including perimeter roads and roads providing access to substations. Accordingly, the Council amends Table 1 of the Site Certificate to require that all perimeter and substation access roads be designed to support fire-vehicle loading and provide all weather access. As described in Section III.N., *Wildfire Prevention and Risk Mitigation*, the draft Construction Wildfire Mitigation Plan included as Attachment F-1 of this Order would require the certificate holder to consult with local fire officials on the adequacy of its road design and ensure that fire access is provided as required by Oregon Fire Code Section 503.

The Council previously imposed the following conditions to ensure the certificate holder adequately characterizes seismic and geologic hazards at the site and designs, engineers and constructs the facility to avoid dangers to human safety and the environment presented by those hazards:

- Structural Standard Condition 1 (PRE-SS-01) requires the certificate holder to complete a site-specific geotechnical investigation to further characterize the site and inform final design prior to construction.
- Structural Standard Condition 2 (GEN-SS-01) requires that the facility be designed, engineered, and constructed to avoid dangers to human safety and the environment because of seismic hazards.
- Structural Standard Condition 3 (GEN-SS-02) requires the certificate holder to notify DOGAMI and the Department if the site-specific investigations or trenching reveal conditions other than those identified in the ASC.
- Structural Standard Condition 4 (GEN-SS-03) requires the certificate holder to notify DOGAMI and the Department promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site.

The Council also relied on the best management practices (BMPs) required under the DEQ issued NPDES 1200-C Stormwater Permit required under Soil Protection Condition 1 (GEN-SP-01) and the Dust Abatement and Management Plan required by Public Services Conditions 1 and 2 (PRE-PS-01, CON-PS-01) to address the potential for erosion at the site.²⁷

As described in Section III.D, *Soil Protection*, the Council imposes a new condition to address the potential for ongoing erosion issues on facility access roads during operations identified in the 2023 Geotechnical Engineering Report.

III.C.2. Conclusions of Law

²⁷ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 41-46.

Based on the foregoing analysis, and subject to compliance with the existing site certificate conditions described above, the Council finds the certificate holder has adequately characterized potential seismic and geologic hazards at the site and can design, engineer and construct the facility, with the proposed deadline extension, to avoid dangers to human safety and the environment presented by those hazards.

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

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

* * * * *

III.D.1. Findings of Fact

The analysis area for the Soil Protection standard is the area within the site boundary.

As shown in Table 2 below, the soils within the site consist primarily of ashy loamy sands and fine sands, including Morehouse Ashy Loamy Fine Sand (54.8 percent of the site), Abert Ashy Loamy Sand (37.8 percent of the site) and two soil complexes, with low or moderate slopes. These soils typically consist of dunes on lakebed deposits comprised of volcanic ash and eolian sand derived from mixed volcanic rock of lacustrine deposits. The soils have a moderate level of water erosion potential and is highly susceptible to erosion from wind.²⁹

Table 2: Soil Types within the Site Boundary

Soil Map Unit	Soil Type/Slopes	Area within Site Boundary (Acres)
200	Abert Ashy Loamy Sand, 0 to 2 percent slopes	1546.4
217	Bonnick-Fort Rock Complex, 0 to 2 percent slopes	289.6
470	Morehouse ashy loamy fine sand, 0 to 2 percent slopes	1,306.5
472	Morehouse ashy loamy fine sand, 2 to 20 percent slopes	934.7
667	Wegert-Kunceider Complex, 0 to 15 percent slopes	13.1
Total =		4,090.6
Source: OSCAMD1Doc9 Request for Amendment 1 2023-08-01, Table 2; National Resource Conservation Service, Web Soil Survey. Accessed 4/9/2025 at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx .		

²⁸ OAR 345-022-0022, effective April 2, 2025.

²⁹ OSCAPPDoc4-09 ASC Exhibit I 2019-10-17, p. 6-7; OSCAMD1Doc19 Final Order on AMD1 2023-11-17, p. 30-31. The other soil units found at the site are complexes consisting of gravelly and/or ashy loamy sands and have similar characteristics as the dominant units.

1 The Council previously imposed the following conditions to minimize or mitigate potential
2 impacts from ground disturbance, erosion from wind or water, accidental chemical spills,
3 noxious weed infestation, and revegetation failure:

- 4
5 • Soil Protection Condition 1 (GEN-SP-01) requires the certificate holder to implement
6 mitigation measures and best management practices (BMPs) during construction
7 through an Erosion and Sediment Control Plan (ESCP) under the National Pollution
8 Discharge Elimination System (NPDES) 1200-C permit, issued by Oregon Department of
9 Environmental Quality (DEQ). The condition also requires the certificate holder to
10 submit a phased site preparation and disturbance plan that limits overall site
11 disturbance to 60 acres at any given time and considers timing facility construction to
12 limit impacts on surrounding agriculture.
- 13
14 • Soil Protection Condition 2 (GEN-SP-02) requires the certificate holder to adhere to a
15 Spill Management Plan (SMP) to minimize impacts of a spill and adequately clean up and
16 dispose of materials used in response to a spill event.
- 17
18 • Fish and Wildlife Condition 1 (GEN-FW-01) requires the certificate holder to implement
19 a Revegetation and Noxious Weed Control Plan (RNWCP) during and following
20 construction, and to monitor for permanent site stabilization and revegetation.

21
22 Public Services Condition 1 (PRE-PS-01) requires the certificate holder to implement a Dust
23 Abatement and Management Plan during construction. The Dust Abatement and Management
24 Plan includes measures to minimize dust generated by construction traffic, including but not
25 limited to, minimizing soil disturbance, limiting traffic speeds, and using water or chemical
26 treatments to stabilize roads and other surfaces.

27
28 As described in Section III.C., *Structural Standard*, above, in 2023 the certificate holder provided
29 a Geotechnical Engineering Report as part of its obligations under Structural Standard Condition
30 1 (PRE-SS-01). The report recommends that the certificate holder's proposed use of compacted
31 native silt and clay soils for access roads at the site increases the risk of erosion issues due to
32 the potential for the soils to pump and yield in wet conditions.³⁰ The report recommends that
33 scarification, moisture treatment, and recompaction of road surfaces will likely be needed as
34 roadways deteriorate.³¹

35
36 The Erosion and Sediment Control Plan (ESCP) required under the National Pollution Discharge
37 Elimination System (NPDES) 1200-C permit and Soil Protection Condition 1 (GEN-SP-01)
38 provides for the installation and maintenance of erosion control BMP's during facility
39 construction, but the permit would be terminated once construction is completed. To address
40 the potential for ongoing erosion issues identified in the 2023 Geotechnical Engineering Report,

³⁰ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 25.

³¹ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 10, 25.

the Council imposes a new condition requiring regular inspections and maintenance of roads and BMPs during operation of the facility as well:

Soil Protection Condition 3 (OPR)

During facility operation, the certificate holder shall inspect all facility access roads at least once every calendar quarter and, as necessary, maintain or repair road surfaces or erosion and sediment control measures. The certificate holder must maintain records of inspections and repairs and make the records available to the Department for inspection upon request.
[OPR-SP-01]

III.D.2. Conclusions of Law

Based on the analysis above, the Council finds that, subject to compliance with the existing and new site certificate conditions described above, the facility, with the proposed deadline extension, would continue to comply with the Soil Protection Standard.

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

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

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

(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a) and the Council finds that the facility has received local land use approval under the acknowledged comprehensive plan and land use regulations of the affected local government; or

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

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

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

1 (C) For a proposed facility that the Council decides, under sections (3) or (6), to
2 evaluate against the statewide planning goals, the proposed facility complies
3 with the applicable statewide planning goals or that an exception to any
4 applicable statewide planning goal is justified under section (4).
5

6 (3) As used in this rule, the “applicable substantive criteria” are criteria from
7 the affected local government’s acknowledged comprehensive plan and land
8 use ordinances that are required by the statewide planning goals and that are
9 in effect on the date the applicant submits the application. If the special
10 advisory group recommends applicable substantive criteria, as described
11 under OAR 345-015-0180, the Council shall apply them. If the special advisory
12 group does not recommend applicable substantive criteria, the Council shall
13 decide either to make its own determination of the applicable substantive
14 criteria and apply them or to evaluate the proposed facility against the
15 statewide planning goals.
16

17 (4) The Council may find goal compliance for a proposed facility that does not
18 otherwise comply with one or more statewide planning goals by taking an
19 exception to the applicable goal. Notwithstanding the requirements of ORS
20 197.732, the statewide planning goal pertaining to the exception process or
21 any rules of the Land Conservation and Development Commission pertaining
22 to the exception process, the Council may take an exception to a goal if the
23 Council finds:
24

25 (a) The land subject to the exception is physically developed to the extent that
26 the land is no longer available for uses allowed by the applicable goal;
27

28 (b) The land subject to the exception is irrevocably committed as described by
29 the rules of the Land Conservation and Development Commission to uses not
30 allowed by the applicable goal because existing adjacent uses and other
31 relevant factors make uses allowed by the applicable goal impracticable; or
32

33 (c) The following standards are met:
34

35 (A) Reasons justify why the state policy embodied in the applicable goal
36 should not apply;
37

38 (B) The significant environmental, economic, social and energy consequences
39 anticipated as a result of the proposed facility have been identified and
40 adverse impacts will be mitigated in accordance with rules of the Council
41 applicable to the siting of the proposed facility; and
42

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

1
2 *(5) If the Council finds that applicable substantive local criteria and applicable*
3 *statutes and state administrative rules would impose conflicting requirements,*
4 *the Council shall resolve the conflict consistent with the public interest. In*
5 *resolving the conflict, the Council cannot waive any applicable state statute.*

6
7 * * * * *

8
9 **III.E.1. Findings of Fact**

10
11 The analysis area for potential land use impacts, as defined in the project order, is the area
12 within and extending one-half mile from the proposed site boundary.

13
14 The site is in Lake County, and is entirely within the County's A-2, Agricultural Use Zone.
15 Approximately 289 acres in the northeast portion of the site is also in the County's Significant
16 Resources Combining Zone due to its location in mapped Big Game Winter Range.³³ For the
17 purposes of the Land Use standard, the facility is considered two separate uses, with the 230 kV
18 transmission line and switching station evaluated as Utility Facilities Necessary for Public
19 Service and the energy facility and all other related or supporting facilities evaluated as
20 Commercial Utility Facilities for the Purpose of Generating Power for Public Use by Sale.

21
22 *Local Applicable Substantive Criteria*

23
24 During the review of the ASC, the Council appointed the Lake County Board of Commissioners
25 as the Special Advisory Group (SAG) for all proceedings relating to the site certificate for the
26 facility.³⁴ On March 29, 2018, the Board of Commissioners identified applicable substantive
27 criteria for the review of the facility from the Lake County Zoning Ordinance (LCZO) and Lake
28 County Comprehensive Plan (LCCP). The applicable substantive criteria are shown in Table 3
29 below. The Board of Commissioners also appointed the Lake County Planning Director, Darwin
30 Johnson, as the appropriate contact person for the County's obligations as SAG and authorized
31 Mr. Johnson to respond to all inquiries on its behalf.³⁵

32
33

³² OAR 345-022-0030, effective September 3, 2003, as amended by minor correction filed May 28, 2019.

³³ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 55-56, 59-60.

³⁴ OSCNOIDoc4-2 Lake County Special Advisory Group Appointment Order 2018-02-23.

³⁵ OSCNOIDoc14-3 Lake County SAG Comments 2018-03-29.

Table 3: Lake County Applicable Substantive Criteria

Lake County Zoning Ordinance (LCZO)	
<i>Article 3 Agricultural Use Zone: A-2</i>	
Section 3.02	Permitted Uses – Subsection C
Section 3.04	Conditional Uses – Subsection B
Section 3.05	Dimensional Standards – Subsections F, G and H
<i>Article 18 Significant Resource (SR) Combining Zone</i>	
Section 18.05	Reduced Preservation Review Criteria – Subsection D
<i>Article 20 Supplementary Provisions</i>	
Section 20.01	Supplementary Provisions
Section 20.08	Vision Clearance Area
Section 20.09	Riparian Habitat – Subsections A, B and C
Section 20.12	Fences
Section 20.13	Compliance with and Consideration of State and Federal Agency Rules and Regulations
<i>Article 24 Conditional Uses</i>	
Section 24.01	Authorization to Grant or Deny Conditional Uses – Subsections A
Section 24.18	Renewable Energy Facilities
Section 24.19	Criteria for Nonfarm Uses, Excluding Farm Related or Accessory Uses, in an A-1 or A-2 Zone
Lake County Comprehensive Plan	
Goal 2 Planning Process – Policies 17 and 18	
Goal 3 Agricultural Lands – Policy 12	
Goal 5 Open Space, Scenic and Historic Areas and Natural Resources – Policies 3, 4, 5, 8, 10, 13, 14 and 16	
Goal 6 Air, Water and Land Resource Quality – Policies 1, 3, 4, 5 and 11	
Goal 9 Economic Development – Policies 1, 6 and 8	
Goal 11 Public Services and Facilities – Policies 1, 4 and 6	
Goal 12 Transportation – Policy 8	
Goal 13 Energy Conservation – Policies 1 and 3	
Goal 14 Urbanization – Policy 9	
Source: OSCNOIDoc14-3 Lake County SAG Comments 2018-03-29; OSCAPPDoc1-4 Final Order on ASC w Attachments 2022-02-25; Table 3.	

In the Final Order on the ASC, the Council found that the 230 kV transmission line and switching station qualified as Utility Facilities Necessary for Public Service under ORS 215.275 and was therefore a use permitted outright in the A-2 zone under LCZO Section 3.02(C).³⁶ In the Final Order on AMD1, the Council found that the changes to the line and interconnection facilities didn't alter the basis for this previous finding.³⁷

³⁶ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, p. 56-57, 76-80.

³⁷ OSCAMD1Doc19 Final Order on AMD1 2023-11-17, pg. 38-44.

1 In the Final Order on the ASC, the Council imposed the following conditions to ensure
2 compliance with the applicable substantive criteria for the review of the energy facility and
3 other related or supporting facilities:

- 4
5 • Land Use Condition 1 (PRE-LU-01) requires the certificate holder to submit a conditional
6 use and zoning permit application along with the proper filing fees to Lake County
7 Planning Department for issuance pursuant to ORS 469.401(3) and obtain all other
8 necessary local permits prior to beginning construction.
9
- 10 • Land Use Condition 2 (PRE-LU-02) requires the certificate holder to demonstrate
11 compliance with county yard setback and vision clearance area requirements
12 established in LCZO Section 3.05(G) and (H) and Section 20.08 prior to beginning
13 construction.
14
- 15 • Land Use Condition 3 (PRE-LU-03) requires the certificate holder to demonstrate than
16 any new facility access roads or road approaches from County Road 5-12 A onto the site
17 would comply with County siting standards for development in Big Game Winter Range
18 established in LCZO Section 18.05(D)(3)(c) prior to beginning construction.
19
- 20 • Land Use Condition 4 (OPR-LU-01) requires the certificate holder to describe the
21 condition of the perimeter fence and identify whether any repairs were completed or
22 are scheduled in each year's annual report during operations.
23
- 24 • Land Use Condition 5 (GEN-LU-01) requires the certificate holder to provide a list of all
25 State and federal permits or approvals necessary for construction or operation of the
26 facility prior to construction and demonstrate that all required permits were obtained
27 within 90 days after beginning construction.
28
- 29 • Land Use Condition 6 (PRE-LU-04) requires the certificate holder to sign and record in
30 the county deed records a document binding the certificate holder owner, and any
31 certificate holder owner successors in interest, prohibiting them from pursuing a claim
32 for relief of cause of action alleging injury from farming or forest practices as defined in
33 ORS 30.930(2) and (4) before beginning construction.
34

35 Under OAR 345-027-0375(3)(a), applicable substantive criteria in effect on November 20, 2024,
36 the date the preliminary RFA2 was submitted, are applicable to the review of RFA2. The
37 certificate holder provided a letter from Lake County Planning Director Darwin Johnson dated
38 September 30, 2024, confirming that there had been no substantive changes to the applicable
39 substantive criteria since the approval of the ASC.³⁸ The applicable Lake County Comprehensive
40 Plan is dated May 1990; the applicable Zoning Ordinance is dated September 6, 1989. There
41 have been no changes to the local applicable substantive criteria within the plan or ordinance
42 since Council's prior review.

³⁸ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 9.1.4, Attachment 1.

1
2 Because there are no proposed changes to the site or facility that would affect the facilities
3 compliance with the applicable substantive criteria from the affected local government's
4 acknowledged comprehensive plan and land use ordinance that are required by the statewide
5 planning goals, and because there have been no changes to the applicable substantive criteria
6 enacted since the issuance of the site certificate, the Council continues to rely on its previous
7 findings and conditions with regard to the requirements of the Lake County Comprehensive
8 Plan and Zoning Ordinance.

9
10 Unrelated to compliance with the standard, the Council also makes administrative amendments
11 to Land Use Condition 5 (GEN-LU-01) shown below to authorize phased compliance based on
12 applicability of any permits needed for construction of the facility:

13
14 **Amended Land Use Condition 5 (GEN)**

15 The certificate holder shall:

- 16 a. Prior to construction of the facility, facility component, or phase, as applicable,
17 provide to the Department a list of all State and federal permits or approvals
18 necessary for construction ~~or operation~~ of the facility. Certificate holder shall
19 consider ASC Exhibit E in identifying necessary permits.
20 b. ~~At least~~ Within 90-days after following construction commencement, provide
21 evidence ~~of that~~ all State and federal permits or approvals identified per sub(a) of
22 this condition have been obtained.

23 [GEN-LU-01]
24

25 *Directly Applicable State Rules and Statutes*

26
27 Under OAR 345-027-0375(3)(b), any administrative rules and goals adopted by the Land
28 Conservation and Development Commission (LCDC) and any land use statutes directly
29 applicable to the facility under ORS 197.646(3) that are in effect as of the date the Council
30 makes its Final Decision are applicable to the review of RFA2. In the Final Order on the ASC, the
31 Council found that the criteria for a transmission line to be considered a utility facility necessary
32 for public service under ORS 215.275, and the minimum standards for siting solar facilities in an
33 exclusive farm use zone under OAR 660-033-0130(38) were directly applicable to the facility.

34
35 In the Final Order on the ASC and Final Order on AMD1, the Council found that the 230 kV
36 transmission line and switching station qualified as Utility Facilities Necessary for Public Service
37 under ORS 215.275.³⁹ There have been no changes to the criteria in ORS 215.275 since the
38 Council issued the Final Order on AMD1, and no changes to the design, construction, or
39 operation of the transmission line are proposed in RFA2. Accordingly, the Councils continue to
40 rely on its previous findings with regard to ORS 215.275.

41

³⁹ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 56-57, 76-80; OSCAMD1Doc19 Final Order on AMD1 2023-11-17, pg. 38-44.

1 There have been no substantive changes to the minimum standards for solar facilities under
2 OAR 660-033-0130(38) since the Council issued the Final Order on the ASC; however, on
3 December 6, 2024, LCDC adopted rules that, among other things, supplement OAR 660-033-
4 0130(5) to describe the steps needed to provide a sufficient analysis under the “farm impacts
5 test” required under ORS 215.296 and OAR 660-033-0130(5). The new rules became effective
6 on January 1, 2025. The intent of the rule change was to incorporate case law guidance from
7 the courts about how to conduct a sufficient farm impacts test analysis. While that common
8 law was in effect at the time the Council issued the Final Order on the ASC, because LCDC has
9 since placed these criteria in rule, the Council requires that the new provisions in OAR 660-033-
10 0130(5)(c) be evaluated as directly applicable standards under ORS 197.646(3).

11
12 **OAR 660-033-0130**

13
14 * * * * *

15
16 *(5) Approval requires review by the governing body or its designate under ORS 215.296.*
17 *Uses may be approved only where such uses:*

18
19 *(a) Will not force a significant change in accepted farm or forest practices on*
20 *surrounding lands devoted to farm or forest use; and*

21
22 *(b) Will not significantly increase the cost of accepted farm or forest practices on*
23 *surrounding lands devoted to farm or forest use.*

24
25 *(c) For purposes of subsection (a) and (b), a determination of forcing a significant change*
26 *in accepted farm or forest practices on surrounding lands devoted to farm and forest use*
27 *or a determination of whether the use will significantly increase the cost of accepted*
28 *farm or forest practices on surrounding lands devoted to farm or forest use requires:*

29
30 *(A) Identification and description of the surrounding lands, the farm and forest*
31 *operations on those lands, and the accepted farm practices on each farm operation and*
32 *the accepted forest practices on each forest operation;*

33
34 *(B) An assessment of the individual impacts to each farm and forest practice, and*
35 *whether the proposed use is likely to have an important influence or effect on any of*
36 *those practices; and*

37
38 *(C) An assessment of whether all identified impacts of the proposed use when considered*
39 *together could have a significant impact to any farm or forest operation in the*
40 *surrounding area in a manner that is likely to have an important influence or effect on*
41 *that operation.*

42
43 *(D) For purposes of this subsection, examples of potential impacts for consideration may*
44 *include but are not limited to traffic, water availability and delivery, introduction of*

1 *weeds or pests, damage to crops or livestock, litter, trespass, reduction in crop yields, or*
2 *flooding.*

3
4 *(E) For purposes of subsection (a) and (b), potential impacts to farm and forest practices*
5 *or the cost of farm and forest practices, impacts relating to the construction or*
6 *installation of the proposed use shall be deemed part of the use itself for the purpose of*
7 *conducting a review under subsections (a) and (b).*

8
9 *(F) In the consideration of potentially mitigating conditions of approval under ORS*
10 *215.296(2), the governing body may not impose such a condition upon the owner of the*
11 *affected farm or forest land or on such land itself, nor compel said owner to accept*
12 *payment to compensate for the significant changes or significant increases in costs*
13 *described in subsection (a) and (b).⁴⁰*

14
15 In RFA2, the certificate holder explains that the Council’s prior evaluation of LCZO Section
16 24.19, which implements requirements of ORS 215.296 and OAR 660-033-0130(5), adequately
17 addresses the new provisions of OAR 660-033-0130(5).⁴¹

18
19 In ASC Exhibit K, the certificate holder identified the accepted farming practices on surrounding
20 lands as cultivated crop production using center pivot irrigation and grazing/ranching activities.
21 The certificate holder then identified the potential adverse impacts arising from availability of
22 irrigation water, increased traffic, increased dust, and spread of invasive weed species. The
23 certificate holder then evaluated whether these potential adverse impacts would be considered
24 serious interference with accepted farming practices.⁴² In the Final Order on the ASC, the
25 Council also evaluated the potential for big game and rodents displaced during construction
26 and operation of the facility to damage crops on surrounding lands.⁴³ As described throughout
27 this Order, the Council imposed conditions requiring the certificate holder to develop and
28 adhere to a Construction Traffic Management Plan (Condition GEN-PS-01), a Dust Abatement
29 and Management Plan (Conditions PRE-PS-01 and CON-PS-01), a Revegetation and Noxious
30 Weed Control Plan (Condition GEN-FW-01) and a Wildlife Monitoring Plan (Condition OPR-FW-
31 01), in part to ensure that these impacts would not force a significant change in or significantly
32 increase the cost of the surrounding agricultural practices.

33
34 In the Final Order on the ASC, the Council found the proposed facility would be compatible with
35 farm uses and would comply with the applicable requirements of LCZO Section 24.19(A) based
36 on the reasoning and analysis presented in the Hearing Officer’s Proposed Contested Case
37 Order in the proceeding.⁴⁴ The Proposed Contested Case Order, in turn, found that the evidence
38 on the record and conditions of approval demonstrated that “the proposed facility will not

⁴⁰ OAR 660-033-0130, effective January 1, 2025.

⁴¹ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 9.1.4.

⁴² OSCAPPD04-11 ASC Exhibit K 2019-10-17, pg. 17-19.

⁴³ OSCAPPD01-4 Final Order on ASC w Attachments 2022-02-25, pg. 69.

⁴⁴ *Id.*

1 significantly impact surrounding properties through soil erosion and/or fugitive dust,
2 proliferation of invasive and noxious weeds, displacement of wildlife, or adverse impacts on
3 public services and/or utilities.”⁴⁵

4
5 Because the record of the ASC identifies and describes the accepted farm practices on
6 agricultural lands surrounding the site, assesses the potential impacts the construction and
7 operation of the facility could have on those uses, and establishes conditions of approval to
8 minimize impacts and ensure that any farm practices would not be significantly affected, the
9 Council finds the updated requirements of OAR 660-033-0130(5) have been satisfied.

11 *Goal 3 Exception*

12
13 In the Final Order on the ASC, the Council found that because the facility would use, occupy, or
14 cover more non-arable land than allowed under the applicable provisions of OAR 660-033-
15 0130(38), an exception to Statewide Planning Goal 3 would be required to approve the
16 proposed facility. The Council found that reasons justified why the state policy for the
17 preservation and maintenance of agricultural land for farm use embodied in Goal 3 should not
18 apply and granted an exception to Goal 3 under ORS 469.504(2). The reasons the Council found
19 supported the exception were:

- 21 • The site is not viable for productive crop cultivation or cattle grazing due to low quality
22 soil and no water source, and as a result, the construction and operation of the facility
23 would have minimal impacts to agriculture.⁴⁶
- 24
25 • The construction and operation of the facility would benefit the local economy due to
26 payment of community service fees and contributions to the North Lake County School
27 District Foundation.⁴⁷

28
29 The Council imposed Land Use Condition 7 (PRO-LU-01) requiring the certificate holder to
30 provide a copy of its executed Strategic Investment Program Agreement demonstrating that the
31 certificate holder would provide an annual community service fee of \$2,000 per megawatt of
32 installed nameplate capacity and to provide evidence that it had made a one-time contribution
33 to the North Lake County School District Foundation equivalent to \$10,000 per megawatt of
34 installed nameplate capacity to satisfy representations made by certificate holder in support of
35 the local economic benefits reason.⁴⁸

⁴⁵ OSCAPPDoc61 Proposed Contested Case Order 2021-12-29, pg. 101; see also the analysis of Contested Case Issue 2, pp. 87-90.

⁴⁶ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, p. 86.

⁴⁷ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, p. 86-87.

⁴⁸ Since it issued its Final Order on the ASC, the Council has found that general economic benefits to a community in which a proposed facility is to be located are not adequate to justify an exception to Statewide Planning Goal 3, unless the applicant/certificate holder also demonstrates benefits to the agricultural community and economy that are protected by the goal. While the Council’s thinking on this reason has evolved, the Council is not revisiting its

1
2 In the Final Order on the ASC, the Council also found that, subject to compliance with the
3 conditions of approval, the facility would not cause significant adverse environmental,
4 economic, social and energy consequences or impacts and would be made compatible with
5 adjacent uses. Because the criteria under ORS 469.504(2) were satisfied, the Council granted
6 the exception to Statewide Planning Goal 3 and found that the exception would expire at time
7 of site certificate termination.⁴⁹

8
9 Because there are no changes to the design, construction, or operation of the facility proposed
10 in RFA2; there have been no changes to the site or surrounding area; and there have been
11 changes to the criteria for granting an exception since the issuance of the Final Order on the
12 ASC, the Council continue to rely on its previous findings.

13 14 **III.E.2. Conclusions of Law**

15
16 Based on the foregoing analysis, and subject to compliance with the existing and amended site
17 certificate conditions described above, the Council finds that the facility, with the proposed
18 deadline extension, will comply with the statewide planning goals adopted by the Land
19 Conservation and Development Commission.

20 21 **III.F. PROTECTED AREAS: OAR 345-022-0040**

22
23 *(1) To issue a site certificate, the Council must find:*

24
25 *(a) The proposed facility will not be located within the boundaries of a*
26 *protected area designated on or before the date the application for site*
27 *certificate or request for amendment was determined to be complete under*
28 *OAR 345-015-0190 or 345-027-0363;*

29
30 *(b) The design, construction and operation of the facility, taking into account*
31 *mitigation, are not likely to result in significant adverse impact to a protected*
32 *area designated on or before the date the application for site certificate or*
33 *request for amendment was determined to be complete under OAR 345-015-*
34 *0190 or 345-027-0363.*

35
36 * * * * * 50
37

previous finding because there are no changes to the design, construction, or operation of the facility proposed in RFA2; there have been no changes to the site or surrounding area; and Council's changes to its analysis for granting an exception have occurred since the issuance of the Final Order on the ASC.

⁴⁹ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 90.

⁵⁰ OAR 345-022-0040, effective April 2, 2025.

III.F.1. Findings of Fact

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

Protected Areas in the Analysis Area

As listed in Table 4 below, there are 11 protected areas within 20 miles of the site boundary, including 9 Bureau of Land Management (BLM) properties designated as Wilderness Study Areas (WSA), Areas of Critical Environmental Concern (ACEC), and/or Research Natural Areas (RNA); the Fort Rock State Natural Area and nearby Fort Rock Cave State Park; and the Summer Lake Wildlife Area.

Table 4: Protected Areas within the Analysis Area

Protected Area	Approx. Distance from Site (miles)	Direction from Site Boundary
Devil's Garden Lava Bed ACEC/WSA*	3.9	N
Connley Hills ACEC/RNA	5.3	SW
East Lava Field WSA*	5.4	NE
Four Craters Lava Bed WSA	6	E
Table Rock ACEC	6.9	S
Fort Rock State Natural Area	9.2	NW
Black Hills ACEC/RNA	9.7	SE
Fort Rock Cave State Park	10.9	NW
Lost Forest/Sand Dunes/Fossil Lake ACEC/ISA/WSA	14.4	E
Diablo Mountain WSA	18.1	S
Summer Lake Wildlife Area	19	S
*Approx. Distance from Site reflects changes discussed below. Source: OSCAMD1Doc19 Final Order and Attachments 2023-11-17, Table 8; OSCAMD2DoC15-00 RFA2 2025-04-11, Section 9.1.5		

The BLM issued its Record of Decision on amendments to the Lakeview Resource Management Plan on January 16, 2025, that identified several new Wilderness Study Areas (WSAs) under Section 202 of the Federal Land Policy and Management Act. The WSAs are generally adjacent to existing protected areas, including the Devil's Garden Lava Bed WSA and Lost Forest/Sand Dunes/Fossil Lake WSA. In addition, the certificate holder identified additional portions of the Four Craters Lava Bed WSA and East Lava Field WSA that were not evaluated in previous orders.⁵¹ For the purposes of this review, the new Section 202 WSAs and existing WSA/ACEC areas are considered to be part of the same protected area. As shown in Figure 2, below, at its closest point, the expanded Devil's Garden Lava Bed ACEC/WSA and East Lava Field WSA are

⁵¹ OSCAMD2DoC15-00 RFA2 2025-04-11, Section 9.1.5; Attachment 5. Note that the East Lava Field WSA is identified as WSA OR-1-3 in RFA2.

1 both approximately 0.1 miles closer to the site boundary than previously evaluated. The
2 expanded boundaries of the Four Craters WSA are a similar distance to the site boundary as
3 previously evaluated.
4

5 *Potential Impacts on Protected Areas*

6

7 Potential Visual Impacts

8

9 In the Final Order on the ASC, the Council found that the facility was not likely to result in
10 significant adverse visual impacts to any protected areas. The Council found that when viewed
11 at 4 miles or more, the solar arrays would likely appear only a dark line on the horizon when
12 not screened by intervening topography, vegetation, or development. The Council also found
13 that, where visible, the approved transmission lines would be visually subordinate to the taller
14 500-kV transmission lines that currently cross Fort Rock Valley.⁵²
15

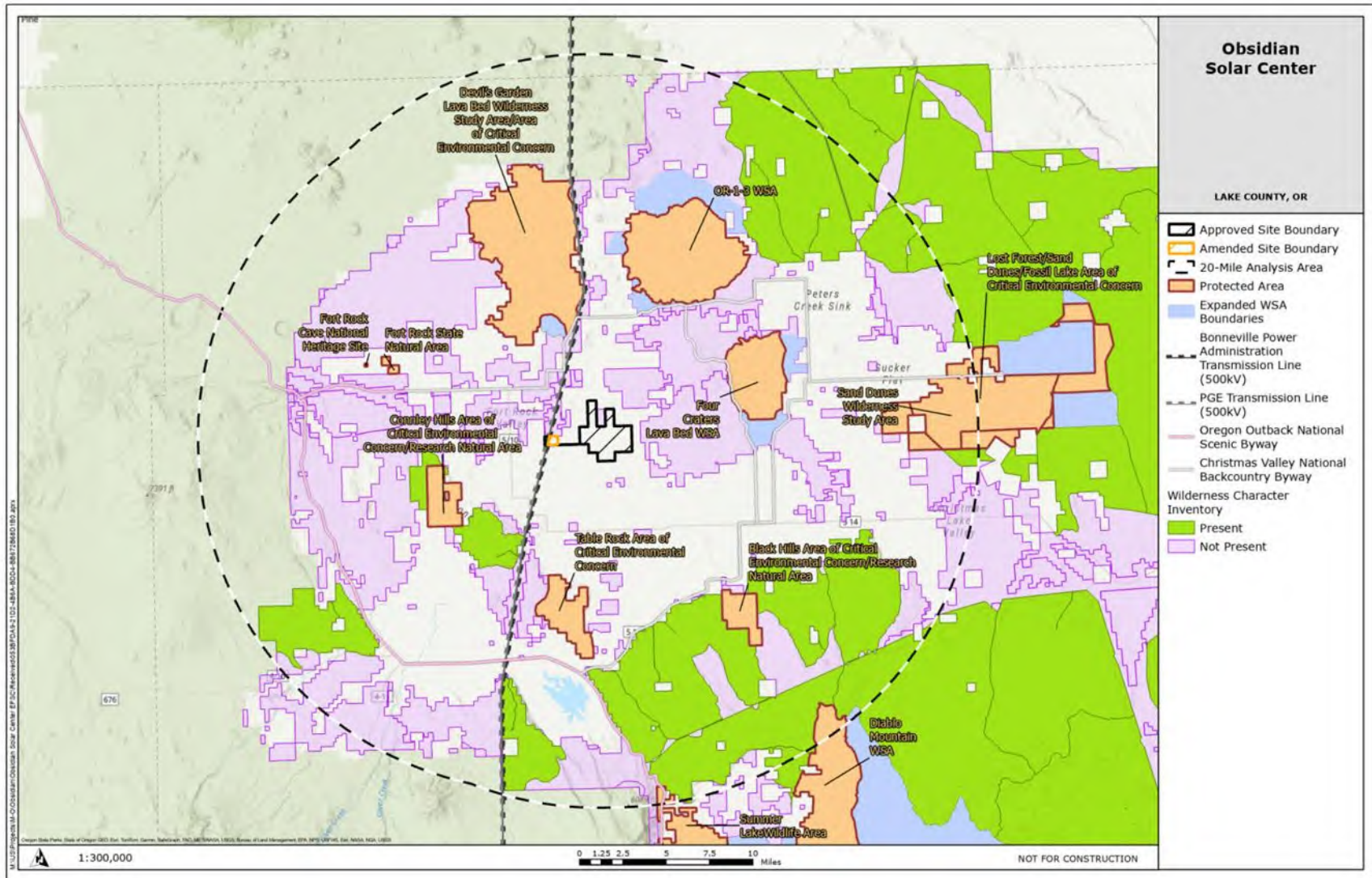
16 There are no proposed changes to facility components in RFA2, and no changes that would
17 increase or otherwise affect the visual impacts of the facility. While impacts to the newly
18 identified areas of the Lava Bed and East Lava Field WSAs were not previously evaluated, the
19 viewshed analysis provided in the ASC shows limited visibility of facility components from those
20 locations, and even if visible, the facility components would be viewed at nearly 4 miles.⁵³
21

22 Because there are no changes to the visual impacts of the facility, and because the newly
23 identified portions of protected areas would experience similar visual impacts as previously
24 evaluated portions, the Council continues to rely on its previous finding that the construction
25 and operation of the facility is not likely to result in significant adverse visual impacts to any
26 protected areas.
27

⁵² OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 100-102; OSCAMD1Doc19 Final Order on RFA1 2023-11-17, pg. 51-52.

⁵³ OSCAPPDoc4-12 ASC Exhibit L 2019-10-17, Figures L-1 and L-2.

Figure 2: Protected Areas Within the Analysis Area



Potential Noise Impacts

In the Final Order on the ASC, the Council found that noise levels received at the Devil's Garden Lava Bed WSA from the intermittent use of pneumatic pile drivers, the loudest anticipated construction equipment, could be up to 48 A-weighted decibels (dBA), but generally construction equipment noise would be 35 dBA or less. The Council found that these noise levels would not result in significant adverse noise impacts at the Devil's Garden Lava Bed WSA, the closest protected area to the site, or any other more distant protected area.⁵⁴ The Council found that operational noise levels would not be audible at any protected area.⁵⁵

There are no proposed changes to facility components or construction methods in RFA2, and no changes would increase or otherwise affect operational facility noise. While there are newly identified areas of the Devil's Garden Lava Bed, which was the basis for the Council's previous findings, the new areas are a similar distance as previously evaluated and would be expected to experience a similar amount of noise attenuation. The newly identified areas of the East Lava Field WSAs are still further from the site from the previously evaluated portions of the Devil's Garden Lava Bed.

Because there are no proposed changes that would increase or otherwise affect the noise generated by construction and operation of the facility, and because the newly identified portions of protected areas would experience similar impacts as previously evaluated, the Council continues to rely on its previous findings that the construction and operation of the facility is not likely to result in significant adverse noise impacts at any protected area.

Potential Traffic-related Impacts

In the Final Order on the ASC, the Council found that construction of the facility would generate up to 120 daily round trips by workers commuting to the site and up to 40 daily round trips by delivery vehicles during peak construction periods. The Council imposed Public Services Condition 1 (GEN-PS-01), which requires the certificate holder to prepare and implement a Construction Traffic Management Plan to minimize construction related traffic impacts.⁵⁶ The Council found that while construction of the facility could increase traffic on some routes used to access protected areas, the increases would be temporary, intermittent, and, subject to compliance with Public Services Condition 1 (GEN-PS-01), would be within an acceptable range of level of service.⁵⁷ The Council also found that the minimal levels of traffic expected during the operation of the facility were not likely to affect access to any protected areas.⁵⁸

⁵⁴ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 95-96.

⁵⁵ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 96.

⁵⁶ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, p. 97

⁵⁷ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 98. Anticipated traffic volumes and access routes are discussed in Section III.M., *Public Services*.

⁵⁸ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 98.

1 There are no proposed changes in RFA2 that would increase the amount of traffic expected to
2 be generated by construction or operation of the facility or alter the routes used to access the
3 site. The newly identified areas of the Devil’s Garden Lava Bed WSA and East Lava Field WSAs
4 are accessed by the same routes as previously evaluated.
5

6 Because there are no changes to the anticipated traffic-related impacts on protected areas, the
7 Council continues to rely on its previous findings that traffic generated by construction and
8 operation of the facility are not likely to result in significant adverse traffic-related impacts to
9 any protected areas.
10

11 Potential Water-Related Impacts 12

13 In the Final Order on the ASC, the Council found that under worst-case (dry/hot) conditions, up
14 to 34 million gallons of water would be needed during construction of the facility for dust
15 suppression, road compaction, concrete foundations, on-site worker drinking and sanitation
16 use; and up to approximately 1.28 million gallons of water per year would be needed during
17 operations for domestic use and solar panel washing. The Council found that sourcing these
18 amounts of water from municipal or private sources with existing water rights, or from onsite
19 wells for exempt uses, was not anticipated to impact any protected area.⁵⁹ The Council also
20 found that sanitary wastewater generated during construction and operation would either be
21 contained in portable toilets and disposed of by a licensed contractor, or during operations,
22 potentially discharged to a permitted onsite septic system constructed at the O&M building.
23 The Council previously found that neither the use of portable toilets or a septic system would
24 affect any protected area. Other potential water quality related impacts from stormwater
25 runoff are addressed through Soil Protection Condition 1 (GEN-SP-01) which requires the
26 certificate holder to construct the facility in compliance with a final Erosion and Sediment
27 Control Plan as required under the NPDES 1200-C Permit required by DEQ.⁶⁰
28

29 There are no changes proposed in RFA2 that would increase the amount of water needed for
30 the construction or operation of the facility, change the sources from which water would be
31 obtained, or change the methods by which wastewater would be disposed. Because there are
32 no changes to expected water-related impacts on protected areas, the Council continues to rely
33 on its previous findings.
34

35 **III.F.2. Conclusions of Law** 36

37 As described above, the certificate holder identified additional portions of protected areas that
38 were not evaluated in previous orders, these areas are likely to experience impacts similar to,
39 or in some cases smaller than, those previously determined to be less than significant.
40 Accordingly, the Council finds that the facility, with the proposed deadline extension, continues
41 to comply with the Protected Areas standard.

⁵⁹ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 98.

⁶⁰ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 98.

1
2 **III.G. RETIREMENT AND FINANCIAL ASSURANCE: OAR 345-022-0050**
3

4 *To issue a site certificate, the Council must find that:*
5

6 *(1) The site, taking into account mitigation, can be restored adequately to a*
7 *useful, non-hazardous condition following permanent cessation of*
8 *construction or operation of the facility.*
9

10 * * * * *

11
12 *(3) The applicant has a reasonable likelihood of obtaining a bond or letter of*
13 *credit in a form and amount satisfactory to the Council to restore the site to a*
14 *useful, non-hazardous condition.*
15

16 * * * * *⁶¹
17

18 **III.G.1. Findings of Fact**
19

20 *Restoration of the Site Following Cessation of Construction or Operation*
21

22 The tasks and actions previously determined adequate for facility decommissioning and site
23 restoration include:
24

- 25 • Mobilization to the site of equipment necessary for decommissioning;
- 26 • Apply stormwater and pollution prevention measures during decommissioning (silt
27 fencing, stabilization, spill kits, and dust control),
- 28 • Substation:
 - 29 ○ Disconnect electrical components;
 - 30 ○ GSU transformer removal; recycle/dispose of transformer oil; circuit breaker
31 removal; remove/recycle/dispose of fencing, gates, lighting, control building, and
32 communications equipment;
 - 33 ○ Remove foundations to subgrade.
- 34 • Collector Lines (single circuit 138 kV collector line of up to 3.2 miles will connect the
35 collector substations):
 - 36 ○ Disconnect electrical components;
 - 37 ○ Remove and recycle collector cables;
 - 38 ○ Remove any foundations for monopoles to subgrade.
- 39 • Transmission Line:
 - 40 ○ Disconnect electrical components;

⁶¹ OAR 345-022-0050, effective April 2, 2025.

- Remove and recycle single and double Circuit HV above ground transmission line;
- Remove gen-tie pole foundations to subgrade, removed up to 5 feet below ground, or as otherwise requested by the County.
- Internal and perimeter facility roads would be restored, including removal of gravel-surface material, decompaction and revegetation;
- Site revegetation activities would include re-seeding of the areas impacted by permanent facility components and temporarily impacted during decommissioning activities.⁶²

There are no changes proposed in RFA2 that would alter the design, construction, or operation of the facility, nor any changes to the tasks and actions necessary to restore the site following cessation of construction or operation. For these reasons, the Council finds that the tasks and actions previously identified for facility decommissioning and site restoration continue to be adequate to meet the standard.

The Council previously imposed conditions that require the certificate holder to restore the facility site to a useful, non-hazardous condition following permanent cessation of construction or operation.

- Retirement and Financial Assurance Condition 1 (GEN-RF-01), which mirrors Mandatory Condition OAR 345-025-0006(7), requires the certificate holder to prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition.
- Retirement and Financial Assurance Condition 2 (RET-RF-01), which mirrors Mandatory Condition OAR 345-025-0006(9), requires the certificate holder to retire the facility in accordance with a Council-approved retirement plan.
- Retirement and Financial Assurance Condition 3 (RET-RF-02), which mirrors Mandatory Condition OAR 345-025-0006(16), allows Council the ability to draw on the bond or letter of credit per Retirement and Financial Assurance Condition 5 (PRE-RF-02).

Estimated Costs of Site Restoration

In the Final Order on the ASC, the Council imposed Retirement and Financial Assurance Conditions 4 (PRE-RF-01) and 5 (PRE-RF-02), requiring the certificate holder to submit and maintain through the life of the facility, a bond and letter of credit in in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. The Council found that the certificate holder had used reasonable assumptions to estimate that \$28.8

⁶² OSCAPDoc1-4 Final Order on ASC, p. 103; OSCAMD1Doc19 Final Order on RFA1 2023-11-17, p. 51-52

1 million (Q3 2018 dollars) would be adequate to restore the site to a useful, non-hazardous
2 condition.⁶³

3
4 In the Final Order on RFA1, the Council updated Retirement and Financial Assurance Condition
5 5 (PRE-RF-02) based on an updated cost estimate developed using the same methods and
6 assumptions relied on in the Final Order on the ASC but including adjustments to line items and
7 retirement actions to reflect the changes in transmission infrastructure approved in RFA1. The
8 updated estimate, including all overhead, markups, and contingencies was approximately \$31.8
9 million (Q3 2018 dollars). The updated estimate also included an adjustment factor of 1.2 to
10 account for inflation from Q3 2018 to Q3 2023.⁶⁴ The final, inflation adjusted estimate, was
11 \$38.1 million (Q3 2023 dollars), which is the amount of financial assurance currently required in
12 Retirement and Financial Assurance Condition 5 (PRE-RF-02).

13
14 No changes to the design, construction, or operation of the facility are proposed in RFA2, and
15 there were no significant changes in unit costs of labor, equipment, or other rates identified,
16 and as such, the certificate holder continued to rely on the quantities, line, items, and unit costs
17 found in Table 9 of the Final Order on RFA1.

18
19 As discussed above, the previous estimate was calculated using the unit costs approved in the
20 Final Order on the ASC and expressed in Q3 2018 dollars. Retirement and Financial Assurance
21 Condition 5 (PRE-RF-02) requires that, prior to construction, the certificate holder submit a
22 bond or letter of credit, that is adjusted to present dollar value at the time (emphasis added)
23 and includes procedures by which to make the adjustment. The condition expresses the
24 approved bond amount in Q3 2023 dollars but allows the certificate holder to update the
25 estimate based on the final design of the facility using the unit costs approved in the Final Order
26 on RFA1, which as described above are expressed in Q3 2018 values.

27
28 For consistency, because the condition requires the use of the Q3 2018 unit cost values to
29 calculate the estimate, the Council amends Retirement and Financial Assurance Condition 5
30 (PRE-RF-02), as shown below, to also express the required bond amount, based on the facility
31 as approved in RFA1, in unadjusted Q3 2018 dollars. As shown below, given the additional
32 uncertainty in economic conditions, technological changes, and costs of regulatory compliance
33 that may affect the adequacy of the previously approved unit costs, the Council also adds
34 language clarifying that additional contingencies may be applied if the Department or Council
35 determines they are necessary to reflect the costs to protect public health and safety or the
36 environment and ensure the certificate holder's financial assurance instrument is adequate to
37 restore the site as required by OAR 345-022-0050:

38
39 **Amended Retirement and Financial Assurance Condition 5 (PRE)**

40 Before beginning construction of the facility, the certificate holder shall submit to the State
41 of Oregon, through the Council, a bond or letter of credit naming the State of Oregon,

⁶³ OSCAPPD0c1-4 Final Order on ASC, p. 111

⁶⁴ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Table 9, p. 56

1 acting by and through the Council, as beneficiary or payee. The total bond or letter of credit
2 amount for the facility is ~~\$38.4~~\$31.8 million dollars (Q3 ~~2023~~2018 dollars), to be adjusted to
3 the date of issuance, and adjusted on an annual basis thereafter, as described in sub-
4 paragraph (b) of this condition:

- 5 a. The certificate holder may adjust the amount of the bond or letter of credit based on
6 the design configuration of the facility by applying the unit costs, general costs and
7 ODOE applied contingencies as illustrated in Table ~~89~~ of the Final Order on RFA1. Any
8 revision to the restoration costs should be adjusted to the date of issuance as
9 described in (b) and subject to review and approval by the Council.
- 10 b. The certificate holder shall adjust the amount of the bond or letter of credit using the
11 following calculation:
- 12 i. Adjust the amount of the bond or letter of credit (expressed in Q3 ~~2023~~2018
13 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price
14 Deflator, Chain-Weight, as published in the Oregon Department of Administrative
15 Services' "Oregon Economic and Revenue Forecast" or by any successor agency
16 and using the third quarter ~~2023~~2018 index value and the quarterly index value
17 for the date of issuance of the new bond or letter of credit. If at any time the
18 index is no longer published, the Council shall select a comparable calculation to
19 adjust third quarter ~~2023~~2018 dollars to present value.
- 20 ii. Round the result total to the nearest \$1,000 to determine the financial assurance
21 amount.
- 22 c. The certificate holder shall use an issuer of the bond or letter of credit approved by the
23 Council, based on the Council's pre-approved financial institution list.
- 24 d. The certificate holder shall use a form of bond or letter of credit approved by the
25 Council. The certificate holder shall describe the status of the bond or letter of credit in
26 the annual report submitted to the Council under OAR 345-026-0080. The bond or
27 letter of credit shall not be subject to revocation or reduction before retirement of the
28 facility site.
- 29 e. The Department and Council reserve the right to adjust the contingencies, as
30 appropriate and necessary to protect public health and safety or the environment and
31 ensure the certificate holder's bond or letter of credit is sufficient to retire the site to a
32 useful, non-hazardous condition.

33 [PRE-RF-02]
34

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

37 As described above, in the Final Order on RFA1, the Council determined the facility
38 decommissioning and site restoration cost to be approximately \$31.8 million (Q3 2018 dollars).
39 As shown in Table 5 below, this is equivalent to approximately \$39.5 million in Q1 2025 dollars.
40

Table 5: Decommissioning Estimate – Evaluation of Inflation Adjustments

	Q3 2018	Q3 2023	Q1 2025
--	---------	---------	---------

GDP Deflator* (2017=100)	102.6	122.8	127.5
Adjustment Factor (from Q3 2018)	1.000	1.197	1.243
Nominal Dollars	\$31,756,995.49	\$38,009,347.43	\$39,464,102.59
*Oregon Office of Economic Analysis January 2025 Forecast, Other Economic Indicators: 1990-2034. Available at: https://www.oregon.gov/das/oea/pages/forecastecorev.aspx			

As described in Section III.B, *Organizational Expertise*, the certificate holder has not reported any changes to its business entity, business structure, or regulatory performance, and the Department did not identify any other changes in fact or law that would impact the certificate holder's likelihood of obtaining a bond or letter of credit, aside from the increases in the amount necessary for site restoration due to inflation.

An updated financial assurance letter from Heffernan Insurances Brokers dated December 18, 2024, is provided as Attachment 3 of RFA2. The letter indicates that the certificate holder is qualified for issuance of a single bond in the amount of \$40 million, which exceeds the decommissioning and site restoration cost estimate of \$39.5 million (Q1 2025 dollars). The Council finds that the letter provides sufficient evidence that certificate holder continues to be reasonably likely to obtain a bond or letter of credit in the amount needed to satisfy the requirements of Retirement and Financial Assurance Condition 5.

III.G.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the existing and amended site certificate conditions described above, the Council finds that the site can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility, and that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to restore the site to a useful, non-hazardous condition.

III.H. FISH AND WILDLIFE HABITAT: OAR 345-022-0060

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

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

(2) For energy facilities that impact sage-grouse habitat, the sage-grouse specific habitat mitigation requirements of the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-0000 through -0025 in effect as of February 24, 2017.

III.H.1. Findings of Fact

The analysis area for potential impacts to fish and wildlife habitat is the area within and extending one-half mile from the site boundary.

General Fish and Wildlife Habitat within the Analysis Area

In 2018, the certificate holder completed a literature review, field-based habitat assessment, wetland and waterbody delineation survey, ground-based raptor nest survey, and state-sensitive species survey for pygmy rabbits to support ASC Exhibit P.⁶⁶ In 2022, additional literature review and surveys of Area E were conducted.⁶⁷

Several habitat types were identified in the analysis area, including sagebrush-shrublands, other non-sagebrush shrublands, sand dunes, playas, non-native forb habitats, and agricultural or disturbed lands. Due to the site's location within mapped big-game winter range, all lands within the site not identified as agricultural or disturbed lands are considered Category 2, "essential habitat" under ODFW's Habitat Mitigation Policy.⁶⁸ The overall distribution of habitat types and categories within the site boundary are shown in Table 6, below.

Greater sage-grouse Habitat within the Analysis Area

Sagebrush-shrubland is the dominant habitat type, covering approximately 91 percent of the site. Big sagebrush is a key component of sagebrush shrubland habitat within the site, with estimated cover ranging from 15 to 30 percent and mature plants reaching heights of up to 6 feet tall.⁶⁹ Sagebrush-shrubland is an important habitat for many sagebrush obligate species, including the Greater sage-grouse (*Centrocercus urophasianus*).

In the Final Order on the ASC, the Council found that the site is not within mapped sage-grouse habitat and as a result, the facility was not required to comply with the requirements of OAR 345-022-0060(2).⁷⁰

⁶⁵ OAR 345-022-0060, effective April 2, 2025.

⁶⁶ OSCAPDoc4-16 ASC Exhibit P 2019-10-17, Section P.6, Attachment P-1; OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 116.

⁶⁷ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, pg. 61-62

⁶⁸ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 117; OSCAMD1Doc19 Final Order on RFA1 2023-11-17, pg. 63-65.

⁶⁹ OSCAPDoc4-16 ASC Exhibit P 2019-10-17, Appendix P-1.

⁷⁰ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 117.

On December 15, 2023, the Oregon Fish and Wildlife Commission approved revised Oregon Sage-grouse Core and Low-Density Habitat Maps and amended OAR Chapter 635 Division 140. As shown in Figure 3, below, the updated maps identify approximately 1,478 acres of low-density sage-grouse habitat which overlaps with Area A.

Under the requirements of OAR 345-022-0060(2), energy facilities that impact sage-grouse habitat must comply with “the sage-grouse specific habitat mitigation requirements of the Greater Sage-Grouse Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-0000 through -0025 in effect *as of February 24, 2017*.” (emphasis added). While OAR 635-140-0000 was amended to adopt the 2023 sage-grouse maps after the effective date cited in the Council’s standard, the remaining sections of OAR 635-140-0002 through 635-140-0025 refer throughout to “maps maintained by [ODFW]” rather than a specific map set and provides criteria by which the maps may be revised.⁷¹

Because the rules in OAR 635-140-0000 through -0025 in effect *as of February 24, 2017*, rely on current sage-grouse habitat maps maintained by ODFW, and because the current maps indicate that the facility would directly impact low-density habitat, and would indirectly impact additional sage-grouse habitat outside of the site boundary, the Council finds that the requirements of OAR 345-022-0060(2) are applicable for this review.

Potential General Habitat Impacts and Mitigation: OAR 635-415:0025

As shown in Table 6, below, the construction and operation of the facility is expected to result in the permanent disturbance of up to approximately 3,588 acres of Category 2 habitat and 12.5 acres of Category 6 habitat. Up to an additional 0.23 acres of Category 2, and 1.5 acres of Category 6 habitat could be temporarily disturbed during construction.

Table 6: Habitat types within the Site Boundary and Estimated Permanent and Temporary Impacts

Habitat Type	Area within the Site Boundary (acres)	Est. Temp. Impacts (acres)	Est. Perm. Impacts (acres)
Sagebrush shrubland	3,419.21	0.00	3,419.12
Non-sagebrush shrubland	17.15	0.15	0.00
Sand Dune	108.81	0.03	108.78
Playa	17.01	0.00	16.91
Non-native Forb	55.82	0.05	42.77
<i>Category 2 Subtotal</i>	<i>3,618.00</i>	<i>0.23</i>	<i>3,587.58</i>
Agricultural Lands	140.76	1.06	12.50

⁷¹ As applicable to low density habitat maps, see OAR 635-140-0002(7) and 635-140-0015(2) and (3).

Table 6: Habitat types within the Site Boundary and Estimated Permanent and Temporary Impacts

Habitat Type	Area within the Site Boundary (acres)	Est. Temp. Impacts (acres)	Est. Perm. Impacts (acres)
Other Developed Lands	0.21	0.21	0.00
<i>Category 6 Subtotal</i>	<i>140.97</i>	<i>1.27</i>	<i>12.50</i>
Total Habitat Acres	3,758.97	1.50	3,600.08
Source: OSCAPDoc4-16 ASC Exhibit P 2019-10-17, Table P-1; RFA1, Tables 5 and 6. Note: This table reflects disturbance areas for both the 3-acre Area D step-up substation approved in the Final Order on the ASC, and the 12-acre Area E step-up substation approved in the Final Order on AMD1 although only one of those substations will be constructed.			

During surveys for state sensitive wildlife species, Ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), and Pygmy rabbit (*Brachylagus idahoensis*) were observed at the site. Several other state-sensitive species, including but not limited to, white-tailed jackrabbit (*Lepus townsendii*) and burrowing owls (*Athene cunicularia hypugaea*) have the potential to occur within habitats found at the site.

The Council previously imposed Fish and Wildlife Conditions 1 through 11 to ensure that potential impacts on habitat and sensitive species would be minimized in accordance with general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025:

- Fish and Wildlife Condition 1 (GEN-FW-01) requires the certificate holder to finalize and implement a Revegetation and Noxious Weed Control Plan for the site. The Revegetation and Noxious Weed Control Plan requires the certificate holder to revegetate all areas cleared of vegetation and manage noxious weeds to ensure that vegetation cover and composition is similar to pre-construction conditions or adjacent un-disturbed areas.
- Fish and Wildlife Condition 2 (GEN-FW-02) requires the certificate holder to finalize and implement a Habitat Mitigation Plan to mitigate the facility's impact on Category 2 habitat.
- Fish and Wildlife Condition 3 (GEN-FW-03) requires the certificate holder to implement an employee and contractor environmental awareness training program for State Sensitive Species and all other environmental issues related to the facility, including information about pygmy rabbit identification and reporting.
- Fish and Wildlife Condition 4 (GEN-FW-04) imposes a speed limit of 15 miles per hour within the site boundary.

- Fish and Wildlife Habitat Condition 5 (GEN-FW-05) requires construction crews to avoid leaving trenches open at night, if possible, and to include wildlife escape ramps.
- Fish and Wildlife Habitat Condition 6 (GEN-FW-06) requires the certificate holder to conduct surveys for non-raptor migratory bird nests prior to construction and implement 30-foot avoidance buffers around any active nests during construction.
- Fish and Wildlife Habitat Condition 7 (GEN-FW-07) requires the certificate holder to conduct raptor nest surveys prior to construction, and if applicable, implement ODFW recommended avoidance buffers around nests during sensitive nesting seasons.
- Fish and Wildlife Habitat Condition 8 (GEN-FW-08) requires the certificate holder to adhere to current Avian Power Line Interaction Committee (APLIC) guidelines during design and construction to minimize avian electrocution risks.
- Fish and Wildlife Habitat Condition 9 (GEN-FW-09) requires the certificate holder to conduct pygmy rabbit surveys inside permanent disturbance areas prior to construction and implementation of a 10-foot buffer around burrow complexes during the breeding season, and avoidance of impacts to burrow complexes.
- Fish and Wildlife Habitat Condition 10 (GEN-FW-10) establishes seasonal restrictions for vegetation clearing and slash removal to minimize impacts to ground nesting birds.
- Fish and Wildlife Habitat Condition 11 (OPR-FW-01) requires the certificate holder to finalize and implement a Wildlife Monitoring Plan that includes post-construction bird and bat mortality monitoring during operations.

Because there are no proposed changes to the design, construction, or operation of the facility that would increase or otherwise affect the impacts of the facility on general fish and wildlife habitat, and there is no new information suggesting that the habitat types or quality at the site are different than previously evaluated, the Council continues to rely on its previous findings and conditions with regards to the requirements of OAR 345-022-0060(1).

Potential Sage-grouse Habitat Impacts and Mitigation: OAR 635-140-0025

Adverse impacts in sage-grouse core, low density, and general habitat from development actions must be mitigated by the developer for both direct and indirect adverse impacts to sage-grouse and their habitats. When ascertaining direct and indirect adverse impacts from development actions, the Department will use the most current

1 and best available science related to sage-grouse biology and habitat conservation,
2 including the Mitigation Framework for Sage-Grouse Habitats (ODFW, March 20, 2012).
3 Mitigation is comprised, in hierarchal order, of avoidance, minimization, and
4 compensatory mitigation.

5
6 (1) Policy 1. Mitigation for direct and indirect impacts from development actions will be
7 required where the proposed development action:

8
9 (a) Requires a county land use permit, is a large-scale development as defined in OAR
10 660-023-0115, and would impact core or low density habitat,

11
12 * * * * *

13
14 (2) Policy 2. The Department may approve or recommend approval of mitigation for
15 impacts from a large-scale development permitted by a county; or development actions
16 permitted by a state or federal government entity on public land, within sage-grouse
17 habitat only after the following mitigation hierarchy has been addressed by the
18 permitting entity, with the intent of directing the development action away from the
19 most productive habitats and into the least productive areas for sage-grouse (in order of
20 importance: core area, low density, general, and non-habitat).

21
22 * * * * *

23
24 (b) Avoidance in Low Density Habitat. If the proposed development action can occur in
25 another location that avoids both direct and indirect impacts within low density sage-
26 grouse habitat, then the proposal must not be allowed unless it can satisfy the following
27 criteria:

28
29 (A) It is not technically or financially feasible to locate the proposed use outside of low
30 density sage-grouse habitat based on accepted engineering practices, regulatory
31 standards, proximity to necessary infrastructure or some combination thereof; or

32
33 (B) The proposed development action is dependent on geographic or other physical
34 feature(s) found in low density habitat areas that are less common at other locations.

35
36 * * * * *

37
38 (d) Minimization. If after exercising the above avoidance tests, the permitting entity finds
39 the proposed development action cannot be moved to non-habitat or into a habitat
40 category that avoids adverse direct and indirect impacts to a habitat category of greater
41 significance (i.e., core or low density), then the next step applied in the mitigation
42 hierarchy will be minimization of the direct and indirect impacts of the proposed
43 development action. Minimization consists of how to best locate, construct, operate and

1 *time (both seasonally and diurnally) the development action so as to avoid or minimize*
2 *direct and indirect impacts on important sage-grouse habitat and sage-grouse.*

3
4 *(A) Minimizing impacts from development actions in core habitat shall ensure direct and*
5 *indirect impacts do not occur in known areas of high population richness within a given*
6 *core area, unless a project proponent demonstrates, by a preponderance of the*
7 *evidence, that such an approach is not feasible.*

8
9 *(B) Minimizing impacts from development actions in general habitat shall include*
10 *consultation between the development proponent and the Department that considers*
11 *and results in recommendations on how to best locate, construct, or operate the*
12 *development action so as to avoid or minimize direct and indirect impacts on important*
13 *sage-grouse habitat within the area of general habitat.*

14
15 *(e) Compensatory Mitigation. If avoidance and minimization efforts have been*
16 *exhausted, compensatory mitigation to address both direct and indirect impacts will be*
17 *required as part of the permitting process for remaining adverse impacts from the*
18 *proposed development action to sage-grouse habitat, consistent with the mitigation*
19 *standard in (3) Policy 3 below.*

20
21 *(3) Policy 3. The standard for compensatory mitigation of direct and indirect habitat*
22 *impacts in sage-grouse habitat (core low density, and general areas) is to achieve net*
23 *conservation benefit for sage-grouse by replacing the lost functionality of the impacted*
24 *habitat to a level capable of supporting greater sage-grouse numbers than that of the*
25 *habitat which was impacted. Where mitigation actions occur in existing sage-grouse*
26 *habitat, the increased functionality must be in addition to any existing functionality of*
27 *the habitat to support sage-grouse. When developing and implementing mitigation*
28 *measures for impacts to core, low density, and general sage-grouse habitats, the project*
29 *developers shall:*

30
31 *(a) Work directly with the Department and permitting entity to obtain approval to*
32 *implement a mitigation plan or measures, at the responsibility of the developer, for*
33 *mitigating impacts consistent with the standard in OAR 635-140-0025(3) or,*

34
35 *(b) Work with an entity approved by the Department to implement, at the responsibility*
36 *of the developer, "in-lieu fee" projects consistent with the standard in OAR 635-140-*
37 *0025(3).*

38
39 *(c) Any mitigation undertaken pursuant to (a) or (b) above must have in place measures*
40 *to ensure the results of the mitigation activity will persist (barring unintended natural*
41 *events such as fire) for the life of the original impact. The Department will engage in*
42 *mitigation discussions related to development actions in a manner consistent with*
43 *applicable timelines of permitting entities.*

1 (4) Policy 4. The Department shall follow the Fish and Wildlife Habitat Mitigation Policy
2 (OAR 635-415-0000) when defining habitat categories and providing recommendations
3 to address potential site-level impacts to species other than greater sage-grouse that
4 occur within sage-grouse core area habitat or sage-grouse low density habitat, except
5 that if there is a resulting conflict between OAR 635-415-0000 and this rule, then this
6 rule shall control.
7

8 As described above, the facility would overlap with low-density sage grouse habitat, based on
9 updated maps adopted by the Oregon Fish and Wildlife Commission on December 15, 2023,
10 and as such, the requirements of OAR 345-022-0060(2) are applicable to the review of RFA2,
11 and the facility must comply with the sage-grouse specific habitat mitigation requirements
12 established under OAR 635-140-0025. Under that rule, to approve a facility that impacts sage-
13 grouse habitat, the Council must address the mitigation hierarchy of avoidance, minimization,
14 and compensatory mitigation. The areas of overlap are shown in Figure 3, below.
15

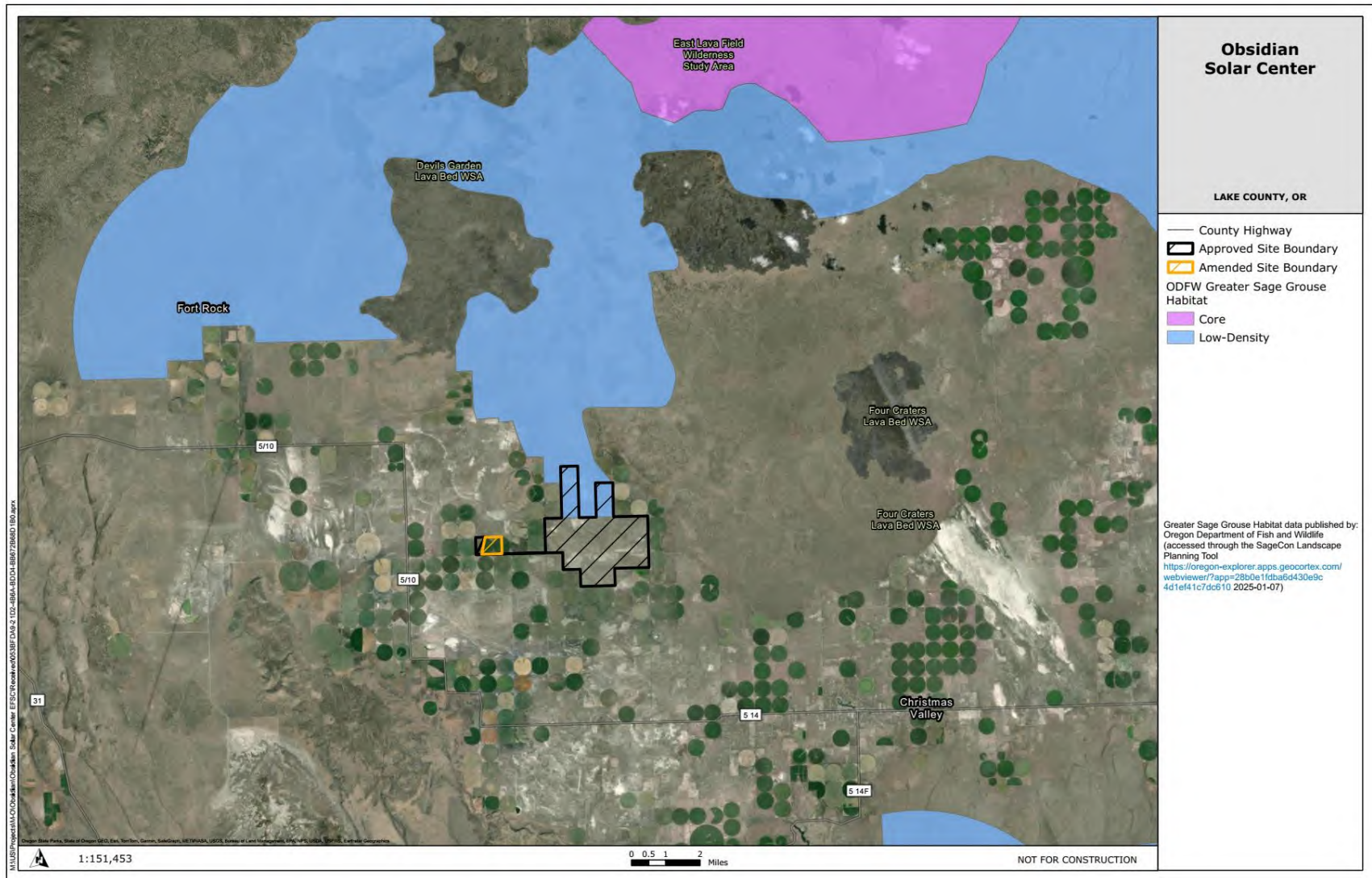
16 Under OAR 635-140-0025(2)(b), a proposed development action that can occur in another
17 location that avoids both direct and indirect impacts within low density sage-grouse habitat can
18 only be approved if it can satisfy one of the following criteria:
19

20 (A) It is not technically or financially feasible to locate the proposed use outside of low
21 density sage-grouse habitat based on accepted engineering practices, regulatory
22 standards, proximity to necessary infrastructure or some combination thereof; or
23

24 (B) The proposed development action is dependent on geographic or other physical
25 feature(s) found in low density habitat areas that are less common at other locations.
26

27 Given the significant financial and time investments made to obtain the required site certificate
28 for the facility, the Council finds that it would not be financially feasible to relocate the facility
29 to a site that does not, directly or indirectly, impact low density sage-grouse habitat due to the
30 significant financial costs that would be incurred by the certificate holder to select a new site
31 and obtain a new site certificate. As a result, the Council finds that the criterion under OAR 635-
32 140-0025(2)(b)(A) is satisfied.
33
34

Figure 3: Greater sage-grouse habitat within and in proximity to the site



1 Under OAR 635-140-0025(2)(d) and (e), both direct and indirect impacts in low density sage-
2 grouse habitat must be minimized and any remaining impacts must be addressed through
3 compensatory mitigation. ODFW has developed a Habitat Quantification Tool (HQT) to estimate
4 the compensatory mitigation requirement created by the impacts of a proposed development
5 in sage grouse habitat. The mitigation requirement is expressed in functional acres based on
6 the quality of the impacted habitat and the extent of the expected impacts. The HQT also
7 allows credit to be given for measures implemented to minimize impacts.

8
9 ODFW conducted a preliminary assessment of the compensatory mitigation requirement for
10 the facility. As described above, approximately 1,478 acres of low-density sage grouse habitat
11 are within the site boundary. Based on preliminary analysis by ODFW, approximately 780 acres
12 of low-density habitat would be directly impacted by the construction and operation of the
13 facility. For the purposes of the HQT, the indirect impact distance associated with solar energy
14 development is 3.3 km (2.05 miles), with indirect impacts being greater closer to the site.
15 Additional indirect impacts associated with overhead transmission lines were/were not
16 considered. Based on ODFW's preliminary assessment, the direct and indirect impacts
17 associated with construction and operation of the facility would result in a loss of
18 approximately 291.8 functional acres of low-density sage grouse habitat.⁷²

19
20 Under OAR 635-140-0025(3), the sage grouse compensatory mitigation requirements may be
21 satisfied by purchasing mitigation credits from an approved entity, or by implementing a
22 mitigation program that generates an adequate number of credits. One credit is equivalent to
23 one functional acre, and like impacts, the number of credits generated by activity under a
24 mitigation program is calculated using the HQT based on the amount of uplift that results from
25 the activity and the value of habitat on which the activity takes place.

26
27 The draft Habitat Mitigation Plan (HMP) required under Fish and Wildlife Habitat Condition 2
28 (GEN-FW-02) requires the certificate holder to implement a Working Lands Improvement
29 Program to meet the certificate holder's mitigation obligation under ODFW's general fish and
30 wildlife habitat mitigation goals. Under the program, the certificate holder will secure
31 agreements with private landowners in an area to the northeast of the site and will conduct
32 juniper thinning and removal and other habitat enhancement actions sagebrush-shrublands.⁷³

33
34 While the HMP was not originally intended to meet the sage-grouse specific habitat mitigation
35 requirements under OAR chapter 635, division 140, the restoration of sagebrush shrubland
36 through the treatment of encroaching juniper would benefit all sagebrush obligates, including
37 Greater sage-grouse. In addition, the preliminary Working Lands Improvement Program area
38 identified in the draft HMP is predominantly located in mapped low-density sage-grouse
39 habitat that is contiguous with the area of habitat that would be impacted by the facility. ODFW
40 has confirmed that the mitigation actions proposed under the Working Lands Improvement

⁷² OSCAMD2Doc10-00 pRFA2 Correspondence w ODFW re GSG Habitat 2025-02-14_2025-03-31

⁷³ OSCAPPD1-4 Final Order on ASC 2022-02-25, pg. 121-125; OSCAPPD4-16 ASC Exhibit P 2019-10-17, Attachment P-3.

Program are generally appropriate mitigation under both sets of rules, although additional acres or requirements may be needed to satisfy the sage grouse specific requirements.⁷⁴

In RFA2, the certificate holder proposes amendments to Fish and Wildlife Condition 2 (GEN-FW-02) that would require the certificate holder to finalize the draft HMP in a manner that satisfies both the general and sage-grouse specific habitat mitigation requirements. The Council amends the condition as proposed, with minor amendments for clarity and consistency with feedback from ODFW, as shown below:

Amended Fish and Wildlife Condition 2 (GEN)

~~The certificate holder shall:~~

- a. Prior to construction of the facility, the certificate holder shall finalize and submit a Habitat Mitigation Plan, based upon ~~Option 3 of the draft plan provided in Attachment P-1D of the Final Order on the ASCAMD2,~~ for review and approval by the Department, in consultation with ODFW.

~~HMP Option 3 is the only mitigation that may be utilized without amendment of the HMP due to insufficient evidence available to demonstrate that Options 1 and 2 meet the requirements of OAR 345-022-0060.~~

~~In the finalization of the plan, the Department may request reporting requirements including specific information, frequency and format. Components of the plan to be finalized~~ The final plan shall include, at a minimum, a:

1. A Working Lands Improvement Program, substantially as presented in Appendix 1 of Attachment D of the Final Order on AMD2.
2. A final assessment of permanent habitat impacts (in acres) to Big Game Winter Range that is not in sage-grouse habitat, based on habitat quality of habitat subtype, and final facility design, presented in tabular format, and demonstration that the certificate holder will provide in-kind, in-proximity mitigation through the Working Lands Improvement Program in a ratio of 1.2 mitigation acres for each impacted acre;
3. A final assessment of direct and indirect impacts (in functional acres) to mapped sage-grouse habitat, based on final facility design, presented in tabular format, and demonstration that the certificate holder will generate an equivalent number of functional acre credits through the Working Lands Improvement Program. If the certificate holder is not able to enroll adequate land in the program to mitigate the impacts of the facility on sage-grouse habitat, the certificate holder may mitigate any remaining impacts by working with an entity approved by ODFW to participate in an "in-lieu fee" project; and
4. Any additional reporting requirements, including specific information, frequency and format, required by the Department.

⁷⁴ OSCAMD2Doc10-00 pRFA2 Correspondence w ODFW re GSG Habitat 2025-02-14_2025-03-31

1 b. During construction and operation of the facility, the certificate holder shall
2 implement the requirements of the plan as approved under sub(a) of this condition.
3 [GEN-FW-02]
4

5 The Certificate Holder also provided a revised draft HMP in RFA2 Attachment P-1 with changes
6 reflecting the requirements of the amended condition. A copy of the revised draft HMP, with
7 additional non-substantive edits made by the Department, is included as Attachment D of this
8 Order.
9

10 **III.H.2. Conclusions of Law**

11
12 Based on the foregoing analysis, and subject to compliance with the existing and amended site
13 certificate conditions listed above, the Council finds that the design, construction and operation
14 of the facility, with the proposed deadline extension, continue to be consistent with the
15 mitigation goals and requirements of ODFW's Fish and Wildlife Habitat Mitigation Policy under
16 OAR 635-415-0025(1). In addition, the Council finds that, subject to compliance with a final
17 Habitat Mitigation Plan, as required under amended Fish and Wildlife Condition 2 (GEN-FW-02),
18 the design, construction and operation of the facility, with the proposed deadline extension,
19 are consistent with the mitigation goals and requirements of the Greater Sage-Grouse
20 Conservation Strategy for Oregon under OAR 635-415-0025(2).
21

22 **III.I. THREATENED AND ENDANGERED SPECIES: OAR 345-022-0070**

23
24 *To issue a site certificate, the Council, after consultation with appropriate*
25 *state agencies, must find that:*
26

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

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

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

38 *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed*
39 *as threatened or endangered under ORS 496.172(2), the design, construction*
40 *and operation of the proposed facility, taking into account mitigation, are not*
41 *likely to cause a significant reduction in the likelihood of survival or recovery of*
42 *the species.*
43

III.I.1. Findings of Fact

The analysis area for the Threatened and Endangered Species standard is the area within and extending 5-miles from the site boundary.

In the Final Order on the ASC, the Council found that no state-listed threatened or endangered fish or wildlife species were likely to occur within the analysis area for the threatened and endangered species standard. The finding was based, in part, on data from the Oregon Biodiversity Information Center (ORBIC) confirming that there had been no observations of any threatened or endangered fish or wildlife species within the analysis area.⁷⁶ In RFA2, the certificate holder provided the results of a 2024 desktop review of data from ODFW's Oregon Conservation Strategy Reporting Tool (Compass), which references ORBIC data and Oregon Explorer Biodiversity Map data, within the analysis area. The review found no state or federal threatened or endangered species have been added since submission of the ASC that would potentially be located on or near the facility site.⁷⁷ In addition, no new species with the potential to occur in the analysis area have been added to the State List of Threatened and Endangered Fish and Wildlife Species since the Council issued its Final Order on the ASC.⁷⁸

Because there are no newly listed species that are likely to occur in the analysis area, and no new information suggesting that previously evaluated species are likely to occur in the analysis area, the Council continues to rely on its previous findings with regards to threatened and endangered fish and wildlife species.

At the time the Council issued its Final Order on the ASC, there were five listed threatened or endangered plant species known to occur in Lake County. The Council found that the site did not contain suitable habitat for four of the five species, and was likely out of the range of the fifth species, Bogg's Lake Hedge hyssop (*Gratiola heterosepala*) as the closest known occurrence of that species was approximately 135 miles to the south.⁷⁹ While occurrence at the site is unlikely, during the review of RFA1, the certificate holder agreed to record any observations of Bogg's Lake Hedge Hyssop, Crosby's Buckwheat and Grimy Ivesia, in pre-construction surveys.⁸⁰ In the Final Order on AMD1, the Council amended the draft Revegetation and Noxious Weed Control Plan required under Fish and Wildlife Condition 1

⁷⁵ OAR 345-022-0070, effective April 2, 2025.

⁷⁶ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 131-132.

⁷⁷ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 9.8.1, Attachment 4.

⁷⁸ On February 16, 2024, the Oregon Fish and Wildlife Commission amended the State List of Threatened and Endangered Species to include Southern Resident Orcas as an endangered species. Orcas are a marine species that does not have the potential to occur within the analysis area.

⁷⁹ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 132.

⁸⁰ OSCAMD1Doc9 Request for Amendment 1 2023-08-01, pg. 43.

(GEN-FW-01) to require incidental observations of Bogg's Lake Hedge hyssop to be recorded during preconstruction noxious weed surveys in response to these representations.

On June 8, 2023, and February 27, 2024, the Oregon Department of Agriculture amended the State List of Threatened and Endangered Plant Species to list additional plant species, including three previously unevaluated species with the potential to occur in Lake County: Lemmon's milkvetch (*Astragalus lemmonii*), Whitebark pine (*Pinus albicaulis*), and Columbia yellowcress (*Rorippa columbiae*).

The Oregon Department of Agriculture's Native Plant Conservation Program indicated that Columbia yellowcress had been identified within 15 miles of the site. The other two newly listed species, Lemmon's milkvetch and Whitebark pine are not known to occur within the vicinity of the site.

In RFA2, the certificate holder asserts that there is no suitable habitat for Columbia yellowcress within the site boundary⁸¹; however, several seasonally wet habitat types most commonly associated with the species, including the shorelines of lakes and playas and anthropogenic wetlands associated with irrigated agriculture were documented in habitat surveys of the site.⁸² RFA2 Attachment 1 includes a request from the Oregon Department of Agriculture's Native Plant Conservation Program requesting that the certificate holder include Columbia yellowcress in its preconstruction surveys, which the certificate holder agreed. Based on this representation, the Council amends the draft Revegetation and Noxious Weed Control Plan, Section 3.1 Prevention and Control Measures, referenced in Fish and Wildlife Habitat Condition 1 (GEN-FW-01) (as provided in Attachment E of this Order) to (1) require incidental observations of Columbia yellowcress, as well as Bogg's Lake Hedge Hyssop, Crosby's Buckwheat, and Grimy Ivesia, to be recorded during pre-construction noxious weed surveys; and (2) to require avoidance of impacts to areas where any threatened and endangered species are encountered, if any, until appropriate mitigation can be determined by the Department, in consultation with Oregon Department of Agriculture, as presented below:

- **Pre-construction surveys and reporting:** Conduct surveys for designated noxious weeds within proposed Facility disturbance areas concurrently with other pre-construction surveys, such as pre-construction surveys for migratory bird nests. ~~Noxious weed surveys shall record~~ Any incidental observations of Boggs Lake hyssop, Crosby's Buckwheat, and Grimy Ivesia, Columbia yellowcress, or other threatened or endangered plant species made during preconstruction surveys shall be recorded and impacts to the plants shall be avoided until appropriate mitigation can be determined by the Department, in consultation with the Oregon Department of Agriculture – Native Plant Conservation Program. Survey report(s) shall be submitted to the Department and Oregon Department of Agriculture – Native Plant Conservation

⁸¹ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 9.1.8.

⁸² See Oregon Department of Agriculture's profile of the plant at: <https://www.oregon.gov/oda/plant-conservation/SiteAssets/Pages/AboutThePlants/RorippaColumbiaeProfile.pdf>

1 Program contacts.

2
3 **III.I.2. Conclusions of Law**

4
5 Based on the foregoing analysis, the Council finds, subject to compliance with the draft
6 amended Revegetation and Noxious Weed Control Plan required under Fish and Wildlife
7 Habitat Condition 1 (GEN-FW-01), that the design, construction and operation of the facility,
8 with the proposed deadline extension, are not likely to cause a significant reduction in the
9 likelihood of survival or recovery of species listed as threatened or endangered by the Oregon
10 Department of Agriculture or Oregon Fish and Wildlife Commission.

11
12 **III.J. SCENIC RESOURCES: OAR 345-022-0080**

13
14 *(1) To issue a site certificate, the Council must find that the design,*
15 *construction and operation of the facility, taking into account mitigation, are*
16 *not likely to result in significant adverse visual impacts to significant or*
17 *important scenic resources.*

18
19 *(2) The Council may issue a site certificate for a special criteria facility under*
20 *OAR 345-015-0310 without making the findings described in section (1). In*
21 *issuing such a site certificate, the Council may impose conditions of approval*
22 *to minimize the potential significant adverse visual impacts from the design,*
23 *construction, and operation of the facility on significant or important scenic*
24 *resources.*

25
26 *(3) A scenic resource is considered to be significant or important if it is*
27 *identified as significant or important in a current land use management plan*
28 *adopted by one or more local, tribal, state, regional, or federal government or*
29 *agency.*

30
31 * * * * *

32
33 **III.J.1. Findings of Fact**

34
35 The analysis area for important or significant scenic resources is the area within and extending
36 10 miles from the site boundary. Land use management plans applicable to the 10-mile analysis
37 area for scenic resources are listed in Table 7, below.⁸⁴

38

⁸³ OAR 345-022-0080, effective April 2, 2025.

⁸⁴ OSCAPPDoc4-18 ASC Exhibit R 2019-10-17.

Table 7: Local, State, Tribal, and Federal Land Use Management Plans that Address Lands within the Analysis Area

Jurisdiction	Plan
Lake County	Lake County Comprehensive Plan (Lake County Planning Commission, 1980)
Oregon Department of Transportation	1999 Oregon Highway Plan: Including Amendments November 1999 through May 2015 (ODOT 1999)
Bureau of Land Management	Lakeview Resource Management Plan and Record of Decision (BLM 2003)
Bureau of Land Management	Areas of Critical Environmental Concern Nomination Analysis Report for the Lakeview Resource Area Resource Management Plan (BLM 2000)
Bureau of Land Management	BLM Handbook 8357-1 Byways (BLM 1993)
Source: OSCAPDoc4-16 ASC Exhibit P 2019-10-17, Table R-1	

The BLM issued its Record of Decision on amendments to the Lakeview Resource Management Plan on January 16, 2025. As described in Section III.F. *Protected Areas*, the amendment expanded several Wilderness Study Areas, which are managed for the preservation of wilderness characteristics under Visual Resource Management Class 1 in the Lakeview Management District. There have been no updates to the other plans identified in Table 8.

Based on review of the plans listed above, the Council previously identified the six significant or important scenic resources listed in Table 8, below, including 4 BLM properties designated as Wilderness Study Areas (WSA), Areas of Critical Environmental Concern (ACEC), and/or Research Natural Areas (RNAs); and two scenic byways. The Amended Lakeview RMP added area to the WSAs. As a result of the changes, the boundaries of the Devil's Garden Lava Bed ACEC/WSA and East Lava Field WSA are each 0.1 miles closer to the site boundary than previously evaluated.

Table 8: Significant or Important Scenic Resources within Analysis Area

Scenic Resource	Distance from Site (mi)	Direction from Site
Christmas Valley National Backcountry Byway	2.3	N
Devil's Garden Lava Bed ACEC/WSA	3.9	N
East Lava Field WSA	5.4	NE
Four Craters Lava Bed WSA	6	E
Table Rock ACEC and RNA	6.9	S
Oregon Outback National Scenic Byway	8.3	NW
Source: OSCAMD1Doc19 Final Order on AMD1 2023-11-17, Table 11		

III.J.1.a. Visual Impact Summary

1 As described in Section III.F, *Protected Areas*, in the Final Order on the ASC, the Council found
2 that the facility was not likely to result in significant adverse visual impacts to any protected
3 areas. The Council found that when viewed at four miles or more the solar arrays would likely
4 appear only a dark line on the horizon when not screened by intervening topography,
5 vegetation, or development. The Council also found that, where visible, the approved
6 transmission line would be visually subordinate to the taller 500-kV transmission lines that
7 currently cross Fort Rock Valley.⁸⁵ The Council found that these findings were also applicable to
8 other protected areas identified and evaluated in the Final Order on AMD1.⁸⁶ While the newly
9 added areas of the Devil's Garden Lava Bed WSA are slightly less than four miles from the site,
10 the view would still be dominated by the existing 500-kV transmission lines. Because there are
11 no significant changes in the distances from the site or the existing viewshed, the Council
12 continues to rely on these findings with regard to the four Wilderness Study Areas in the
13 analysis area for Scenic Resources.

14
15 In the Final Order on the ASC, the Council found that existing views toward the site from the
16 segment of Fort Rock Road which is the closest portion of the Christmas Valley National
17 Backcountry Byway are dominated by three existing 500-kV transmission lines. In addition, at a
18 distance of 2.3 miles, the solar arrays are likely to appear only as a dark line on the horizon off
19 to one side of the windshield to the casual observer traveling on the byway.⁸⁷ The Council found
20 that the solar arrays were not likely to be apparent from the closest portions of the Oregon
21 Outback National Scenic Byway, which is located on a segment of Fort Rock Road approximately
22 10 miles east of Area A where the arrays would be located, and views of other infrastructure
23 would likely be screened by existing development in or near the town of Fort Rock.⁸⁸ Due to the
24 limited visibility of facility components and presence of existing development on the landscape,
25 the Council found that that the visual impacts from landscape alteration and facility structures
26 would not result in significant, adverse visual impacts to the byways or other significant or
27 important scenic resources; however, the Council imposed Scenic Resources Condition 1 (GEN-
28 SR-01) based on design measures proposed by the certificate holder to minimize general visual
29 impacts. The measures include using earth-tone colors or materials that will weather to match
30 or complement the surrounding landscape and designing lighting to minimize light trespass.

31
32 Because the time extension proposed in RFA2 would not increase or otherwise affect the visual
33 impacts of the facility, and because there are no new or different scenic resources likely to be
34 affected by the construction and operation of the facility, the Council continues to rely on its
35 previous finding that, subject to compliance with Scenic Resources Condition 1 (GEN-SR-01), the
36 construction and operation of the facility is not likely to result in significant adverse visual
37 impacts to any significant or important scenic resources.

⁸⁵ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 100-102; OSCAMD1Doc19 Final Order on AMD1, pg. 51-52.

⁸⁶ OSCAMD1Doc19 Final Order on AMD1 2023-11-17, pg. 74-75.

⁸⁷ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 136

⁸⁸ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 135

1 **III.J.2. Conclusions of Law**
2

3 Based on the foregoing analysis, the Council finds that the that the facility, with the proposed
4 deadline extension, continues to comply with the Scenic Resources standard.
5

6 **III.K. HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES: OAR 345-022-0090**
7

8 *(1) Except for facilities described in sections (2) and (3), to issue a site*
9 *certificate, the Council must find that the construction and operation of the*
10 *facility, taking into account mitigation, are not likely to result in significant*
11 *adverse impacts to:*
12

13 *(a) Historic, cultural or archaeological resources that have been listed on, or*
14 *would likely be listed on the National Register of Historic Places;*
15

16 *(b) For a facility on private land, archaeological objects, as defined in ORS*
17 *358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*
18

19 *(c) For a facility on public land, archaeological sites, as defined in ORS*
20 *358.905(1)(c).*
21

22 *(2) The Council may issue a site certificate for a facility that would produce*
23 *power from wind, solar or geothermal energy without making the findings*
24 *described in section (1). However, the Council may apply the requirements of*
25 *section (1) to impose conditions on a site certificate issued for such a facility.*
26

27 * * * * *

28
29 **III.K.1. Findings of Fact**
30

31 The analysis area for the Historic, Cultural and Archaeological Resources standard includes the
32 area within the site boundary; however, the certificate holder's desktop analysis included the
33 area within an extending 1-mile from the site boundary.
34

35 The certificate holder conducted a literature review and pedestrian surveys to identify potential
36 historic, cultural, and archaeological resources at the site in 2018. The surveys identified 93
37 archaeological sites and 195 isolated finds at the site. Most sites, and all identified isolates,
38 contain or are pre-contact archaeological resources. A smaller number of historic sites,
39 including potential homestead locations and refuse scatters were also identified.⁹⁰

⁸⁹ OAR 345-022-0090, effective April 2, 2025.

⁹⁰ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 140-141; OSCAPDoc4-19 ASC Exhibit S 2019-10-17, Attachment S-1. Note, a historic pioneer road crossing the site was also identified in public comments on the DPO, but the certificate holder reported that it found no intact or observable components during preliminary surveys.

1 The Legislative Committee on Indian Services identified the Klamath Tribes, Confederated Tribes
2 of Warm Springs Reservation of Oregon, and the Burns Paiute Tribe as potentially affected by
3 the construction and operation of the facility. The results of the literature review were provided
4 to the affected tribes, as well as the State Historic Preservation Office (SHPO), for review during
5 the review of the ASC.

6
7 Subsurface probing was not conducted during the 2018 surveys, and as a result, SHPO
8 determined there was not sufficient information gathered to delineate the resources or
9 evaluate their eligibility for inclusion on the National Register of Historic Places (NRHP).⁹¹ The
10 Klamath Tribes commented that further subsurface investigation prior to construction was
11 unlikely to yield additional information that would justify the additional disturbance to the land
12 and that the certificate holder entered into an agreement with the Klamath Tribes to avoid
13 portions of the site identified by the Tribes as containing resources, to have cultural monitors
14 from the Klamath Tribes and Burns Paiute Tribe present during ground disturbing activities, and
15 to implement other measures to mitigate impacts to culturally significant resources. The
16 measures are described in the Cultural Mitigation and Monitoring Plan (CMMP) and Inadvertent
17 Discovery Plan (IDP).⁹² Based on further consultation with SHPO, the affected tribes, and the
18 Department, the certificate holder agreed to treat all sites and isolates recorded during surveys
19 as part of an archaeological district and provided an Archeological Testing and Excavation
20 Methods Plan which establishes protocols for identifying and cataloging archaeological isolates
21 and artifacts at the site, and establishes avoidance, minimization, and monitoring protocols for
22 impacts within a 30-meter buffer of identified archeological sites.⁹³

23
24 In the Final Order on the ASC, the Council imposed Historic, Cultural and Archaeological
25 Condition 1 (GEN-HC-01), requiring the certificate holder to finalize the Archeological Testing
26 and Excavation Methodologies Plan and the CMMP prior to construction, and to implement the
27 plans during construction and operation of the facility.

28
29 In 2022, the certificate holder conducted pedestrian surveys of Area E in support of RFA1. The
30 surveys identified three pre-contact archaeological sites and twenty pre-contact archaeological
31 isolates. The sites were determined to be NRHP-eligible, and the isolates will be evaluated in
32 accordance with the Archeological Testing and Excavation Methodologies Plan required under
33 Historic, Cultural and Archaeological Condition 1 (GEN-HC-01). The surveys also identified the
34 BPA Grizzly Captain Jack No. 1 and the PGE Grizzly-Malin No. 2 transmission lines as likely
35 NRHP-eligible as built-environment historic-era structures; however, because they are active
36 transmission lines, the Council determined that the construction and operation of the facility
37 and its interconnection infrastructure would not directly affect the lines' NRHP eligibility.⁹⁴

⁹¹ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 139-141.

⁹² OSCAPPDoc30 pASC Reviewing Agency Comment Letter Klamath Tribe_Gentry 2019-06-18; OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 142-145, Attachment S-2 and S-3.

⁹³ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, Attachment S-1.

⁹⁴ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, pg. 73-75.

1 State law requires any person wishing to conduct excavation work in an archaeological site to
2 first obtain an archaeological permit under ORS 390.235. During the proceedings on the ASC,
3 the certificate holder requested that archaeological permits normally administered by SHPO
4 under OAR chapter 736, division 51, be included in and governed by the site certificate.⁹⁵ In the
5 Final Order on the ASC, the Council imposed Historic, Cultural and Archaeological Condition 2
6 (GEN-HC-02), which requires the certificate holder's qualified consultant to obtain and comply
7 with the archaeological permits. The condition also directs the certificate holder and SHPO to
8 administratively renew or extend the term of the permits to be consistent with the construction
9 deadlines established in the site certificate.⁹⁶

10
11 On March 13, 2022, SHPO issued archaeological permits AP-2816, AP-2817, AP-2818, and AP-
12 2819 to the certificate holder's archaeological contractor, Archaeological Investigations
13 Northwest, Inc. (AINW). Based on the Department's direction, the permits were backdated to
14 the date of the site certificate and have a term of 6 years and 1 day, allowing archaeological
15 work to be completed prior to the end of the latest date construction can be completed under
16 the existing construction deadlines (Feb 25, 2028). Under SHPO's administrative rules, the
17 permits are eligible for a one-time, one-year, extension.⁹⁷ The permits contain conditions
18 consistent with the Archeological Testing and Excavation Methodologies Plan and CMMP
19 required under Historic, Cultural and Archaeological Condition 1 (GEN-HC-01).

20
21 In RFA2, the certificate holder requests that the Council amend Historic, Cultural and
22 Archeological Condition 2 (GEN-HC-02) to extend the effective term of the permits. Under ORS
23 469.401(3), when a permit is included in, and governed by, the site certificate, the Council
24 makes the determination regarding whether the criteria or standards allowing issuance of
25 permits have been met in its Final Order, and if so, the administering agency must, upon
26 submission of the proper applications and payment of the proper fees, but without hearings or
27 other proceedings, issue the permits to the certificate holder subject only to conditions set
28 forth in the site certificate.

29
30 New rules governing the issuance of archaeological permits under OAR 736-051-0060 through
31 736-051-0090 took effect on July 1, 2023.⁹⁸ Because the certificate holder requests that the
32 permits be extended, the Council evaluated whether the new rules resulted in any changes that
33 would alter the basis for the Council's original determination on the permits. As explained in
34 RFA2, the new rules clarify the definition of who is considered to be a qualified archaeologist
35 that can apply for and obtain an archaeological permit and include additional information
36 requirements for permit applications.⁹⁹

⁹⁵ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 138.

⁹⁶ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 146-147; additional clarification of intent regarding SHPO obligations in footnote.

⁹⁷ OAR 736-051-0091(5)(c)

⁹⁸ OSCAMD2Doc07-03 pRFA2 Reviewing Agency Comment SHPO 2025-04-09

⁹⁹ OSCAMD2Doc15-00 Complete RFA2 w Attachments 2025-04-11, Section 9.1.10.

1 The amended OAR 736-051-0070 establishes the education, fieldwork, laboratory or curation,
2 and reporting experience requirements needed to be considered a qualified archaeologist.
3 AINW employs a number of qualified archaeologists, including Terry L. Ozbun, who is the
4 permittee for facility's current Archaeological Permits. The certificate holder represents that
5 Mr. Ozbun continues to qualify as a "qualified archeologist" under the amended rules.¹⁰⁰

6
7 The amended OAR 736-051-0080 and 0090 establish the revised requirements for applying for
8 archaeological permits.¹⁰¹ The certificate holder asserts that it is not subject to the revised
9 requirements because it is not applying for a new permit, but represents that its previous
10 application materials, in particular, the Archeological Testing and Excavation Methods Plan, IDP
11 and CMMP described above, met all substantive requirements.¹⁰² The Council agrees that these
12 materials appear to be substantially consistent with current substantive standards found in the
13 revised OAR 736-051-0080(4)(b),(e),(i), and (j).

14
15 The revised OAR 736-051-0080(8) and 736-051-0090(4) incorporate new provisions
16 implementing the requirements to report any inadvertent discovery of the remains of Native
17 persons, funerary objects, sacred objects, or objects of cultural patrimony discovered during
18 excavation under ORS 97.750 and 358.940. The certificate holder proposes an amendment to
19 incorporate the new provisions into Historic, Cultural and Archaeological Condition 2.

20
21 Other rule changes relate to the dispute resolution process described in OAR 736-051-0000 to
22 736-051-0050. Subject to the provisions of ORS 469.401(3), these rules do not establish
23 substantive criteria for the issuance of permits but would govern any dispute that arises over
24 the issuance of the permits, curation facilities for archaeological objects uncovered pursuant to
25 the permits or the disposition of human remains or funerary objects.¹⁰³

26
27 Based on the foregoing analysis, the Council amends Historic, Cultural and Archeological
28 Resources Condition 2 (GEN-HC-02) to authorize the administrative extension of the permits
29 and incorporate the new requirements of OAR chapter 736, division 051, as shown below:

30
31 **Amended Historic, Cultural and Archaeological Resources Condition 2 (GEN):**

32 The certificate holder shall:

- 33 a. Prior to and during construction, and during operation, engage a qualified
34 archaeologist to conduct field testing, excavation and removal of archaeological,
35 historical, prehistoric, and anthropological materials within archaeological sites or
36 objects under ORS 358.920 and ORS 390.235 in compliance with the SHPO

¹⁰⁰ *Id.*

¹⁰¹ OAR 736-051-0080(4) establishes the application requirements for an archaeological permit on public lands, under OAR 736-051-0090(2), an application for an archaeological permit on private lands must meet the same requirements.

¹⁰² OSCAMD2Doc15-00 Complete RFA2 w Attachments 2025-04-11, Section 9.1.10.

¹⁰³ See OAR 736-051-0000(1).

Archaeological Permits AP2816, AP2817, AP2818, and AP2819, Attachment S-4 of the Final Order on ASC.

- b. Administratively renew or extend SHPO Archaeological Permits with SHPO for any work governed by the permits to be consistent with the construction commencement ~~date (Feb 25, 2025)~~ and ~~construction completion (3 years following commencement)~~, as stated deadlines established in General Standard Condition GEN-GS-01-P and provide copies of any renewed or extended SHPO Archaeological Permits to the Department.
 - c. All work under permits issued under this condition shall be suspended in the event human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered during the investigation, including post-fieldwork curation processing. For such discoveries, the certificate holder must contact the LCIS, appropriate tribes, Oregon State Police, and SHPO and comply with the requirements of ORS 97.740 to 97.760 and 358.940.
 - d. Compliance with this condition does not relieve the certificate holder of compliance with other federal or state requirements, including, but not limited to, ORS 97.740 to 97.760, ORS 358.905 to 358.961, and ORS 390.235.
- [GEN-HC-02]

III.K.2. Conclusions of Law

Based on the foregoing analysis, and in accordance with OAR 345-022-0090(2), the Council maintains its previously imposed conditions and adopt an amended condition as set forth above to address the protection of historic, cultural, and archaeological resources at the facility site.

III.L. RECREATION: OAR 345-022-0100

(1) To issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities.

(2) The Council must consider the following factors in judging the importance of a recreational opportunity:

(a) Any special designation or management of the location;

(b) The degree of demand;

(c) Any outstanding or unusual qualities;

(d) The availability or rareness; and

(e) *The irreplaceability or irretrievability of the opportunity.*

* * * * *

III.L.1. Findings of Fact

The analysis area for important recreational opportunities is the area within and extending 5 miles from the site boundary.

Recreational Opportunities within the Analysis Area

In the ASC, the Council found that the Devil’s Garden Lava Bed Area of Critical Environmental Concern (ACEC) and Wilderness Study Area (WSA), located 4 miles to the north of the site at its closest point, was the only important recreational opportunity within the five-mile analysis area. The Council noted that only a portion of the ACEC/WSA is in the analysis area, and that many of the roads and attractions, such as a large lava tube known as Derrick Cave, are in the northern portion of the ACEC/WSA outside of the analysis area.¹⁰⁵ No new or different recreational opportunities in the analysis area were identified during this review.

Potential Impacts to Important Recreation Opportunities

In the Final Order on the ASC, the Council found that the construction and operation of the facility would not result in any direct loss of recreational opportunity and was not likely to result in any significant adverse visual, noise, traffic related, or water-related impacts at the ACEC/WSA.¹⁰⁶ There are no changes proposed in RFA2 that would increase or otherwise change the impacts expected to result from the construction or operation of the facility.

Because there are no changes to the expected impacts on the Devil’s Lava Bed ACEC/WSA, and because no new or different important recreational opportunities in the analysis area have been identified, the Council continues to rely on its previous findings.

III.L.2. Conclusions of Law

Based on the foregoing analysis, the Council finds that the facility, with the proposed deadline extension, continues to meet the Recreation Standard.

¹⁰⁴ OAR 345-022-0100, effective April 2, 2025.

¹⁰⁵ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 150.

¹⁰⁶ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 151-153. A more detailed discussion of the Council’s previous evaluation of impacts to the Devil’s Garden Lava Bed WSA is provided in *Section III.F., Protected Areas*.

1 **III.M. PUBLIC SERVICES: OAR 345-022-0110**
2
3

4 *(1) Except for facilities described in sections (2) and (3), to issue a site*
5 *certificate, the Council must find that the construction and operation of the*
6 *facility, taking into account mitigation, are not likely to result in significant*
7 *adverse impact to the ability of public and private providers within the*
8 *analysis area described in the project order to provide: sewers and sewage*
9 *treatment, water, storm water drainage, solid waste management, housing,*
10 *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*
13 *power from wind, solar or geothermal energy without making the findings*
14 *described in section (1). However, the Council may apply the requirements of*
15 *section (1) to impose conditions on a site certificate issued for such a facility.*

16
17 * * * * *¹⁰⁷
18

19 **III.M.1. Findings of Fact**
20

21 The analysis area for potential impacts to public services from construction and operation of
22 the facility is the area within and extending 15-miles from the site boundary.
23

24 The evaluation of potential impacts to public services in the Final Order on the ASC assumed
25 that facility construction would require up to 150 workers on site each day during peak
26 construction periods, that construction would take place over an approximately 24-month
27 construction period, and that 6 to 10 permanent employees would be required for operations.
28

29 For the purposes of estimating impacts on services such as traffic, housing, and schools, it was
30 assumed that the entire construction workforce would be hired from outside of the immediate
31 vicinity of the site, but that one-third of the construction workforce (50 workers) would
32 temporarily relocate to RV Parks or other short-term accommodations in communities within
33 the 15-mile analysis area for public services, such as Christmas Valley, Fort Rock, and Silver Lake
34 and that the remaining two-thirds (100 workers) would likely seek similar housing in further
35 cities such as La Pine and Bend. Similar assumptions were made to estimate the permanent
36 housing needed for the operational workforce.
37

38 Workers and delivery traffic would use US-97 and State Route 31, US-395, and US-20 as primary
39 transportation routes to the site, County Road 5-14G and County Road 5-12 via Fort Rock Road
40 would provide local access to Area A; and County Road 5-10C via Fort Rock Road would provide
41 local access to Areas D and E.¹⁰⁸

¹⁰⁷ OAR 345-022-0110, effective April 2, 2025.

¹⁰⁸ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 161.

1
2 The proposed deadline extension would not increase or otherwise alter the number of workers
3 required for facility construction and operation or the routes used to access the site.
4

5 As described in more detail below, the Council found that the construction and operation of the
6 facility was not likely to result in significant adverse impacts on the ability of public and private
7 service providers to provide services, and supply sewer and sewage treatment, water,¹⁰⁹
8 stormwater drainage, solid waste management,¹¹⁰ housing,¹¹¹ traffic safety,¹¹² aviation,¹¹³ police
9 and fire protection,¹¹⁴ health care,¹¹⁵ and schools;¹¹⁶ and concluded that the facility would
10 comply with the Public Services Standard.¹¹⁷
11

12 *Sewer and Sewage Treatment* 13

14 In the Final Order on the ASC, the Council determined that no significant adverse impacts to
15 sewer or sewage treatment providers were expected to result from the construction and
16 operation of the facility because it would not connect to a public or private sewer or sewage
17 treatment system. During construction, portable toilets would be used to manage sanitary
18 waste, which would be transported and disposed of by a third-party contractor. An onsite
19 septic system will be constructed at the O&M building to manage sanitary waste and
20 wastewater during operations. Land Use Condition 1 (PRE-LU-01) requires the certificate holder
21 to obtain necessary permits for the septic system prior to construction.¹¹⁸
22

23 The deadline extension requested in RFA2 will not change the anticipated volume of waste
24 generated during facility construction and operation, and no changes to the methods for
25 managing and disposing of the waste are proposed. Because there are no changes to the
26 amount of waste or method of disposal, the Council continues to rely on its previous findings.
27

28 *Stormwater and Wastewater Drainage* 29

30 In the *Final Order on the ASC*, the Council found that construction related stormwater at the
31 site would be managed in accordance with a National Pollution Discharge Elimination System
32 (NPDES) 1200-C Construction Stormwater Permit and that operational stormwater would be
33 minimal and would not impact existing drainage patterns at the site. The Council found that the

¹⁰⁹ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 157.

¹¹⁰ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 159.

¹¹¹ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 169.

¹¹² OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 164.

¹¹³ *Id.*

¹¹⁴ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 168.

¹¹⁵ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 170-171.

¹¹⁶ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 171.

¹¹⁷ *Id.*

¹¹⁸ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 156.

1 facility would not interconnect with or impact any public or private stormwater drainage
2 systems, and that construction and operation of the facility were not likely to result in
3 significant adverse impacts to the ability of stormwater drainage service providers to provide
4 water.¹¹⁹ The Council also previously imposed Soil Protection Condition 1 (GEN-SP-01)
5 requiring, in relevant part, that the certificate holder conduct all construction work in
6 compliance with the Erosion and Sediment Control Plan (ESCP) attached to the 1200-C
7 Construction Stormwater Permit.

8
9 The deadline extension requested in RFA2 will not change construction activities at the site and
10 there have been no significant changes to the requirements for managing stormwater runoff
11 and other wastewater under the NPDES program. Because there are no changes to the amount
12 of wastewater or methods for managing drainage to prevent offsite discharges, the Council
13 continues to rely on its previous findings.

14 15 *Water Use*

16
17 In the Final Order on the ASC, the Council found that, under worst-case (hot/dry) conditions,
18 facility construction will require up to 68,600 gallons of water per day on average, or up to 34.3
19 million gallons in total over the two-year construction period for the facility. Approximately 95
20 percent of the water would be used for dust control, the remaining 5 percent would be used for
21 uses including vehicle washing, road construction and maintenance, and potable water
22 consumption.

23
24 In the ASC, the certificate holder represented that construction water would be obtained from
25 a private or municipal source under existing water rights. The certificate holder explained that
26 the Christmas Valley Domestic Water Supply District had agreed to provide water for
27 construction and operation of the Facility, as their system demand allows and provided a letter
28 dated August 16, 2018, as evidence of the district's commitment.¹²⁰ In the Letter the District
29 advised the certificate holder that water supply was contingent on available supply, and that
30 the provision of safe and reliable drinking water and adequate storage for fire suppression
31 would take priority. As a result, the district strongly encouraged the certificate holder to
32 arrange a secondary supply.¹²¹ The certificate holder represented that it would purchase water
33 from the City of La Pine as a secondary source, if needed.

34
35 In response to Requests for Additional Information on RFA2, the certificate holder confirmed
36 that anticipated water use has not changed from what was estimated in RFA1. The certificate
37 holder added that, if additional water was needed, it could be obtained through the EPC
38 contractor via a third-party limited water license.¹²²

¹¹⁹ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 158.

¹²⁰ OSCAPDoc4-21 ASC Exhibit O 2019-10-17, Appendix O-1

¹²¹ OSCAPDoc4-21 ASC Exhibit U 2019-10-17, Section U.4.2.,

¹²² OSCAMD2Doc05-00 pRFA2 RAI1 Responses 2025-01-23.

1 The Council previously imposed Water Rights Condition 1 (PRE-WR-01), requiring the certificate
2 holder to identify its construction water source and provide confirmation that there is sufficient
3 water available for use at the site prior to construction. If sufficient water is not available from
4 local water providers, the condition requires the certificate holder to confirm whether it will
5 seek an amendment of its site certificate to incorporate a limited water use license or obtain
6 water from a third-party contractor with appropriate water rights or permits.¹²³ The Council
7 found that, based on compliance with this condition, facility construction was not likely to
8 result in significant adverse impacts to the ability of water service providers to provide water.¹²⁴

10 In the Final Order on the ASC, the Council found that facility operation would require between
11 1.2 and 1.4 million gallons of water per year for panel washing, potable water use, and fire
12 suppression depending on weather conditions. Up to two onsite wells may be constructed
13 onsite to provide water for the O&M buildings and other uses. Under ORS 537.545(1)(f), the
14 certificate holder may draw a total of up to 5,000 gallons of water per day from the wells
15 without obtaining a new water right or permit. In the Final Order on the ASC, the Council
16 imposed Water Rights Condition 2 (GEN-WR-01), requiring the certificate holder to install a
17 flowmeter or other device to ensure compliance with the 5,000 gallon per day limit and
18 requiring the certificate to comply with the reporting requirements of ORS 537.545. The
19 certificate holder represented that water needed beyond the 5,000 gallon per day limit will be
20 purchased from a private or municipal source that has the necessary permits.¹²⁵ The Council
21 found that operational water uses from the sources described above was not likely to result in
22 significant adverse impacts to the ability of water service providers to provide water.

24 Because the deadline extension requested in RFA2 will not increase or otherwise change the
25 amount of water needed for facility construction or operation, and because there has been no
26 significant change in the availability of water from local water service providers since the
27 approval of the ASC, the Council continues to rely on its previous findings.

29 *Solid Waste Management*

31 In the Final Order on the ASC, the Council found that facility construction was expected to
32 generate approximately 10-20 metric tons of nonhazardous solid waste per month and
33 including, but not limited to, scrap metal, waste concrete, wood form work, spent erosion
34 control materials, and packaging materials such as corrugated cardboard, as well as small
35 amounts of hazardous waste, such as oil rags, spent small appliance batteries and equipment
36 and vehicle maintenance solvents and oils. The Council found that less than 300 pounds of
37 nonhazardous solid waste and less than 220 pounds of hazardous waste would be generated
38 per month during operations, and that during operations, solar modules and battery
39 components would be recycled to the maximum extent feasible or otherwise disposed of in
40 accordance with manufacturer's specifications. The Council found that the service providers

¹²³ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 197-198.

¹²⁴ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 157.

¹²⁵ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 198-199.

1 most likely to be contracted to transport and dispose of wastes, including the Lake County
2 Landfill, Lakeview Sanitation, and Mid-Oregon Recycling, had the capacity to manage the
3 volume and types of waste expected.¹²⁶

5 Because the changes proposed in RFA2 would not increase or otherwise affect the type or
6 volume of solid waste generated during facility construction and operation or change the
7 expected methods of disposal, the Council continues to rely on its previous findings.

9 *Housing*

11 In the Final Order on the ASC, the Council found that there was sufficient short-term housing to
12 accommodate the construction workforce, such as RV parks and hotel rooms, within 1 hour of
13 the site. This included approximately 34 hotel rooms and 64 RV park sites in the communities of
14 Christmas Valley, Silver Lake, and Fort Rock and approximately 385 RV park sites and 150
15 traveler hotel/motel rooms within 1-hour driving distance of the site. The Council also found
16 that the minimal number of workers expected to permanently relocate to communities near
17 the site during facility operation would not be likely to impact housing.¹²⁷

19 The deadline extension proposed in RFA2 will not increase the number of workers required for
20 construction and operation of the facility. The certificate holder provided an updated analysis
21 of short-term housing availability based on current data from publicly available commercial
22 services such as Expedia and Trip Advisor. The data showed 26 hotel/motel rooms and 93 RV
23 park sites available in the immediate vicinity of the site and approximately 250 RV park sites
24 and 150 traveler hotel/motel rooms available within 1-hour driving distance of the site.¹²⁸ Based
25 on this data, the Council finds that there have been no significant changes to short-term
26 housing availability since the approval of the ASC.

28 Because there are no changes to the expected need for, or availability of, short-term housing in
29 the vicinity of the site, the Council continues to rely on its previous findings.

31 *Healthcare*

33 In the *Final Order on the ASC*, the Council found that facility construction could temporarily
34 increase demand for health care services. Construction workers with minor injuries would likely be
35 treated on site or transported to La Pine Community Health Center in Christmas Valley;
36 construction workers with more severe injuries would be transported to trauma centers in Bend or

¹²⁶ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 173-174.

¹²⁷ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 168-169.

¹²⁸ OSCAMD2Doc15-00 Complete RFA2 w Attachments 2025-04-11, Section 9.1.12. The certificate holder also cited 516 housing units in Lake County identified as for seasonal, recreational, or occasional use in 2023 American Community Survey (ACS) data published by the US Census Bureau, but this classification typically applies to seasonal-use vacation homes that are not likely to be consistently available for worker housing. The ACS data identify 25 vacant units as for rent, but it is not clear that these units are appropriate for the short tenure that workers are expected to be in the vicinity of the site.

1 Portland. Ambulance service in the analysis area is provided by North Lake County Emergency
2 Medical Services and Air Ambulance.

3
4 In the ASC, the certificate holder represented that emergency medical technicians would be on-site
5 during construction to treat minor injuries that would otherwise require treatment at a local
6 healthcare facility, and to arrange to transport workers with more serious injuries to appropriate
7 healthcare facilities. In the Final Order on the ASC, the council imposed Public Services Condition 4
8 (GEN-PS-02) requiring, in relevant part, that the certificate holder provide an executed agreement,
9 or similar conveyance, for onsite emergency transport services, prior to construction.¹²⁹ These
10 requirements were incorporated into the Wildfire Mitigation Plan required under Wildfire
11 Prevention and Risk Mitigation Condition 1 (PRE-WP-01) in the Final Order on RFA1. Based, in part,
12 on compliance with this condition the Council found that the small increases in demand would not
13 affect the ability of these providers to provide healthcare services. The Council found that the
14 minimal number of workers expected to permanently relocate to communities near the site during
15 facility operation was not likely to significantly increase demand for healthcare services.¹³⁰

16
17 The deadline extension proposed in RFA2 will not increase the number of workers required for
18 construction or operation of the facility. Because there are no changes to the expected demand
19 on, or availability of, healthcare services, the Council continues to rely on its previous findings.

20 21 *Schools*

22
23 In the Final Order on the ASC, the Council found that the small number of workers expected to
24 permanently relocate to the vicinity of the site with families were not likely to significantly
25 increase demands on local schools.

26
27 Because there are no changes to the expected demand on, or availability of, healthcare
28 services, the Council continues to rely on its previous findings.

29 30 *Traffic Safety*

31
32 Based on the workforce estimates discussed above, facility construction is expected to generate
33 126 round trips (96 commuter vehicles and 30 delivery trucks) to and from the site on average
34 during construction and up to 160 round trips (120 commuter vehicles and 40 delivery trucks)
35 during peak construction periods.

36
37 In the Final Order on the ASC, the Council found that construction activities and vehicles may
38 aggravate existing dusty conditions and impact visibility, especially on County Road 5-14 G (Oil

¹²⁹ Note that, as evaluated in Section III.N *Wildfire Prevention and Risk Mitigation* of this order, the Council amends Public Services Condition 4 to align with both the public services standard and the Wildfire Prevention and Risk Mitigation standard and adopt the requirements of the previously imposed condition into amended and new conditions (Wildfire Prevention Conditions 1, 2, 3 and 4).

¹³⁰ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 169-171.

1 Dri Road). To address dust-related impacts, the Council imposed Public Services Conditions 1
2 and 2 (PRE-PS-01 and CON-PS-01) requiring the certificate holder to submit and implement a
3 Dust Abatement and Management Control Plan and provide signage providing contact
4 information for dust complaints. To minimize other potential traffic-related impacts during
5 construction of the facility, the Council imposed Public Services Condition 3 (GEN-PS-01)
6 requiring the certificate holder to develop and implement a Construction Traffic Management
7 Plan in consultation with the Lake County Planning and County Road Department. The
8 Construction Traffic Management Plan would establish requirements for traffic management,
9 installation of signage, and ensure that any damage or wear to state or county roads caused by
10 facility construction traffic is repaired by the certificate holder. The Council found that, subject
11 to compliance with these conditions, facility construction was not likely to result in significant
12 adverse impacts to the ability of transportation providers to provide traffic safety in the vicinity
13 of the site. The Council also found that the low volume of traffic expected during operations
14 was not likely to impact providers of traffic services within the analysis area.¹³¹
15

16 The deadline extension requested in RFA2 will not change the number of workers or volume of
17 materials that will be transported to the site during construction and operations. The County
18 did not identify any changes to local infrastructure or traffic-related regulations.
19

20 Because there are no significant changes to the anticipated traffic impacts, the Council
21 continues to rely on its previous findings and conditions.
22

23 *Air Traffic Safety* 24

25 In the Final Order on the ASC, the Council found that panel glare from the solar photovoltaic
26 power generation facility could result in impacts to aviation. The Council imposed Land Use
27 Condition 5 (GEN-LU-01) requiring the certificate holder to either provide a Determination of
28 No Hazard from the Federal Aviation Administration, or evidence that no formal determination
29 is required.
30

31 Because there are no changes to the expected design or facility construction, the Council
32 continues to rely on its previous findings.
33

34 *Fire Protection* 35

36 The site is within the service territory of the High Desert Rangeland Fire Protection Association
37 (RFPA), a non-profit organization formed by local landowners in 2018 to provide fire prevention
38 and protection on rangeland in Northern Lake County. Through participation in the High Desert
39 RFPA, the certificate holder will have access to excess federal wildland fire engines and
40 equipment.¹³² The equipment would be stored near the site, most likely at the site's eastern

¹³¹ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 159-164.

¹³² OSCAPDoc20 ASC Applicant Responses to Additional RAIs_Combined 2020-02-24 to 2020-03-09.

1 access gate just off Oil Dri Road and would be available for wildland fire suppression activities
2 at the site.¹³³

3
4 The site is not within the boundaries of a structural fire district, but in RFA2, the certificate
5 holder provided an updated letter from the Christmas Valley Rural Fire Protection District
6 indicating that it may respond with the BLM and High Desert RFPA if there was a structural fire
7 at the site.

8
9 In the Final Order on the ASC, the Council found that sparks and heat generated by vehicles and
10 motorized equipment, and electrical faults and arcing from facility components could increase
11 fire risk at the site. As discussed in more detail in Section III.N. *Wildfire Prevention and Risk*
12 *Mitigation*, the Council imposed Public Services Condition 4 (PRO-WP-01) requiring the
13 certificate holder to operate in compliance with approved Fire Protection and Emergency
14 Response Plans during facility construction and operation.¹³⁴ The Council found that, subject to
15 compliance with the plan, the facility was not anticipated to have a significant adverse impact
16 on the ability of the local fire protection service providers to provide services in the analysis
17 area.¹³⁵

18
19 These provisions were incorporated into and expanded upon in Wildfire Prevention Conditions
20 1 to 4 (PRE-WP-1, PRO-WP-01) in the Final Order on AMD1. These conditions require the
21 certificate holder to finalize and implement Wildfire Mitigation Plans that comply with the
22 Wildfire Prevention and Risk Mitigation Standard for Construction and Operation of the facility.
23 The plan requires the certificate holder to implement actions and programs to minimize fire risk
24 at the site and to secure fire protection services from local fire protection service providers,
25 including the Christmas Valley Rural Fire Protection District and the High Desert RFPA.
26 Additional discussion of the Wildfire Mitigation Plans is provided in Section III.N. *Wildfire*
27 *Prevention and Risk Mitigation*.

28
29 The deadline extension requested in RFA2 will not change the design of the facility, activities
30 required to construct and operate the facility or result in any different or increased risk of fire
31 ignition. Because there are no changes to the expected demand on, or availability of fire
32 protection services for the facility, the Council continues to rely on its previous findings.

33 34 *Police Protection*

35
36 The Lake County Sheriff's Office is the primary law enforcement agency for the site, with
37 secondary service provided by other state and federal agencies including the Oregon State

¹³³ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 166-167.

¹³⁴ Note that, as evaluated in Section III.N *Wildfire Prevention and Risk Mitigation* of this order, the Council amends Public Services Condition 4 to align with both the public services standard and the Wildfire Prevention and Risk Mitigation standard and adopt the requirements of the previously imposed condition into amended and new conditions (Wildfire Prevention Conditions 1, 2, 3 and 4).

¹³⁵ OSCAPDoc1-4 Final Order on ASC 2022-02-25, p. 168, citing OSCAPDoc61 Proposed Contested Case Order 2021-12-29, pp. 14-62, 99-100 and 106-107.

1 Police on an as needed basis. The Lake County Sheriff's Office has an office in Silver Lake and an
2 annex in the town of Christmas Valley, and the Oregon State Police have offices in La Pine and
3 Lakeview.

4
5 The Council imposed Public Services Condition 4 (PRE-WP-01), requiring in part that the
6 certificate holder provide the Sheriff's Office information about size, location, personnel and
7 possible service needs from construction and operation of the proposed facility. As discussed
8 above, these requirements were incorporated into the Wildfire Mitigation Plan required under
9 Wildfire Prevention Condition 1 (PRE-WP-01) in the Final Order on AMD1.

10
11 In the Final Order on the ASC, the Council found that impacts on local police and public safety
12 providers could result from the increased traffic during facility construction.¹³⁶ As discussed in
13 the traffic safety section above, the Council imposed Public Services Condition 1 (PRE-PS-01),
14 requiring the development and implementation of Construction Traffic Management Plan and
15 other requirements to minimize construction traffic related impacts.

16
17 In the Final Order on the ASC, the Council found the small number of workers permanently
18 employed during operations was not likely to impact law enforcement agencies within the
19 analysis area.

20
21 The deadline extension requested in RFA2 will not change the number of workers required to
22 construct and operate the facility or result in any increased traffic above what was previously
23 evaluated. In RFA2, the Certificate Holder provided a letter from Lake County Sheriff Daniel
24 Teague confirming that the Sheriff's Office provides law enforcement services at the site and
25 restating the Sheriff's Office's interest in getting additional information on the size, location,
26 personnel and possible service needs the facility may need from the Sheriff's Office if the
27 facility is constructed.¹³⁷

28
29 Because there are no changes to the expected demand on, or availability of police services for
30 the facility, the Council continues to rely on its previous findings.

31 32 **III.M.2. Conclusions of Law**

33
34 Based on the foregoing analysis, and in compliance with OAR 345-022-0110(2), the Council
35 maintains the conditions previously imposed under the standard in the site certificate.

36 37 **III.N. WILDFIRE PREVENTION AND RISK MITIGATION: OAR 345-022-0115**

38
39 *(1) To issue a site certificate, the Council must find, by way of supporting*
40 *evidence from the applicant, that:*
41

¹³⁶ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 165.

¹³⁷ OSCAMD2Doc12-00 pRFA2 RAI2 Responses 2025-03-27, Attachment 9.

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

3
4 (A) Baseline wildfire risk, based on factors that are expected to remain fixed
5 for multiple years, including but not limited to topography, vegetation,
6 existing infrastructure, and climate;

7
8 (B) Seasonal wildfire risk, based on factors that are expected to remain fixed
9 for multiple months but may be dynamic throughout the year, including but
10 not limited to, cumulative precipitation and fuel moisture content;

11
12 (C) Areas subject to a heightened risk of wildfire, based on the information
13 provided under paragraphs (A) and (B) of this subsection;

14
15 (D) High-fire consequence areas, including but not limited to areas containing
16 residences, critical infrastructure, recreation opportunities, timber and
17 agricultural resources, and fire-sensitive wildlife habitat; and

18
19 (E) All data sources and methods used to model and identify risks and areas
20 under paragraphs (A) through (D) of this subsection.

21
22 (b) That the proposed facility will be designed, constructed, and operated in
23 compliance with a Wildfire Mitigation Plan approved by the Council. The
24 Wildfire Mitigation Plan must, at a minimum:

25
26 (A) Identify areas within the site boundary that are subject to a heightened
27 risk of wildfire, using current data from reputable sources, and discuss data
28 and methods used in the analysis;

29
30 (B) Describe the procedures, standards, and time frames that the applicant
31 will use to inspect facility components and manage vegetation in the areas
32 identified under subsection (a) of this section;

33
34 (C) Identify preventative actions and programs that the applicant will carry
35 out to minimize the risk of facility components causing wildfire, including
36 procedures that will be used to adjust operations during periods of heightened
37 wildfire risk;

38
39 (D) Identify procedures to minimize risks to public health and safety, the
40 health and safety of responders, and damages to resources protected by
41 Council standards in the event that a wildfire occurs at the facility site,
42 regardless of ignition source; and
43

1 (E) Describe methods the applicant will use to ensure that updates of the plan
2 incorporate best practices and emerging technologies to minimize and
3 mitigate wildfire risk.

4
5 (2) The Council may issue a site certificate without making the findings under
6 section (1) if it finds that the facility is subject to a Wildfire Protection Plan
7 that has been approved in compliance with OAR chapter 860, division 300.

8 * * * * *¹³⁸
9

10 **III.N.1. Findings of Fact**

11
12 The Council's Wildfire Prevention and Risk Mitigation Standard was adopted in July 2022, after
13 the Final Order on ASC and initial site certificate was issued; however, fire risk associated with
14 the facility were evaluated under the Council's Public Services Standard. The analysis area to
15 evaluate potential wildfire risks is the site boundary and one-half mile from the site
16 boundary.¹³⁹
17

18 *Wildfire Risk Analysis*

19
20 In the Final Order on the ASC, the Council found that facility construction and operation could
21 increase wildfire risk in the vicinity of the site. During construction, ignition risks include sparks
22 from running vehicles and equipment. During operation, ignition risks include electrical faults at
23 electrical connections in solar arrays, transmission lines, and substations, and fires at battery
24 storage units.¹⁴⁰ In addition, facility components may be affected by wildfire that starts outside
25 of the site.
26

27 In the Final Order on RFA1, the Council found that site is located within a high-medium wildfire
28 hazard area due to dry, arid environmental conditions, consistent with wildfire risk mapping for
29 the area by the US Forest Service and Midstate Electric Cooperative (MEC). The Council found
30 that there were no areas of heightened wildfire risk within or near the site, in part, because the
31 irrigation pivots that surround the site are considered unburnable in most fuel models.¹⁴¹
32

33 As shown in Figure 4 below, the certificate holder provided updated mapping based on 2023
34 Wildfire Hazard data from the US Forest Service. The updated map shows that the area within
35 the site is generally considered to have low to moderate wildfire potential, with some areas
36 within the site (likely playas and dunes) considered to be unburnable.
37

¹³⁸ OAR 345-022-0115, effective April 2, 2025.

¹³⁹ OAR 345-001-0010(35)(c).

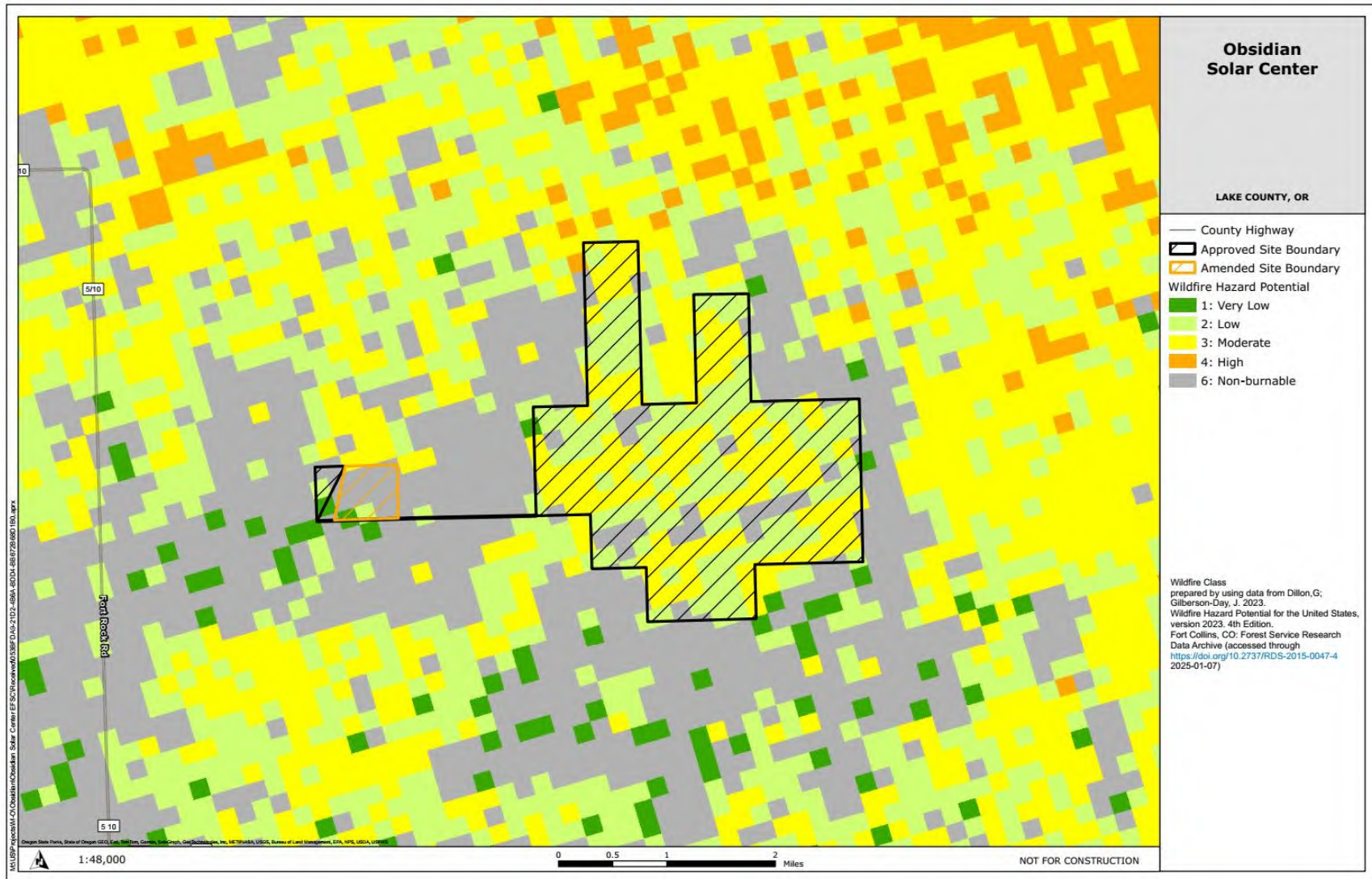
¹⁴⁰ See OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 166.

¹⁴¹ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, pg. 88-89, 90.

1 The Council’s previous findings, and the updated maps, are consistent with new statewide
2 wildfire hazard maps published by the Oregon Department of Forestry in January 2025, which
3 show the site as having moderate or low wildfire hazard.¹⁴²
4

¹⁴² Oregon Wildfire Risk Explorer, available at <https://oregon-explorer.apps.geocortex.com/webviewer/?app=665fe61be984472da6906d7ebc9a190d>

Figure 4: Wildfire Hazard Potential



1 *Wildfire Mitigation Plan*

2
3 In the Final Order on the ASC, the Council imposed Public Services Condition 4 requiring the
4 certificate holder to finalize a draft Fire Protection and Emergency Response Plan prepared
5 based on information provided in ASC Exhibit U, and to implement the final plan during facility
6 construction and operation. In the review of RFA1, the Council identified several new
7 requirements imposed under the recently adopted Wildfire Prevention and Risk Mitigation
8 Standard. The requirements of Public Services Condition 4 were incorporated into Wildfire
9 Prevention Conditions 1 to 4, and a new draft Wildfire Mitigation Plan was prepared and
10 attached to the Final Order on RFA1 to demonstrate compliance with the requirements of OAR
11 345-022-0115(1)(b).¹⁴³

12
13 To minimize impacts to fire-service providers, and ensure there is capacity to respond to
14 structural and non-structural fires at the site, the plan requires the certificate holder to
15 complete the following prior to construction of the facility:

- 16
17 1) Submit an application for annexation to the Christmas Valley Rural Fire Protection
18 District (CVRFPD) and provide evidence that the site has been annexed to CVRFPD's
19 service territory or that the certificate holder has executed a contract with CVRFPD for
20 fire-response services; and
21
22 2) Enroll as a lifetime member of the High Desert Rangeland Fire Protection Association
23 (RFPA), and coordinate with the RFPA to provide fire protection and response to the
24 site.¹⁴⁴

25
26 As described in the plan, the certificate will have access to wildland fire engines and equipment
27 through its participation in the High Desert RFPA. The certificate holder, RFPA, and RFPA
28 members near the facility will identify a location for equipment at the site near a main access
29 road that can be easily accessed by the certificate holder and other RFPA members in the event
30 of fire suppression needs. The plan explains that the most likely locations are the eastern site
31 access gate just off Oil Dri Road or just off Connley Lane near the site of the substation.¹⁴⁵

32
33 The plan requires the following features to be incorporated into the design of the facility to
34 reduce the risk of fire from and to the facility:

- 35 • Perimeter roads within the fence line will be 20 feet wide with a maintained 10-foot
36 vegetation-free buffer zone (30 feet total vegetation free area) to act as fire breaks and
37 allow for access by emergency vehicles.
38 • Internal access roads will be 12-feet wide and maintained to act as fire breaks and allow
39 for access by emergency vehicles.

¹⁴³ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X.

¹⁴⁴ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X, pg. 1.

¹⁴⁵ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X, pg. 3.

- Electrical equipment will meet all applicable National Electric Code and Institute of Electrical and Electronics Engineers standards to reduce potential fire risk.
- The Facility will have a supervisory control and data acquisition (SCADA) system programmed to notify all operators, operational managers, asset managers, and other specified personnel in the event of electrical hazards, fire, and other operational issues.
- Signage will be installed at all facility entrances with information to help emergency responders identify the location of system disconnects, location of electrical conduit, and the ability to isolate and shutdown electrical power coming from the PV array.¹⁴⁶

The plan requires the certificate holder to implement the preventative actions and programs to minimize fire hazard during construction and operation of the facility, including training of personnel in fire prevention and control procedures, maintaining adequate on-site supplies of water for fire suppression, restricting certain activities during Red Flag Warnings.¹⁴⁷ The plan also briefly describes the procedures for inspections that will be used during operation of the facility.¹⁴⁸ The plan also requires the certificate holder to work directly with local emergency responders to gather contact information for adjacent landowners and property owners and states that the final plan will identify the best notification procedures of adjacent landowners/property owners to provide to local and regional emergency services for emergency notifications, in the event of an ignition or fire at the facility.¹⁴⁹

In RFA2, the certificate holder provided updated draft Construction and Operation Wildfire Mitigation Plans based on templates prepared by the Department. The updated plans are included as Attachments F-1 and F-2 of this Order and contain the provisions of the previous Wildfire Mitigation Plan with new and additional detail related to best management practices (BMPs) to minimize fire risk from vehicle travel, equipment use, and fueling activities, activities restrictions to be implemented during times of heightened fire risk, and procedures for vegetation management and facility inspections.

The draft plans prepared by the certificate holder also contain some revisions to previous representations regarding design features to mitigate wildfire hazard within the site. In the ASC the certificate holder represented that the facility would include a 20-foot wide perimeter road and a vegetation free buffer zone.¹⁵⁰ The certificate holder has since indicated that design plans may or may not include installation of perimeter roads, but the draft plans indicate that a 30-foot wide vegetation free area will be maintained around the perimeter of the facility regardless of whether a perimeter road is constructed.¹⁵¹ The draft plans indicate that internal access roads will be 12-ft wide and will be maintained to provide access to emergency vehicles

¹⁴⁶ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X, p. 4.

¹⁴⁷ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X, pg. 2-3

¹⁴⁸ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X, pg. 3-4

OSCAMD1Doc19 Final Order on RFA1 2023-11-17, Attachment X, pg. 5

¹⁵⁰ OSCAPPD4-02 ASC Exhibit B 2019-10-17, Section B.3; OSCAPPD4-21 ASC Exhibit U 2019-10-17, Section U.4.7.

¹⁵¹ OSCAMD2DOC15-00 RFA2 2025-04-11, Attachment 9, pg. 3; Attachment 10, pg. 2.

1 in accordance with Oregon Fire Code Chapter 503. In the ASC, the certificate holder also
2 indicated that the 12-foot internal access roads would be made of compacted native soils.¹⁵²
3 Oregon Fire Code Section 503.2.1 requires fire apparatus roads to have an unobstructed width
4 of not less than 20 feet. In addition, Section 503.2.3. requires fire access roads to be designed
5 and maintained to support the imposed loads of fire apparatus and to be surfaced as to provide
6 all-weather driving capabilities.

7
8 In addition, as discussed in Section III.C, *Structural Standard*, the Geotechnical Engineering
9 Report provided by the certificate holder in 2023 indicates that use of compacted native silt and
10 clay soils for access roads is acceptable for light-duty vehicle traffic but recommends that roads
11 that require all-weather access and roads subjected to fire truck loading should be surfaced
12 with aggregate or pavement.¹⁵³

13
14 Based on the requirements of Oregon Fire Code Section 503, and the findings in the 2023
15 geotechnical engineering report, the Council finds that the proposed use of 12- foot roads
16 made compacted native soils is likely not adequate to ensure fire access to the site.

17
18 The certificate holder's draft Construction Wildfire Mitigation Plan requires, among other
19 things, that the certificate holder consult with local fire officials regarding appropriate design
20 criteria for fire access roads prior to beginning construction of the facility. The Council includes
21 modifications to the certificate holder's draft plans as shown in Attachments F-1 and F-2 of this
22 Order to ensure that fire access is provided in compliance with Oregon Fire Code Chapter 503.
23 The Council also incorporates similar modifications to the facility description in Section 2 of the
24 Site Certificate, as shown in Attachment A of this Order.

25
26 To incorporate the updated draft plans, and reflect more standardized condition language, the
27 Council amends Wildfire Prevention Conditions 1 to 4 as follows:

28
29 **Amended Wildfire Prevention Condition 1 [PRE]**

30 Prior to construction of the facility, the certificate holder shall:

- 31 a. Finalize the Construction Wildfire Mitigation Plan, as provided in Attachment F-1 to
32 the Final Order on AMD2. submit a F The final Construction Wildfire Mitigation Plan
33 shall be submitted to the Department, for review and approval.
34 b. Complete pre-construction tasks and actions designated in the Construction Wildfire
35 Mitigation Plan approved under (a).
36 a. The final plan shall, at a minimum:
37 i. Document coordination with local fire protection and emergency services;
38 qualifications and contact information for the onsite emergency medical technician; and
39 executed agreement, or similar conveyance, for onsite emergency transport service. The
40 plan shall also include an updated Emergency and Fire contact list.

¹⁵² OSCAPDoc4-02 ASC Exhibit B 2019-10-17, Section B.3.

¹⁵³ OSCAMD2Doc06-00 pRFA2 Geotechnical Engineering Report rev 1 2023-05-18, pg. 25-26.

1 ii. ~~Identify areas within the site boundary that are subject to a heightened risk of~~
2 ~~wildfire, using current data from reputable sources, and discuss data and methods used~~
3 ~~in the analysis.~~
4 iii. ~~Describe the procedures, standards, and time frames that the certificate holder will~~
5 ~~use to inspect facility components and manage vegetation in the areas identified under~~
6 ~~section (a) of this condition.~~
7 iv. ~~Identify preventative actions and programs that the certificate holder will carry out to~~
8 ~~minimize the risk of construction equipment causing wildfire, including procedures that~~
9 ~~will be used to adjust operations during periods of heightened wildfire risk.~~
10 v. ~~Identify procedures to minimize risks to public health and safety, the health and~~
11 ~~safety of responders, and damages to resources protected by Council standards in the~~
12 ~~event that a wildfire occurs at the facility site, regardless of ignition source.~~
13 vi. ~~Describe the methods the certificate holder will use to ensure that updates of the~~
14 ~~plan incorporate best practices and emerging technologies to minimize and mitigate~~
15 ~~wildfire risk, including the schedule by which updates of the plan will occur.~~
16 b. ~~The actions, programs, and procedures in section (a)(iii)-(v) shall be consistent with~~
17 ~~those included in the draft plan provided in Final Order on RFA1 Attachment X.~~
18 [PRE-WP-01]
19

20 **Amended Wildfire Prevention Condition 3 [CON]**

21 During construction of the facility, facility component, or phase, as applicable, the
22 certificate holder shall:

- 23 a. Implement and require all onsite contractors and employees to aAdhere to the
24 requirements of the Wildfire Mitigation Plan finalized in accordance with required
25 under Condition PRE-WP-01.
26 b. After the first six months of construction; and then semi-annually during
27 construction, review and update Construction Wildfire Mitigation Plan as designated
28 in the Plan and submit the results in the semi-annual construction report.
29 c. Updates to the Wildfire Mitigation Plan may be required if determined necessary by
30 the certificate holder, certificate holder's contractor(s) or the Department to
31 address wildfire hazard to public health and safety. Any Department required
32 updates shall be implemented within 14 days, unless otherwise agreed to by the
33 Department based on a good faith effort to address wildfire hazard.
34 ~~b. Adhere to the requirements of any updates to the Wildfire Mitigation Plan,~~
35 ~~completed in accordance with Condition PRE-WP-01(a)(vi), following review and~~
36 ~~approval by the Department.~~
37 [CON-WP-01]
38

39 **Amended Wildfire Prevention Condition 2 [PRO]**

40 Prior to operation of the facility, the certificate holder shall:

- 41 a. Finalize the Operational Wildfire Mitigation Plan, as provided in Attachment F-2 to
42 the Final Order on AMD2. The submit a Final Operational Wildfire Mitigation Plan
43 shall be submitted to the Department for review and approval.

- b. Complete pre-operational tasks and actions designated in the Operational Wildfire Mitigation Plan approved under (a).
- a. ~~The final plan shall, at a minimum:~~
- i. ~~Include an updated Emergency and Fire contact list.~~
- ii. ~~Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis.~~
- iii. ~~Describe the procedures, standards, and time frames that the certificate holder will use to inspect facility components and manage vegetation in the areas identified under section (a) of this condition.~~
- iv. ~~Identify preventative actions and programs that the certificate holder will carry out to minimize the risk of facility components or equipment causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk.~~
- v. ~~Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source.~~
- vi. ~~Describe the methods the certificate holder will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk, including the schedule by which updates of the plan will occur.~~
- b. ~~The actions, programs, and procedures in section (a)(iii)-(v) shall be consistent with those included in the draft plan provided in Final Order on RFA1 Attachment X-x [PRO-WP-01]~~

Amended Wildfire Prevention Condition 4 [OPR]

During operation of the facility, the certificate holder shall:

- a. Implement and ~~a~~ Adhere to the requirements of the Wildfire Mitigation Plan finalized in accordance with required under Condition PRO-WP-01.
- b. After the first operational year, annually review and update Operational Wildfire Mitigation Plan as designated in the Plan and submit the results in the annual report for that year.
- c. Updates to the Wildfire Mitigation Plan may be required if determined necessary by the certificate holder or the Department to address wildfire hazard to public health and safety. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard.
- b. ~~Adhere to the requirements of any updates to the Wildfire Mitigation Plan, completed in accordance with Condition PRO-WP-01(a)(vi), following review and approval by the Department.~~
- [OPR-WP-01]

Subject to compliance with these amended conditions, the Council finds the facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan that satisfies the criteria of OAR 345-022-0115(1)(b).

1
2 **III.N.2. Conclusions of Law**
3

4 Based on the foregoing analysis, and subject to compliance with the amended site certificate
5 conditions described above, the Council finds that the facility will be designed, constructed, and
6 operated in compliance with the Wildfire Prevention and Risk Mitigation Standard.
7

8 **III.O. WASTE MINIMIZATION: OAR 345-022-0120**
9

10 *(1) Except for facilities described in sections (2) and (3), to issue a site*
11 *certificate, the Council must find that, to the extent reasonably practicable:*
12

13 *(a) The applicant's solid waste and wastewater plans are likely to minimize*
14 *generation of solid waste and wastewater in the construction and operation*
15 *of the facility, and when solid waste or wastewater is generated, to result in*
16 *recycling and reuse of such wastes;*
17

18 *(b) The applicant's plans to manage the accumulation, storage, disposal and*
19 *transportation of waste generated by the construction and operation of the*
20 *facility are likely to result in minimal adverse impact on surrounding and*
21 *adjacent areas.*
22

23 *(2) The Council may issue a site certificate for a facility that would produce*
24 *power from wind, solar or geothermal energy without making the findings*
25 *described in section (1). However, the Council may apply the requirements of*
26 *section (1) to impose conditions on a site certificate issued for such a facility.*
27

28 * * * * *¹⁵⁴
29

30 **III.O.1. Findings of Fact**
31

32 *Solid Waste*
33

34 In the Final Order on the ASC, the Council found that facility construction was expected to
35 generate approximately 10-20 metric tons of nonhazardous solid waste per month including,
36 but not limited to, scrap metal, waste concrete, wood form work, spent erosion control
37 materials, and packaging materials such as corrugated cardboard, as well as small amounts of
38 hazardous waste, such as oil rags, spent small appliance batteries and equipment and vehicle
39 maintenance solvents and oils. The Council found that less than 300 pounds of nonhazardous
40 solid waste and less than 220 pounds of hazardous waste would be generated per month
41 during operations, and that during operations, solar modules and battery components would

¹⁵⁴ OAR 345-022-0120, effective April 2, 2025.

1 be recycled to the maximum extent feasible or otherwise disposed of in accordance with
2 manufacturer's specifications. The Council found that the service providers most likely to be
3 contracted to transport and dispose of waste, including the Lake County Landfill, Lakeview
4 Sanitation, and Mid-Oregon Recycling, had the capacity to manage the volume and types of
5 waste expected.¹⁵⁵

6
7 The Council imposed Waste Minimization Condition 1 (GEN-WM-01), which requires the
8 certificate holder develop and implement a Solid Waste Management Plan to ensure onsite
9 waste is recycled to the extent feasible, during construction and operations, and that hazardous
10 materials were properly segregated and handled. Subject to compliance with this condition, the
11 Council found that the generation of solid waste during construction and operation would be
12 minimized and was likely to result in minimal adverse impacts on surrounding and adjacent
13 areas.

14
15 Because the changes proposed in RFA2 would not increase or otherwise affect the type or
16 volume of solid waste generated during facility construction or operation or change the
17 expected methods of disposal, the Council continues to rely on its previous findings.

18 19 *Wastewater*

20
21 In the Final Order on the ASC, the Council found that it would be unlikely for the surrounding
22 area to be impacted by the wastewater generated during facility construction and operation.
23 Sanitary wastewater generated during construction would be collected in portable toilets and
24 handwash stations and would be disposed of by a licensed disposal provider. While not
25 specifically addressed in the Final Order on the ASC, concrete washout water would be
26 disposed of in dedicated washout containers in accordance with the NPDES 1200-C permit
27 issued by DEQ.¹⁵⁶

28
29 Sanitary wastewater generated during operations would either be managed through the use of
30 portable toilets, or through construction of an on-site septic system constructed at the O&M
31 building. Excess water generated during the period washing of solar modules would be left to
32 evaporate or infiltrate into the ground and would not be disposed of or discharged off-site.
33 Wastewater may be covered under an Oregon General Water Pollution Control Facilities 1700-B
34 Permit, which, if required, would be obtained by a third-party contractor. No other industrial
35 wastewater is expected to be generated during operation of the facility.¹⁵⁷

36
37 Because the changes proposed in RFA2 would not increase or otherwise affect the type or
38 volume of wastewater generated during construction or operation of the facility or change the
39 expected methods of disposal, the Council continues to rely on its previous findings.

40

¹⁵⁵ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 173-174.

¹⁵⁶ OSCAPDoc4-09 ASC Exhibit I 2019-10-17; Appendix I-1; OSCAPDoc4-15 Exhibit O 2019-10-17, Section O.2.1.

¹⁵⁷ OSCAPDoc1-4 Final Order on ASC 2022-02-25, pg. 175.

1 **III.O.2. Conclusions of Law**

2
3 Based on the foregoing analysis, and in compliance with OAR 345-022-0120(2), the Council
4 maintains the condition previously imposed under this standard within the site certificate.
5

6 **III.P. SITING STANDARDS FOR TRANSMISSION LINES: OAR 345-024-0090**

7
8 *To issue a site certificate for a facility that includes any transmission line under*
9 *Council jurisdiction, the Council must find that the applicant:*

10
11 *(1) Can design, construct and operate the proposed transmission line so that*
12 *alternating current electric fields do not exceed 9 kV per meter at one meter*
13 *above the ground surface in areas accessible to the public;*

14
15 *(2) Can design, construct and operate the proposed transmission line so that*
16 *induced currents resulting from the transmission line and related or*
17 *supporting facilities will be as low as reasonably achievable.*

18
19 * * * * *¹⁵⁸

20
21 **III.P.1. Findings of Fact**

22
23 The Site Certificate authorizes the construction and operation of up to 3.2 miles of 138-kV
24 overhead transmission line connecting the western-most collector substation in Area A to an
25 interconnection switchyard in Area D or E. Based on modeling provided by the certificate
26 holder, the Council previously found that if the transmission line was constructed in a double
27 circuit configuration, maximum electric field strength within the 50-foot right-of-way would be
28 about 1.18 kV/m at one meter above the ground surface level, or about 1.9 kV/m if the
29 transmission line is constructed in single-circuit configuration. Because the projected electric
30 fields were below the maximum 9 kV/m standard, the Council found that the transmission line
31 complied with the requirements of OAR 345-024-0090(1).
32

33 The Council previously imposed General Standard Condition 8 (GEN-GS-05) and Siting Standards
34 for Transmission Lines Condition 1 (PRO-TL-01) to ensure that induced currents resulting from
35 the transmission line and related or supporting facilities will be as low as reasonably achievable.
36

- 37
 - General Standard Condition 8 (GEN-GS-05) requires the certificate holder to design,
38 construct and operate the transmission line in accordance with the National Electrical
39 Safety Code and develop and implement a program that provides reasonable assurance
40 that all fences, gates, cattle guards, trailers, or other objects or structures of a
41 permanent nature that could become inadvertently charged with electricity are
42 grounded or bonded throughout the life of the line.

¹⁵⁸ OAR 345-024-0090, effective April 2, 2025.

- Siting Standards for Transmission Lines Condition 1 (PRO-TL-01) requires the certificate holder to provide landowners within 500 feet of the site boundary with a map of the transmission and collector lines and inform landowners of possible health and safety risks from induced currents caused by electric and magnetic fields.

The Council previously found that, subject to compliance with these conditions, the transmission lines associated with the facility would comply with the Council's Siting Standards for Transmission Lines.¹⁵⁹ There have been no changes to the Council's standard since the site certificate was issued, and there are no changes to the facility or facility components proposed that would affect the electric or magnetic fields produced by associated transmissions lines.

Because there are no proposed changes to facility components that would affect the electric or magnetic fields produced by transmissions lines or the likelihood that objects or structures may become inadvertently charged by those fields, the Council continues to rely on its previous findings.

III.P.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the existing site certificate conditions described above, the Council finds that the facility, with proposed deadline extension, continues to comply with the Council's Siting Standards for Transmission Lines.

IV. EVALUATION OF OTHER APPLICABLE REGULATORY REQUIREMENTS

IV.A. Noise Control Regulations: OAR 340-035-0035

(1) Standards and Regulations:

* * *

(b) New Noise Sources:

* * *

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one

¹⁵⁹ OSCAPPDoc1-4 Final Order on ASC 2022-02-25, pg. 176-178; OSCAMD1Doc19 Final Order on AMD1 2023-11-17, pg. 101-102.

hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b)–(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind or solar energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind or solar energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The “actual ambient background level” is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, and for wind energy facilities synchronized with wind speed measurements of hub height conditions at the nearest wind turbine location. “Actual ambient background level” does not include noise generated or caused by the proposed wind or solar energy facility.

(III) The noise levels from a wind or solar energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind or solar energy facility is located. The easement or covenant must authorize the wind or solar energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility’s turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

1 (V) For purposes of determining whether an operating wind energy facility complies with
2 the ambient noise standard where a landowner has not waived the standard, noise
3 levels at the appropriate measurement point are measured when the facility's nearest
4 wind turbine is operating over the entire range of wind speeds between cut-in speed and
5 the wind speed corresponding to the maximum sound power level and no turbine that
6 could contribute to the noise level is disabled. The facility complies with the noise
7 ambient background standard if the increase in noise over either the assumed ambient
8 noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if
9 measured, is not more than 10 dBA over this entire range of wind speeds.

10
11 (VI) For purposes of determining whether a proposed wind energy facility would satisfy
12 the Table 8 standards, noise levels at the appropriate measurement point are predicted
13 by using the turbine's maximum sound power level following procedures established by
14 IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's
15 turbines are operating at the maximum sound power level.

16
17 (VII) For purposes of determining whether an operating wind energy facility satisfies the
18 Table 8 standards, noise generated by the energy facility is measured at the appropriate
19 measurement point when the facility's nearest wind turbine is operating at the wind
20 speed corresponding to the maximum sound power level and no turbine that could
21 contribute to the noise level is disabled.

22
23 (c) Quiet Areas. No person owning or controlling an industrial or commercial noise
24 source located either within the boundaries of a quiet area or outside its boundaries
25 shall cause or permit the operation of that noise source if the statistical noise levels
26 generated by that source exceed the levels specified in Table 9 as measured within the
27 quiet area and not less than 400 feet (122 meters) from the noise source.

28
29 * * * * *

30
31 (2) Compliance. Upon written notification from the Director, the owner or controller of
32 an industrial or commercial noise source operating in violation of the adopted rules shall
33 submit a compliance schedule acceptable to the Department. The schedule will set forth
34 the dates, terms, and conditions by which the person responsible for the noise source
35 shall comply with the adopted rules.

36
37 (3) Measurement:

38
39 (a) Sound measurements procedures shall conform to those procedures which are
40 adopted by the Commission and set forth in Sound Measurement Procedures Manual
41 (NPCS-1), or to such other procedures as are approved in writing by the Department;

42
43 (b) Unless otherwise specified, the appropriate measurement point shall be that point on
44 the noise sensitive property, described below, which is further from the noise source:

1
2 (A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive
3 building nearest the noise source;

4
5 (B) That point on the noise sensitive property line nearest the noise source.

6
7 (4) Monitoring and Reporting:

8
9 (a) Upon written notification from the Department, persons owning or controlling an
10 industrial or commercial noise source shall monitor and record the statistical noise levels
11 and operating times of equipment, facilities, operations, and activities, and shall submit
12 such data to the Department in the form and on the schedule requested by the
13 Department. Procedures for such measurements shall conform to those procedures
14 which are adopted by the Commission and set forth in Sound Measurement Procedures
15 Manual (NPCS-1);

16
17 (b) Nothing in this rule shall preclude the Department from conducting separate or
18 additional noise tests and measurements. Therefore, when requested by the
19 Department, the owner or operator of an industrial or commercial noise source shall
20 provide the following:

21
22 (A) Access to the site;

23
24 (B) Reasonable facilities, where available, including but not limited to, electric power and
25 ladders adequate to perform the testing;

26
27 (C) Cooperation in the reasonable operation, manipulation, or shutdown of various
28 equipment or operations as needed to ascertain the source of sound and measure its
29 emission.

30
31 (5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of this rule,
32 the rules in section (1) of this rule shall not apply to:

33
34 (a) Emergency equipment not operated on a regular or scheduled basis;

35
36 (b) Warning devices not operating continuously for more than 5 minutes;

37
38 (c) Sounds created by the tires or motor used to propel any road vehicle complying with
39 the noise standards for road vehicles;

40
41 (d) Sounds resulting from the operation of any equipment or facility of a surface carrier
42 engaged in interstate commerce by railroad only to the extent that such equipment or
43 facility is regulated by pre-emptive federal regulations as set forth in Part 201 of Title 40
44 of the Code of Federal Regulations, promulgated pursuant to Section 17 of the Noise

Control Act of 1972, 86 Stat. 1248, Public Law 92-576; but this exemption does not apply to any standard, control, license, regulation, or restriction necessitated by special local conditions which is approved by the Administrator of the EPA after consultation with the Secretary of Transportation pursuant to procedures set forth in Section 17(c)(2) of the Act;

(e) Sounds created by bells, chimes, or carillons;

(f) Sounds not electronically amplified which are created by or generated at sporting, amusement, and entertainment events, except those sounds which are regulated under other noise standards. An event is a noteworthy happening and does not include informal, frequent, or ongoing activities such as, but not limited to, those which normally occur at bowling alleys or amusement parks operating in one location for a significant period of time;

(g) Sounds that originate on construction sites.

(h) Sounds created in construction or maintenance of capital equipment;

(i) Sounds created by lawn care maintenance and snow removal equipment;

(j) Sounds generated by the operation of aircraft and subject to pre-emptive federal regulation. This exception does not apply to aircraft engine testing, activity conducted at the airport that is not directly related to flight operations, and any other activity not pre-emptively regulated by the federal government or controlled under OAR 340-035-0045;

(k) Sounds created by the operation of road vehicle auxiliary equipment complying with the noise rules for such equipment as specified in OAR 340-035-0030(1)(e);

(l) Sounds created by agricultural activities;

(m) Sounds created by activities related to the growing or harvesting of forest tree species on forest land as defined in subsection (1) of ORS 526.324.

(6) Exceptions: Upon written request from the owner or controller of an industrial or commercial noise source, the Department may authorize exceptions to section (1) of this rule, pursuant to rule 340-035-0010, for:

(a) Unusual and/or infrequent events;

(b) Industrial or commercial facilities previously established in areas of new development of noise sensitive property;

(c) Those industrial or commercial noise sources whose statistical noise levels at the appropriate measurement point are exceeded by any noise source external to the industrial or commercial noise source in question;

(d) Noise sensitive property owned or controlled by the person who controls or owns the noise source;

(e) Noise sensitive property located on land zoned exclusively for industrial or commercial use.¹⁶⁰

IV.A.1. Findings of Fact

In ASC Exhibit X, 17 noise sensitive properties within 1.1 miles of the site were identified.¹⁶¹ Ambient noise monitoring was conducted at two locations near the site, including one location (M-1) near a cluster of residences to the east of the solar array, and one (M-2) near residences to the north of the solar array.¹⁶² The minimum (night-time) statistical background noise levels measured at the monitoring locations are shown in Table 9, below.

Table 9: Minimum Hourly Statistical Ambient Background Noise Levels

Monitoring Site	dBA L ₁₀	dBA L ₅₀
M-1	30	28
M-2	22	20
Source: OSCAMD2Doc15-00 RFA2 2025-04-11, Attachment 11, Table 4. Notes: L10 = levels are the sound level exceeded 10 percent of the time. L50 = sound level exceeded 50 percent of the time.		

Noise generating sources at the facility include the inverter/transformer units, BESS units, collector and step up substation equipment, and transmission lines. Expected operational noise levels from the equipment, based on manufacturers' data or actual measurements from existing energy facilities, are shown in Table 10 below.¹⁶³

Table 10: Operation Noise Sources and Reference Noise Levels

Equipment	Number of Units	Sound Power Level (dBA)
Solar Array Invertor/Transformer	159	87
Battery/Energy Storage Unit	64	88
Collector Substation (34.5-kV to 138-kV)	4	97
138 kV Transmission Line	1	46

¹⁶⁰ OAR 340-035-0035, effective October 17, 2024.

¹⁶¹ OSCAPPD0c1-4 Final Order on ASC 2022-02-25, pg. 181.

¹⁶² OSCAPPD0c1-4 Final Order on ASC 2022-02-25, 185-186.

¹⁶³ See OSCAMD2Doc15-00 RFA2 2025-04-11, Attachment 11 for detailed discussion of estimated noise levels.

Step-up Substation (138-kV to 500-kV)	1	105
Source: OSCAMD2Doc15-00 RFA2 2025-04-11, Attachment 11, Table 5.		

Based on the measured ambient background and expected noise levels that would be generated by facility components, expected noise levels at noise sensitive receptors within 1 mile of the site were modeled using SoundPlan Noise Modeling Software (Essential Version 5.0). The modelling was based on the worst-case assumption that battery storage discharge would occur during quieter night-time hours. The modelling showed that the noise sensitive properties would experience between 1 and 9 dBA increases in L₅₀ noise levels from noise generated by inverter/transformer and battery storage units.¹⁶⁴ In addition, the modeling showed that the highest noise levels would be received at the noise sensitive properties closest to the step-up substation, with a maximum received value of would be 33 dBA. Because the modelling showed that operational noise was not expected to increase the hourly L₅₀ noise level at any noise-sensitive property by more than 10 dBA above measured ambient conditions, and because the maximum received noise levels would not exceed 50 dBA, the Council found that the standards in OAR 345-035-0035(1)(b)(i) would be met.

In RFA2, the certificate holder provided updated noise modelling using the same methods and assumptions used in the ASC.¹⁶⁵ Because the certificate holder is not proposing any changes to previously approved noise generating equipment (inverters, transformers, battery units, etc.) the modeled noise from the facility did not change from that evaluated in the Final Order on ASC; however, three previously unevaluated noise-sensitive properties within 1-mile of the site were identified and included. The results of the updated study are summarized in Figure 5 and Table 11, below. The updated study shows that, based on the assumptions and modelling parameters used in the ASC, there would be no exceedances of either the ambient anti-degradation or maximum allowable noise standards expected at any of the identified noise sensitive properties.¹⁶⁶

¹⁶⁴ OSCAPDoc1-4 Final Order on ASC 2022-02-25, Table 16.

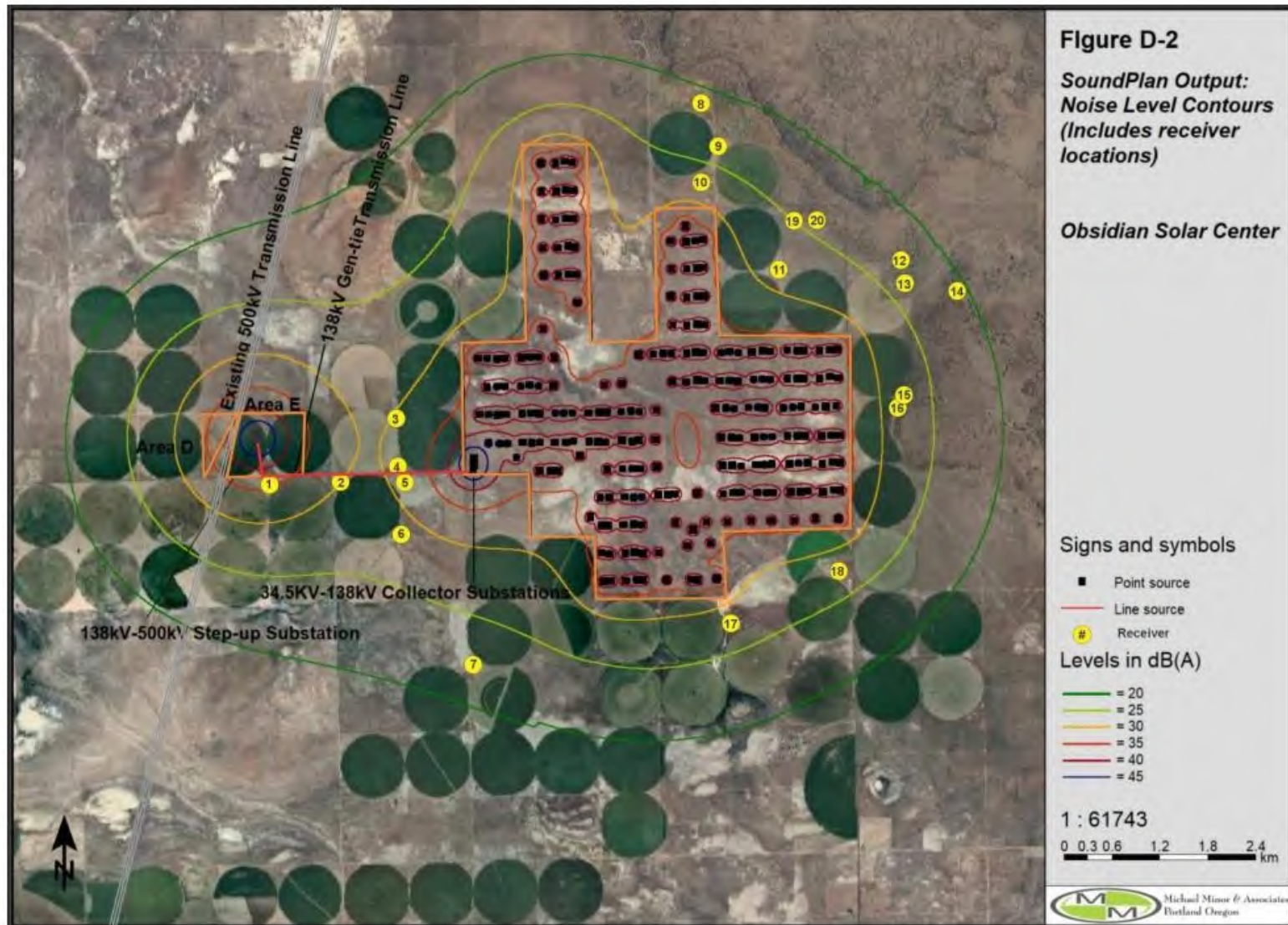
¹⁶⁵ See OSCAMD2Doc15-00 RFA2 2025-04-11, Attachment 11.

¹⁶⁶ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 9.3.1.

Table 11: Noise Level Compliance Summary

Noise Sensitive Property	Existing Background L50 (dBA)	Total Received Noise of Facility Equipment (dBA)	Combined Noise (Background + Total Noise of Facility Equipment, dBA)	Total Change in L50 Noise (dBA)	Compliance with OAR 340-035-0035
R-1	28	36	37	+9	Yes
R-2	28	30	32	+4	Yes
R-3	28	30	32	+4	Yes
R-4	28	31	33	+5	Yes
R-5	28	31	33	+5	Yes
R-6	28	28	31	+3	Yes
R-7	28	22	29	+1	Yes
R-8	20	21	24	+4	Yes
R-9	20	23	25	+5	Yes
R-10	20	27	28	+8	Yes
R-11	20	28	29	+9	Yes
R-12	20	22	24	+4	Yes
R-13	20	23	25	+5	Yes
R-14	20	21	24	+4	Yes
R-15	20	27	28	+8	Yes
R-16	20	28	29	+9	Yes
R-17	20	28	29	+9	Yes
R-18	20	28	29	+9	Yes
R-19	20	25	26	+6	Yes
R-20	20	24	25	+5	Yes
Source: OSCAMD2Doc15-00 RFA2 2025-04-11, Attachment 11, Table 7. Note: Total noise is predicted by logarithmically summing the background noise and operational noise levels. R-18 to R-20 were not evaluated in the Final Order on the ASC.					

Figure 5: Noise Sensitive Receptors Within 1 Mile of Site Boundary



1 The Council finds that the updated noise study provided in RFA2 demonstrates that the facility
2 can be designed to comply with the ambient antidegradation standard and the maximum
3 allowable statistical noise level. In addition, Council previously imposed Noise Control Condition
4 2 (PRE-NC-01) requiring that, prior to construction, the certificate holder submit a noise
5 summary report presenting the sound power level (in dBA) for the final selected noise
6 generating equipment, and that if the sound power levels are greater than the sound power
7 levels relied upon in the Final Order on the ASC, that the certificate holder provide an updated
8 modeling analysis and final facility layout demonstrating that the facility will comply with the
9 standards. The Council imposed GEN-NC-01 requiring the certificate holder to establish and
10 implement a construction noise complaint response plan. The Council finds that, subject to
11 compliance with the existing noise control conditions, the facility will comply with the
12 requirements of OAR 340-035-0035.

14 **IV.A.2. Conclusions of Law**

16 Based on the foregoing analysis the Council finds that the facility, with proposed deadline
17 extension, will comply with the applicable Noise Control Regulations in OAR 340-035-0035.

19 **IV.B. Removal-Fill: OAR chapter 141, division 085**

21 The Oregon Removal-Fill Law (ORS 196.795 through ORS 196.990) and Oregon Department of
22 State Lands (DSL) regulations (OAR 141-085- 0500 through OAR 141-085-0785) require a
23 removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any
24 “waters of the state.”¹⁶⁷ The Council, in consultation with DSL, must determine whether a
25 removal-fill permit is needed and if so, whether a removal-fill permit should be issued. The
26 analysis area for wetlands and other waters of the state is the area within the site boundary.

28 **IV.B.1. Findings of Fact**

30 The analysis area for impacts to wetlands and waters of the state is the area within the site
31 boundary.

33 The certificate holder conducted field investigations for wetlands and waters of the state within
34 Areas A and D in 2018 (WD# 2018-0581) and Area E in 2022 (WD# 2022-0688). The 2018
35 wetland delineation report identified 35 seasonal playas which occupy a total of approximately
36 13.6 acres of Area A. Playas are considered waters of the state and subject to regulation under
37 the DSL removal-fill permit requirements. The certificate holder determined that a removal-fill
38 permit was not required for the facility because construction of the facility would only result in
39 14 cubic yards of impacts to the playas and would not exceed the 50 cubic yard threshold. On
40 May 9, 2019, DSL issued its concurrence letter on WD#2018-0581.¹⁶⁸ The May 9, 2019,

¹⁶⁷ ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

¹⁶⁸ OSCAPPDoc31 pASC Reviewing Agency Comment Letter WD#2018-0581 Concurrence DSL McAllister 2019-05-09.

1 concurrence is valid for five years, through May 2025. In RFA2, the certificate holder's
2 environmental consultant confirmed that the delineated playa boundaries appear to align with
3 aerial imagery dated July 2023.¹⁶⁹

4
5 The 2022 wetland delineation identified two playas totaling approximately 0.11 acres, which
6 the certificate holder indicated would be avoided. On August 31, 2023, DSL issued its
7 concurrence letter on WD# 2022-0688.¹⁷⁰

8
9 There are no changes proposed to facility design or construction that would result in different
10 or greater impacts. However, certificate holder intends to maintain valid DSL concurrence on its
11 prior wetland delineations of the site and intends to submit a request to renew the WD#2018-
12 0581 concurrence prior to expiration. To maintain valid DSL concurrence for the areas within
13 the site boundary evaluated in WD#2018-0581, the Council imposes the following condition:

14
15 **Removal-Fill Condition 1 (PRE):**

16 Prior to construction, the certificate holder shall provide, to the Department, valid
17 jurisdictional determination concurrence letter(s) from DSL for areas to be impacted
18 during construction.

19 [PRE-RM-01]
20

21 **IV.B.2. Conclusions of Law**

22
23 Based on the foregoing analysis, and subject to compliance with the new site certificate
24 condition above, the Council continues to find that the facility will not require a removal-fill
25 permit.

26
27 **IV.C. Water Rights**

28
29 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources
30 Department (OWRD) administers water rights for appropriation and use of the water resources
31 of the state.

32
33 Under OAR 345-022-0000(1)(b), the Council must determine whether the facility, with
34 proposed deadline extension, would comply with the statutes and administrative rules
35 identified in the project order. The project order identifies OAR 690, Divisions 310 and 380
36 (OWRD permitting requirements) as the administrative rules governing use of water resources
37 and water rights as applicable to the facility.

38
39 Under OAR 345-021-0010(1)(o)(F), if a facility needs a groundwater permit, surface water
40 permit, or water right transfer, information to support a determination by the Council that the
41 Water Resources Department should issue the permit or transfer of a water use, including

¹⁶⁹ OSCAMD2Doc15-00 RFA2 2025-04-11, Section 9.1.7, Attachment 4.

¹⁷⁰ OSCAMD2 DSL Concurrence WD20220688 2023-08-31.

1 information in the form required by the Water Resources Department under OAR Chapter 690,
2 Divisions 310 and 380 must be provided.

3
4 **IV.C.1. Findings of Fact**

5
6 The Council previously found that the facility did not require a groundwater permit, surface
7 water permit, or water right transfer.¹⁷¹ Summarized above in Section III.M., *Public Services*, the
8 certificate holder confirmed that the construction deadline extension proposed in RFA2 does
9 not change the anticipated water use, or the water service provider (Christmas Valley Domestic
10 Water Supply District or Water District). Water needs during facility construction and operation
11 would be provided by the Water District, and if additional water was needed, the certificate
12 holder indicates that it could be obtained through the EPC contractor via a third-party limited
13 water license.¹⁷²

14
15 Because the proposed extension to the construction timeline does not change facility
16 construction or operation water usage or sources approved, the Council continues to rely on its
17 previous findings that a groundwater permit, surface water permit, or water right transfer is
18 not required.

19
20 **IV.C.2. Conclusions of Law**

21
22 Based on the foregoing analysis, the Council continues to find that the facility, with proposed
23 deadline extension, does not need a groundwater permit, surface water permit, or water right
24 transfer.
25

¹⁷¹ OSCAMD1Doc19 Final Order on RFA1 2023-11-17, pg. 115

¹⁷² OSCAMD2 RAI1 Responses 2025-01-23.

1 **V. FINAL CONCLUSIONS AND ORDER**

2
3 Based on the findings of fact and conclusions of law included in this Order, the Council makes
4 the following findings:

- 5
6 1. The facility, with the proposed deadline extension, complies with the requirements
7 of the Energy Facility Siting Statutes under ORS 469.300 to 469.520.
8
9 2. The facility, with the proposed deadline extension, complies with all applicable
10 standards adopted by Council pursuant to ORS 469.501, in effect on the date Council
11 issues its Final Order.
12
13 3. The facility, with the proposed deadline extension, complies with the other Oregon
14 statutes and administrative rules applicable to the proposed facility discussed in
15 Section IV in effect on the date of this Final Order.
16

17 Accordingly, the Council finds that the facility, with the proposed deadline extension, complies
18 with the General Standard of Review OAR 345-022-0000 and OAR 345-027-0375. The Council
19 finds, based on a preponderance of the evidence on the record, that the site certificate may be
20 amended as requested.

21
22 The Council therefore approves Request for Amendment 2 of the Site Certificate for the
23 Obsidian Solar Center, and issues the Second Amended Site Certificate, as presented in
24 Attachment A to this Order.
25

26 Approved June 13, 2025

27
28 ENERGY FACILITY SITING COUNCIL

29 

30 [Kent Howe \(Jun 17, 2025 13:38 PDT\)](#)

31
32 Kent Howe, Chair
33

34 **VI. NOTICE OF RIGHT TO APPEAL**

35
36 Judicial review of this Final Order approving the request for an amended site certificate is as
37 provided in ORS 469.403.

Certificate of Service

I hereby certify that on 18-Jun-2025, the foregoing Energy Facility Siting Council Final Order Approving Request for Amendment 2 of the Site Certificate for the Obsidian Solar Center was served by mailing or emailing a true copy of the above-listed documents to:

David Brown
Obsidian Solar Center, LLC
c/o Obsidian Renewables, LLC
5 Centerpointe Drive, Suite 255
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Dated this 18 of June, 2025


Christopher Clark (Jun 18, 2025 14:51 PDT)

Christopher M. Clark
Senior Siting Analyst
Oregon Department of Energy

1 **ATTACHMENTS**

2 Attachment A: Second Amended Site Certificate

3 Attachment B: DPO Comments

4 Attachment C: Reviewing Agency Consultation and Documents Referenced in Order

5 Attachment D: Draft Amended Habitat Mitigation Plan

6 Attachment E: Draft Amended Revegetation and Noxious Weed Control Plan

7 Attachment F-1: Draft Construction Wildfire Mitigation Plan

8 Attachment F-2: Draft Operational Wildfire Mitigation Plan

Attachment A: Second Amended Site Certificate

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

**Second Amended
Site Certificate
Obsidian Solar Center**

ISSUANCE DATES

Site Certificate	February 25, 2022
First Amended Site Certificate	November 17, 2023
Second Amended Site Certificate	June 13, 2025

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1.0 Introduction and Site Certification

This site certificate is a binding agreement between the State of Oregon (State), acting through the Energy Facility Siting Council (EFSC or Council), and Obsidian Solar Center LLC (certificate holder), owned by Obsidian Renewables, LLC and Lindgren Development, Inc. (parent companies). Both the State and certificate holder must abide by local ordinances, state law, and the rules of the Council in effect on the date this site certificate is executed. However, upon a clear showing of a significant threat to public health, safety, or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules (ORS 469.401(2)).

This site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation, and retirement of the facility as to matters that are addressed in and governed by this site certificate (ORS 469.401(3)). Each affected state agency, county, city, and political subdivision in Oregon with authority to issue a permit, license, or other approval addressed in or governed by this site certificate, shall upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. In addition, each state agency or local government agency that issues a permit, license or other approval for this facility shall continue to exercise enforcement authority over such permit, license or other approval (ORS 469.401(3)). For those permits, licenses, or other approvals addressed in and governed by this site certificate, the certificate holder shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules (ORS 469.401(2)).

This site certificate does not address, and is not binding with respect to, matters that are not included in and governed by this site certificate, and such matters include, but are not limited to: employee health and safety; building code compliance; wage and hour or other labor regulations; local government fees and charges; other design or operational issues that do not relate to siting the facility (ORS 469.401(4)); and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council (ORS 469.503(3)).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate is subject to the provisions of ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the Council will not publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the

certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate (ORS 469.430).

The duration of this site certificate shall be the life of the facility, subject to termination pursuant to OAR 345-027-0110 or the rules in effect on the date that termination is sought, or revocation under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. The Council shall not change the conditions of this site certificate except as provided for in OAR Chapter 345, Division 27.

In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order, incorporated herein by this reference: 1) *Final Order on Request for Amendment 2 of the Obsidian Solar Center* issued [ISSUE DATE] (hereafter, *Final Order on RFA2*) and the record of the proceeding; 2) *Final Order on Request for Amendment 1 for the Obsidian Solar Center* issued on November 17, 2023 (hereafter, *Final Order on RFA1*) and the record of the proceeding; and 3) *Final Order on the Application for Site Certificate for the Obsidian Solar Center* issued on February 25, 2022 (hereafter, *Final Order on the ASC*) and the record of the proceeding.

The definitions in ORS 469.300 and OAR 345-001-0010 apply to the terms used in this site certificate, except where otherwise stated, or where the context clearly indicates otherwise.

2.0 Facility Location, Site Boundary and Micrositing Areas

The facility site is located in Lake County, Oregon off of Oil Dri Road (County Road 5-14G) and County Road 5-12. The site is located in Township 26 south, Range 16 east, Sections 4 and 5, 8 and 9, 15 through 22, and Township 26 south, Range 15 east, Section 13, 15 and 24.

The site boundary is approximately 4,091 acres. The site boundary is equivalent to a micrositing area, where the certificate holder has authority to site facility components anywhere within. The site boundary also includes a 60-foot wide, 3.2-mile transmission line corridor; approximately 1.5-miles of the transmission line corridor is located within an existing 60-foot county road (Connley Lane) right-of-way, to be authorized by Lake County prior to construction. Figure 3: *Gen-Tie Transmission Line Disturbance Areas and Approved Corridor*, details the portion of the transmission line corridor within private or public rights of way.

The regional location of the facility site boundary and transmission line corridor are presented in Attachment 1 Figure 1, *Regional Location of Facility and Site Boundary*.

3.0 Facility Description

The facility is a solar photovoltaic (PV) power generation facility and related or supporting facilities¹ with an approved nominal generating capacity of up to 400 megawatts alternating current (MWac), described further below.

The facility must be designed, constructed and operated substantially as described in the site certificate.² This Site Certificate authorizes the facility to be designed and constructed based on the specifications and details presented in Table 1 below.

¹ OAR 345-001-0010(21) and – (50)

² Mandatory Condition OAR 345-025-0006(3), see General Standard Condition 3 (GEN-GS-02).

Table 1: Facility Component Summary

Component and Design Standard	Unit	Approved	
		PV Only	PV & Storage (Dispersed)
Site Boundary			
Site Size	acres	4,091	
Micrositing Area Size	acres	3,921	
Max Permanent Impact	acres	3,588	
Solar Components			
3 MW ac Block	each	160	
PV Solar Modules			
Approx. total number	modules	1,326,858	1,742,572
Max Height at full-tilt	feet	7	
Panel Design	NA	Anti-reflective coating	
Module Rows (on Trackers)	each	16,587 x 78 module rows	21,644 x 78 module rows
Posts	each	187,545	246,444
Post Finish	NA	Non-specular, galvanized	
Solar Inverter Units with integrated transformers (Power Electronics FS3000M or Similar)	each	160	
Transformer oil	Gallons (each)	800	
Home-run cables	each	160	
Collection System			
34.5 kV Collector line length (above and below ground)	miles	5,000	
138 kV Collector Line Length (above ground)	miles	3.2	
Approx. Total number of poles	each	33	
Max Height	feet	80	
Related or Supporting Facility Components			
Transmission Line			
138 kV gen-tie (Max corridor length)	miles	3.2	
Corridor width (for entire length)	feet	60	
Quantity of Poles	each	47	
Height of structures	feet	80	
Collector Substations			

Table 1: Facility Component Summary

Component and Design Standard	Unit	Approved	
		PV Only	PV & Storage (Dispersed)
Max Quantity	each	4	
Max Height	feet	10	
Site Size (each)	acres	1	
Step up Transformer – Transformer Oil	Gallons (each)	800	
138/500 kV Step-Up Substation (Containing: a control building, 2 138/500 kV transformers - 1 138 kV input structure, up to two 138 kV circuit breakers, two 500 kV circuit breakers, 500 kV output structures)			
max quantity	each	1	
transformer oil (each)	gallons	50,000	
100 foot tall interconnection structures (quantity)	each	65	
site size (each) – if in Area D	acres	3	
site size (each) – if in Area E	acres	12	
Operations and Maintenance Building			
Max Quantity	each	2	
Approx. site size (each)	acres	0.5	
Approx. Dimensions	H x W x L; feet	14 x 50 x 50	
Battery Energy Storage System (<i>Long-Duration Flow Batteries</i>)			
Approx. total battery Storage Enclosures/steel framed structures	each	n/a	134
Approx. Dimensions	H x W x L; feet	n/a	30 x 50 x 67
Redox Electrolyte Fluid	gallons/MW	n/a	14,000
Facility Roads			
Total Length	miles	50	
Minimum Width (perimeter roads)	feet	20, with 10 foot defensible space/clearance	
Design Requirements (perimeter roads)	NA	Roads must be surfaced and sufficiently sized for emergency vehicle access in accordance with Oregon Fire Code Section 503 and Appendix D.	
Minimum Width (internal roads)	feet	12	

Table 1: Facility Component Summary

Component and Design Standard	Unit	Approved	
		PV Only	PV & Storage (Dispersed)
Minimum Width (internal fire access roads)	feet	20	
Design Requirements (internal fire access roads)	NA	Roads must be surfaced and sufficiently sized for emergency vehicle access in accordance with Oregon Fire Code Section 503 and Appendix D.	
Perimeter Fence (chain link)			
Length	miles	21.5	
Height (including 1 foot of barbed wire)	feet	7	
Minimum fire clearance	feet	30	

4.0 Facility Development

4.1 Construction

Construction of the facility must begin on or before February 25, 2028. Upon commencement, peak construction will include up to 150 workers per day, up to 240 worker vehicle and 160 delivery vehicle trips per day.

Construction-related activities include:

- Clearing, grubbing and earthwork – equipment will include bulldozers, graders, backhoe and haul trucks
- Foundation and base preparation for systems – equipment will include backhoes, loaders, tractor trailers, cranes
- Support installation – equipment will include pneumatic impact pile drivers
- Solar array and transmission line installation – equipment will include backhoes, loaders, tractor trailers and cranes

Grading and ground disturbance is limited to 60 acres per phase provided that acres are only considered disturbed until they have been adequately stabilized, as determined by the Department. “Adequate stabilization” is equivalent to implementing and maintaining stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) in any 60-acre portion of the site, where grading activities have permanently ceased or will be temporarily inactive on any portion of the site for 14 or more calendar days.

Disturbance areas are authorized within the perimeter fenceline and transmission corridor, with avoidance areas delineated consistent with Figure 2: *Facility Site Boundary, Disturbance and Avoidance Areas* (see Attachments).

4.2 Operations and Maintenance

Operation and maintenance (O&M) activities include:

- routine inspection of transformers and battery storage system
- mowing and spraying within the perimeter fenceline
- routine inspection for revegetation, erosion control and site stabilization
- periodic washing of solar PV panels
- Recycling, to the maximum extent feasible, and replacement of nonfunctional or damaged panels
- Recycling and disposal of battery redox fluid and non-hazardous electrolyte fluid at a permitted facility

The facility is expected to employ 6 to 10 maintenance personnel.

4.3 Retirement

Retirement of the facility must adhere to the requirement under OAR 345-027-0110 and OAR 345-025-0006(9). The description provided below is intended to address OAR 345-025-0006(3)(a), but is not intended to conflict with the previously mentioned rule requirements.

Restoring of the site will involve site mobilization, electric disconnect/dismantling work, aboveground structure removal, foundation removal, road and site restoration, and on and offsite hauling and disposal. Equipment necessary for decommissioning will be mobilized onsite; electrical components will be disconnected (combiner boxes, battery systems); aboveground equipment and associated foundations will be dismantled (racking, posts, inverters/transformer units, O&M buildings, transmission and overhead collector lines, collector and step-up substations, fencing, gates) and removed and hauled offsite for disposal. Transformers and other collector/step-up substation equipment will be removed to be reused elsewhere or recycled as scrap metal. Underground cable and electrical collection lines will be removed up to 3 feet below ground. Transmission structure foundations may be removed up to 5 feet below ground. Internal and perimeter facility roads will be restored, including removal of gravel-surface material, decompaction and revegetation. Groundwater wells will be abandoned in accordance with applicable Oregon laws and regulations. Site revegetation activities include re-seeding of the areas impacted by permanent facility components and temporarily impacted during decommissioning activities.

5.0 Site Certificate Conditions

5.1 Condition Format

The conditions in Sections 5.2 through 5.7 of this Site Certificate are organized and coded to indicate the phase of implementation, the standard the condition is required to satisfy, and an identification number (1, 2, 3, etc.).³ The table below presents a “key” for phase of implementation:

Key	Type of Conditions/Phase of Implementation
GEN	General Conditions: Design, Construction and Operation
PRE	Pre-Construction Conditions
CON	Construction Conditions
PRO	Pre-Operational Conditions
OPR	Operational Conditions
RET	Retirement Conditions

5.2 General (GEN) Conditions: Design, Construction and Operations

Condition Number	General (GEN) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
GEN-GS-01	The certificate holder shall begin and complete construction of the facility by the following dates: - Construction of the facility shall commence on or before February 25, 2028. Within 7 days of construction commencement, the certificate holder shall provide the Department written verification of the construction commencement date and that it has met the construction commencement deadline by satisfying applicable preconstruction conditions and completing at least \$250,000 of work at the site. - Construction of all facility components shall be completed within three years after construction commencement identified in section (a) of this condition. Within 7 days of construction completion, the certificate holder shall provide the Department written verification that it has met the construction completion deadline.

³ The identification number is not representative of an order that conditions must be implemented; it is intended only to represent a numerical value for identifying the condition.

Condition Number	General (GEN) Conditions
	[Final Order on ASC, AMD2, General Standard Condition 1; Mandatory Condition OAR 345-025-0006(4)]
GEN-GS-02	The certificate holder shall design, construct, operate, and retire the facility: - Substantially as described in the site certificate; - In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and - In compliance with all applicable permit requirements of other state agencies. [Final Order on ASC, General Standard Condition 3; Mandatory Condition OAR 345-025-0006(3)]
GEN-GS-03	If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions. [Final Order on ASC, General Standard Condition 5; Mandatory Condition OAR 345-025-0006(6)]
GEN-GS-04	Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0400 apply to any transfer of ownership that requires a transfer of the site certificate. [Final Order on ASC, General Standard Condition 7; Mandatory Condition OAR 345-025-0006(15)]
GEN-GS-05	The certificate holder shall: - Design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code as approved by the American National Standards Institute; and - The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. [Final Order on ASC, General Standard Condition 8; Site Specific Condition OAR 345-025-0010(4)]
GEN-GS-06	The certificate holder is authorized to construct a 138-kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The approved corridor extends approximately 3 miles from the collector substation within Area A to the south boundary of Area D or, alternatively, approximately 3.2 miles from the collector substation within Area A to the point of interconnection (POI) in Area E. For an Area D POI: From east to west, the first mile is within the PV Array in Area A, the next 0.5-mile corridor extends 60 feet in width within a private property

Condition Number	General (GEN) Conditions
	transmission easement, the next 1.5-mile corridor extends 60 feet in width within the exiting road right-of-way of Connley Lane, as further described in ASC Exhibits B and C and as presented in Figure 3 of the site certificate. For an Area E POI: From east to west, the first mile is within the PV Array in Area A, the next 0.5-mile corridor extends 60 feet in width within a private property transmission easement, the next 1.2-mile corridor extends 60 feet in width within the existing right-of-way of Connley Lane, and the remaining 0.5 mile corridor is within Area E. [Final Order on ASC, AMD1, General Standard Condition 9; Site Specific Condition OAR 345-025-0010(5)]
STANDARD: Organizational Expertise (OE) [OAR 345-022-0010]	
GEN-OE-01	During construction and operation of the facility, the certificate holder shall report to the Department, within 21 days, any change of the parent companies, Obsidian Renewables, LLC and Lindgren Development, Inc., such as changes within the Board of Directors, President or Chief Executive Office, where the certificate holder considers such change to impact the certificate holder's access to the resources or expertise of the parent companies. [Final Order on ASC, Organizational Expertise Condition 1]
GEN-OE-02	During design, construction, operation, and retirement of the facility, the certificate holder shall contractually require all contractors and subcontractors to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. The contractual obligation shall be required of each contractor and subcontractor prior to that firm working on the facility. Such contractual provisions shall not operate to relieve the certificate holder of responsibility under the site certificate. [Final Order on ASC, Organizational Expertise Condition 3]
GEN-OE-03	Any matter of non-compliance under the site certificate is the responsibility of the certificate holder. Any notice of violation issued under the site certificate will be issued to the certificate holder. Any civil penalties under the site certificate will be levied on the certificate holder. [Final Order on ASC, Organizational Expertise Condition 4]
GEN-OE-04	The certificate holder shall, as soon as reasonably possible: Report incidents or circumstances that may violate the terms or conditions of the site certificate, terms or conditions of any order of the Council, to the Department. In the report to the Department, the certificate holder shall provide all pertinent facts including an estimate of how long the conditions or circumstances existed, how long they are expected to continue before they can be corrected, and whether the conditions or circumstances were discovered as a result of a regularly scheduled compliance audit;

Condition Number	General (GEN) Conditions
	b. Initiate and complete appropriate action to correct the conditions or circumstances and to minimize the possibility of recurrence; c. Submit a written report within 30 days of discovery to the Department. The report must contain: i. A discussion of the cause of the reported conditions or circumstances; ii. The date of discovery of the conditions or circumstances by the responsible party; iii. A description of immediate actions taken to correct the reported conditions or circumstances; iv. A description of actions taken or planned to minimize the possibility of recurrence; and v. For conditions or circumstances that may violate the terms or conditions of a site certificate, an assessment of the impact on the resources considered under the standards of OAR Chapter 345 Divisions 22 and 24 as a result of the reported conditions or circumstances. d. Upon receipt of the written report in sub(c) of this condition, the Department may review the facility record for incidents or circumstances reported or reportable under sub(a) related to public health and safety, the environment, or other resources protected under Council standards. If these incidences are determined by the Department to impact the adequacy of the facility decommissioning cost, the Department or Council may adjust the contingencies identified in Final Order on RFA1 Table 9 and request that the certificate holder promptly provide an updated bond or letter of credit in the adjusted amount. [Final Order on ASC, AMD2, Organizational Expertise Condition 5]
STANDARD: Structural Standard (SS) [OAR 345-022-0020]	
GEN-SS-01	The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule “seismic hazard” includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. [Final Order on ASC, Structural Standard Condition 2, Mandatory Condition OAR 345-025-0006(12)]
GEN-SS-02	The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.

Condition Number	General (GEN) Conditions
	[Final Order on ASC, Structural Standard Condition 3; Mandatory Condition OAR 345-025-0006(13)]
GEN-SS-03	The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [Final Order on ASC, Structural Standard Condition 4; Mandatory Condition OAR 345-025-0006(14)]
STANDARD: Soil Protection (SP) [OAR 345-022-0022]	
GEN-SP-01	a. Prior to obtaining the DEQ-issued NPDES 1200-C permit, the certificate holder shall: i. Evaluate the results of the preconstruction Geotechnical Investigation to develop appropriate, site-specific erosion and dust control measures, to be reflected in the Erosion and Sediment Control Plan (ESCP). ii. Demonstrate to the Department that all revegetation protocols identified in the ESCP are consistent with the requirements and success criteria in the RNWCP and DAMP, and that the protocols address dust abatement, erosion and sediment control, noxious and invasive weeds and are inclusive of a successional seed mix and sequence. Any changes in the protocols, based on adaptive management during construction, must be determined by the Department, in consultation with ODFW, ODEQ Demonstrate or third-party consultant, to be appropriate to meet the revegetation, dust and erosion control requirements in the ESCP, DAMP and RNWCP. b. Prior to construction of the facility, the certificate holder shall provide a copy to the Department of its DEQ-issued NPDES 1200-C permit, including final ESCP and associated drawings (as provided in Attachment I-1 of the Final Order on the ASC). c. Prior to construction of the facility, the certificate holder shall submit to the Department a construction schedule that considers site-specific soil factors and demonstrates that site preparation and disturbance activities are scheduled to occur in a manner that allows for predisturbance site preparation (e.g. seeding) within the appropriate season and with sufficient time to allow for increased success during construction and upon site restoration. d. Prior to construction of the facility, the certificate holder shall develop a phased site preparation and disturbance plan that limits overall site disturbance to 60 acres or less within any disturbance timeframe. Subsequent disturbance may not commence until the previous phase of disturbed area has been adequately stabilized with vegetation, erosion, or other stabilization materials, as determined by the onsite monitor per sub(e) of this condition, in consultation

Condition Number	General (GEN) Conditions
	with the Department. The phased plan shall consider peak farming activity schedules (e.g. harvest, deliveries, etc.) of adjacent landowners, based on documented landowner consultation. The phased site preparation and disturbance plan must be prepared by an engineer, soil scientist or individual with similar technical qualifications and reviewed and approved by the Department in consultation with the Oregon Department of Agriculture (soil/vegetation specialist) or other third-party specialist. e. During construction of the facility, the certificate holder shall obtain a monitor with relevant experience during all construction activities to monitor the requirements of the 1200-C, RNWCP and DAMP. The monitor shall maintain daily field logs, to be made available upon request by the Department, documenting compliance with the phased site preparation and disturbance plan, the success of predisturbance seeding, 1200-C, RNWCP and DAMP requirements. Daily field logs shall clearly identify any necessary corrective actions. All corrective actions must be reported to and timely implemented by the certificate holder. f. During construction of the facility, the certificate holder shall conduct all work in compliance with a final Erosion and Sediment Control Plan that is satisfactory to the Oregon Department of Environmental Quality as required under the National Pollutant Discharge Elimination System Construction Stormwater Discharge General Permit 1200-C. g. The certificate holder must provide copies of completed Erosion and Sediment Control Inspection Forms (forms) for Department review during construction inspections and, if requested by the Department based on continuous erosion and dust issues and corrective actions at the site, must provide form copies to the Department within 7-days of inspections, in electronic format, to allow the Department, in consultation with Oregon Department of Environmental Quality and Lake County Public Works Department, the ability to recommend additional site controls [Final Order on ASC, AMD2, Soil Protection Condition 1]
GEN-SP-02	a. Prior to construction of the facility, the certificate holder must submit to the Department an updated a Spill Management Plan for Construction (i.e. materials inventory). The Spill Management Plan shall contain the measures discussed in the ASC for managing and disposing of hazardous materials. The certificate holder must construct the facility in compliance with the plan. b. Prior to operation of the facility, the certificate holder must submit to the Department an updated Spill Management Plan for Operation (i.e. materials inventory). The certificate holder must operate the facility in compliance with the Department-approved plan. [Final Order on ASC, Soil Protection Condition 2]
STANDARD: Land Use (LU) [OAR 345-022-0030]	

Condition Number	General (GEN) Conditions
GEN-LU-01	The certificate holder shall: - Prior to construction of the facility, facility component, or phase, as applicable, provide to the Department a list of all state and federal permits or approvals necessary for construction of the facility. Certificate holder shall consider ASC Exhibit E in identifying necessary permits. - Within 90-days after construction commencement, provide evidence that all state and federal permits or approvals identified per sub(a) of this condition have been obtained. [Final Order on ASC, AMD2, Land Use Condition 5]
STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]	
GEN-RF-01	The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder. [Final Order on ASC, Retirement and Financial Assurance Condition 1; Mandatory Condition OAR 345-025-0006(7)]
STANDARD: Fish and Wildlife Habitat (FW) [OAR 345-022-0060]	
GEN-FW-01	The certificate holder shall: - Prior to construction of the facility, the certificate holder shall finalize and submit the Revegetation and Noxious Weed Control Plan, based upon the draft plan provided in Attachment P-3 of the Final Order on the ASC, for review and approval by the Department, in consultation with ODFW and Lake County Weed Control Supervisor, including consideration of whether cheatgrass and Russian thistle should be addressed in the RNCWP. The scope of finalizing the plan shall, at a minimum, include the following: - Final assessment of temporary habitat impacts (in acres), based on habitat quality of habitat subtype, and final facility design, presented in tabular format. - Survey and sampling protocol for evaluating the success criteria against paired monitoring and reference sites determined to represent a statistically significant number of sites based on pre-disturbance habitat quality and diversity of habitat temporarily impacted. - Approval of appropriate revegetation seed mix from ODFW. - Confirmation of revegetation and noxious weed monitoring frequency, to occur annually for the first 5-years following construction, unless otherwise agreed to by the Department in consultation with ODFW, Lake County or the Cooperative Weed Management Area - Assurance that the success criteria for vegetation cover is based upon desirable, native vegetation.

Condition Number	General (GEN) Conditions
	b. During construction and operation of the facility, the certificate holder shall implement the requirements of the plan; monitor and report results of revegetation activities to the Department, as required by the plan. [Final Order on ASC, Fish and Wildlife Condition 1]
GEN-FW-02	a. Prior to construction of the facility, the certificate holder shall finalize and submit a Habitat Mitigation Plan, based upon the draft plan provided in Attachment D of the Final Order on AMD2, for review and approval by the Department, in consultation with ODFW. The final plan shall include, at a minimum: 1. A Working Lands Improvement Program, substantially as presented in Appendix 1 of Attachment D of the Final Order on AMD2. 2. A final assessment of permanent habitat impacts (in acres) to Big Game Winter Range that is not in sage-grouse habitat, based on final facility design, presented in tabular format, and demonstration that the certificate holder will provide in-kind, in-proximity mitigation through the Working Lands Improvement Program in a ratio of 1.2 mitigation acres for each impacted acre; 3. A final assessment of direct and indirect impacts (in functional acres) to mapped sage-grouse habitat, based on final facility design, presented in tabular format, and demonstration that the certificate holder will generate an equivalent number of functional acre credits through the Working Lands Improvement Program. If the certificate holder is not able to enroll adequate land in the program to mitigate the impacts of the facility on sage-grouse habitat, the certificate holder may mitigate any remaining impacts by working with an entity approved by ODFW to participate in an “in-lieu fee” project; and 4. Any additional reporting requirements, including specific information, frequency and format, required by the Department. b. During construction and operation of the facility, the certificate holder shall implement the requirements of the plan as approved under sub(a) of this condition. [Final Order on ASC, AMD2, Fish and Wildlife Condition 2]
GEN-FW-03	Prior to and during construction of the facility, the certificate holder shall provide, and keep records documenting completion of, environmental awareness training for all facility personnel and on-site contractors. The training program shall discuss State Sensitive Species and all other environmental issues related to the facility, including information about pygmy rabbit identification information and reporting procedures. [Final Order on ASC, Fish and Wildlife Condition 3]
GEN-FW-04	During construction, operation, and retirement of the facility, the certificate holder shall impose and enforce a speed limit of 15 miles per hour within the site boundary. [Final Order on ASC, Fish and Wildlife Condition 4]

Condition Number	General (GEN) Conditions
GEN-FW-05	During trenching and backfilling activities necessary for construction or operation of the facility, the certificate holder shall ensure that contractors or facility personnel responsible for the work avoid leaving trenches open overnight, as practicable. Where trenches remain open overnight, the trenches shall include wildlife escape ramps approximately every 90 meters with slopes of less than 45 degrees. Trenches shall be inspected, and any wildlife found removed prior to backfilling. [Final Order on ASC, Fish and Wildlife Condition 5]
GEN-FW-06	The certificate holder shall: - Prior to construction or any subsequent year of construction of the facility, the certificate holder shall hire a qualified biologist to conduct a ground survey for non-raptor migratory bird nests, based on a protocol to be submitted to the Department for review and approval in consultation with ODFW. Nest surveys for non-raptor species shall be conducted within 50 feet of all disturbance areas, including the transmission line and access roads. - During construction of the facility, if the biologist detects active migratory bird nests during bird nest surveys, the certificate holder shall ensure that construction activities adhere to 30-foot disturbance buffers around the nests until the nest has been abandoned/depredated or the eggs hatch and young have fledged. [Final Order on ASC, Fish and Wildlife Condition 6]
GEN-FW-07	The certificate holder shall: - Prior to any year of construction of the facility, the certificate holder shall hire a qualified biologist to conduct a pre-construction survey for raptor nests, based on a protocol to be submitted to the Department for review and approval in consultation with ODFW. Pre-construction raptor nest surveys shall extend 0.5 miles of proposed disturbance areas, to the extent the certificate holder has legal access. Raptor nest surveys shall be conducted no more than two weeks prior to the start of construction activities. If the biologist detects active raptor nests, the certificate holder shall implement and maintain disturbance buffers around the nests in which construction activities are prohibited until the nest has been abandoned/depredated or the eggs hatch and young have fledged. - Prior to construction, the certificate holder shall develop a construction plan that demonstrates construction activities within 0.25 of a mile from previously identified active nest sites, except for golden eagle nest sites which should apply a 0.50-mile buffer distance, are scheduled to avoid the sensitive nesting and breeding season. Previously identified nest sites are those identified during surveys per sub(a) of this condition. - During construction of the facility, the certificate holder shall ensure that construction work maintains a 0.25-mile buffer distance from all raptor nests, except for golden eagle (<i>Aquila chrysaetos</i>) 0.5 miles) and red-tailed hawk (300 to 500 feet) during the sensitive nesting and breeding season presented in the

Condition Number	General (GEN) Conditions																		
	table below. In cases where smaller buffers or restricted work authorizations might be appropriate, the certificate holder shall coordinate with the Department and ODFW or the USFWS to decrease buffer sizes and/or to allow restricted construction activities. Facility vehicles shall be permitted within buffers on paved public roads. Most light traffic by rubber-tired vehicles shall be permitted to pass through the buffer on existing unpaved access roads, if needed, and as determined by the on-site environmental monitor. <table><tr><th>Status Sensitive/Raptor Species</th><th>Buffer Size (Radius Around Nest Site):</th><th>Sensitive Nesting and Breeding Season</th></tr><tr><td>Western burrowing owl</td><td>0.25 mile</td><td>April 1 to August 15</td></tr><tr><td>Ferruginous hawk</td><td>0.25 mile</td><td>March 15 to August 15</td></tr><tr><td>Swainsons hawk</td><td>0.25 mile</td><td>April 1 to August 15</td></tr><tr><td>Red-tailed hawk</td><td>500 feet</td><td>March 1 to August 31</td></tr><tr><td>Golden eagle</td><td>0.50 mile</td><td>Feb 1 – August 31</td></tr></table> [Final Order on ASC, Fish and Wildlife Condition 7]	Status Sensitive/Raptor Species	Buffer Size (Radius Around Nest Site):	Sensitive Nesting and Breeding Season	Western burrowing owl	0.25 mile	April 1 to August 15	Ferruginous hawk	0.25 mile	March 15 to August 15	Swainsons hawk	0.25 mile	April 1 to August 15	Red-tailed hawk	500 feet	March 1 to August 31	Golden eagle	0.50 mile	Feb 1 – August 31
Status Sensitive/Raptor Species	Buffer Size (Radius Around Nest Site):	Sensitive Nesting and Breeding Season																	
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Red-tailed hawk	500 feet	March 1 to August 31																	
Golden eagle	0.50 mile	Feb 1 – August 31																	
GEN-FW-08	During design and construction of the facility, the certificate holder shall ensure that aboveground transmission line and aboveground portions of the electrical collection system adhere to the current APLIC guidelines for minimizing avian electrocution risks. [Final Order on ASC, Fish and Wildlife Condition 8]																		
GEN-FW-09	The certificate holder shall: a. No more than 3-years prior to construction of the facility, conduct pygmy rabbit (<i>Brachylagus idahoensis</i>) surveys within the portion of the site boundary inside the perimeter fence, based on the final design of the facility, using the same protocol approved for the pygmy rabbit surveys conducted as part of ASC Exhibit P (Attachment P-1 Section 2.3). Pygmy rabbit surveys shall also document presence of white-tailed jack rabbits (<i>Lepus townsendii</i>). Pygmy rabbit survey reports shall be submitted to the Department for review, in consultation with ODFW. b. From January 15 through June 15 (pygmy rabbit breeding period), implement a 3-meter (10 foot) buffer area using flagging or constraint maps around burrow complexes identified during preconstruction surveys per subpart(a) of this condition or identified incidentally during construction, unless otherwise approved by the Department in consultation with ODFW. c. During design and prior to construction of the facility, the certificate holder shall develop constraint maps clearing delineating avoidance areas for any previously identified complex (ASC Exhibit P Figure P-1 and pre-construction survey maps) within or in close proximity to the site boundary. Disturbance and facility components shall not occur or be located within identified complexes.																		

Condition Number	General (GEN) Conditions
	[Final Order on ASC, Fish and Wildlife Condition 9]
GEN-FW-10	Prior to any year of construction where vegetation clearing activities would occur, the certificate holder shall implement the following measures to minimize use at the site by, and impacts to, ground nesting birds: - Schedule vegetation clearing activities, including removal of trees, shrubs, and tall grasses to stubs, to occur between September 1 and March 31 for shrubs and trees shorter than 15 feet, and September 1 to January 15 for trees over 15 feet tall, to the extent practicable. - The certificate holder shall remove vegetation slash material offsite to an approved location or chipping slash in place prior to March 31 to the extent practicable. [Final Order on ASC, Fish and Wildlife Condition 10]
STANDARD: Scenic Resources (SR) [OAR 345-022-0080]	
GEN-SR-01	The certificate holder shall ensure that facility design, construction and operation adheres to the following requirements: - Use earth-tone colors on battery storage enclosures and other buildings to match or complement the predominant colors of surrounding vegetation, or use steel for the enclosure siding that produces a brown rusty patina when weathered. - Facility lighting must be shielded and directed downward and be the minimum necessary for construction, operation, safety, and security. Lighting for operation, safety, and security must be on-demand or motion-activated and/or use timers to minimize light exposure. [Final Order on ASC, Scenic Resources Condition 1]
STANDARD: Historic, Cultural and Archaeological Resources (HC) [OAR 345-022-0090]	
GEN-HC-01	The certificate holder shall: - Prior to and during construction, and operation of the facility implement the Archaeological Testing and Excavation Methodologies Plan (Attachment S-1 to Final Order on ASC) and the Cultural Mitigation and Monitoring Plan (Attachment S-2 to the Final Order on ASC). - During construction and operation of the facility, the certificate holder shall implement and adhere to the requirements of the Inadvertent Discovery Plan, as provided in Attachment S-2 of the Final Order on ASC and the Cultural Mitigation and Monitoring Plan, as provided in Attachment S-3 of the Final Order on ASC. [Final Order on ASC, Historic, Cultural and Archaeological Condition 1]
GEN-HC-02	The certificate holder shall: Prior to and during construction, and during operation, engage a qualified archaeologist to conduct field testing, excavation and removal of archaeological, historical, prehistoric, and anthropological materials within archaeological sites or objects under ORS 358.920 and ORS 390.235 in compliance with the SHPO

Condition Number	General (GEN) Conditions
	Archaeological Permits AP2816, AP2817, AP2818, and AP2819, Attachment S-4 of the Final Order on ASC. b. Administratively renew or extend SHPO Archaeological Permits with SHPO for any work governed by the permits to be consistent with the construction commencement and completion deadlines established in Condition GEN-GS-01 and provide copies of any renewed or extended SHPO Archaeological Permits to the Department. c. All work under permits issued under this condition shall be suspended in the event human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered during the investigation, including post-fieldwork curation processing. For such discoveries, the certificate holder must contact the LCIS, appropriate tribes, Oregon State Police, and SHPO and comply with the requirements of ORS 97.740 to 97.760 and 358.940. d. Compliance with this condition does not relieve the certificate holder of compliance with other federal or state requirements, including, but not limited to, ORS 97.740 to 97.760, ORS 358.905 to 358.961, and ORS 390.235. [Final Order on ASC, AMD2, Historic, Cultural and Archaeological Condition 2]
STANDARD: Public Services (PS) [OAR 345-022-0100]	
GEN-PS-01	a. Prior to construction of the facility, the certificate holder shall submit to the Department for review and approval in consultation with Lake County Planning and County Road Department, a Construction Traffic Management Plan that includes, at a minimum, the best management practices, County road use agreement, and traffic sign coordination provided in Attachment U-2 of the Final Order on the ASC; b. During construction of the facility, the certificate holder shall implement the Construction Traffic Management Plan, as approved by the Department in consultation with Lake County. [Final Order on ASC, Public Services Condition 3]
STANDARD: Waste Minimization (WM) [OAR 345-022-0120]	
GEN-WM-01	During construction, operation, and retirement of the facility, the certificate holder shall develop and implement a Solid Waste Management Plan that includes at a minimum the following measures: a. Measures for recycling steel and other metal scrap; b. Measures for reusing or recycling wood waste; c. Measures for recycling packaging wastes such as paper and cardboard; d. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler; e. Segregating hazardous wastes such as oil, oily rags and oil-absorbent materials, mercury containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of such materials.

Condition Number	General (GEN) Conditions
	[Final Order on ASC, Waste Minimization Condition 1]
STANDARD: Noise Control Regulations (NC) [OAR 340-035-0035]	
GEN-NC-01	The certificate holder shall: - Prior to construction, establish a construction noise complaint response plan. The certificate holder shall submit a copy of the noise complaint response system to the Department demonstrating that the plan includes, not limited to, the following measures: - Locate stationary engine-powered construction equipment as far from nearby noise sensitive properties as possible. - Shut off idling equipment. - Consideration of reschedule construction activities to avoid periods of noise annoyance identified in the complaint. - Notify nearby residents before extremely noisy work occurs. - Locate stationary engine-powered construction equipment as far from nearby noise sensitive properties as possible. - Restrict the installation of solar module support posts using the pneumatic pile driver to weekdays and Saturdays, during daytime hours of 7:00 am to 5:00 pm, and notify the residences near the site prior to performing the work. - All engine powered equipment must have mufflers installed according to the manufacturer's specifications, and all equipment must comply with pertinent equipment noise standards of the U.S. Environmental Protection Agency. - Requirements that the plan be maintained at the construction manager's office. - During construction, implement and adhere to the requirements of the plan, as finalized per sub(a) of the condition. Records of noise complaints during construction must be made available to the Department upon request. [Final Order on ASC, AMD1, Noise Control Condition 1]
STANDARD: Water Rights (WR) [ORS 537, 540 and 690]	
GEN-WR-01	The certificate holder shall: - Following installation of any onsite groundwater well, but prior to water withdrawal for facility water use, install a totalizing flowmeter or dedicated measuring tubes for tracking of daily water use, which use is not to exceed 5,000 gallons per day among all wells on the property. - During construction and operation, maintain totalizing flowmeters or dedicated measuring tubes. - Within 30 days after well completion for each new exempt well under ORS 537.545, the certificate holder shall follow the recording requirements under OAR 690-190-0100. If the certificate holder is not the landowner, the certificate holder shall facilitate the landowner submission of required materials to Oregon

Condition Number	General (GEN) Conditions
	Water Resources Department. The certificate holder shall submit to the Department a copy of the file submitted to Oregon Water Resources Department. [Final Order on ASC, Water Rights Condition 2]

5.3 Pre-Construction (PRE) Conditions

Condition Number	Preconstruction (PRE) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
PRE-GS-01	Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under this section, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, “construction rights” means the legal right to engage in construction activities. For the transmission line associated with the energy facility, if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of a transmission line occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site. [Final Order on ASC, General Standard Condition 4; Mandatory Condition OAR 345-025-0006(5)]
PRE-GS-02	At least 90 days prior to beginning construction of the facility (unless otherwise agreed to by the Department), the certificate holder shall submit to the Department a compliance plan documenting and demonstrating actions completed or to be completed to satisfy the requirements of all site certificate terms and conditions and applicable statutes and rules. The plan shall be provided to the Department for review and compliance determination for each requirement. The Department may request additional information or evaluation deemed necessary to demonstrate compliance. [Final Order on ASC, General Standard Condition 10; OAR 345-026-0048]
STANDARD: Organizational Expertise (OE) [OAR 345-022-0010]	
PRE-OE-01	Before beginning construction of the facility, or facility component, as applicable, the certificate holder shall notify the Department of the identity, telephone number, email address and qualifications of the full-time, on-site construction manager or qualified designated representative. Qualifications shall demonstrate that the construction manager has experience in managing permit and regulatory compliance requirements and is qualified to manage a utility-scale solar facility construction

Condition Number	Preconstruction (PRE) Conditions
	project. The certificate holder shall notify the Department within 72-hours upon any change to the on-site construction manager. [Final Order on ASC, AMD1, Organizational Expertise Condition 2]
STANDARD: Structural Standard (SS) [OAR 345-022-0020]	
PRE-SS-01	At least 60-days prior to construction of the facility, the certificate holder shall: 1. Conduct a site-specific geotechnical investigation in accordance with the 2014 version of the Oregon State Board of Geologist Examiners Guideline for Preparing Engineering Geologic Reports, or newer guidelines if available. The investigation report shall be submitted to DOGAMI and the Department, for review. The geotechnical investigation will include the following: a. Borings sufficient to develop seismic site classification(s) to facilitate engineering studies and site design; b. Foundation-specific investigations appropriate for the structures and their accompanying loads; and c. As recommended by licensed project engineers, soil and rock laboratory tests, such as soil and rock classification and strength testing, electrical resistance, corrosivity, scanning electron microscopy, soil collapsibility, and other parameters. 2. The certificate holder's final facility engineering must include geotechnical engineering design for foundations (substations, O&M buildings, inverter/transformer pads, battery systems), including seismic design that incorporates detailed site-specific conditions, based on the results of the site-specific investigation report described in this condition. [Final Order on ASC, Structural Standard Condition 1]
STANDARD: Land Use (LU) [OAR 345-022-0030]	
PRE-LU-01	Prior to construction of the facility, the certificate holder shall: a. Submit a conditional use and zoning permit application along with the proper filing fees to Lake County Planning Department for issuance pursuant to ORS 469.401(3); and b. Obtain all other necessary local permits, including building permits and onsite sewage treatment system permits. [Final Order on ASC, Land Use Condition 1]
PRE-LU-02	Prior to construction of the facility, the certificate holder shall demonstrate to the Department and Lake County Planning Department through mapping or other engineering drawing that the final facility layout complies with the following county yard setback and vision clearance area requirements: a. 50-foot minimum sideyard setback distance from permanent foundations (inverter/transformer units, collector/step-up substations, O&M buildings, battery storage enclosures) to adjacent non-participating property boundaries. b. 20-foot minimum front and rear yard setback distance from permanent foundations (inverter/transformer units, collector/step-up substations, O&M

Condition Number	Preconstruction (PRE) Conditions
	buildings, battery storage enclosures) to adjacent non-participating property boundaries. c. 45-foot minimum setback from the centerline of any county or other public or street right-of-way to permanent foundations (inverter/transformer units, collector/step-up substations, O&M buildings, battery storage enclosures). d. 20-foot minimum triangular vision clearance area at access road driveways constructed by the facility that provide access to a public roadway. e. at the intersection of two streets, existing or constructed, 2.5-foot height restriction on planting, fence, wall, structure, or temporary or permanent obstruction, measured from the top of the curb or, where no curb exists, from the established street center line grade, except that trees exceeding this height may be located in this area, provided all branches and foliage are removed to a height eight (8) feet above grade. [Final Order on ASC, Land Use Condition 2]
PRE-LU-03	Prior to construction of the facility, the certificate holder shall provide a map presenting facility site boundary, access roads and road approaches; county roads; and, the County's mapped Goal 5 Big Game Winter Range habitat overlay. If the certificate holder constructs new facility access roads or road approaches from County Road 5-12 A onto the site, certificate holder shall demonstrate to the Department and Lake County Planning Department how the length of the road or road approach complies with LCZO Section 18.05(D)(3)(c). [Final Order on ASC, Land Use Condition 3]
PRE-LU-04	Prior to construction of the facility, the certificate holder shall sign and record in the county deed records a document binding the certificate holder owner, and any certificate holder owner successors in interest, prohibiting them from pursuing a claim for relief of cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4). [Final Order on ASC, Land Use Condition 6]
PRE-LU-05	If the GSU step-up substation is located in Area E, prior to construction, the certificate holder shall provide the Department with documentation (deed or similar conveyance) that demonstrates that the water right associated with the portions of Area E impacted by facility construction and operations has been duly and legally transferred for same or similar use (irrigated agriculture) to another parcel within Lake County to ensure no-net-loss to irrigated agriculture. [Final Order on AMD1, Land Use Condition 8]
STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]	
PRE-RF-01	Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times

Condition Number	Preconstruction (PRE) Conditions
	until the facility has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility. [Final Order on ASC, Retirement and Financial Assurance Condition 4; Mandatory Condition OAR 345-025-0006(8)]
PRE-RF-02	Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The total bond or letter of credit amount for the facility is \$31.8 million dollars (Q3 2018 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) of this condition: a. The certificate holder may adjust the amount of the bond or letter of credit based on the design configuration of the facility by applying the unit costs, general costs and ODOE applied contingencies as illustrated in Table 9 of the Final Order on RFA1. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b) and subject to review and approval by the Council. b. The certificate holder shall adjust the amount of the bond or letter of credit using the following calculation: i. Adjust the amount of the bond or letter of credit (expressed in Q3 2018 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency and using the third quarter 2018 index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust third quarter 2018 dollars to present value. ii. Round the result total to the nearest \$1,000 to determine the financial assurance amount. c. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council, based on the Council's pre-approved financial institution list. d. The certificate holder shall use a form of bond or letter of credit approved by the Council. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under OAR 345-026-0080. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site. e. The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to protect public health and safety or environment and ensure the certificate holder's bond or letter of credit is sufficient to retire the site to a useful, non-hazardous condition. [Final Order on ASC, AMD1, AMD2, Retirement and Financial Assurance Condition 5]

Condition Number	Preconstruction (PRE) Conditions
STANDARD: Public Services (PS) [OAR 345-022-0100]	
PRE-PS-01	Prior to construction of the facility, the certificate holder shall: - Place a roadside sign along North Oil Dri Road and at facility entrance, including the contact information (cell number) for an onsite representative for dust complaints. - Finalize the Dust Abatement and Management Control Plan included as Attachment U-4 to the Final Order on the ASC, in consultation with Lake County Planning and Road Departments, the Oregon Department of Environmental Quality and the Department. Consultation, at a minimum, shall include: - Submission of the draft DAMP, with a cover letter/description of the construction schedule, activities and final facility design, to the above referenced state and local government representatives, with a request for review and comment within 45 days. The draft DAMP shall include reasonable available control measures including application of binders/dust suppressants (e.g., Earth Bind, ligano sulfonate) on highly trafficked roads. The DAMP shall also include a description of conditions that would warrant application of additional water or suppressants and shall provide evidence that the certificate holder/contractor has reasonable access to additional suppressants/water controls for facility construction. - Within 60 days of submission or as otherwise feasible, meet with the Department to evaluate comments and finalize the DAMP. Receive written confirmation from the Department that the DAMP may be finalized. - Provide copies of the final DAMP and construction schedule to all property owners of record within 500 feet of the boundary of the property for which the site boundary is located. [Final Order on ASC, Public Services Condition 1]
STANDARD: Wildfire Prevention and Risk Mitigation (WP) [OAR 345-022-0115]	
PRE-WP-01	Prior to construction of the facility, the certificate holder shall: - Finalize the Construction Wildfire Mitigation Plan, as provided in Attachment F-1 to the Final Order on AMD2. The final Construction Wildfire Mitigation Plan shall be submitted to the Department for review and approval. - Complete pre-construction tasks and actions designated in the Construction Wildfire Mitigation Plan approved under (a). [Final Order on ASC, AMD1, AMD2, Public Services Condition 4, Wildfire Prevention Condition 1]
STANDARD: Noise Control Regulations (NC) [OAR 340-035-0035]	
PRE-NC-01	Prior to construction of the facility, the certificate holder shall: Submit to the Department a noise summary report presenting the sound power levels (in dBA) of noise generating equipment including solar array inverters and

	transformers, substation transformers, and battery system inverters and cooling systems, as applicable to final design. The sound power levels shall be supported by equipment manufacturer specifications and noise data. The certificate holder shall provide, in tabular format, a comparison of the sound power levels used in ASC Exhibit X for noise generating equipment and sound power levels validated by manufacturer specifications. b. If the sound power levels used in ASC Exhibit X to evaluate compliance with DEQ's noise rules are lower than sound power levels of final equipment selected, the certificate holder shall provide an updated noise analysis to demonstrate compliance with the ambient degradation standard and maximum allowable threshold. The ambient noise level utilized in ASC Exhibit X may be used for the updated noise analysis, if required. [Final Order on ASC, Noise Control Condition 2]
STANDARD: Removal-Fill (RF) [OAR chapter 141, division 085]	
PRE-RM-01	Prior to construction, the certificate holder shall provide, to the Department, valid jurisdictional determination concurrence letter(s) from DSL for areas to be impacted during construction. [Final Order on AMD2, Removal-Fill Condition 1]
STANDARD: Water Rights (WR) [ORS 537, 540 and 690]	
PRE-WR-01	Prior to construction of the facility, certificate holder shall submit to the Department the following information related to its water service provider for construction related water use: - Name of water provider, water permit or water right number or copy of, and letter from provider confirming water availability to meet construction water demand; - Confirmation from water provider that water can be used at the facility site given any applicable restrictions of the water right or permit; - If sufficient water is not available from local service provider(s) to meet facility construction water needs, certificate holder shall confirm whether it needs to amend the site certificate to incorporate a water permit/right under Council jurisdiction or provide evidence that its third party contractor has obtained a water right or permit for water use at the site. [Final Order on ASC, Water Rights Condition 1]

5.4 Construction (CON) Conditions

Condition Number	Construction (CON) Conditions
STANDARD: Organizational Expertise (OE) [OAR 345-022-00100]	
CON-OE-01	During construction of the facility or a facility component, as applicable, the certificate holder shall require that the qualified construction manager, or qualified designated representative, is onsite during ground disturbance activities to manage compliance with site certificate requirements. The certificate holder shall notify the Department within 72-hours upon any change to the on-site construction manager. [Final Order on AMD1, Organizational Expertise Condition 6]
STANDARD: Public Services (PS) [OAR 345-022-0100]	
CON-PS-01	During construction of the facility, certificate holder shall: - Implement the requirements of the Dust Abatement and Management Control Plan, as finalized per sub(b) of the condition. - Report to the Department, as soon as possible, any reported dust nuisance complaints received by the onsite representative, including date, time, complainant name and measures implemented to resolve the issue, or explanation if measures not implemented [OAR 345-025-0006(6)]. [Final Order on ASC, Public Services Condition 2]
STANDARD: Wildfire Prevention and Risk Mitigation (WP) [OAR 345-022-0115]	
CON-WP-01	During construction of the facility, facility component, or phase, as applicable, the certificate holder shall: - Implement and require all onsite contractors and employees to adhere to the requirements of the Wildfire Mitigation Plan required under Condition PRE-WP-01. - After the first six months of construction; and then semi-annually during construction, review and update Construction Wildfire Mitigation Plan as designated in the Plan and submit the results in the semi-annual construction report. - Updates to the Wildfire Mitigation Plan may be required if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department to address wildfire hazard to public health and safety. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard. [Final Order on AMD1, Wildfire Prevention Condition 3]

5.5 Pre-Operational (PRO) Conditions

Condition Number	Pre-Operational (PRO) Conditions
<i>STANDARD: Organizational Expertise (OE) [OAR 345-022-0010]</i>	
PRO-OE-01	Before beginning operation, the certificate holder shall notify the Department of the identity, telephone number, e-mail address and qualifications of the facility/asset manager. Qualifications shall demonstrate that the operations manager has experience in managing permit and regulatory compliance requirements and is qualified to manage operation of a utility scale solar facility. [Final Order on AMD1, Organizational Expertise Condition 7]
<i>STANDARD: Land Use (LU) [OAR 345-022-0030]</i>	
PRO-LU-01	Prior to operation of the facility, the certificate holder shall: - Provide a copy to the Department of the Strategic Investment Program Agreement as executed by Lake County and certificate holder. The SIP agreement shall demonstrate, at a minimum, annual Community Service Fees of \$2,000 per megawatt alternating current (MWac), based on nameplate installed capacity. - Provide a one-time contribution to the North Lake County School District Foundation based on \$10,000 per MWac capacity, based on final design of the facility constructed by the construction completion deadline defined in General Standard Condition 1. [Final Order on ASC, Land Use Condition 7]
<i>STANDARD: Siting Standards for Transmission Lines (TL) [OAR 345-024-0090]</i>	
PRO-TL-01	Prior to operation of the facility, the certificate holder shall provide landowners within 500 feet of the site boundary a map of the 138-kV transmission line and the 138 kV collection line(s) inform landowners of possible health and safety risks from induced currents caused by electric and magnetic fields. [Final Order on ASC, AMD1, Siting Standards for Transmission Lines Condition 1]
<i>STANDARD: Wildfire Prevention and Risk Mitigation (WP) [OAR 345-022-0115]</i>	
PRO-WP-01	Prior to operation of the facility, the certificate holder shall: - Finalize the Operational Wildfire Mitigation Plan, as provided in Attachment F-2 to the Final Order on AMD2. The final Operational Wildfire Mitigation Plan shall be submitted to the Department for review and approval. - Complete pre-operational tasks and actions designated in the Operational Wildfire Mitigation Plan approved under (a). [Final Order on ASC, AMD1, AMD2, Public Services Condition 4(b), Wildfire Prevention Condition 2]

5.6 Operational (OPR) Conditions

Condition Number	Operational (OPR) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
OPR-GS-01	The certificate holder shall submit a legal description of the site to the Oregon Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identify the outer boundaries that contain all parts of the facility. [Final Order on ASC, General Standard Condition 2; Mandatory Condition OAR 345-025-0006(2)]
OPR-GS-01	Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility. [Final Order on ASC, General Standard Condition 6; Mandatory Condition OAR 345-025-0006(11)]
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
OPR-OE-01	During operation, the certificate holder shall require that the qualified facility/asset manager be responsible for managing compliance with operations-related site certificate requirements. [Final Order on AMD1, Organizational Expertise Condition 8]
STANDARD: Soil Protection (SP) [OAR 345-022-0022]	
OPR-SP-01	During facility operation, the certificate holder shall inspect all facility access roads at least once every calendar quarter and, as necessary, maintain or repair road surfaces or erosion and sediment control measures. The certificate holder must maintain records of inspections and repairs and make the records available to the Department for inspection upon request. [Final Order on AMD2, Soil Protection Condition 3.]
STANDARD: Land Use (LU) [OAR 345-022-0030]	
OPR-LU-01	During operation, the certificate holder shall include in the annual report the condition of the perimeter fence and identify whether any repairs were completed within the reporting year, or if scheduled for following reporting year. [Final Order on ASC, Land Use Condition 4]
STANDARD: Fish and Wildlife Habitat (FW) [OAR 345-022-0060]	
OPR-FW-01	During operation, the certificate holder shall implement the post-construction bird and bat mortality monitoring as established in the Wildlife Monitoring Plan provided in Attachment P-2 of the Final Order on the ASC.

Condition Number	Operational (OPR) Conditions
	[Final Order on ASC, Fish and Wildlife Condition 11]
STANDARD: Wildfire Prevention and Risk Mitigation (WP) [OAR 345-022-0115]	
OPR-WP-01	During operation of the facility, the certificate holder shall: - Implement and adhere to the requirements of the Wildfire Mitigation Plan required under Condition PRO-WP-01. - After the first operational year, annually review and update the Operational Wildfire Mitigation Plan as designated in the Plan and submit the results in the annual report for that year. - Updates to the Wildfire Mitigation Plan may be required if determined necessary by the certificate holder or the Department to address wildfire hazard to public health and safety. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard. [Final Order on AMD1, AMD2, Wildfire Prevention Condition 4]

5.7 Retirement (RET) Conditions

Condition Number	Retirement (RET) Conditions
STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]	
RET-RF-01	The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, nonhazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site. [Final Order on ASC, Retirement and Financial Assurance Condition 2; Mandatory Condition OAR 345-025-0006(9)]
RET-RF-02	If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-025-0006(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to

Condition Number	Retirement (RET) Conditions
<i>STANDARD: Retirement and Financial Assurance (RF) [OAR 345-022-0050]</i>	
	any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan. [Final Order on ASC, Retirement and Financial Assurance Condition 3; Mandatory Condition OAR 345-025-0006(16)]

6.0 Successors and Assigns

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0400.

7.0 Severability and Construction

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

8.0 Execution

This site certificate may be executed in counterparts and will become effective upon signature by the Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.

IN WITNESS THEREOF, this site certificate has been executed by the State of Oregon, acting by and through the Energy Facility Siting Council and Obsidian Solar Center LLC (certificate holder).

ENERGY FACILITY SITING COUNCIL


By: Kent Howe (Jun 17, 2025 13:38 PDT)

Kent Howe, Chair

Date: 17-Jun-2025

Obsidian Solar Center LLC


By: David W Brown (Jun 18, 2025 11:39 PDT)

David W. Brown, Senior Principal and
Authorized Representative

Date: 18-Jun-2025

ATTACHMENT 1: FIGURES

Figure 1: Regional Location of Facility and Site Boundary

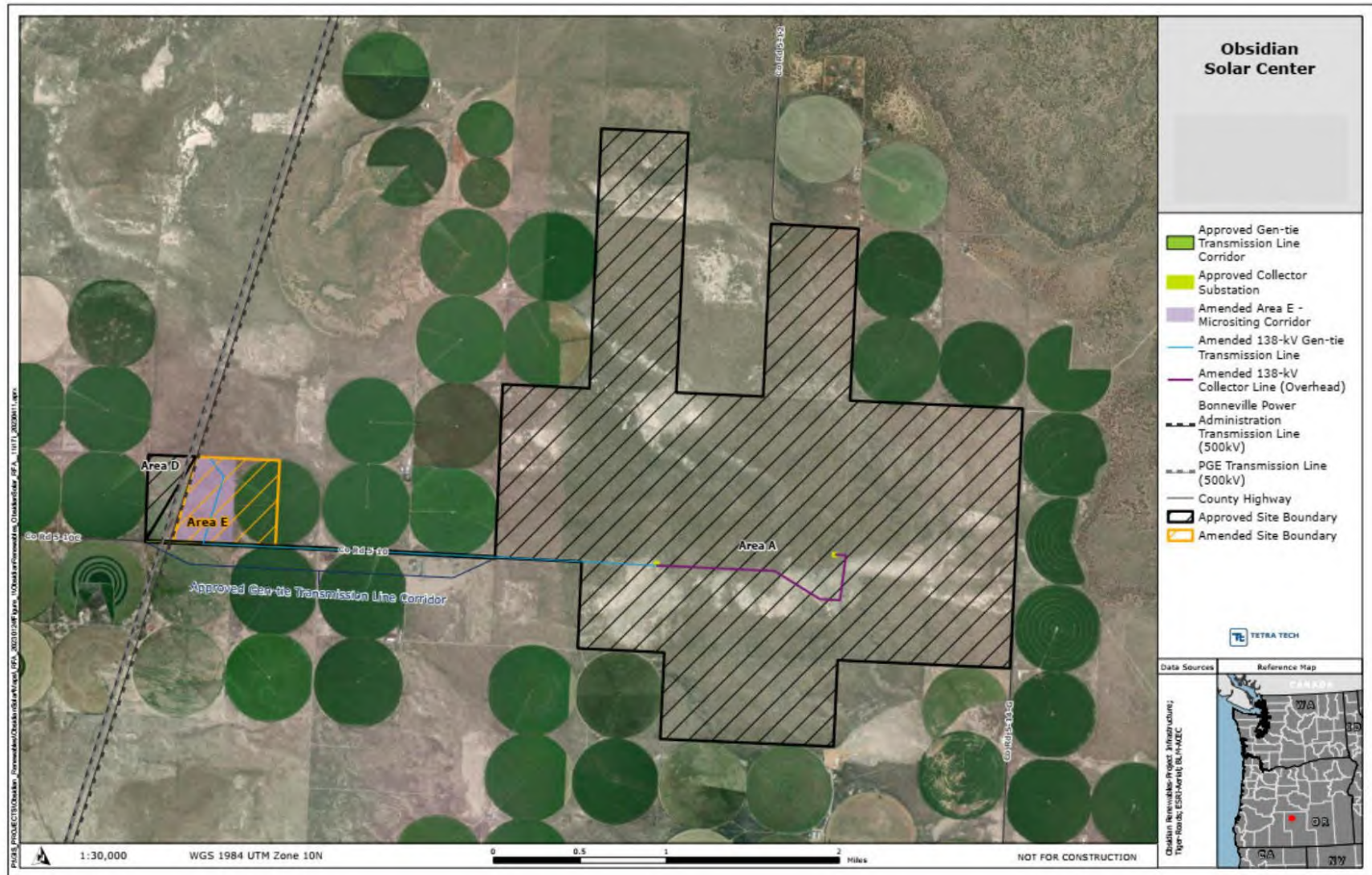
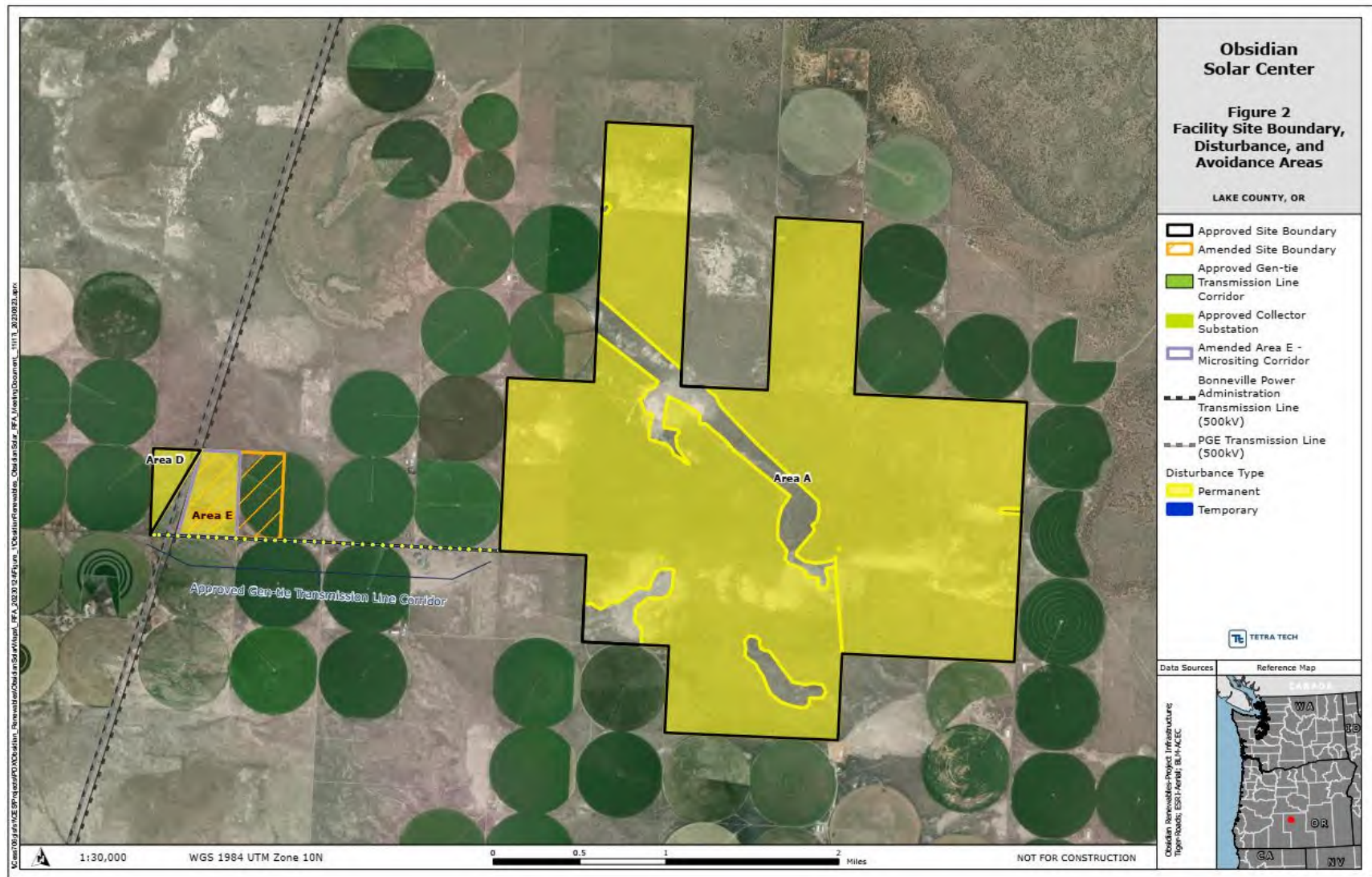


Figure 2: Facility Site Boundary, Disturbance and Avoidance Areas



Obsidian Solar Center

Figure 3
Gen-Tie Transmission Line Disturbance Areas and Approved Corridor

LAKE COUNTY, OR

Legend:

- Approved Site Boundary
- Amended Site Boundary
- Approved Gen-Tie Transmission Line Corridor
- Amended Area E - Micrositing Corridor
- Bonneville Power Administration Transmission Line (500kV)
- PGE Transmission Line (500kV)
- Disturbance Type
 - Permanent
 - Temporary

Scale: 1:10,000
WGS 1984 UTM Zone 10N
NOT FOR CONSTRUCTION

Obsidian Solar Project Information:
Type: Solar, 500 MW, 800 MW, 1,000 MW

Reference Map:

Attachment B: DPO Comments

From: [Darwin Johnson](#)
Sent: Friday, May 9, 2025 11:13 AM
To: [CLARK Christopher](#) * [ODOE](#)
Cc: [Barry Shullanberger](#); [James Williams](#); [Mark Albertson](#); [ESTERSON Sarah](#) * [ODOE](#); [CORNETT Todd](#) * [ODOE](#); [Darwin Johnson](#)
Subject: RE: Email Summary of Public Notice of Complete Request for Amendment 2 of the Site Certificate for the Obsidian Solar Center, Issuance of Draft Proposed Order, and Request for Written Public Comment

LAKE COUNTY
Planning Department

Darwin Johnson Jr., *Planning Director*
513 Center Street, Lakeview, OR 97630
(541) 947-6036
Email: djohnson@co.lake.or.us
Website: www.lakecountyor.org

Lake County supports the approved Obsidian Solar Center project, looks forward to the development as approved, and finds that it is necessary to grant an extension as the project moves closer to development. No further land use is required at this time from Lake County.

~Darwin

From: CLARK Christopher * ODOE <christopher.clark@energy.oregon.gov>
Sent: Wednesday, April 16, 2025 3:25 PM
To: Darwin Johnson <djohnson@co.lake.or.us>
Cc: Barry Shullanberger <bshullanberger@co.lake.or.us>; James Williams <jwilliams@co.lake.or.us>; Mark Albertson <malbertson@co.lake.or.us>; ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>; CORNETT Todd * ODOE <Todd.CORNETT@energy.oregon.gov>
Subject: FW: Email Summary of Public Notice of Complete Request for Amendment 2 of the Site Certificate for the Obsidian Solar Center, Issuance of Draft Proposed Order, and Request for Written Public Comment

[EXTERNAL]

Hello Darwin,

The Department has issued its Draft Proposed Order on Request for Amendment 2 of the Site Certificate for the Obsidian Solar Center. The DPO recommends the Council grant the 3-year construction deadline extension requested by the certificate holder, subject to existing, new, and amended conditions of approval intended to ensure the facility continues to comply with all applicable laws and Council standards. The DPO, a public notice on the DPO, and the complete Request for Amendment are available from the Department's project page for Obsidian: <https://www.oregon.gov/energy/facilities-safety/facilities/Pages/OSC.aspx>

The Department requests that the County submit any comments it wishes to provide on the DPO **by the written comment deadline of 5pm PT on May 16, 2025**. Comments may be submitted

to me at this email address or via any of the other methods described below.

Please reach out at any time if you have any questions about the DPO or the review process.

Thank you,



Christopher M. Clark

Senior Siting Analyst

he/him

550 Capitol St. NE | Salem, OR 97301

P: 503-871-7254

P (In Oregon): 800-221-8035



Stay connected!

From: Oregon Department of Energy <ODOE@cd.energy.oregon.gov>

Sent: Wednesday, April 16, 2025 12:02 PM

To: CLARK Christopher * ODOE <christopher.clark@energy.oregon.gov>

Subject: Email Summary of Public Notice of Complete Request for Amendment 2 of the Site Certificate for the Obsidian Solar Center, Issuance of Draft Proposed Order, and Request for Written Public Comment

Click [here](#) if you are having trouble viewing this message.



ENERGY FACILITY SITING COUNCIL

Email Summary of Public Notice of Complete Request for Amendment 2 of the Site Certificate for the Obsidian Solar Center, Issuance of Draft Proposed Order, and Request for Written Public Comment

The Obsidian Solar Center (facility) is an approved, not yet constructed 400-megawatt (MW) solar photovoltaic (PV) power generation facility with related or supporting facilities including a 50 MW battery energy storage system. The site of the facility includes 4,091 acres (6.4 sq. miles) in Lake County, approximately eight miles northwest of Christmas Valley.

On April 11, 2025, Obsidian Solar Center LLC (certificate holder) submitted a complete Request for Amendment 2 of the Site Certificate for the Obsidian

Solar Center (RFA2) to the Oregon Department of Energy (Department). In RFA2, the certificate holder seeks approval to extend the construction commencement and completion deadlines established in the Site Certificate by 3 years, from February 25, 2025 to February 25, 2028. The request would also extend the completion deadline, which is established as three years from the commencement date. RFA2 is being reviewed under the Council's Type B Review Process.

The Department issued its Draft Proposed Order on RFA2 (DPO) on August 16, 2025. On the same date, the Department issued a Public Notice of a 30-day public comment period on the complete RFA2 and DPO. These documents and the notice are available on the [Department's website](#).

Comment Period:

Written comments on the DPO and RFA2 must be received by ODOE **before 5pm Pacific Time on May 16, 2025**. Comments must be submitted in writing, and may be submitted through the public comment portal described below, or by mail, email or fax or hand delivery to:

Christopher Clark, Senior Siting Analyst
Oregon Department of Energy
550 Capital Street NE
Salem, OR 97301
Phone: (503) 871-7254
Fax: 503-871-7254
Email: Christopher.clark@energy.oregon.gov

Or via the Department's [Online Comment Portal](#). Choose Obsidian Solar Center from the drop-down menu. Click "Next" and follow the instructions on the screen. You will receive an email confirmation after submitting your comment.

ODOE also has a [new docket system](#) available which displays comments that have been submitted. Comments for this RFA2 and DPO will be posted to the docket and will normally be available to view within 3 business days of receipt.

Additional Information:

The Public Notice on RFA2, DPO, and other supporting materials are [available online](#).

You received this notice either because you previously signed up for email updates through GovDelivery or ClickDimensions related to specific siting projects or all Energy Facility Siting Council activities (the "General List"). You will automatically receive all future notices per your request or GovDelivery/ClickDimensions choices, unless you unsubscribe via ClickDimensions or by contacting the Department.

If you have any questions or comments about ClickDimensions please feel free to contact the Department's Administrative Assistant, Nancy Hatch at 503-428-7905, toll-free in Oregon at 800-221-8035, or email to nancy.hatch@energy.oregon.gov.

Oregon Department of Energy
Leading Oregon to a safe, equitable, clean, and sustainable energy future.

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Comment Date: 05-16-2025

From: Leeroy Horton

Email Address: jmanhunter11@hotmail.com

Source: portal

Comment Summary: Obsidian solars application for an extension should be denied. They have wasted time, money, and resources and damaged land that they should not be on in the first place.

ASC Exhibit:

Page Number(s):

Council Standards:

Comment:

Obsidian Solars application for an extension on building their site in north lake county should be denied and thrown away. They have done nothing but waste time, tax payer dollars, and damaged land that is zoned AGRICULTURAL that they should not be on in the first place. Obsidian Solar is a crooked company that wants only to start up big wasteful projects and then run away with a bunch of money before it's even completed. They have wasted 6 years of our own personal lives and hundreds of thousands of our own personal dollars in trying to keep them from destroying our land livelihoods, they have forced our beloved neighbors to move away, and they are never going to accomplish this absurd project completion. The resources are not out there in the world to do so, and America doesn't need garbage Chinese solar! Deny their application!

Comment Date: 05-16-2025

From: Jeremiah Thorsted

Email Address: Brokenthay@outlook.com

Source: portal

Comment Summary: Obsidian Solar's application for an extension should be denied as they have wasted 6 years on this project that is never going to be completed! They are wasteful and should not be on the land in the first place!

ASC Exhibit:

Page Number(s):

Council Standards:

Comment:

Obsidian Solar's application for an extension on building their site in north lake county should be denied and thrown away. They have done nothing but waste time, tax payer dollars, and damaged land that is zoned AGRICULTURAL that they should not be on in the first place. Obsidian Solar is a crooked company that wants only to start up big wasteful projects and then run away with a bunch of money before it's even completed. They have wasted 6 years of our own personal lives and hundreds of thousands of our own personal dollars in trying to keep them from destroying our land livelihoods, they have forced our beloved neighbors to move away, and they are never going to accomplish this absurd project completion. The resources are not out there in the world to do so, and America doesn't need garbage Chinese solar! Deny their application!

**Attachment C: Reviewing Agency Consultation and
Documents Referenced in Order**



Oregon

Tina Kotek, Governor

Parks and Recreation Department

Oregon Heritage/
State Historic Preservation Office
725 Summer St. NE, Suite C
Salem, OR 97301-1266
(503) 986-0690
Fax (503) 986-0793
oregonheritage.org



April 3, 2025

Mr. Christopher Clark
Oregon Dept of Energy
550 Capitol St. NE
Salem, OR 97301

RE: SHPO Case No. 18-0246
ODOE, Obsidian Solar Center LLC
7000 acre solar farm
(26S 16E 8, 9, 15, 16, 17, 20, 21, 22) (26S 15E 13, 14) (26S 16E 17, 18), Lake County

Dear Christopher Clark:

Thank you for the letter and request to address three questions relating to the project referenced above. The questions are copied below, with our response.

1. What procedural requirements, if any, are applicable to the extension of the permits? We understand that there is an administrative process for updating a permit and would like to document that in our Order. Please note that under the Council's administrative rules, a site certificate may be granted up to two three-year extensions, so we'd like to ensure that whatever process we agree upon can be applied if there is another extension requested.

Response from SHPO:
Please refer to OAR 736-051-0090 (5) (a-e).

2. We are also aware that SHPO updated the administrative rules governing the issuance of archaeological permits after the site certificate was issued. Please let us know if there were any changes to substantive criteria for permit issuance in the amended rules that would affect the previous evaluation or approvals, and if SHPO has any comments or recommendations regarding the current permits' compliance with those criteria.

Response from SHPO:

The entire rule was revised, so there are many changes. For permit issuance, most are in OAR 736-051-0060 to 0090. It is recommended that ODOE review the rules to see what effects there may be based on their process.

3. Please let us know if there have been any other changes in laws or rules administered by SHPO since February 2022 that could affect the Council's previous evaluation or permit approvals.

Response from SHPO:

Same answer as 2.

Thanks,

Sincerely,

A handwritten signature in cursive script, reading "John D. Pouley". The signature is written in dark ink on a light background.

John Pouley

State Archaeologist

(503) 480-9164

john.pouley@opr.d.oregon.gov

cc: Michelle Slater, Obsidian Solar Center LLC



RE: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

Organizer CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>
Meeting time This event occurred 1 month ago (Fri 2/14/2025 2:00 PM - 2:30 PM)
Location Microsoft Teams Meeting
My response Not yet responded
Required attendees CLARK Christopher * ODOE, Michelle Slater, JACKLE Greg S * ODFW, THOMPSON Jeremy L * ODFW
Optional attendees MUIR Jonathan D * ODFW, ESTERSON Sarah * ODOE
Message sent Thu 3/13/2025 5:11 PM

Hey Chris,

Yeah, I'm sorry, I could of sent that to you a while ago. I ran a desktop estimate of the HQT (pre-field) before any field verification of the habitat on the ground. With the extension of the project into low density, I calculated the loss of that direct habitat and the indirect habitat associated with a solar site.

The functional acre output of the direct loss of around 780 acres of low density habitat and surrounding indirect effect was **291.8 functional acres**.

Michelle had asked if I could estimate a few other scenarios, but until we get out on the landscape and assess the habitat and check out the mitigation site to see how viable that area is to sage grouse mitigation I didn't want to put a lot of time into this. Hopefully Jeremy and I can get out on the ground in a few months and make that assessment. From looking at maps of their mitigation location, I would think it should be able to satisfy sage grouse as well as big game, but I would like to see how they plan to treat juniper in sage brush areas and how they plan to protect and conserve juniper woodlands. Then we would need to run that thru the HQT for it to calculate the functional acre credits.

Let me know if you want me to provide this in a more formal letter for your amendment process and I can do that.

Thanks

Greg

**Greg Jackle**

Oregon Department of Fish and Wildlife
Interim Sage-Grouse Mitigation Coordinator
4034 Fairview Industrial Dr. SE
Salem, OR 97302
Office/Cell - 541-777-7721

From: CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>
Sent: Thursday, March 13, 2025 11:21 AM
To: JACKLE Greg S * ODFW <Greg.S.JACKLE@odfw.oregon.gov>

Cc: THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>

Subject: Re: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

Hi Greg,

I wanted to check in on the preliminary assessment of how many functional acres of sage grouse habitat would be impacted by Obsidian Solar. I am not sure if we landed on you providing that directly to us in a comment letter, or you working with Obsidian and having them put it in their plan. Either one works for us, I just want to make sure I'm tracking. If you are planning on providing it directly to us, could you also let me know if you have a rough idea on timing? We are still hoping to wrap this project up by the end of the month.

Thank you,



Christopher M. Clark

Senior Siting Analyst

he/him

550 Capitol St. NE | Salem, OR 97301

P: 503-871-7254

P (In Oregon): 800-221-8035



Stay connected!

From: THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>

Sent: Friday, February 21, 2025 8:32 AM

To: CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>; Michelle Slater <mslater@obsidianrenewables.com>; JACKLE Greg S * ODFW <Greg.S.JACKLE@odfw.oregon.gov>

Cc: MUIR Jonathan D * ODFW <Jonathan.D.MUIR@odfw.oregon.gov>; ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>

Subject: RE: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

My comments in red below.

Jeremy Thompson

Energy Coordinator

Oregon Department of Fish and Wildlife

4034 Fairview Industrial Drive SE Salem, OR 97302

C- (541) 980-8524 F-(541) 296-7889

Jeremy.L.Thompson@odfw.oregon.gov

From: CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>

Sent: Thursday, February 20, 2025 11:39 AM

To: Michelle Slater <mslater@obsidianrenewables.com>; JACKLE Greg S * ODFW

<Greg.S.JACKLE@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>
Cc: MUIR Jonathan D * ODFW <Jonathan.D.MUIR@odfw.oregon.gov>; ESTERSON Sarah * ODOE
<Sarah.ESTERSON@energy.oregon.gov>
Subject: RE: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

Hi Michelle,

I'll defer to the ODFW folks to correct me if I am wrong, but it is my understanding that the Sage Grouse and Big Game mitigation requirements need to be satisfied independently, and as a result, you would not be able to count one acre of mitigation towards both obligations. As a result, the condition language is intended to require 1.a and 1.b to be addressed separately, and on an additive basis.

In the example you gave, the final mitigation obligation would be 2,700 acres: 2400 acres of juniper treatment to mitigate the 2000 acres of big game winter range impacts + 300 acres of juniper treatment to generate the required sage grouse credits.

I am assuming you just simplified things for the example, but I did want to also note that both credits and debits are calculated using the HQT for sage grouse habitat, so it wouldn't necessarily be a 1:1 relationship between functional acres impacted and mitigation acres.

Thank you,



Christopher M. Clark

Senior Siting Analyst

he/him

550 Capitol St. NE | Salem, OR 97301

P: 503-871-7254

P (In Oregon): 800-221-8035



Stay connected!

From: Michelle Slater <mslater@obsidianrenewables.com>

Sent: Wednesday, February 19, 2025 12:34 PM

To: CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>; JACKLE Greg S * ODFW
<Greg.S.JACKLE@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>

Cc: MUIR Jonathan D * ODFW <Jonathan.D.MUIR@odfw.oregon.gov>; ESTERSON Sarah * ODOE
<Sarah.ESTERSON@energy.oregon.gov>

Subject: RE: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

Christopher,

Thank you for sending this proposed condition language. I am restating how I read your conditions to make sure I understand the intention:

Where the project site overlaps with mapped sage grouse habitat, we calculate the direct and indirect impact on the basis of functional acres and identify lands in our WLIP equal to the functional acres to mitigate under our juniper treatment plan. **correct**

Where the project site overlaps with big game winter range but not sage grouse habitat, we identify the number of acres of permanent impact and identify 1.2 times that many acres in our WLIP to mitigate

under our juniper treatment plan. **correct**

If we have (just for example), 2800 acres of big game range “inside the fence” and of that 800 is mapped as sage grouse habitat, we mitigate for 2,000 acres – which would be 2,400 acres of juniper mitigation. **correct**

For the 800 acres inside the fence that is mapped sage grouse habitat, if that results in 300 functional acres impacted (again, just by way of example), we mitigate for 300 **functional** acres of juniper mitigation. **Sage grouse mitigation is calculated in the HQT, so while your example has 800 physical acres on impact equaling 300 functional acres of mitigation debits, we need to remember that it may take more or less physical acres at the mitigation site to equal the same functional acres of credit, depending on the overall quality of the impacted and mitigated habitats for sage grouse..**

If we have land in our WLIP that is appropriate habitat to improve and uplift for both big game and sage grouse, is the total acres we include in our mitigation plan implementation the net acres taking into account that overlap? In other words, if 400 of the 2400 acres we are managing under the WLIP for big game are also good acres for sage grouse, are the 300 acres of mitigation required for sage grouse included in that 2400? I assume sage grouse and big game coexist on existing habitat that is capable of serving both species, so that makes sense to me. **Sage grouse and big game mitigation can overlap, assuming the acres proposed at the mitigation site function for both species. We need to get Greg and I onsite to evaluate how to best offset the impacts to all species in the area you have secured.**

Thanks,
Michelle

Michelle Slater (she/her)
Obsidian Renewables, LLC
5 Centerpointe Drive, Suite 255
Lake Oswego, OR 97035
mslater@obsidianrenewables.com
Work: 503-245-8800
Cell: 503-577-1446

From: CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>

Sent: Friday, February 14, 2025 3:45 PM

To: Michelle Slater <mslater@obsidianrenewables.com>; JACKLE Greg S * ODFW

<Greg.S.JACKLE@odfw.oregon.gov>; THOMPSON Jeremy L * ODFW <Jeremy.L.THOMPSON@odfw.oregon.gov>

Cc: MUIR Jonathan D * ODFW <Jonathan.D.MUIR@odfw.oregon.gov>; ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>

Subject: RE: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

Hi Michelle,

To follow up on our call today, we will look forward to seeing your revision of the draft Habitat Mitigation Plan that incorporates the sage-grouse mitigation requirements and Greg's preliminary assessment of the total functional acres expected to be impacted by the construction and operation of the facility.

As we discussed, I do not believe ODOE needs a full assessment of whether the existing mitigation parcels can generate sufficient credits for the facility at full build out or edits to the current Juniper Treatment Plan to proceed with processing the amendment request, but if preliminary information or edits are available please include as well.

Finally, here is draft markup of the condition language we prepared based on the current HMP, your proposed language, and the discussions with ODFW:

Recommended Amended Fish and Wildlife Condition 2 [GEN-FW-02]

~~The certificate holder shall:~~

a. Prior to construction of the facility, the certificate holder shall finalize and submit a Habitat Mitigation Plan, based upon ~~Option 3 of~~ the draft plan provided in Attachment P-1 of the Final Order on the ~~ASGAMD2~~, for review and approval by the Department, in consultation with ODFW. The plan shall include a Working Lands Improvement Program, substantially as presented in Appendix 1 of the draft plan.

~~HMP Option 3 is the only mitigation that may be utilized without amendment of the HMP due to insufficient evidence available to demonstrate that Options 1 and 2 meet the requirements of OAR 345-022-0060.~~

In the finalization of the plan, the Department may request reporting requirements including specific information, frequency and format. ~~Components of the plan to be finalized~~ The final plan shall include, at a minimum, a:

1. A final assessment of permanent habitat impacts (in acres) to Big Game Winter Range that is not in sage-grouse habitat, based on habitat quality of habitat subtype, and final facility design, presented in tabular format, and demonstration that the certificate holder will provide in-kind, in-proximity mitigation through the Working Lands Improvement Program in a ratio of 1.2 mitigation acres for each impacted acre; and

2. A final assessment of direct and indirect impacts (in functional acres) to mapped sage-grouse habitat, based on final facility design, presented in tabular format, and demonstration that the certificate holder will generate an equivalent number of functional acre credits through the Working Lands Improvement Program. If the certificate holder is not able to enroll adequate land in the program to mitigate the impacts of the facility on sage-grouse habitat, the certificate holder may mitigate any remaining impacts by working with an entity approved by ODFW to participate in an "in-lieu fee" project.

b. During construction and operation of the facility, the certificate holder shall implement the requirements of the plan as approved under sub(a) of this condition.

You don't need to update your RAI responses if you are okay with the recommended language, but if you have any proposed edits feel free to incorporate them into your revised RFA along with the amended draft HMP. In the meantime, please let me know if there is anything you would like to discuss further.

Thanks again to everyone for your work on this,



Christopher M. Clark

Senior Siting Analyst

he/him

550 Capitol St. NE | Salem, OR 97301

P: 503-871-7254

P (In Oregon): 800-221-8035



Stay connected!

Michelle Slater

From: Michelle Slater
Sent: Wednesday, October 9, 2024 1:21 PM
To: MARSHALL Danielle * ODA
Cc: BROWN Jordan A * ODA
Subject: Re: Second Request to Amend Site Certificate Obsidian Solar Center - DeptofAg consult

Thank you for getting back to me.

We have not yet conducted pre-construction surveys and will add *Rorippa columbiae* to the list.

Best regards,

Michelle

Sent from my iPhone

On Oct 1, 2024, at 1:14 PM, MARSHALL Danielle * ODA
<Danielle.MARSHALL@oda.oregon.gov> wrote:

Hi Michelle,
Jordan asked me to follow up with you. In May of 2024 OAR 603-073-0070 (Oregon State List of Endangered and Threatened Plants) was updated and now includes additional species. We do not know of any plants that have been reported within the facility site, but one species, *Rorippa columbiae*, occurs in Lake County and has a couple of occurrences within 15 miles of the site. Have all of the pre-construction habitat surveys already occurred? If not, could *Rorippa columbiae* be added to your plant list below to be checked?
We have no other comments on the extension of the construction timeline.
Thank you,
Dani

Danielle Marshall, Conservation Biologist
Oregon Department of Agriculture – Native Plant Conservation Program
635 Capitol St NE, Salem, OR 97301-2532
971.388.8895 | Oregon.gov/ODA | Pronouns: she, her, hers
à Sign up for NPCP [GovDelivery updates](#)

Please consider taking the [ODA Customer Service survey](#)

From: Michelle Slater <mslater@obsidianrenewables.com>
Date: Monday, September 23, 2024 at 2:56 PM
To: BROWN Jordan A * ODA <jordan.a.brown@oda.oregon.gov>
Subject: Second Request to Amend Site Certificate Obsidian Solar Center - DeptofAg consult

You don't often get email from mslater@obsidianrenewables.com. [Learn why this is important](#)

Jordan,

Obsidian Solar Center is preparing to file a second Request to Amend its Site Certificate (RFA2) in order to extend the deadline for beginning (and completing) construction. As it currently stands, we are required to begin construction by February 25, 2025, but due in part to congestion at Bonneville Power Authority processing interconnection and transmission requests we require additional time. We are not requesting any other changes to the site certificate beyond moving these two dates out three years each, which is the extension length provided by Administrative Rule.

As part of our RFA2 submission, I would like to include communication from you confirming that we have consulted and documenting any issues. I assume there are none, because we just completed the first amendment last year (I think you consulted with ODOE on that one as well) and in connection with that we agreed to include Bogg's Lake Hedge Hyssop, Crosby's Buckwheat, and Grimy Ivesia in pre-construction habitat surveys. I am not aware of any other information from Dept of Ag that would impact this construction deadline extension request. Could you please confirm that understanding is accurate?

This amendment won't change any of the conditions already in the site certificate (as amended) – it will only extend the construction timeline.

Thank you,
Michelle

Michelle Slater (she/her)
Obsidian Renewables, LLC
5 Centerpointe Drive, Suite 255
Lake Oswego, OR 97035
mslater@obsidianrenewables.com
Work: 503-245-8800
Cell: 503-577-1446

-----Original Appointment-----

From: CLARK Christopher * ODOE

Sent: Friday, February 14, 2025 9:12 AM

To: CLARK Christopher * ODOE; Michelle Slater; JACKLE Greg S * ODFW; THOMPSON Jeremy L * ODFW

Cc: MUIR Jonathan D * ODFW; ESTERSON Sarah * ODOE

Subject: Check in with Obsidian/ODFW/ODOE on RFA2 sage-grouse mitigation plan

When: Friday, February 14, 2025 2:00 PM-2:30 PM (UTC-08:00) Pacific Time (US & Canada).

Where: Microsoft Teams Meeting

We'd like to discuss the general mitigation approach for impacts to sage-grouse habitat and confirm what documentation is needed for RFA2. I believe we have all discussed separately, so this should be a relatively short call to confirm we are all on the same page.

I realize some folks may be impacted by the weather, if this time does not work for any reason let me know and I can reschedule for next week.

Thank you,
Chris

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 234 847 007 469

Passcode: Cc7Mn2Ap

Dial in by phone

[+1 503-446-4951,,240962577#](#) United States, Portland

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Attachment D: Draft Amended Habitat Mitigation Plan

Obsidian Solar Center LLC

Obsidian Solar Center

Draft Habitat Mitigation Plan

Obsidian Solar Center LLC

5 Centerpointe Drive, Suite 255
Lake Oswego, Oregon 97035

As amended by the Energy Facility Siting Council's Final Order on Request for Amendment 2
June 13, 2025

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ATTACHMENTS

Attachment 1	Working Lands Improvement Program Agreement
Attachment 2	Juniper Phase Mapping Technical Memo
Attachment 3	Desktop Habitat Mapping Technical Memorandum

Acronyms and Abbreviations

Certificate Holder	Obsidian Solar Center LLC
ASC	Application for Site Certificate
CWMA	Cooperative Weed Management Area
EFSC or the Council	Energy Facility Siting Council
Facility	Obsidian Solar Center
gen-tie	generation tie
HMP	Habitat Management Plan
HQT	Habitat Quantification Tool
MW	megawatts
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
OHW	ordinary high water
WLIP	Working Lands Improvement Program

1.0 INTRODUCTION

This draft Habitat Mitigation Plan (“HMP”) describes how Obsidian Solar Center LLC (“Certificate Holder”) will mitigate unavoidable habitat impacts from the Obsidian Solar Center (“Facility”) located in Lake County, Oregon. Certificate Holder

This draft HMP outlines specific measures Certificate Holder will undertake to satisfy the Oregon Energy Facility Siting Council (EFSC) Fish and Wildlife Habitat standard (Oregon Administrative Rule (OAR) 345-022-0060), which requires that the Facility, with mitigation, demonstrate consistency with the Oregon Department of Fish and Wildlife (ODFW) Habitat Mitigation Policy (OAR 635-415-0025). Certificate Holder proposes three mitigation pathways including (1) ODFW Payment-to-Provide (Option 1), (2) a Third Party Fee-in-Lieu Program (Option 2), and (3) Working Lands Improvement Program (in-kind, in-proximity mitigation) (Option 3). Certificate Holder opts to implement Option 3 as mitigation for the Facility. If Certificate Holder sought to implement Option 1 or Option 2, or an alternative mitigation pathways in the future, Certificate Holder would seek an amendment to this HMP, as provided under Section 6.0 below.

2.0 DESCRIPTION OF THE IMPACTS ADDRESSED BY THE HMP

The Facility is located entirely within the more than 1 million acre-area mapped by ODFW staff as elk winter range and a portion of the Facility is located within the area mapped by ODFW staff as mule deer (*Odocoileus hemionus*) winter range, which overlaps in its entirety with elk winter range (together, referred as “Big Game Winter Range”). ODFW staff has designated acres within Big Game Winter Range as Category 2 (essential and limited) habitat under ODFW’s Fish and Wildlife Habitat Mitigation Policy (ODFW 2014, 2016a) (“ODFW Habitat Mitigation Policy”). The area within the site boundary consists primarily of sagebrush shrubland, with a mosaic of stand cover, plant heights, and levels of disturbance.

A portion of the Facility is also located within low-density sage grouse habitat as depicted on the Oregon Sage-Grouse Core and Low-Density Habitat Map (2023). Proposed development projects in sage-grouse habitat that require a county or state permit and are identified as a conflicting use, as outlined in OAR 660-023-0115(7), must coordinate with the Mitigation Program to ensure the Mitigation Hierarchy outlined in both OAR 660-023-0115 and OAR 635-140-0025 has been achieved.

Pursuant to OAR 635-140-0025 and consistent with the Greater Sage-Grouse Conservation Assessment and Strategy for Oregon (2021) adverse impacts in sage-grouse core, low density, and general habitat from development actions must be mitigated by certificate holder for both direct and indirect adverse impacts to sage-grouse and their habitats.

2.1. Big Game Winter Range.

Permanent habitat impacts will be associated primarily with the installation of permanent Facility structures. The solar array areas and related or supporting facilities will be fenced as required by electrical code and safety needs, and ODFW considers all areas inside the fence to

be permanently disturbed. Temporary impacts are anticipated from the construction of the gen-tie transmission line (about 1.2 acres). Otherwise, all construction-related activities will occur within the area designated for the Facility's permanent footprint (or the area located within the perimeter fence). Temporary impacts will be fully mitigated through successful implementation of the Revegetation Plan (ASC, Appendix P-3).

The Facility will not have impacts on Category 1 habitat. The Facility will have some temporary and permanent impacts on Category 6 habitat, which do not require compensatory mitigation.¹ For the remaining habitat types, permanent impacts must be mitigated at Category 2 under the ODFW Habitat Mitigation Policy because the impacts area is mapped Big Game Winter Range. Habitat values for Big Game Winter Range can include thermal cover, security from predation and harassment, quality forage, and limited disturbance. The area in the Facility site boundary is primarily sagebrush shrubland, and given the habitat characteristics, its primary habitat value for big game is forage and limited thermal cover.

¹ Under the ODFW Habitat Mitigation Policy, no compensatory mitigation is required for Category 6 impacts; only minimization of impacts (OAR 635-415-0025(6)).

Table 1: Acres of Temporary and Permanent Impact to Habitat within the Site Boundary

Habitat Category	Habitat Type	Temporary Impact	Permanent Impact	Total
<i>ODFW Designated Category 2 Habitat</i>				
2	Sagebrush Shrubland	0.00	3,419.21	3,419.21
2	Playa OHW – Not Wetlands	0.00	16.91	16.91
2	Sand Dune	0.03	108.78	108.81
2	Non-sagebrush Shrubland	0.15	0.00	0.15
2	Non-native Forb	0.05	42.77	42.82
Total Category 2 Habitat Impacts to be Mitigated		0.23	3,587.67	3,587.90
6	Agricultural Lands	0.56	1.00	1.56
6	Developed	0.21	0.00	0.21
	Total Impacts	1.20	3,588.47	3,589.67

Key:

ODFW = Oregon Department of Fish and Wildlife; OHW = Ordinary High Water

The impact analysis presented in the ASC and mitigation outlined in this HMP represents the fully built-out scenario of 400 MW. The Facility will be built as directed by market demands and power sales. For example, if Certificate Holder enters into two separate power purchase agreements, each for 200 MW, Certificate Holder may construct the first 200 MW and then the second 200 MW. In that case, mitigation would follow a corresponding scope and timeline.

Table 2 summarizes the habitat characteristics within the Site Boundary, as detailed in the 2018 Habitat Assessment and Biological Resources Field Report (ASC Exhibit P, Appendix P-1). Photo documentation of Area A habitat quality is also provided in photos 1-23b and 53-54 of ASC Exhibit P Appendix P-1, Attachment 1.

Table 2: Habitat Characteristics within Site Boundary

Habitat Category	Habitat Type	Native Shrub Stratum and Ground Cover	Native Herbaceous Stratum and Ground Cover	Bare Ground Cover
ODFW Designated Category 2 Habitat				
2	Sagebrush Shrubland	Big Sagebrush (<i>Artemisia tridentata</i>) (15-30%), Green rabbitbrush (<i>Chrysothamnus viscidiflorus</i>) and Rubber rabbitbrush (<i>Ericameria nauseosa</i>) (10-25%)	Saltgrass (<i>Distichlis spicata</i>), Claspig pepperweed (<i>Lepidium perfoliatum</i>), and cheatgrass (<i>Bromus tectorum</i>) ($\leq 25\%$)	40 – 60%
2	Playa	Inclusions with Big Sagebrush ($\leq 2\%$), Green rabbitbrush ($\leq 8\%$), and shadscale saltbrush (<i>Atriplex confertifolia</i>) ($\leq 15\%$)	Usually devoid; or small areas of Saltgrass (<i>Distichlis spicata</i>) ($\leq 25\%$)	$\geq 90\%$
2	Sand Dune	Big sagebrush and green rabbitbrush ($< 5\%$)	Saltgrass (<i>Distichlis spicata</i>) ($< 5\%$)	

2.2 Sage-Grouse Habitat

Development impacts on sage-grouse habitat are determined using the Habitat Quantification Tool (HQT). The HQT was primarily developed to measure projected outcomes of both new development and habitat restoration projects and to help target siting of credit and debit projects in the most beneficial locations for sage-grouse.² Using this tool, the Certificate Holder in coordination with ODFW will determine the potential direct and indirect impacts of the Facility in terms of functional acres of habitat to establish the debits created by the development and will then determine the corresponding number of functional acres of credits that may be required as mitigation.

3.0 MITIGATION OPTIONS

Certificate Holder has identified three options for addressing the mitigation obligation:

- Option 1: Utilization of an ODFW Payment-to-Provide Program
- Option 2: Utilization of a Third Party Fee-in-Lieu Program
- Option 3: Providing in-kind, in-proximity mitigation through a Working Lands Improvement Program

² <https://www.dfw.state.or.us/wildlife/sagegrouse/mitigation.asp>

Each of these options are described in more detail below. Based on the information provided on the record of the ASC, Certificate Holder may only utilize Option 3 for mitigation of impacts to Big Game Winter Range, unless ODFW adopts appropriate regulations to support Option 1 and Certificate Holder proposes an HMP amendment to utilize Option 1 or Option 2 that EFSC approves. If other mitigation options become available or are identified, Certificate Holder reserves the right to pursue alternative mitigation pathways by pursuing an amendment to this HMP, as provided under Section 6.0 below.

To mitigate for impacts on functional acres of sage grouse habitat, certificate holder expects to utilize Option 3. Certificate holder will prepare a final assessment of direct and indirect impacts (in functional acres) to mapped sage-grouse habitat, based on final facility design, presented in tabular format, and demonstrate that the certificate holder will generate an equivalent number of functional acre credits through the Working Lands Improvement Program described below. If the certificate holder is not able to enroll adequate land in the program to mitigate the impacts of the facility on sage-grouse habitat, the certificate holder may mitigate any remaining impacts by working with an entity approved by ODFW to participate in an “in-lieu fee” project as described under Option 2.

3.1 Option 1: ODFW Payment-to-Provide

Certificate Holder understands that ODFW is considering a payment-to-provide program that could be used to mitigate habitat impacts related to energy facilities. Certificate Holder recognizes that Option 1 is not currently available but Certificate Holder reserves the right to request an HMP Amendment to use Option 1 should it be an available ODFW program in the future.

3.2 Option 2: Third Party Fee-in-Lieu Program

Under this option, Certificate Holder would partner with EFM, Inc., an affiliate of EcoTrust. Certificate Holder and EFM would present to Oregon Department of Energy (ODOE) and ODFW a mitigation plan designed to protect and restore habitat within the Big Game Winter Range on a portion of the about 22,000 contiguous acres west of Fort Rock currently owned and being managed by EFM, including for the benefit of mule deer. The mitigation measures that would be employed on this land are different from those outlined under Option 3 given the enhancement opportunities Certificate Holder may not implement Option 2 without an HMP amendment as discussed above.

3.3 Option 3: Working Lands Improvement Program (in-kind, in-proximity)

Option 3 involves habitat protection and enhancement measures on lands proximate to the Facility. Specifically, Certificate Holder would secure land in proximity to the Facility and implement a Working Lands Improvement Program (WLIP). The WLIP is twofold: it ensures that (1) there is no net loss in quantity or quality of habitat for the life of the Facility, and (2) there is a net benefit of habitat quality for the life of the Facility. Certificate Holder will carry out the WLIP on suitable land located two to 20 miles from the Facility and within the ODFW-mapped Big Game Winter Range. These sites are considered “in-proximity” to the

Facility because the identified acres are within the home range of elk and mule deer that may also use the land within the Facility site boundary.

The WLIP is a habitat protection program and a western juniper (*Juniperus occidentalis*) treatment and management program on working rangeland. The juniper program includes juniper removal and thinning, which is consistent with the Oregon Conservation Strategy's recommended approaches for conservation of sagebrush habitats. The treatment includes controlling encroaching junipers by chipping or cutting for firewood, while maintaining pre-settlement juniper stands and juniper trees with old-age characteristics, which are important nesting habitat for birds and other wildlife (ODFW 2016b). Removal of juniper can, over time, result in redistribution of water budget components in the rangeland due to lack of tree canopy interception, in turn influencing soil moisture and vegetation. In the ODFW-mapped Big Game Winter Range, juniper removal can improve the quality and quantity of sagebrush shrubland forage while preserving effective cover habitat (such as large sagebrush and old age juniper).

In connection with finalizing this Mitigation Plan, certificate holder will, in coordination with ODFW, evaluate the function of land included in the WLIP for both sage grouse and big game and determine to what extent activities under the WLIP may benefit both species. Mitigation can overlap, assuming the acres proposed at the mitigation site function for both species.

Working Lands Improvement Program Agreement

Certificate Holder will enter into enforceable and recordable Working Lands Improvement Program (WLIP) Agreements with the underlying property owners for land enrolled in Certificate Holder's WLIP. A copy of the WLIP Agreement is included as [Attachment 1](#). The WLIP Agreement is a legally binding agreement, authorizing Certificate Holder to implement the WLIP consistent with this HMP and obligating the property owner to manage and operate the land consistent with the goals of the WLIP. The term of the WLIP Agreement is for the life of the Facility.³ The terms of the WLIP Agreements provide for mitigation to achieve a no

³ "For the life of the Facility" is defined at the point when EFSC terminates the site certificate pursuant to OAR 345-027-0010. Before EFSC terminates a site certificate, the certificate holder must apply to EFSC to terminate the site certificate and provide EFSC with a proposed retirement plan consistent with OAR 345-027-0110(5), which requires, among other things, the information about how certificate holder will address impacts to wildlife and the environment during retirement. Before certificate holder may take action, EFSC must review the proposed final retirement plan, considered comments from the public and reviewing agencies, approved the proposed final requirement plan, and issued an order authorizing the retirement according to the approved final retirement plan, as provided for in OAR 345-027-0010. The approved final retirement plan will require certificate holder to restore the site and ODFW may comment on the retirement plan to ensure that the Facility continues to meet the ODFW Mitigation Policy "for the life of the Facility." EFSC may not terminate the site

net loss of habitat quality or quantity. The implementation of the juniper treatment and management program on lands subject to WLIP Agreements achieve mitigation results in a net benefit of habitat quality. Certificate Holder will provide copies of the executed WLIP Agreements to ODOE prior to construction of the Facility.

WLIP Sites

Certificate Holder performed a juniper phase desktop analysis of about 22,722 acres of land in Big Game Winter Range near the Facility site. The desktop analysis identified juniper woodland succession phases (Phase 1, Phase 2, Phase 3) and provided mapping of the phases as well as areas unsuitable for mitigation (e.g., lava beds or quarries).⁴ See [Attachment 2](#). From this information, Certificate Holder identified two property owners with large tracts of land for participation in the WLIP: the Morrison Ranch at about 1,870 acres and the Nine Peaks Ranch at about 4,500 acres, totaling about 6,370 acres.⁵ Certificate Holder conducted a preliminary desktop assessment of habitat types and categories on the about 6,370 acres to confirm that the habitat is of similar structure and function as the habitat within the Facility site boundary. See [Attachment 3](#) for the desktop habitat mapping.

The Morrison Ranch mitigation area is located, at its closest point, about 2 miles north of the Facility site boundary. This mitigation area is within the ODFW-mapped Big Game Winter Range and has about 970 acres of sagebrush shrubland and 960 acres of juniper woodland. The sagebrush shrubland within this mitigation area has similar habitat structure and function to the sagebrush shrubland within the Facility site boundary. Roughly, half of the juniper woodlands in the Morrison Ranch mitigation area are Phase 2 succession and likely support an understory with levels of sagebrush and perennial bunchgrasses that are suitable for restoration or conversion to sagebrush shrubland. The Phase 3 succession areas, which is also about half of the juniper woodland habitat in this mitigation area, may also exhibit restoration potential. The Morrison Ranch mitigation area also provides primary habitat values for big

certificate until EFSC finds that certificate holder has completed retirement according to EFSC order authorizing retirement. See OAR 345-027-0110(8).

⁴ The desktop analysis was conducted according to the protocols in the *Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions: U.S. Geological Circular 1321*, Miller et al. (2007).

⁵ The GIS data show the Morrison Ranch and Nine Peaks Ranch mitigation area acreage as slightly larger than the tax lot acres. The GIS data show the Nine Acres Ranch mitigation area at about 4,595 acres and the Morrison Ranch mitigation area at about 1,939 acres, rather than 4,500 and 1,870 acres, respectively.

game, such as forage and thermal cover. Therefore, this land represents in-kind habitat for purposes of meeting Certificate Holder's Category 2 habitat mitigation obligations.

The Nine Peaks Ranch mitigation area is located, at its closest point, about 7 miles north of the Facility site boundary. This mitigation area is within the ODFW-mapped Big Game Winter Range and has about 4,225 of sagebrush shrubland and 330 acres of juniper woodland. Sagebrush shrubland at Nine Peaks Ranch would be similar in structure and function as the sagebrush shrubland within the Facility site boundary; however, almost 85 percent of sagebrush shrubland in this mitigation area exhibits Phase 1 juniper encroachment. Phase 1 encroachment areas are in danger, long term, of further juniper succession, and would be great candidates for juniper restoration. The Nine Peaks Ranch mitigation area also provides primary habitat values for big game, such as forage and thermal cover. Therefore, this land represents in-kind habitat for purposes of meeting Certificate Holder's Category 2 habitat mitigation obligations.

In addition, Certificate Holder conducted field-based habitat mapping of the WLIP sites, based on a protocol approved by ODOE, in consultation with ODFW (consistent with the field-based habitat mapping performed for the field surveys conducted as a part of Exhibit P). The resulting written report of a survey and mapping attached as Attachment 4 and provided to ODFW on or about May 22, 2020, demonstrate that selected mitigation acres within the Morrison Ranch and the Nine Peaks Ranch are "in-kind" habitat to meet the Facility's mitigation obligations under this HMP.

Once ODOE, in consultation with ODFW, concurs with Certificate Holder's field verifications, Certificate Holder will execute WLIP Agreements substantially in the form attached as Attachment 1 with the Morrison Ranch and/or the Nine Peaks Ranch. Land under control will total 1.2 acres for every 1 acre of habitat impacted by the Facility components.

Implementation of the WLIP for Habitat Enhancement

Certificate Holder will implement the WLIP across acreage totaling 1.2 acres for every 1 acre of habitat permanently impacted by the Facility components based on final Facility design. For example, if the final Facility footprint is 3,588 acres, Certificate Holder will protect 4,306 acres of habitat from development and conduct the habitat enhancement measures across the 4,306 acres, as described below.

Step 1: Pre-Treatment Juniper Survey

Certificate Holder conducted a pre-treatment survey to determine the appropriate juniper treatment areas and record pre-treatment conditions (the "Pre-Treatment Survey"). The Pre-Treatment survey informed the Juniper Treatment Plans. The Pre-Treatment Survey was conducted in accordance with a protocol, submitted and approved by ODFW, based on the methods included in the *Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions: U.S. Geological Survey Circular 1321* (Miller et al, 2007).

Step 2: Develop Juniper Treatment Plan

Certificate Holder has developed and submitted for review and approval to ODOE, in consultation with ODFW, juniper treatment plans for treatment within the WLIP sites. The plans include the following components:

- Habitat maps identifying the boundary of proposed treatment areas.
- A description and figures identifying approximate acres of treatment areas by treatment type.
- Best management practices to minimize the risk of noxious weed introduction into juniper treatment areas including equipment wash out station, reseeding of burned slash treatment piles with a grass/legume mix (within 30 days of the fire), and monitoring burned areas for noxious weeds (annually for three years following reseeding).
- A protocol establishing methods for documentation of pre- and post-treatment conditions such as through photo documentation; and, field based methods including walking a representative sample of 100-meter random transects to assess soil disturbance and vegetation conditions (plant cover, native herbaceous cover, non-native cover).
- Recommendations for post-treatment monitoring, weed treatment, and juniper re-treatment.

Step 3: Juniper Treatment

Certificate holder will hire one or more contractors (locally, to the extent possible) to implement the Juniper Treatment Plan(s) across the WLIP sites. Depending on the local site conditions and the capabilities of the contractor(s), felled juniper may be burned on site or hauled away. If slash burning is to occur, contractor will obtain necessary burn permits and will coordinate with landowners, as applicable. Juniper may also be sorted and decked, delimbed, and any commercial product taken off site. In implementing the Juniper Treatment Plans, Certificate Holder will direct the cutting contractor to minimize impacts to sagebrush in the understory.

Step 4: Weed Monitoring and Treatment

Certificate Holder will engage the Lake County Cooperative Weed Management Area (Lake County CWMA) to monitor the WLIP sites for noxious weeds. Lake County CWMA will monitor noxious weeds within a treated area annually for two years after initial juniper treatment and will treat weeds as needed during the monitoring. In addition, Lake County CMWA will monitor burned slash treatment pile areas annually for 3 years following reseeding and will treat weeds as needed during the monitoring. Certificate Holder will provide copies of the annual weed monitoring and treatment reports to ODOE and ODFW.

Thereafter, Lake County CWMA will monitor and treat noxious weeds in the WLIP sites as described below.

Step 5: Monitoring and Reporting

Certificate Holder will hire a qualified contractor to conduct monitoring in the treated areas and provide reports to ODOE, ODFW, and Lake County as provided for in the applicable Juniper Treatment Plans. The monitoring program will consist of monitoring for noxious weeds as well as monitoring for mitigation success.

Generally, the first post-treatment monitoring for mitigation success will occur within one year after the initial juniper treatment is completed and continue every ten years thereafter for the life of the Facility. Polygons where no treatment is planned will be monitored when neighboring polygons with a common boundary are scheduled for treatment or monitoring. For those areas that have been seeded following disturbance, monitoring will include collection of the following information:

- Confirmation that all disturbance areas requiring active re-vegetation have been re-seeded;
- Visual estimates of:
 - Percent of total vegetative ground cover of individual plant species in two categories (grasses/forbs and shrubs), and
 - Percentage bare soil
- Presence of noxious weeds species (including density and geographical extent of populations); and
- Presence of windblow or water erosion problems that require additional measures.

More generally, monitoring measures to be documented include:

- Confirm ongoing compliance with WLIP agreements;
- Assess changes in vegetation cover (species, structural stage, health);
- Document environmental factors such as average rainfall, average snowfall, occurrence of wildfire, etc.; and
- Assess juniper encroachment to evaluate whether retreatment may be needed, using the location points identified during the initial Juniper Treatment.

Prior to construction of the Facility, Certificate Holder shall provide a draft report template for review and comment by ODOE, in consultation with ODFW. Based on the agency-reviewed report template, Certificate Holder will provide ODOE and ODFW a report following each monitoring period detailing the observations and results, including the details of any noxious weed treatment and juniper retreatment.

The monitoring reports will document remedial actions taken to date, additional remedial actions planned for areas that are not apparently trending toward success, and the anticipated dates of completion of each of these actions. Remedial actions may include additional juniper treatments (as described below in Section 4.0; Juniper Encroachment), weed treatment, and re-seeding, to correct deficiencies or shortcomings. Remedial actions will be implemented as needed. The nature of the remedial action will depend on the specific issues that arise.

4.0 SUCCESS CRITERIA

Certificate Holder will measure success during its monitoring periods and success will be based on the following indicators:

- Juniper Encroachment. Because juniper will be left in most of the polygons, some amount of juniper encroachment will occur in the forage polygons within the life of the Facility. A juniper treatment will be considered successful if encroachment does not exceed 10 stems per acre over a majority of the treatment area as determined by the monitoring described in the Juniper Treatment Plan. When the results of monitoring indicate that juniper encroachment has exceeded 10 stems/acre over a majority of a polygon then encroaching juniper will be cut using treatment 1 as described in the Juniper Treatment Plan.
- Successful weed control (weed monitoring and treatment) within the WLIP sites for the life of the Facility. The success criteria for noxious weed control will be based on qualitative observations to attempt to comply with Lake County and ODA recommended actions in each category of noxious weed. Consistent with Certificate Holder's Revegetation and Noxious Weed Control Plan (Appendix P-3), unless otherwise instructed to use other criteria by ODA or Lake County, Certificate Holder will consider weed control successful when State- or County-listed noxious weeds are absent or constitute less than 1 percent of vegetation otherwise dominated by native or desirable non-native species, unless the noxious weeds present are similar to pre-disturbance conditions or adjacent undisturbed areas.

5.0 PRE-CONSTRUCTION COMPLIANCE

The final HMP applies to the entirety of permanent and temporary Category 2 habitat impacts.⁶ This draft HMP contains pre-construction requirements to which Certificate Holder must comply. As described throughout this plan, prior to construction of the Facility, Certificate Holder shall submit a Final HMP which:

- Identifies the total number of permanent and temporary acres of Big Game Winter Range to be impacted, based on permanent facility components within the perimeter fence line and temporary impacts outside of the fence line, including any important assumptions or calculations;
- Identifies to the total number of functional acres of sage-grouse low-density habitat to be impacted based on the output of the HQT, habitat analysis and field surveys conducted by ODFW, and final Facility design, and the number of resulting functional acre credits required to satisfy the mitigation obligation.
- Identifies the number of acres included in the WLIP Agreements that are appropriate for (a) Big Game Winter Range mitigation only, (b) generating sage grouse mitigation credits, and (c) mitigation for both big game and sage grouse such that mitigation activities under this Plan would both produce the required number of sage grouse mitigation credits and satisfy the Category 2 habitat mitigation obligation to achieve a no net loss of habitat quality or quantity for Big Game Winter Range.
- Provides executed WLIP Agreements, with an opportunity for review and concurrence by ODOE if agreements contain termination or amendment clauses;
- Includes final Juniper Treatment Plan(s) with maps of treatment areas; treatment plans and methods, pre- and post-documentation protocols, monitoring and reporting protocols.

⁶ Certificate Holder began construction in 2019 on two solar projects located on land within the Facility site boundary under Lake County Permit No. 19-027-CUP and Lake County Permit No. 19-028-CUP. Certificate Holder is implementing mitigation measures for each project under the respective CUP approvals. Certificate Holder will terminate Lake County Permit No. 19-027-CUP and Lake County Permit No. 19-028-CUP once Certificate Holder has demonstrated compliance with the Facility site certificate's pre-construction conditions of approval, at which point the solar development previously approved under the County CUPs will become subject to EFSC jurisdiction. Certificate Holder proposes a condition of approval requiring an HMP status report to ODOE prior to construction confirming that mitigation conducted under the two county permits meets and will continue to meet the mitigation requirements under this HMP.

6.0 AMENDMENTS TO THE HMP

The HMP may be amended from time to time upon approval by EFSC, who may delegate its authority to review and authorize amendments to ODOE. ODOE must notify EFSC of all amendments and EFSC retains the authority to approve, reject, or modify any amendments to this HMP agreed to by ODOE.

7.0 REFERENCES

- Bradley, B. A. 2010. Assessing Ecosystem Threats from Global and Regional Change: Hierarchical Modeling of Risk to Sagebrush Ecosystems from Climate Change, Land Use and Invasive Species in Nevada, USA. *Ecography*, 33(1), 198-208.
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Appendix 1 Working Lands Improvement (WLIP) Agreement

WORKING LANDS IMPROVEMENT AGREEMENT

This Working Lands Improvement Agreement (“Agreement”) is entered into this _____ day of _____, 2020, (“Effective Date”), between _____, (“Property Owner”), and Obsidian Solar Center, LLC, an Oregon limited liability company (“Obsidian”).

Recitals

- A. Obsidian is developing a solar photovoltaic energy facility on approximately 3,900 acres of rangeland in northern Lake County, Oregon (“Facility”).
- B. The Facility is subject to review and approval by the Oregon Energy Facility Siting Council (“EFSC”). As a part of the EFSC permitting process, Obsidian is required to develop a Habitat Mitigation Plan (“HMP”) to mitigate for impacts to habitat, including area mapped by the Oregon Department of Fish and Wildlife (“ODFW”) as big game winter range.
- C. The HMP requires Obsidian to secure land in proximity to the Facility and implement the mitigation measures described in the HMP, which include a Working Lands Improvement Program (“WLIP”). The WLIP is a western juniper (*Juniperus occidentalis*) treatment and management program on working rangeland and involves juniper removal and thinning, controlling encroaching junipers by chipping or cutting for firewood, and maintaining pre-settlement juniper stands and juniper trees with old-age characteristics, which are important nesting habitat for birds and other wildlife.
- D. The purpose of the WLIP is to ensure that there is no net loss in quantity or quality of habitat for the life of the Facility and there is a net benefit of habitat quality for the life of the Facility.
- E. This Lease facilitates Obsidian’s implementation of the WLIP under the HMP and obligates Property Owner to manage and operate the Property (as defined below) consistent with the goals of the WLIP for the life of the Facility as described herein.

NOW THEREFORE, for good and adequate consideration, the parties agree as follows:

1. **Description of Property.** Property Owner grants Obsidian the non-exclusive right to use approximately 1,870 acres of working rangeland in north Lake County, as further described in Exhibit A and shown in Exhibit B (“Property”), for the purposes described herein and subject to the restrictive covenants described herein. Property Owner grants Obsidian a non-exclusive license of ingress and egress to and from the Property over the routes and easements historically and customarily used or hereafter constructed or useful to access the Property. The Agreement excludes oil and gas rights and the improvements consisting of barns, shops, residence, all of which are reserved for the continued use of Property Owner and excluded from the Property. Property Owner is responsible for maintaining all existing improvements on the Property.

2. **Term of Agreement.** The initial term of this Agreement shall be 30 years, commencing on _____ and expiring on _____ (“Initial Term”). Obsidian will have two (individually, an “Option”) options to renew this Agreement for five years (individually, a “Renewal Term”) at the end of the Term or Renewal Term by providing written notice to Property Owner at least 60 days prior to the then-current expiration of the Term or Renewal Term. The duration of the Initial Term and Renewal Term will be for the life of the Facility’s construction and operation.
3. **Rent.** Obsidian agrees to pay Property Owner cash rent in the amount and on the terms set forth in Exhibit C, which shall be redacted in the recorded version of this Agreement. Rent for any partial year shall be prorated based upon the number of days in which this Agreement was effective during such year.
4. **Binding Nature of Agreement.** The terms of this Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of both Property Owner and Obsidian in like manner as upon the original parties. If the Property Owner should sell or otherwise transfer title to the Property, it will do so subject to the terms and conditions of this Agreement. At any time during the Term of this Agreement or any Renewal Term should the Property be transferred, sold or conveyed, be subject to foreclosure, bankruptcy or transferred by any other means whatsoever, the Property Owner, sponsor or administrator shall immediately notify Obsidian in writing.
5. **WLIP Restrictions.** Property Owner covenants and agrees that it will not use the Property in a manner that is likely to undermine the effectiveness or is otherwise contrary to the Obsidian’s habitat mitigation and enhancement activities performed on the Property pursuant to the HMP, as may be amended from time to time, set forth in Exhibit D, which shall be redacted in the recorded version of this Agreement.
 - a. The following activities are specifically permitted on the Property without violating the terms and conditions of this Agreement: (i) hunting, fishing, hiking, or passive recreation; (ii) fencing to prohibit entrance of livestock and trespassers; (iii) posting of signs; (iv) building or remodeling a primary residence, agricultural building, or similar structure to serve ongoing agricultural operations so long as the total such use does not exceed five (5) acres; (vi) current use of land under existing grazing management plans; and (vii) implementation of approved conservation and wildlife management plans consistent with the HMP.
 - b. The following activities are specifically prohibited on the Property under this Agreement: (i) increased grazing above levels approved under existing grazing management plans unless otherwise approved in writing by ODFW; (ii) all nonagricultural uses unless otherwise specified in Section 5(a) above; (iii) grading, mowing, blading, or expansion of impervious surfaces or access road networks; and (iv) divisions of the Property.

c. Activities not specifically permitted or specifically prohibited may be allowed subject to consultation with and prior approval of the Obsidian and ODFW.

e.d. Property Owner and Obsidian will complete a baseline inventory showing existing development on the Property, identifying any future development area under Section 5(a)(iv), and providing a summary of the existing grazing management plans. The baseline inventory will be included in Exhibit E.

6. **Alterations by Obsidian.** Property Owner acknowledges that the Obsidian intends to use the Property to implement the WLIP and meet its corresponding mitigation obligations described in the HMP. Except as set forth in a written juniper treatment plan or weed control plan developed pursuant to the HMP and provided to Property Owner, Obsidian will make no improvements or alterations on the Property of any kind without first obtaining Property Owner's written consent,. Any alteration will be made in a good and workman-like manner, and in compliance with applicable laws and building codes.
7. **Coordination with Property Owner.** To implement the WLIP, Obsidian will hire one or more contractors (locally, to the extent possible). Obsidian will provide Property Owner written notice of the name and contact information of any contractor engaged by Obsidian to perform work on the Property. Obsidian will provide written notice at least five (5) days prior to the first day of the scheduled work. Such work may include but is not limited to juniper treatment, juniper removal, monitoring, and weed treatment. Property Owner will coordinate with Obsidian if undertaking any activities described in Section 5 above by providing reasonable written notice to ensure that such activities will be performed consistent with the mitigation goals of the HMP. Property Owner also grants limited access rights to ODFW and the Oregon Department of Energy ("ODOE") to access the Property upon prior reasonable written notice to Property Owner and Obsidian for the purposes of inspecting the mitigation work.
8. **Juniper Disposal Methods.** Depending on the local site conditions, the capabilities of the contractor(s), and Property Owner's preferences, cut juniper may be burned onsite, hauled offsite, or some combination of disposal methods may be used. Obsidian will coordinate the selection of the disposal method for cut juniper and slash with Property Owner. If the disposal method is burning, Obsidian or its contractor will obtain all necessary burn permits and coordinate the burn date with Property Owner. To the extent practicable, commercially valuable juniper will be salvaged and hauled offsite and any proceeds will first go to offset rent payments within the last 12 months and then go to the Property Owner.
9. **No Encumbrances or Liens.** Obsidian shall not cause, suffer or permit to be filed against all or any portion of the Property any mechanic's or similar lien for any work done or materials supplied to the Property by or at the request of Obsidian or its authorized agent ("Lien"). If any Lien shall be filed against all or any portion of the Property (i) Obsidian

shall give notice thereof to Property Owner within five business days after the date on which Obsidian first becomes aware of such Lien, and (ii) within 30 days after first becoming aware of such filing and prior to any foreclosure, Obsidian, at its sole cost and expense, shall cause the Lien to be discharged of record or bonded over, failing which Property Owner shall have the right, but shall not be obligated, to discharge the Lien without investigating the validity or amount thereof. Obsidian shall reimburse Property Owner on demand for any amounts so paid or incurred by Property Owner, including reasonable expenses and attorneys' fees. .

10. **Taxes.** Property Owner shall pay when due all real property taxes on the Property and the improvements located on the Property.

11. **Insurance by Obsidian.** From and after the Effective Date, Obsidian, at its sole cost and expense, shall obtain and maintain the following insurance during the Term:

- a. Commercial general public liability insurance against any and all claims arising out of liability for personal injury, including illness and death, with limits of not less than \$2,000,000 per occurrence, and property damage in and about the Property and otherwise resulting from any acts or operations of Obsidian, with a combined single limit of \$2,000,000 per occurrence;
- b. Property insurance coverage Obsidian's personal property protecting against risk of physical loss or damage in an amount not less than the actual replacement cost thereof; and
- c. Workers' compensation and employer's liability insurance as required by applicable law.

Obsidian is not responsible for paying or maintaining fire and property damage insurance. Any additional insurance coverage for the Property shall be the responsibility of the Property Owner.

12. **Release and Waiver of Subrogation.** The parties hereto release each other, and their respective agents and employees, from any liability for injury to any person or damage to property that is caused by or results from any risk insured against under the insurance policies required to be carried by either of the parties, which policies shall contain a waiver of subrogation by the insurer that provides that the insurer waives all right of recovery by way of subrogation against the other party and its agents and employees in connection with any injury or damage covered by such policy.

13. **Indemnification.** Each party hereby agrees to indemnify, defend and hold harmless the other party and their respective directors, employees and agents from and against any and all third party claims, actions, demands, liabilities, expenses and/or losses, including reasonable legal expenses and reasonable attorneys' fees ("Losses") the extent such Losses result from any, but except to the extent caused by the negligence or misconduct of the other party: (a) breach

of warranty by the indemnifying party contained in this Agreement; (b) breach of this Agreement by the indemnifying party; or (c) negligence or willful misconduct of the indemnifying party or their respective directors, employees, and agents in the performance of this Agreement.

14. **Hazardous Materials.** Neither Obsidian nor any of its employees or contractors (each a “Obsidian Party”) shall use, store, deposit, handle, transport, release, or dispose of Hazardous Materials in, on or about the Property in violation of any federal, state or municipal law, decision, statute, rule, ordinance or regulation currently in existence or hereafter enacted or rendered. Obsidian shall indemnify, defend and hold Property Owner harmless from and against any claims, penalties, fines, liabilities, settlements or damages (but excluding consequential damages) arising out of: (1) the release, use, storage, treatment, transportation, transfer, handling or disposal of any Hazardous Materials, on, over, under, from or affecting the Property (a “Release”) caused by Obsidian or a Obsidian Party, or (2) any violation of or liability pursuant to environmental laws which is based upon or in any way related to such Release, in each case except (a) those matters to the extent resulting from the negligence or misconduct of Property Owner, its successors and assigns, and their respective directors, officers, employees, contractors and agents, (b) matters that result from Pre-Existing Environmental Conditions unless and only to the extent exacerbated by the gross negligence or willful misconduct of Obsidian or any Obsidian Party, or (c) matters that result from the actions of third parties, including but not limited to the migration of Hazardous Materials to the Property from an offsite source. The indemnity provided in this Section shall survive the termination of this Agreement.

As used herein, the term “Hazardous Materials” shall mean and be defined as any and all toxic or hazardous substances, chemicals, materials or pollutants, of any kind or nature, which are regulated, governed, restricted or prohibited by any federal, state or local law, decision, statute, rule, or ordinance currently in existence or hereafter enacted or rendered, and shall include (without limitation), all oil, gasoline and petroleum based substances asbestos, toxic molds and per- and polyfluoroalkyl substances (“PFAS”). As used herein, the term “Pre-Existing Environmental Condition” means presence of: (i) Hazardous Materials in soil, groundwater, soil vapor, ambient air or surface water on or about the Property in amounts, concentrations or levels that meet or exceed Environmental Requirements, including cleanup or other standards applicable to Hazardous Materials or which otherwise require remedial action under Environmental Requirements, which first existed or first occurred prior to the Effective Date; or (ii) any other environmental condition which first existed or first occurred prior to the Effective Date. “Environmental Requirements”, as used herein, shall mean all applicable federal, state, and local government laws (including common law), rules, regulations, statutes, codes, ordinances, directives, guidance documents, cleanup or other standards, and any other governmental requirements or standards which pertain to, regulate, or impose liability or standards of conduct concerning the use, storage, human exposure to, handling, transportation, release, cleanup, remediation or disposal of Hazardous Materials.

15. **Subordination and Non-Disturbance.** If any mortgage, deed of trust, deed to secure debt or similar instrument encumbers Property Owner's interest in the Property ("Fee Mortgage") and is senior in priority to the Agreement, Property Owner agrees to obtain a nondisturbance agreement in form reasonably satisfactory to Obsidian pursuant to which holder of such Fee Mortgage agrees not to disturb the possession of the Obsidian and its successors and assigns so long as Obsidian and its successors and assigns comply with this Agreement. In the event of foreclosure of any Fee Mortgage by voluntary agreement or otherwise, or the commencement of any judicial action seeking such foreclosure, Obsidian will become the Obsidian of and recognize such lender or purchaser in foreclosure as Obsidian's landlord under this Agreement without change in the provisions of this Agreement. Upon request by such successor in interest, Obsidian will execute and deliver an instrument confirming such attornment, which will recognize this Agreement and the rights of Obsidian set forth herein and shall provide that such successor in interest will not disturb Obsidian in its use of the Property in accordance with this Agreement unless Obsidian fails to comply with this Agreement.
16. **Compliance with Laws.** Obsidian shall comply with all applicable laws concerning Obsidian's specific use, occupancy, and activities in the Property. Property Owner will give prompt notice to Obsidian of any notice it receives of the violation of any law or requirement of any public authority with respect to the Property or the use or occupancy thereof.
17. **Quiet Enjoyment.** Property Owner covenants, represents and warrants to Obsidian that (i) Property Owner is the owner of the Property free and clear of (a) any prior encumbrance inconsistent with Obsidian's rights under this Agreement and (b) any prior mortgage or lien, (ii) Property Owner has the right to lease the Property, (iii) Property Owner shall not cause or allow any activity or use of the Property or Property Owner's adjacent property to interfere with Obsidian's use and enjoyment of the Property or the rights granted to Obsidian under this Agreement, (iv) nothing contained in any easement, covenants, conditions, declarations, limitations, or restrictions now or hereafter of record which are (or shall be) applicable to the Property shall prevent Obsidian from operating in the Property or require Obsidian to make any alterations, repairs modification or installments to the Property or require Obsidian to make any payment or perform any obligations not expressly required by Obsidian under this Agreement, and (v) Obsidian shall be entitled to quiet enjoyment of the Property and to the rights and privileges of Obsidian under this Agreement during the Term.
18. **Notices.** Any notice required or permitted to be given under this Agreement shall be deemed given if delivered personally to an officer or general partner of the party to be notified or sent by (a) United States registered or certified mail, postage prepaid, return receipt requested, or (b) overnight courier service and addressed as follows:

If to Property Owner: _____

If to Obsidian: Obsidian Solar Center, LLC
 Attn: David Brown
 5 Centerpointe Dr #350
 Lake Oswego, OR 97035

With a copy to: Davis Wright Tremaine LLP
 Attn: Elaine Albrich
 1300 SW Fifth Avenue, Suite 2400
 Portland, OR 97201

or such other address as may be designated by either party by written notice to the other. Except as otherwise provided in this Agreement, every notice, demand, request or other communication hereunder shall be deemed to have been given or served upon actual receipt thereof. Accordingly, a notice shall not be effective until actually received. Notwithstanding the foregoing, any notice mailed to the last designated address of any person or party to which a notice may be or is required to be delivered pursuant to this Agreement shall not be deemed ineffective if actual delivery cannot be made due to a change of address of the party or party to which the notice is directed or the failure or refusal of such person or party to accept delivery of the notice.

19. **No Partnership of Joint Venture.** Property Owner shall not, by virtue of this Agreement, in any way or for any purpose, be deemed to be a partner of Obsidian in the conduct of Obsidian's business upon within or from the Property or otherwise, or a joint venturer or a member of a joint enterprise with Obsidian.
20. **Entire Agreement.** This Agreement contains the entire agreement between the parties and, except as otherwise provided herein, can only be changed, modified, amended or terminated by an instrument in writing executed by the parties.
21. **Severability.** If any provision of this Agreement shall be deemed to be invalid, it shall be considered deleted therefrom and shall not invalidate the remaining provisions of this Agreement.
22. **Applicable Law.** This Agreement shall be governed by, and construed in accordance with the laws of the State of Oregon.
23. **Recordation of Memorandum of Agreement.** On the Effective Date, Property Owner will execute, acknowledge, and deliver to Obsidian a memorandum substantially similar to the memorandum attached hereto as Exhibit FD, documenting the existence of this Agreement.

24. **Counterparts.** This Agreement may be executed in counterparts by the parties hereto and each shall be considered an original, but all such counterparts shall be construed together and constitute one Agreement between the parties hereto.

[signatures on next page]

IN WITNESS WHEREOF, the parties hereunto affixed their signatures the day and year first above written.

Property Owner:

Obsidian:

OBSIDIAN SOLAR CENTER, LLC

By: _____

By: _____

Name: _____

Name: _____

Its: _____

Its: _____

Exhibit A

Legal Description of Property

Exhibit B

Depiction of Property

Exhibit C

Rent

Exhibit D

Habitat Mitigation Plan

Exhibit E

Baseline Inventory

Exhibit F~~EXHIBIT E~~

Memorandum of Agreement

This document was prepared by and
after recording should be returned to:

Davis Wright Tremaine LLP
1300 SW Fifth Avenue, Suite 2400
Portland, Oregon 97201
Attn: Elaine Albrich

(space above reserved for recorder's use)

Memorandum of Agreement

This Memorandum of Agreement ("Memorandum") is made as of _____, 2__,
by and among _____ ("Property Owner"), and **OBSIDIAN SOLAR
CENTER, LLC**, an Oregon limited liability company ("Obsidian").

1. **Premises**. Property Owner leases to Obsidian that certain real property located at _____, Oregon and legally described and shown on the attached Exhibit A ("Premises") upon the terms and conditions of that certain Working Lands Improvement Agreement between the parties dated _____, 20__ ("Agreement"), which is incorporated herein by reference.
2. **Term**. The initial term of the Agreement will expire on _____. Obsidian has the option to extend the term for two addition five-year periods, according to the conditions set forth in the Agreement.
3. **Purpose of Memorandum**. This Memorandum is prepared for the purpose of recordation to give notice of the Agreement. This Memorandum shall not constitute an amendment or modification of the Agreement, and in the event of any conflict between the terms of this Memorandum and the Agreement, the terms of the Agreement shall control.

IN WITNESS WHEREOF, the parties hereto have caused this Memorandum to be duly executed as of the Effective Date.

PROPERTY OWNER:

By: _____

Name:

Its:

OBSIDIAN:

OBSIDIAN SOLAR CENTER, LLC,

an Oregon limited liability company

By: _____

Name: _____

Its: _____

STATE OF OREGON)

) ss.

County of _____)

This instrument was acknowledged before me on this ____ day of _____, 20__, by _____ in his/her capacity as _____ of Obsidian Solar Center LLC and acknowledged that he/she is authorized on behalf of the company to execute the same.

Notary Public for Oregon

My Commission Expires: _____

STATE OF OREGON)

) ss.

County of _____)

This instrument was acknowledged before me on this ____ day of _____, 20__, by _____ in his/her capacity as _____ of _____ and acknowledged that he/she is authorized on behalf of the company to execute the same.

Notary Public for Oregon

My Commission Expires: _____

EXHIBIT A
LEGAL DESCRIPTION OF PREMISES

Juniper Treatment Plan
(Appendix 2 to the Habitat Mitigation Plan)

Prepared For:
Obsidian Solar Center LLC
5 Center Point Drive, Suite 250
Lake Oswego, OR, 97035

Prepared By:
Fosters Natural Resource Contracting
16981 Highway 395, Lakeview, OR, 97630.
541-219-0252
fostersnrc@gmail.com.

Introduction

Obsidian Solar Center LLC (Obsidian) is applying for a site certificate from the Oregon Energy Facilities Siting Council (EFSC) to build and operate the Obsidian Solar Facility in the Fort Rock Valley of Lake County, Oregon (Facility). A condition of the site certificate will require Obsidian to mitigate for the Facility's impacts to Category 2 big game winter range habitat. Obsidian has developed a Habitat Mitigation Plan (HMP). The HMP proposes to establish a Working Lands Improvement Program (WLIP – [Appendix 1 to the HMP](#)) on portions of two properties, totaling 6,534 acres in the Fort Rock Valley (HMP [is included as](#) Attachment [P-1 to the Final Order](#)³). The total acreage enrolled in the WLIP will depend on the permanent footprint from the Facility's final design. The WLIP is two-fold: it involves habitat protection under a WLIP landowner agreement, and big game winter habitat enhancement using a juniper treatment program. The HMP identifies 5 steps to implement the juniper treatment and management program (HMP Section 3.3, page 8). Steps 1 and 2 involves completing a pre-treatment juniper (*Juniperus occidentalis*) field survey and developing a juniper treatment plan for the two properties. The purpose of this document is to present the juniper treatment plan (Step 2).

The goal of the WLIP is to provide mitigation by maintaining and improving big game winter habitat on the mitigation properties. Winter range will be maintained by establishing a WLIP agreement with the landowners. Big game winter range will be improved by providing a mosaic of vegetation associations designed to provide big game cover and forage areas across the properties. Juniper encroachment into shrub steppe habitats results in reduced forage quality and quantity due its ability to out compete shrubs and bunchgrass (Vaitkas and Eddleman 1987, Miller and Rose 1999, Miller et al. 2005, Davies et al. 2011). Forest vegetation associations are an important habitat component for wintering big game as they provide both thermal and hiding cover (Leckenby and Adams 1986, Boyce et al. 2003, Coe et al. 2018). Juniper woodlands are the primary forest habitat available during winter in the Fort Rock Valley (Coe et al. 2018). Therefore, actions under the HMP are not designed to just cut juniper, but are intended to provide quality winter habitat on the properties.

Pre-treatment juniper field surveys were completed during the first 2 weeks of April and the second week of May, 2020 (Appendix 1), using the Obsidian habitat assessment protocol (Appendix 2) approved by Oregon Department of Energy (ODOE) in consultation with Oregon Department of Fish and Wildlife (ODFW). Information collected during those surveys along with suggestions provided in Miller et al. (2007) and Barrett (2007) were used to develop the juniper treatment plan for improving habitat conditions on big game winter range.

Juniper Treatment Plan

The purpose of this mitigation is to improve big game winter range by developing a mosaic of forage and cover areas. This will be accomplished by maintaining the quality of forage areas by

removing juniper in phase 1 and 2 stands in order to retard juniper encroachment and its effect on understory vegetation, and retain juniper in pre-settlement and/or late phase 2 or phase 3 stands to provide cover.

Juniper treatments selected are shown in Tables 1 through 4 and Figures 1; 1a and b; 2; 2a-d. Vegetation associations were defined based on phase of juniper stands, understory vegetation present and land management practices which would affect treatment decisions. For example, polygon 26 on Nine Peaks Ranch has a low density stand of Phase 1 juniper and two understory plant associations (Table 2). The polygon is being treated to maintain forage. Juniper density and age are similar across the polygon, and treatment would not be different between the two understory plant associations. Similarly, there are areas of phase 1 and early phase 2 juniper within some cover polygons which were not identified for treatment in order to recruit future cover values (e.g. phase 1 and 2 inclusions between pre-settlement juniper in polygon 22 (Fig. 1b) on Nine Peaks Ranch). Finally, some of the pre-settlement or late phase juniper stands have encroachment of younger juniper (<60 years old) dense enough to provide fuel connectivity and put the stand at risk in the event of a wildfire (e.g. polygon 60, Morrison Ranch, Fig. 2c). Removing some or all of the younger juniper would be beneficial in terms of stand retention but this was weighed against the impact to cover value or potential impact to rock or lava structure and understory vegetation if machinery is used for treatment.

Treatments 1 through 3 below are designed to reduce juniper encroachment into vegetation associations managed for forage areas. Treatments 4 and 5 are designed to recruit or maintain vegetation associations managed for cover.

Methods Common to all Treatment Options

Irrespective of juniper phase or treatment prescription all pre-settlement juniper and ponderosa pine will not be cut. In the pre-settlement or late phase 2 or phase 3 stands which are designated for cover all post settlement juniper that have open trunks will not be cut. Open trunks mean the juniper has no live limbs from ground level up approximately 4 feet (Figure 3). In areas with post-settlement encroachment scattered individual juniper, or if available, clumps of juniper with open trunks will be retained for big game cover and/or livestock shade trees. In areas with high densities of these types of juniper it may be necessary to mark juniper to be retained.

Small isolated rock out crops or lava eruptions occur in many of the polygons. These outcrops have old individual juniper trees and provide unique wildlife habitat (Figure 4). All juniper on these small out crops will not be cut.

Juniper treatment on private lands in Oregon require a permit issued by Oregon Department of Forestry. The reason for this permit is to ensure treatment activities do not result in excessive fuel loading which in the event of a wildfire would compromise suppression efforts. There is no cost to secure a permit but the permit needs to be approved before juniper cutting begins. Permits are issued to the property owner and approved for one year. Permits need to be re-issued annually if treatment activities continue for more than a year. Failure to secure a permit results in the landowner being liable for wildfire suppression costs if it is determined that the juniper

treatment resulted in excessive untreated fuel loading which in the event of a wildfire exacerbated suppression efforts.

During the first land surveys in Oregon section and quarter section corner marks were blazed into trees. These marks are now more than 100 years old and have antiquities value. Although we are not cutting any pre-settlement trees the Lake County Surveyor requires juniper treatment plans be reviewed for potential impact to these trees and if necessary, the Surveyor will visit the treatment areas, record the location of these trees and mark them for retention.

Table 1. Nine Peaks Ranch, Fort Rock Valley, OR						
Characteristics of Vegetation Associations and Juniper Treatment Prescriptions						
			Post-settlement			
		Juniper	Juniper	Dominant	Dominant	Juniper
Polygon	Acres	Phase	Stems/Ac.	Shrubs	Grasses	Treatment
1	183	PIPO/JUOC	22	PUTR/ARTRV	FEID	2
2	61	PIPO/JUOC	27	PUTR/ARTRV	FEID	5
3	87	PIPO	<5	PUTR/ARTRV	FEID	5
4	92	1	17	ARTRW/PUTR	FEID	2
5	24	2	75	ARTRW/PUTR	FEID	5
6	58	2	27	ARTRW/PUTR	FEID	5
7	18	2	37	ARTRW/PUTR	FEID	5
8	26	late 2	40	ARTRW/ERNA	Native Mix	5
9	162	1	<5	ARTRW/ERNA	Native Mix	1
10	120	1	<5	ARTRW/ERNA	Native Mix	1
11	132	1/early2	10 W, 20E	ARTRW/ERNA	Native Mix	2
12	156	2	50	ARTRW/ERNA	Native Mix	5
13	42	late 2	40	ARTRW/ERNA	Native /AGCR	5
14	177	none	0	ERNA/CHVI	Native Mix	5
15	149	1	20	ARTRW/ERNA	Native /AGCR	1
16	16	2	42	ARTRW	Native Mix	5
17	14	2	40	ARTRW	Native Mix	5
18	32	early 2	30	ARTRW	Native Mix	5
19	154	1	<5	ERNA/CHVI	Native /AGCR	1
20	296	1	7	ERNA/ARTRW	Native /AGCR	2
21	11	2	32	ARTRW	Native Mix	5
22	420	2	60	ARTRW	Native Mix	5
23	11	Pre	10	ARTRW	Native Mix	5
24	7	Pre	10	ARTRW	Native Mix	5
25	499	1/early 2	25	ARTRW	Native Mix	3
26	221	1	10	ERNA/ARTRW	Native /AGCR	2
27	19	1	10	ARTRW/ERNA	Native Mix	5
28	63	1	10	ARTRW/ERNA	Native Mix	5
29	46	Pre	35	ARTRW	Native Mix	4
30	47	Lava	35	ARTRW	Native Mix	5
31	757	1	10	ERNA/ARTRW	Native /AGCR	1
32	34	2	52	ARTRW/ERNA	Native Mix	5
33	451	early 2	17	ARTRW/ERNA	Native /AGCR	2
34	8	Pre	10	ARTRW	Native Mix	5
Shrub Abbreviations: ARTRT-basin big sagebrush, ARTRV-mountain big sagebrush, ARTRW- Wyoming big sagebrush,						
ERNA-Gray Rabbitbrush, CHVI-Green Rabbitbrush, PUTR-bitterbrush						
Grass Abbreviations: AGCR-crested wheatgrass, FEID-Idaho fescue						
Species in Native Mix: Idaho fescue, blue bunch wheatgrass, Thurber's needlegrass, squirrel tail grass, Sandberg's bluegrass, Indian ricegrass						

Table 2. Nine Peaks Ranch, Fort Rock Valley, OR							
Vegetation Association Polygon Comments							
Polygon	Comments						
1	Juniper mixed with PIPO - PIPO density decreases going south						
2	Juniper codominant with PIPO - substantial number of older trees both species						
3	PIPO stand with a few juniper						
4	Open JUOC/PIPO codominant stand						
5	Rocky ridge						
6	Scattered pre-settlement juniper on rock out crops						
7	Scattered pre-settlement juniper on rock out crops						
11	West leg of polygon has 10 stems/ac; East leg has 20 stems/ac						
12	Juniper distribution patchy. Pockets of late 2 and pre-settlement						
13	Mixed pre and older post settlement on very rocky soils						
17	Rock out crops with scattered pre-settlement						
18	Variable juniper density, leave for cover recruitment						
20	Areas with better soil converted to AGCR with CHNA encroaching						
	Areas with rocky soils are ARTRW with Native Mix						
21	Phase 3 on rock out crops						
22	Pre-settlement or late phase 2/phase 3 on rock outcrops						
	Areas of better soil have early phase 2 juniper @ 25 stems/ac						
23	Degraded lava outcrop						
24	Degraded lava outcrop						
25	Pockets of phase 1 throughout with ~10 stems/ac						
26	Areas with better soil converted to AGCR with CHNA encroaching						
	Areas with rocky soils are ARTRW with Native Mix						
27	Most of polygon burned in wildfire. Shrubs limited						
28	Most of polygon burned in wildfire. Pre-settlement remains on rock outcrops						
29	Swath on west end that was chained years ago phase 2 with CHNA/ARTRW						
30	Aspen clone on east end with very little juniper in aspen						
31	Areas with better soil converted to AGCR with CHNA encroaching						
	Areas with rocky soils are ARTRW with Native Mix						
32	Pre-Settlement JUOC scattered throughout						
33	Flatter areas chained years ago and seeded to AGCR, CHNA encroaching						
	Remainder of polygon ARTRW with Native bunchgrass mix.						
34	Degraded lava outcrop						

Table 3. Morrison Ranch, Fort Rock Valley, OR.							
Characteristics of Vegetation Associations and Juniper Treatment Prescriptions							
			Post-settlement				
		Juniper	Juniper	Dominant	Dominant	Juniper	
Polygon	Acres	Phase	Stems/Ac.	Shrubs	Grasses	Treatment	
35	12					5	
36	29	early 2	50	ERNA	AGCR	3	
37b	19	late 2/3	10	ERNA/ARTRW	FEID/AGCR	5	
38	44	Pre	10	ARTRW/ERNA	Native Mix	5	
39b	22	late 2/3	27	ARTRW/ERNA	Native Mix	5	
40b	104	1	12	ERNA/CHVI	AGCR	1	
41	39	Pre	10	ERNA/CHVI	Native Mix	5	
42	99	1	<5	ERNA/CHVI	Native Mix	1	
43	106	Pre	5	ERNA/CHVI	Native Mix	5	
44	233	Pre	<5	ERNA/CHVI	Native Mix	5	
45	140	Pre	25	ARTRW/ARTRT	Native Mix	4	
46	30	2	17	ARTRW/ERNA	Native Mix	3	
47	111	1	12	ARTRW/ERNA	Native/AGCR	2	
48	34	Pre	<5	ERNA/ARTRW	Native/AGCR	4	
49	48	1	15	ERNA/CHVI	AGCR	2	
50	103	1	20	ERNA/ARTRW	AGCR	1	
51	174	1	<5	ERNA/ARTRW	AGCR	1	
52	20	1	15	ARTRW/ERNA	Native Mix	2	
53	24	1	22	ARTRW/ERNA	FEID	2	
54	7	1	20	ARTRW/ERNA	FEID	2	
55	4	1	15	ARTRW/ERNA	Native Mix	2	
56	28	1	15	ARTRW/ERNA	Native Mix	2	
57	5	Pre	17	ERNA/ARTRW	Native Mix	5	
58	50	Pre	17	ERNA/ARTRW	Native Mix	4	
59	10	Pre	15	ERNA/ARTRW	Native Mix	5	
60	179	Pre	5	ERNA/ARTRW	Native Mix	4	
61	208	Pre	27	ARTRW/ERNA	Native Mix	4	
62	46	early 2	17	ARTRW/ERNA	Native Mix	3	
63	44	1	7	ARTRW/ERNA	Native Mix	2	
64	27	early 2	55	ARTRW/ERNA	Native Mix	3	
Shrub Abbreviations: ARTRT-basin big sagebrush, ARTRV-mountain big sagebrush, ARTRW- Wyoming big sagebrush,							
ERNA-Gray Rabbitbrush, CHVI-Green Rabbitbrush							
Grass Abbreviations: AGCR-crested wheatgrass, FEID-Idaho fescue							
Species in Native Mix: Idaho fescue, blue bunch wheatgrass, Thurber's needlegrass, squirrel tail grass, Sandberg's bluegrass, Indian ricegrass							

Table 4. Morrison Ranch, Fort Rock Valley, OR.							
Vegetation Association Polygon Comments							
Polygon	Comments						
35	Cinder Pit						
37b	Scattered pre-settlement throughout. Probably was a pre-settlement stand but ~ 100 years ago most trees cut - being replaced with older Post-settlement trees						
	Polygon 37a is 22 acres						
38	Post settlement trees are 10/ac of trees ~80 years old and <5/ac of trees ~20 years old						
39b	Scattered pre-settlement throughout. Polygon 39a is 4 acres						
40b	Juniper distribution patchy- large areas of <5 stems/ac. Polygon 40a is 60 acres.						
41	Within winter feed lot. Shrubs very sparse.						
42	Within winter feed lot. Shrubs very sparse.						
43	Denser stand of Pre-settlement and old Post-settlement trees. JUOC <40 years are <5/ac.						
	Within winter feed lot. Shrubs very sparse.						
44	Sparse stand of pre-settlement. Post-settlement trees ~ 20 yrs old and <5/ac						
45	A portion of the area west of the road was an old feed lot. In this area post settlement <5/ac. Shrubs CHNA/CHVI.						
46	Scattered Pre-settlement throughout.						
47	Scattered Pre-settlement throughout.						
49	Scattered Pre-settlement throughout.						
50	Old rye hay field converted to AGCR ~ 40 years ago						
51	Old rye hay field converted to AGCR ~ 40 years ago						
52	Ward Well #1 on tablet pictures						
53	Shallow draw bottom between degrading lava flows. Ward Well #4 on tablet pictures						
54	Shallow draw bottom between degrading lava flows.						
55	Better soil inclusion in degraded lava flow						
56	Shallow draw between degraded lava flows. Juniper density increases south to north						
57	Degraded lava. Inclusions of sandy loam soils which have the most post settlement						
58	Degraded lava. Inclusions of sandy loam soils which have the most post settlement						
59	Degraded lava. Inclusions of sandy loam soils which have the most post settlement						
60	Degraded lava. Inclusions of sandy loam soils which have the most post settlement						
62	Scattered Pre-settlement throughout.						
63	Scattered Pre-settlement throughout.						
64	Scattered Pre-settlement throughout.						

Figure 1. Pre Treatment Juniper Survey Polygons Nine Peaks Ranch, Fort Rock Valley, OR.

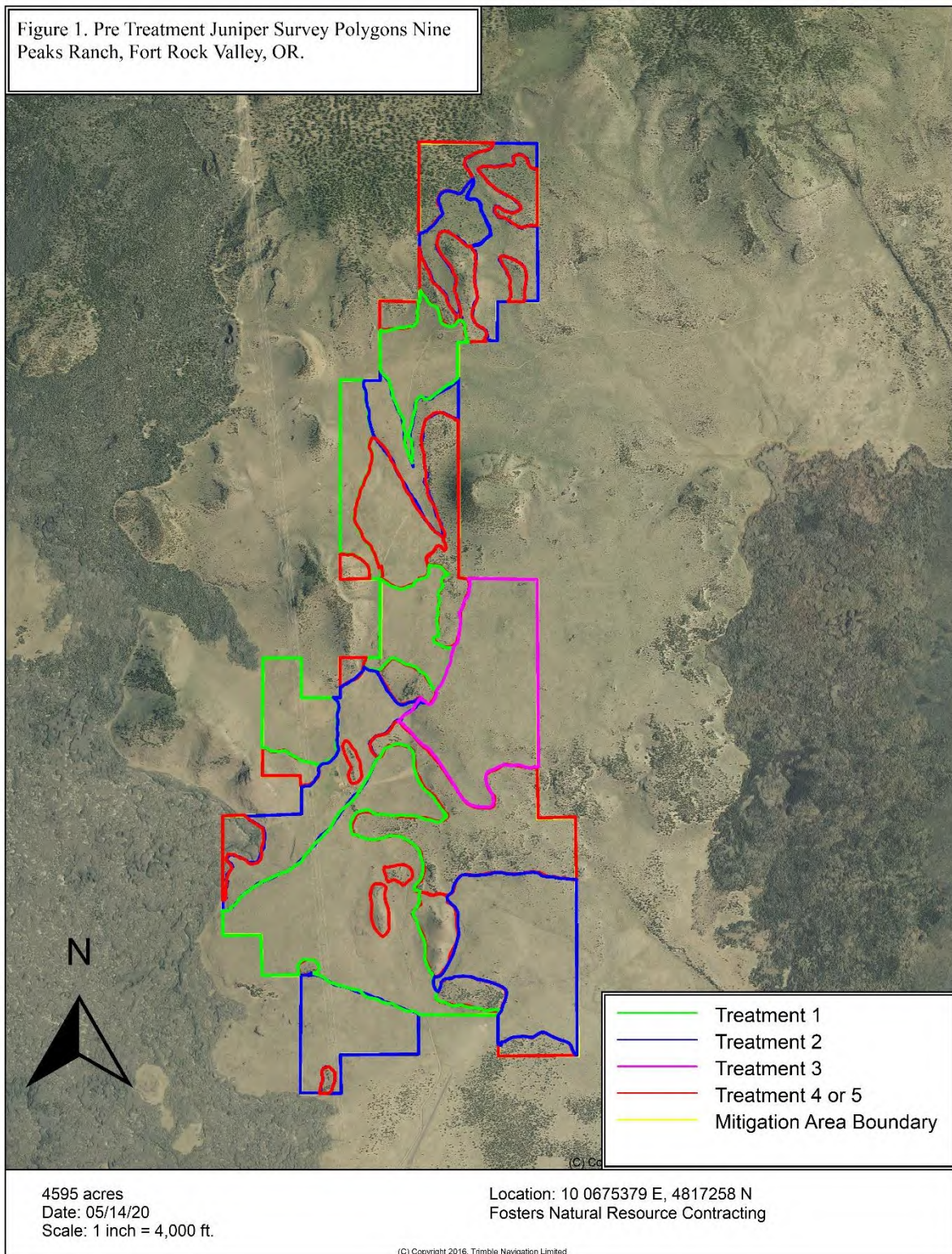


Figure 1a. Pre Treatment Juniper Survey Polygons 1-17, 25
Nine Peaks Ranch, Fort Rock Valley, OR.

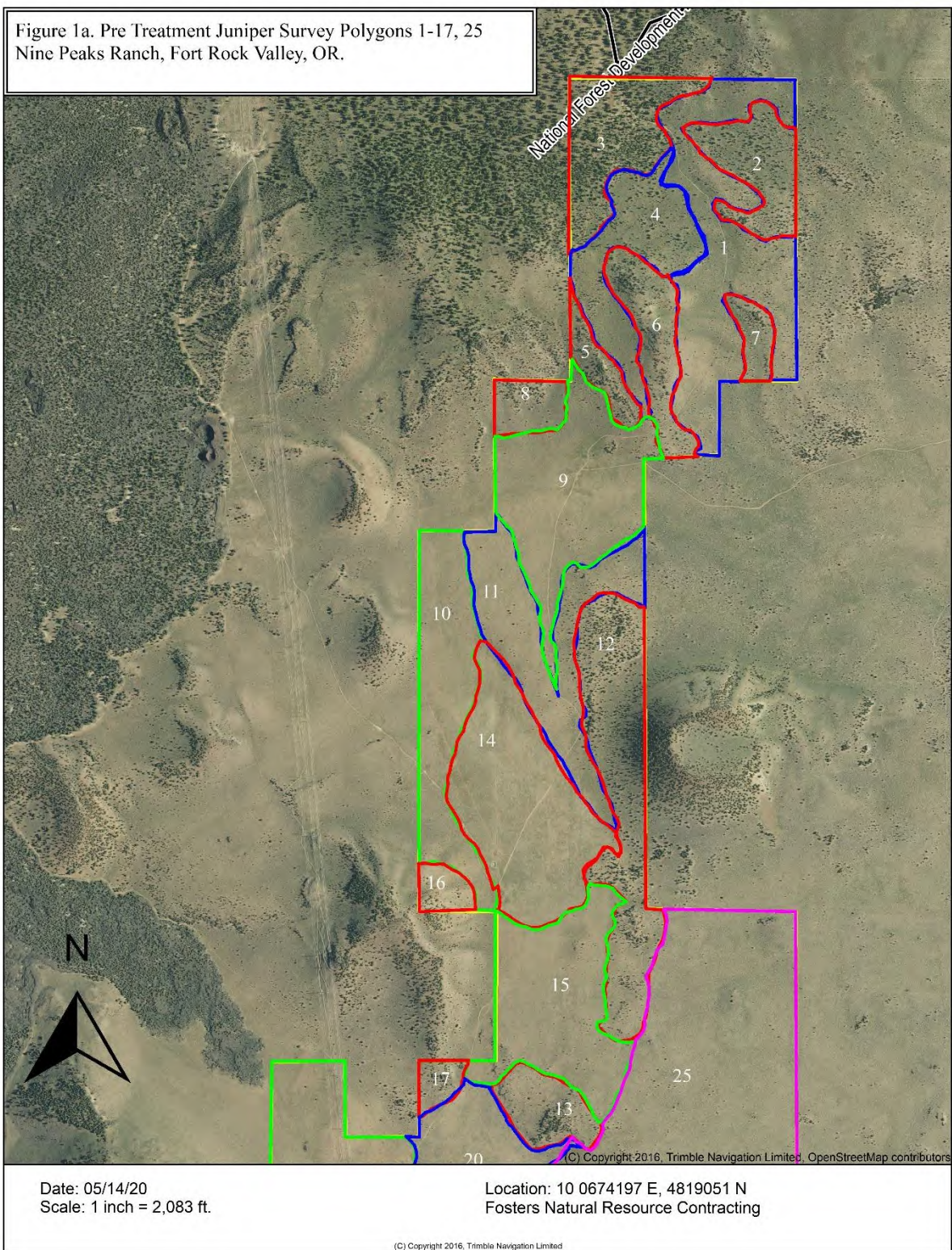


Figure 1b. Pre Treatment Juniper Survey Polygons 13, 15-34 Nine Peaks Ranch, Fort Rock Valley, OR.

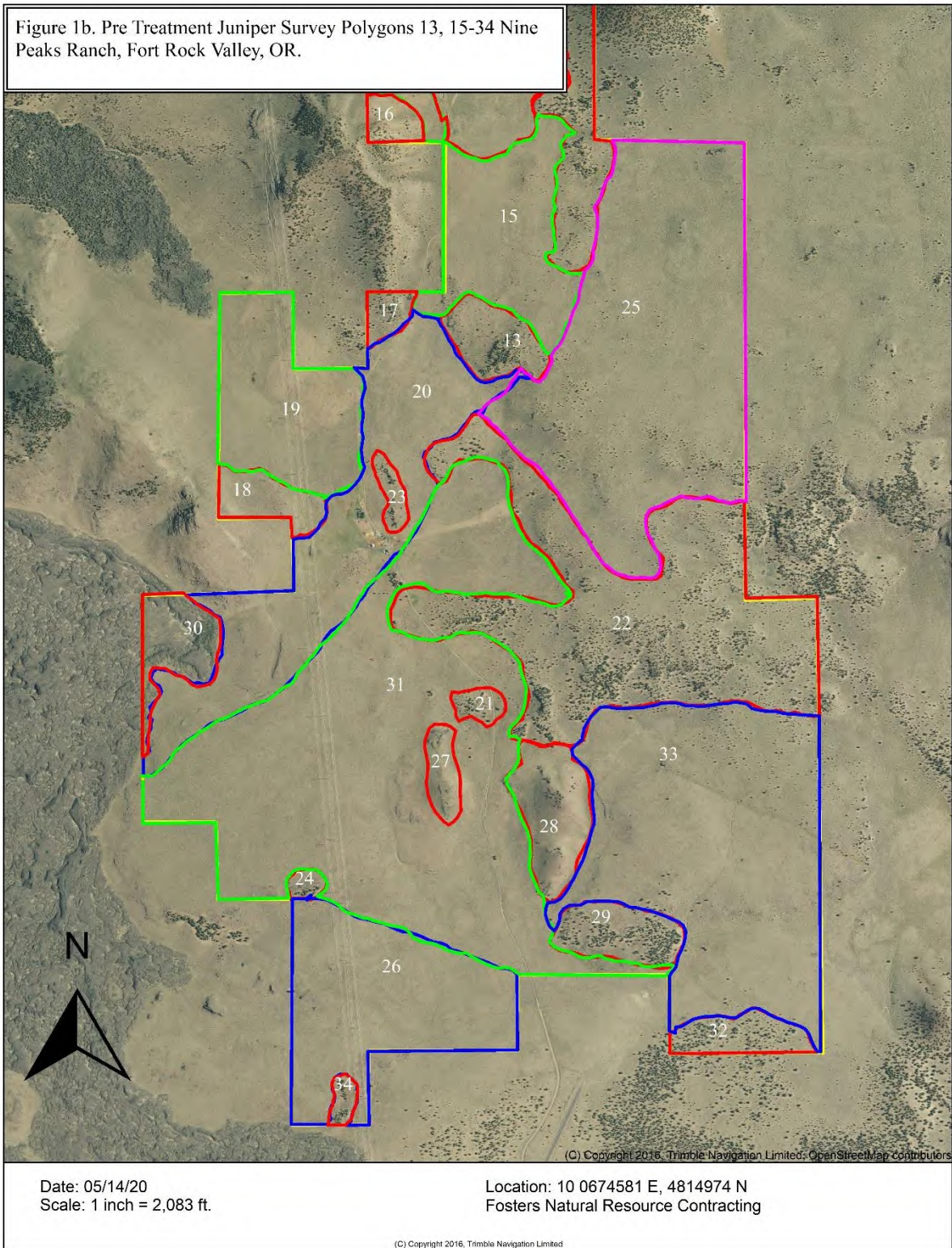


Figure 2. Pre Treatment Juniper Survey Polygons
Morrison Ranch, Fort Rock Valley, OR.

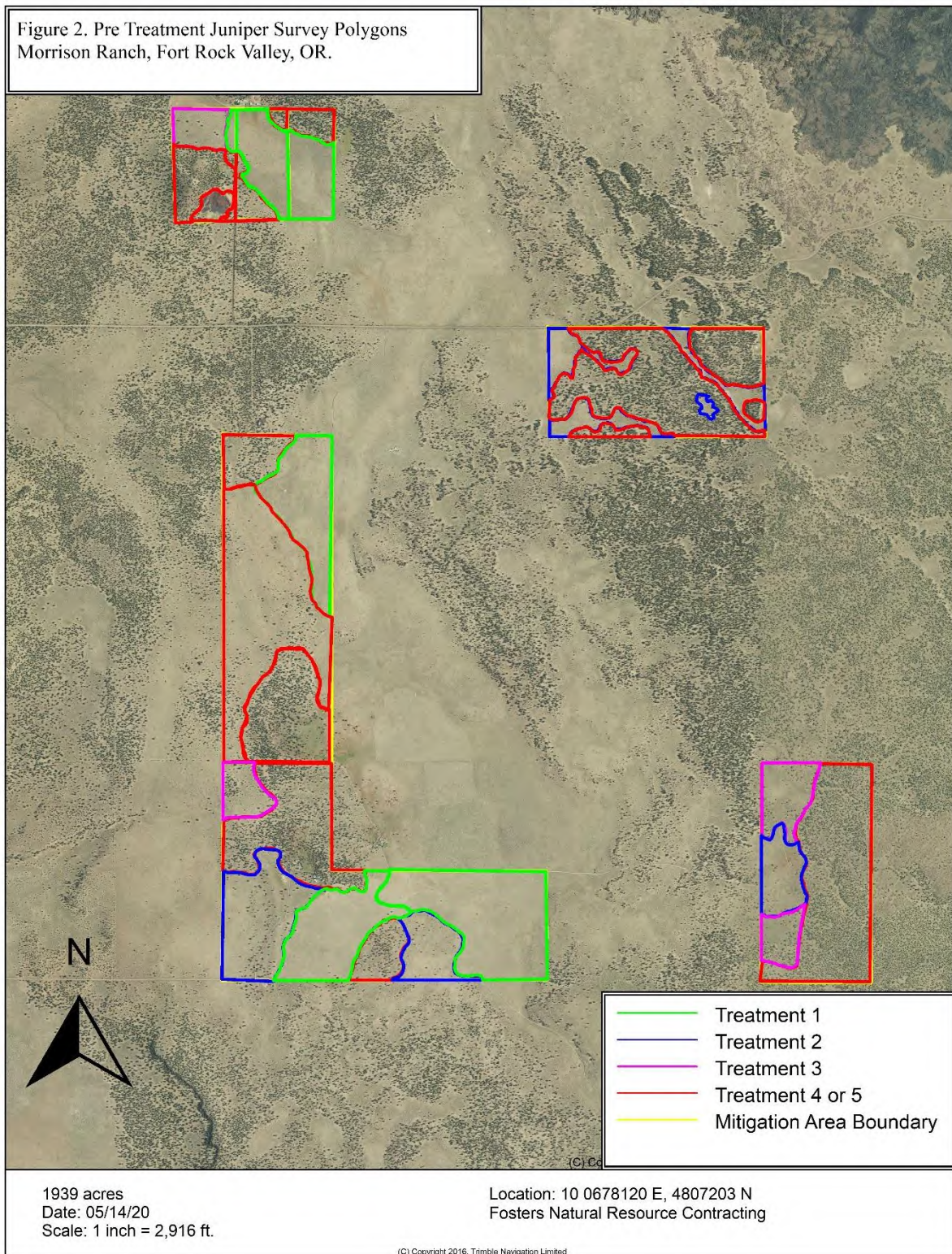


Figure 2a. Pre Treatment Juniper Survey Polygons 35-40
Morrison Ranch, Fort Rock Valley, OR.

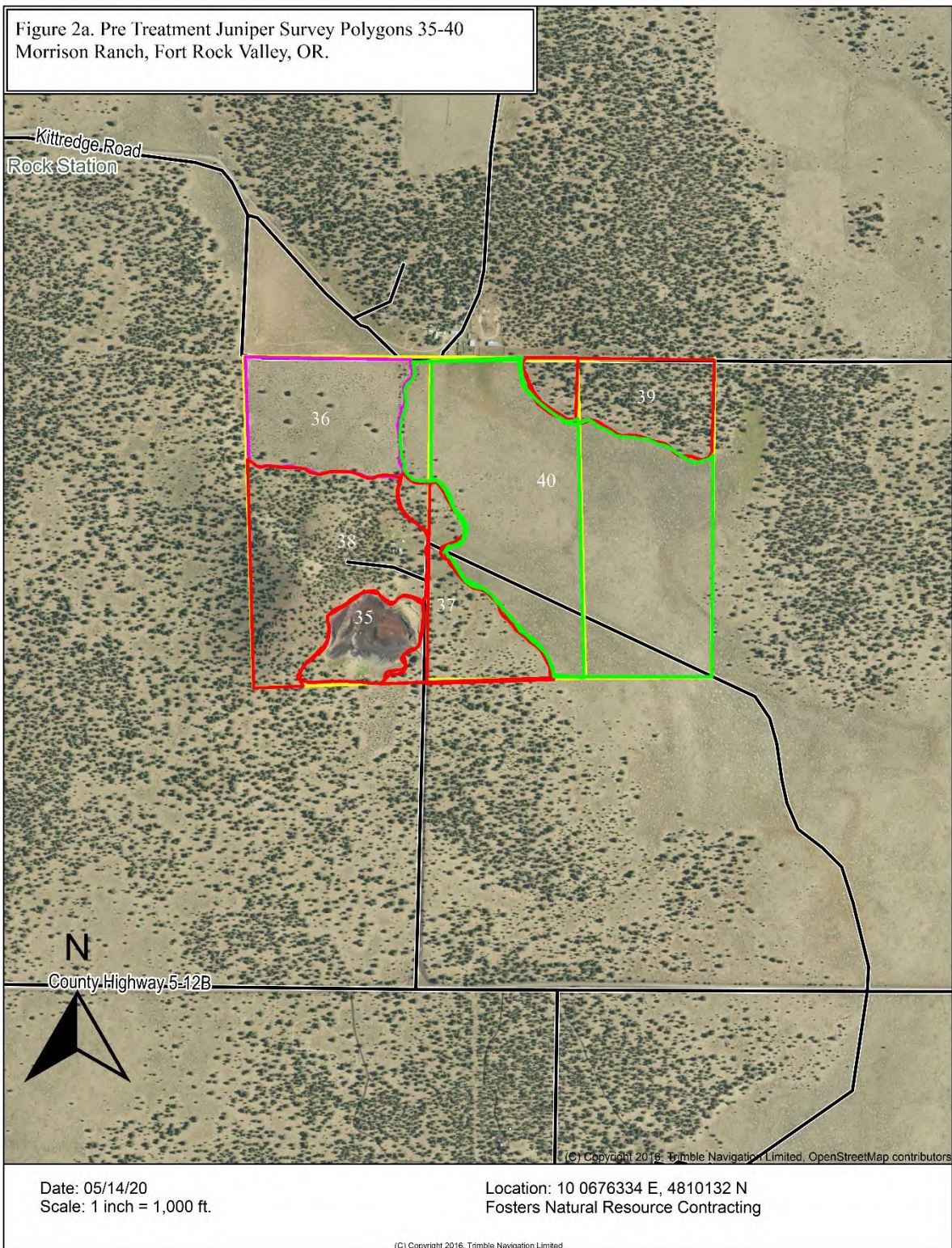


Figure 2b. Pre Treatment Juniper Survey Polygons 41-51
Morrison Ranch, Fort Rock Valley, OR.

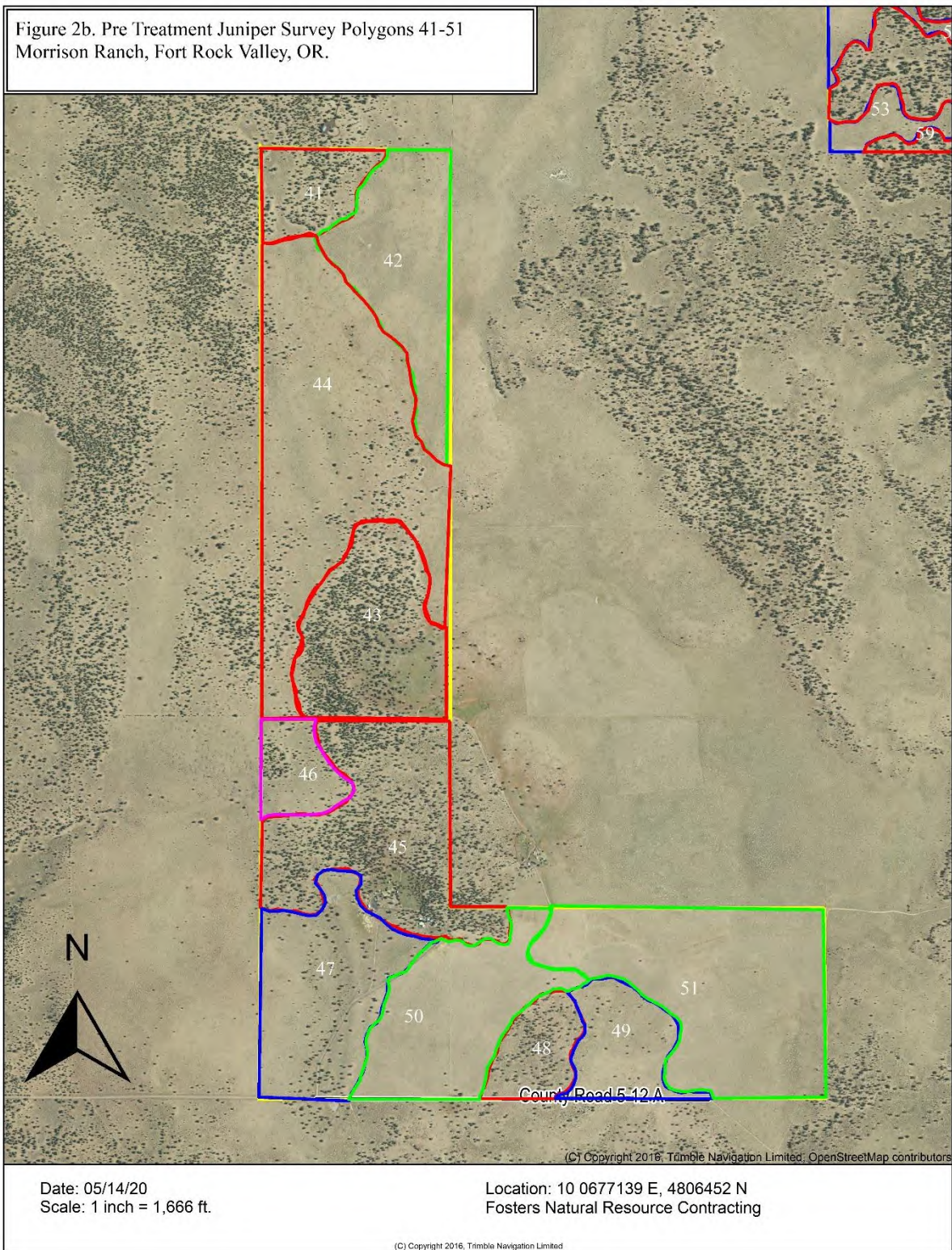


Figure 2c. Pre Treatment Juniper Survey Polygons 52-60
Morrison Ranch, Fort Rock Valley, OR.

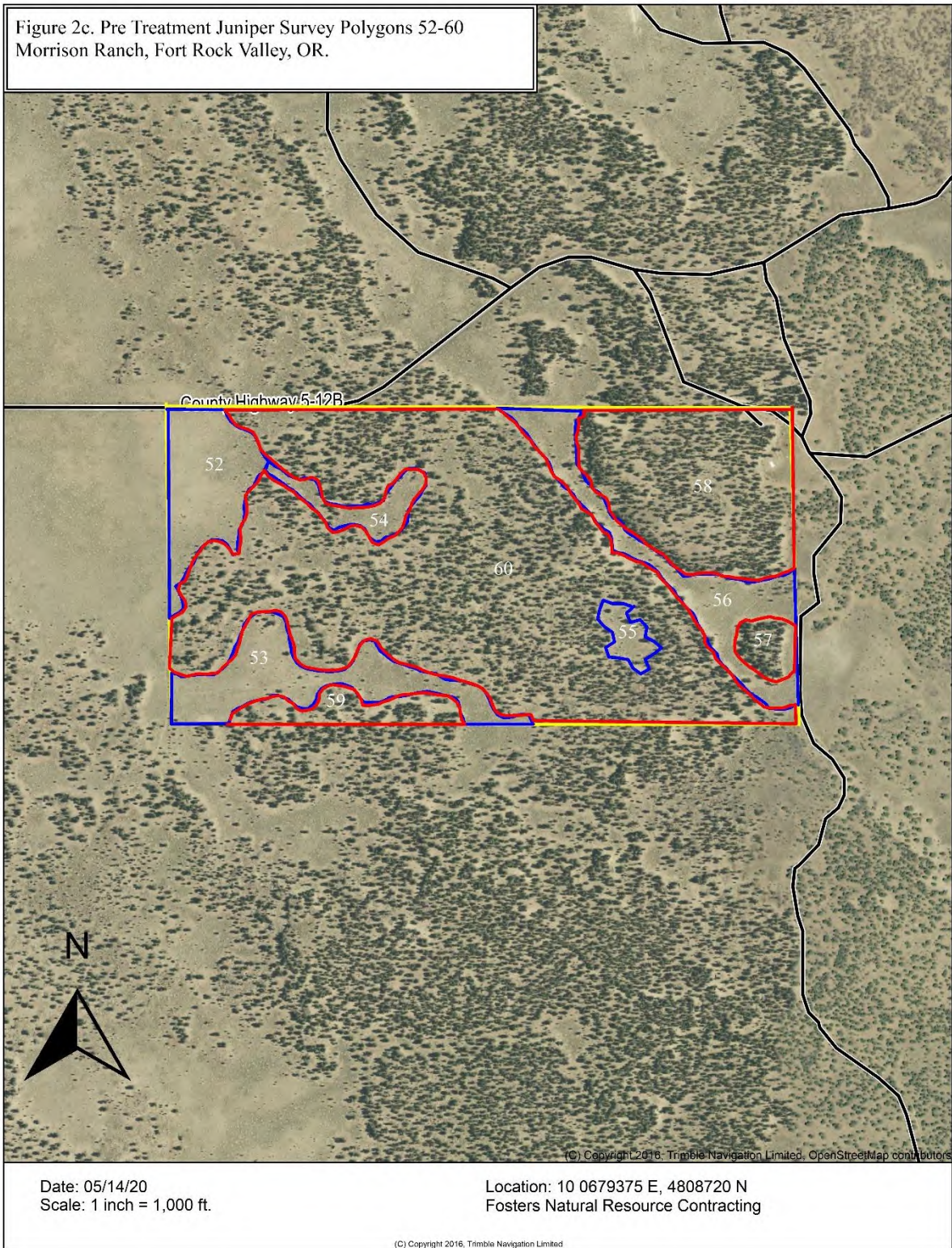


Figure 2d. Pre Treatment Juniper Survey Polygons 61-64
Morrison Ranch, Fort Rock Valley, OR.

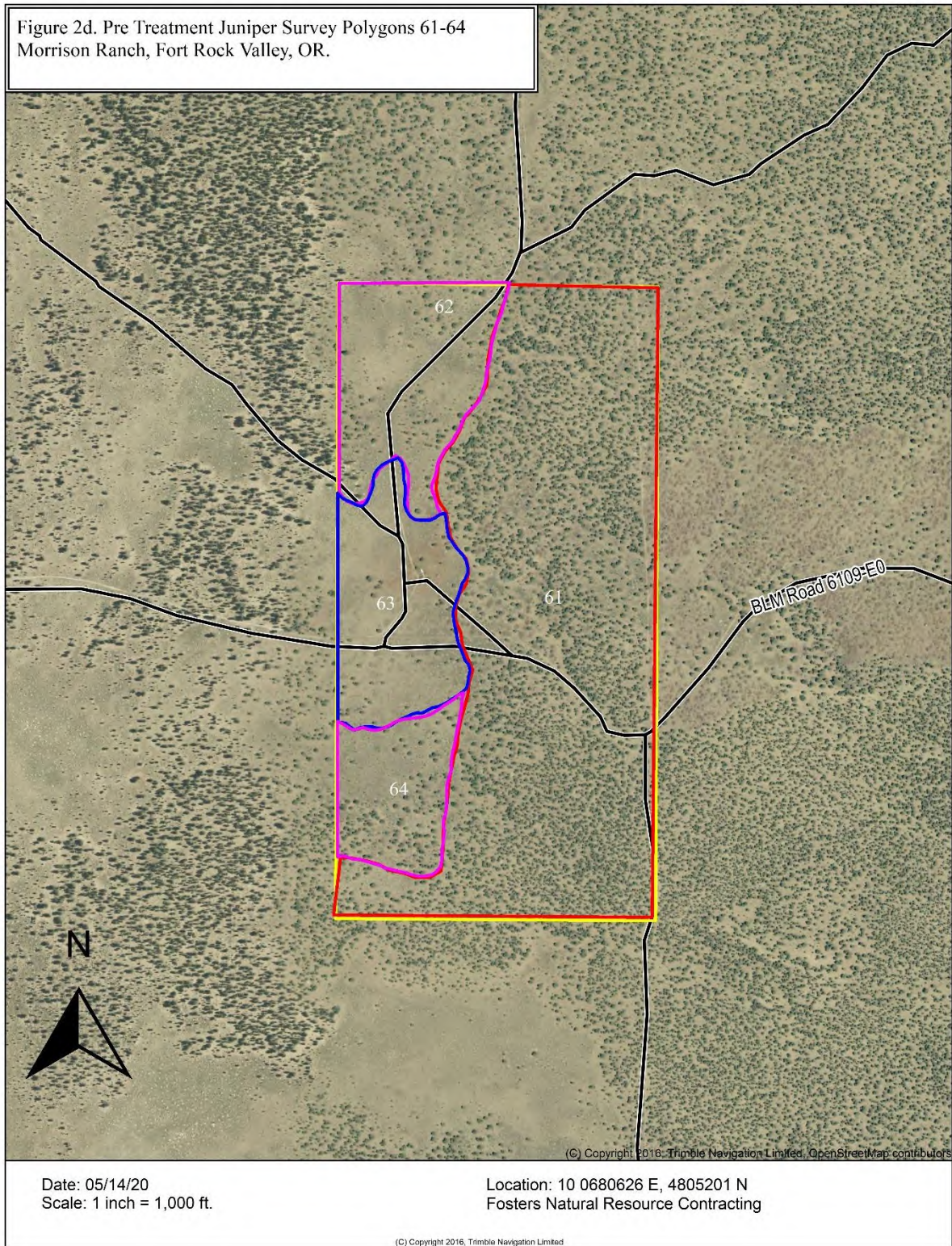




Figure 3. Older pre settlement and late post settlement juniper with open trunk, and young juniper less than 8 feet tall with live limbs to ground level. Morrison Ranch, Fort Rock Valley, OR. April, 2020.



Figure 4. Rock out crop with juniper Fort Rock Valley, OR. April 2020.

Treatment 1

Hand cut or pull and leave all juniper less than 5 feet tall. For juniper more than 5 feet tall, cut or pull, then lop and scatter limbs and trunks.

This treatment will be applied to phase 1 juniper stands (Figure 5). Polygons in Figures 1 and 2 with this treatment are outlined in green. Lop and scatter of slash from larger phase 1 trees serves two purposes. First it breaks dry fuel continuity. Second it reduces the potential for weed infestations due to smothering of understory vegetation by fine limbs and needles of cut juniper (Bates and Svejcar, 2009).



Figure 5. Low density phase 1 juniper. Treatment 1. Fort Rock Valley, OR, April, 2020.

Treatment 2

Hand cut or pull and leave all juniper less than 5 feet tall. Juniper over 5 feet tall will be cut or pulled and the slash will be piled and covered. Piles will be burned 12 to 24 months after piling during the winter or early spring when soils are either frozen or saturated from melting winter snow. The timing of the burn is important to reduce the chance of fire spreading to understory vegetation surrounding the piles. Seed the burned spots with a grass/legume mix after the fires are out but within 30 days after pile burning.

This treatment will be applied to phase 1 stands with higher juniper densities and early phase 2 stands (Figure 6). Polygons in Figures 1 and 2 with this treatment are outlined in blue. The purpose of covering piles is to keep the center of the pile dry which improves consumption of the slash and lengthens the burn window when piles can be effectively ignited. Covers need to be made of waterproof material, approximately 4 feet X 4 feet and placed on top of the piles then held down by other pieces of slash so they don't blow away.



Figure 6. Higher density early phase 2 juniper. Ponderosa pine will not be cut. Treatment 2. Fort Rock Valley, OR, April, 2020.

Treatment 3

Cut or pull juniper then pile and cover the slash. See treatment 2 for timing of pile burning and seeding.

This treatment will be applied to phase 2 and early phase 2 stands with juniper dense enough that using treatments 1 or 2 would result in excessive fuel loading or impact animal movement and understory recruitment (Figure 7). Polygons in Figures 1 and 2 with this treatment are outlined in magenta. See treatment 2 for purpose and description of covering slash.



Figure 7. Phase 2 juniper. Treatment 3. Fort Rock Valley, OR, April, 2020.

Treatment 4

Hand cut juniper that have closed trunks (i.e. live limbs to ground level) and are less than 8 feet tall. Pile slash in openings making an effort to minimize fire effect to live juniper retained in the stand. Cover piles and seed blackened areas after pile burning. See treatment 2 for timing of pile burning and seeding, and purpose of covering slash piles. In order to protect the lava structure common to several of the pre-settlement stands on the Morrison Ranch young juniper should not be pulled and piled using machinery, rather juniper should be hand cut and piled.

The purpose of this treatment is to break fuel continuity in pre-settlement stands (Figure 8). Polygons in Figures 1 and 2 with this treatment are outlined in red. The purpose of this treatment is to protect pre-settlement juniper stands from the effect of wildfire by breaking fuel connectivity. It is intended to protect the big game cover values provided by the stand as well as the intrinsic value of the pre-settlement juniper.



Figure 8. Pre-settlement juniper with young juniper. Treatment 4. Fort Rock Valley, OR, April, 2020.

Treatment 5

No juniper treatment. Polygons in Figures 1 and 2 with this treatment are outlined in red. The reason for selecting this treatment varied. 1.) Some polygons had no juniper (e.g. polygon 14, figure 1a). 2.) Young post settlement juniper targeted in treatment 4 were not dense enough in cover polygons to warrant treatment (e.g. polygon 43, figure 2b). 3.) The prescription for the polygon was to recruit juniper in order to provide future cover (Polygon 18, figure1b). 4.) Most of the soil substrate within the polygon is rock outcrop or degraded lava, the presence of which will protect the stand from all but the most severe wildfire event (polygon 57 figure 2c).

Cost Estimate

Table 5 presents estimated costs for the treatments identified in tables 1 and 3. These estimates were determined using 2020 costs for similar juniper treatment projects in Lake County.

Table 5. Estimated cost of juniper treatment selected on Obsidian Solar Center						
Mitigation Properties in the Fort Rock Valley, Oregon using 2020 average prices						
for similar treatments in Lake County Oregon.						
	Nine Peaks	Morrison		Estimated		
	Ranch	Ranch	Estimated ^b	Total		
	(acres)	(acres) ^a	(cost/acre)	(cost/acre)		
Treatment 1	1342	480	\$ 30	\$ 54,660		
Treatment 2	1375	286	\$ 110	\$ 182,710		
Treatment 3	499	132	\$ 280	\$ 176,680		
Treatment 4	46	611	\$ 160	\$ 105,120		
Treatment 5	1331	490	0	\$ -		
Total	4593	1999		\$ 519,170		
^a acres on Morrison ranch will decrease by ~ 60 acres when location of cinder pit parcel is determined						
^b cost includes cost of juniper treatment plus \$10/ac (treatments 2 and 4) or \$20/ac (treatment 3) for seeding						

Weed Management

As noted in the pre-treatment juniper field survey (Appendix 1) no noxious weed infestations were found on either mitigation property. There is potential to cause establishment of noxious weeds through the ground disturbing activities of juniper treatment. The following best management practices will be used to guard against introducing noxious weeds to the mitigation properties:

1. All equipment used for juniper treatment will be required to be cleaned at an approved weed wash out station immediately prior to starting mitigation treatments. If the equipment is removed from the treatment area to work at another location it will be cleaned again immediately prior to continuing juniper treatments.
2. As stated in the juniper treatment descriptions all pile areas burned for slash treatment will be reseeded with a grass/legume mix after the fires have gone out but within 30 days of the piles being burned. Seed mixes will be determined in consultation with the Lake County Cooperative Weed Management Area and ODFW.
3. Monitor the burned areas for noxious weed establishment annually for 3 years following reseeded. If noxious weeds are detected work within the weed contract already established with the Lake County Cooperative Weed Management Area to effectively treat the infestation.

Monitoring

Monitoring is designed to measure that juniper treatments in forage polygons were successful at removing the effect of juniper encroachment on understory vegetation; and that treatments, or no treatment in cover polygons, was successful and maintaining cover quality for wintering big game.

At least one permanent photo point will be randomly selected in each polygon (Barrett 2007). Polygons larger than 200 acres will have 2 permanent photo points established. The polygons with 2 photo points will be stratified so that one point is in the northern 1/3rd of the polygon and one is in the southern 1/3rd. The three transect layout suggested by Barrett (2007) will be modified so each transect is 100 X 20 yards (0.4 acres) and in addition to qualitative monitoring of understory vegetation using photos, all juniper within the transect will be counted to measure juniper density pre and post treatment.

Because mitigation treatments will be implemented on a rolling schedule, which is tied to the rolling schedule of solar development, monitoring will occur as the polygons are scheduled for treatment. Establishment of photo points and pretreatment monitoring will be completed within 6 months prior to a polygon being scheduled for treatment. The first post treatment monitoring will occur within 1 year after treatment is completed. Polygons within which no treatment is planned (Treatment 5) will be monitored when neighboring polygons with a common boundary are scheduled for treatment. Each photo point and associated transects will be re-monitored every 10 years after completion of the first post treatment monitoring for the life of the project (but the burned areas for noxious weed establishment will be monitored annually for 3 years following reseeding.)

For those areas that have been seeded following disturbance, monitoring will include collection of the following information:

- Confirmation that all disturbance areas requiring active re-vegetation have been re-seeded;
- Visual estimates of:
 - Percent of total vegetative ground cover of individual plant species in two categories (grasses/forbs and shrubs), and
 - Percentage bare soil
- Presence of noxious weeds species (including density and geographical extent of populations); and
- Presence of windblow or water erosion problems that require additional measures.

Success Criteria Maintenance

Juniper Encroachment. Because juniper will be left in most of the polygons, some amount of juniper encroachment will occur in the forage polygons within the life of the Facility. A juniper treatment will be considered successful if encroachment does not exceed 10 stems per acre over a majority of the treatment area as determined by the monitoring described above. When the results of monitoring indicate that juniper encroachment has exceeded 10 stems/acre over a majority of a polygon then encroaching juniper will be cut using treatment 1. This maintenance commitment is for the duration of the Facility life pursuant to the HMP.

Revegetation and Weed Control.

The success criteria for seeding and noxious weed control will be based on qualitative observations to attempt to comply with Lake County and ODA recommended actions in each category of noxious weed. Consistent with Applicant's Revegetation and Noxious Weed Control Plan (Appendix P-3), unless otherwise instructed to use other criteria by ODA or Lake County, Applicant will consider weed control successful when State- or County-listed noxious weeds are absent or constitute less than 1 percent of vegetation otherwise dominated by native or desirable non-native species, unless the noxious weeds present are similar to pre-disturbance conditions or adjacent undisturbed areas.

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Pre-Treatment Juniper Field Survey Report

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Introduction

Obsidian Solar Center LLC (Obsidian) is applying for a site certificate from the Oregon Energy Facilities Siting Council (EFSC) to build and operate the Obsidian Solar Facility in the Fort Rock Valley of Lake County, Oregon (Facility). A condition of the site certificate will require Obsidian to mitigate for the Facility's impacts to Category 2 big game winter range habitat. Obsidian has developed a Habitat Mitigation Plan (HMP). The HMP proposes to establish a Working Lands Improvement Program (WLIP) on portions of two properties, totaling 6,534 acres in the Fort Rock Valley ([the HMP in included as Attachment P-1 to the Final Order3](#)). The total acreage enrolled in the WLIP will depend on the permanent footprint from the Facility's final design. The WLIP is two-fold: it involves habitat protection under a WLIP landowner agreement, and big game winter habitat enhancement using a juniper treatment program. The HMP identifies 5 steps to implement the juniper treatment and management program (HMP Section 3.3, page 8). Steps 1 and 2 involves completing a pre-treatment juniper (*Juniperus occidentalis*) field survey and developing a juniper treatment plan for the two properties. The purpose of this document is to present results of the juniper field survey (Step 1).

The goal of the WLIP is to provide mitigation by maintaining and improving big game winter habitat on the mitigation properties. Winter range will be maintained by establishing a WLIP agreement with the landowners. Big game winter range will be improved by providing a mosaic of vegetation associations designed to provide big game cover and forage areas across the properties. Juniper encroachment into shrub steppe habitats results in reduced forage quality and quantity due its ability to out compete shrubs and bunchgrass (Vaitkas and Eddleman 1987, Miller and Rose 1999, Miller et al. 2005, Davies et al. 2011). Forest vegetation associations are an important habitat component for wintering big game as they provide both thermal and hiding cover (Leckenby and Adams 1986, Boyce et al. 2003, Coe et al. 2018). Juniper woodlands are the primary forest habitat available during winter in the Fort Rock Valley (Coe et al. 2018). Therefore, actions under the HMP are not designed to just cut juniper, but are intended to provide quality winter habitat on the properties.

Pre-Treatment Juniper Survey

Juniper surveys were completed during the first 2 weeks of April and the second week of May, 2020 using the Obsidian habitat assessment protocol (Appendix 1) approved by Oregon Department of Energy (ODOE) in consultation with Oregon Department of Fish and Wildlife (ODFW). As directed in the habitat assessment protocol field surveys for noxious weeds were conducted while completing the juniper surveys.

Nine Peaks Ranch

Field surveys were conducted on approximately 4,595 acres in a single parcel of the Nine Peaks Ranch. Results of the juniper survey are presented in Tables 1 and 2, and Figures 1, 1a and 1b. Juniper densities shown in Table 1 were measured using one or more 100 yard X 20 yard (0.4 acre) transects per vegetation association polygon.

Soils are generally sandy to ashy loams with varying amounts of rock. Rock ranges from none in areas with gentle slopes to ridges with significant cobble or large stone. Basalt outcrops and degraded lava flows are common. Average annual precipitation is 12 inches, most of which falls as snow in the winter. The Nine Peaks parcel lies within the Paulina wildlife management unit (WMU) on big game winter range designated in the Lake County Comprehensive Land Use Plan. In addition to its importance as winter range, the Nine Peaks property is located between the Devils Garden and East Lava Field and is a significant migration corridor for mule deer moving to and from other winter areas in the Paulina and Fort Rock WMUs (Coe et. al, 2018).

The property has been managed as a working livestock operation since at least the early 1900's. Valley bottoms with sandy or ashy loam soils were converted to rye (*Secale cereale*) hay fields, then in the 1970's or 1980's those fields were seeded to crested wheatgrass (*Agropyron cristatum*). Gray rabbitbrush (*Ericameria nauseosus*) has established in the crested wheatgrass seedings. Cattle are grazed using a rest rotation system.

Past management actions or wildfire have resulted in most of the juniper stands on sandy to ashy loam soils being in phase 1 or early phase 2 condition. Pre-settlement or mixed pre-settlement/late phase 2-phase 3 stands are common and occur on cobble to rocky soils, degraded lava eruptions or rock outcrops.

Elevations range from 5200 feet on the north end of the property to 4500 feet on the south, with the majority of the property being below 4900 feet. Areas above 5000 feet elevation are ponderosa pine (*Pinus ponderosa*) forest stands with a bitterbrush (*Purshia tridentata*)/ Idaho fescue (*Festuca idahoensis*) understory. Between 5000 and 4900 feet, ponderosa pine and juniper are codominant, shrubs are bitterbrush and mountain big sagebrush (*Artemisia tridentata vasyeana*), and Idaho fescue is the dominant grass. Below 4900 feet vegetation associations are variable with areas not converted to crested wheatgrass dominated by Wyoming big sagebrush (*Artemisia tridentata wyomingensis*) and gray rabbitbrush with a mix of native bunchgrass including: Idaho fescue, blue bunch wheatgrass (*Pseudoroegneria spicata*), Thurbers needlegrass (*Achnatherum thurberianum*), Indian rice grass (*Achnatherum hymenoides*), squirrel tail grass (*Elymus elymoides*) and Sandberg's blue grass (*Poa sandbergii*).

No weed species of concern (Table 1, Attachment 2) were found on either property. Cheatgrass (*Bromus tectorum*), is widely distributed across both properties. Tumble mustard (*Sysimbrium altissimum*) and tansy mustard (*Descurania spp.*) are common in disturbed sites. Although these species are non-native and invasive, they are widely naturalized throughout North America and should not be a specific target of weed control on big game winter range.

Table 1. Nine Peaks Ranch, Fort Rock Valley, OR							
Characteristics of Vegetation Association Polygons Deliniated during Pre-treatment Juniper Suvey							
			Post-settlement				
		Juniper	Juniper	Dominant	Dominant		
Polygon	Acres	Phase	Stems/Ac.	Shrubs	Grasses		
1	183	PIPO/JUOC	22	PUTR/ARTRV	FEID		
2	61	PIPO/JUOC	27	PUTR/ARTRV	FEID		
3	87	PIPO	<5	PUTR/ARTRV	FEID		
4	92	1	17	ARTRW/PUTR	FEID		
5	24	2	75	ARTRW/PUTR	FEID		
6	58	2	27	ARTRW/PUTR	FEID		
7	18	2	37	ARTRW/PUTR	FEID		
8	26	late 2	40	ARTRW/ERNA	Native Mix		
9	162	1	<5	ARTRW/ERNA	Native Mix		
10	120	1	<5	ARTRW/ERNA	Native Mix		
11	132	1/early2	10 W, 20E	ARTRW/ERNA	Native Mix		
12	156	2	50	ARTRW/ERNA	Native Mix		
13	42	late 2	40	ARTRW/ERNA	Native /AGCR		
14	177	none	0	ERNA/CHVI	Native Mix		
15	149	1	20	ARTRW/ERNA	Native /AGCR		
16	16	2	42	ARTRW	Native Mix		
17	14	2	40	ARTRW	Native Mix		
18	32	early 2	30	ARTRW	Native Mix		
19	154	1	<5	ERNA/CHVI	Native /AGCR		
20	296	1	7	ERNA/ARTRW	Native /AGCR		
21	11	2	32	ARTRW	Native Mix		
22	420	2	60	ARTRW	Native Mix		
23	11	Pre	10	ARTRW	Native Mix		
24	7	Pre	10	ARTRW	Native Mix		
25	499	1/early 2	25	ARTRW	Native Mix		
26	221	1	10	ERNA/ARTRW	Native /AGCR		
27	19	1	10	ARTRW/ERNA	Native Mix		
28	63	1	10	ARTRW/ERNA	Native Mix		
29	46	Pre	35	ARTRW	Native Mix		
30	47	Lava	35	ARTRW	Native Mix		
31	757	1	10	ERNA/ARTRW	Native /AGCR		
32	34	2	52	ARTRW/ERNA	Native Mix		
33	451	early 2	17	ARTRW/ERNA	Native /AGCR		
34	8	Pre	10	ARTRW	Native Mix		
Shrub Abbreviations: ARTRT-basin big sagebrush, ARTRV-mountain big sagebrush, ARTRW- Wyoming big sagebrush,							
ERNA-Gray Rabbitbrush, CHVI-Green Rabbitbrush, PUTR-bitterbrush							
Grass Abbreviations: AGCR-crested wheatgrass, FEID-Idaho fescue							
Species in Native Mix: Idaho fescue, blue bunch wheatgrass, Thurber's needlegrass, squirrel tail grass, Sandberg's bluegrass, Indian ricegrass							

Table 2. Nine Peaks Ranch, Fort Rock Valley, OR								
Vegetation Association Polygon Comments								
Polygon	Comments							
1	Juniper mixed with PIPO - PIPO density decreases going south							
2	Juniper codominant with PIPO - substantial number of older trees both species							
3	PIPO stand with a few juniper							
4	Open JUOC/PIPO codominant stand							
5	Rocky ridge							
6	Scattered pre-settlement juniper on rock out crops							
7	Scattered pre-settlement juniper on rock out crops							
11	West leg of polygon has 10 stems/ac; East leg has 20 stems/ac							
12	Juniper distribution patchy. Pockets of late 2 and pre-settlement							
13	Mixed pre and older post settlement on very rocky soils							
17	Rock out crops with scattered pre-settlement							
18	Variable juniper density, leave for cover recruitment							
20	Areas with better soil converted to AGCR with CHNA encroaching							
	Areas with rocky soils are ARTRW with Native Mix							
21	Phase 3 on rock out crops							
22	Pre-settlement or late phase 2/phase 3 on rock outcrops							
	Areas of better soil have early phase 2 juniper @ 25 stems/ac							
23	Degraded lava outcrop							
24	Degraded lava outcrop							
25	Pockets of phase 1 throughout with ~10 stems/ac							
26	Areas with better soil converted to AGCR with CHNA encroaching							
	Areas with rocky soils are ARTRW with Native Mix							
27	Most of polygon burned in wildfire. Shrubs limited							
28	Most of polygon burned in wildfire. Pre-settlement remains on rock outcrops							
29	Swath on west end that was chained years ago phase 2 with CHNA/ARTRW							
30	Aspen clone on east end with very little juniper in aspen							
31	Areas with better soil converted to AGCR with CHNA encroaching							
	Areas with rocky soils are ARTRW with Native Mix							
32	Pre-Settlement JUOC scattered throughout							
33	Flatter areas chained years ago and seeded to AGCR, CHNA encroaching							
	Remainder of polygon ARTRW with Native bunchgrass mix.							
34	Degraded lava outcrop							

Figure 1. Pre Treatment Juniper Survey Polygons Nine Peaks Ranch, Fort Rock Valley, OR.

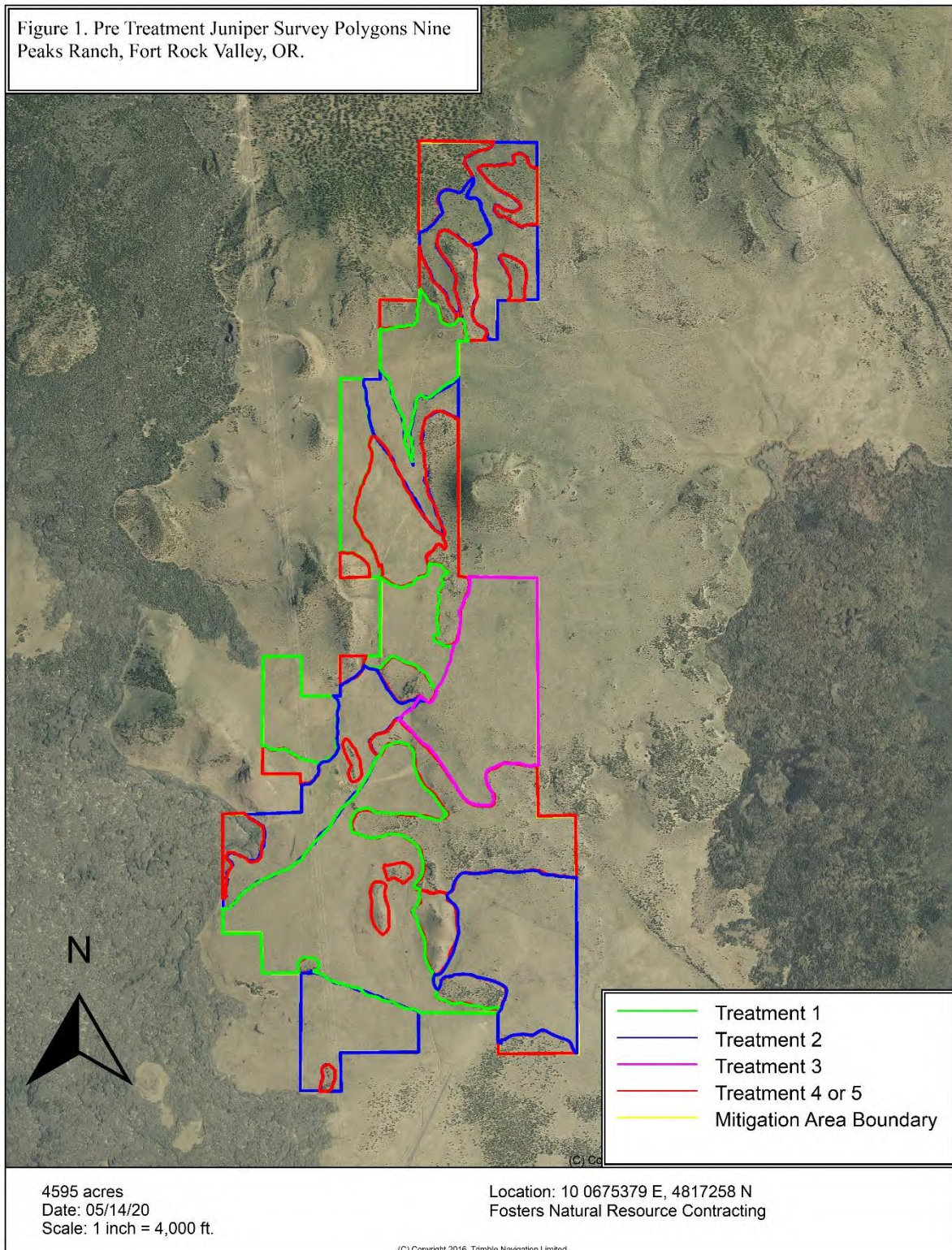


Figure 1a. Pre Treatment Juniper Survey Polygons 1-17, 25
Nine Peaks Ranch, Fort Rock Valley, OR.

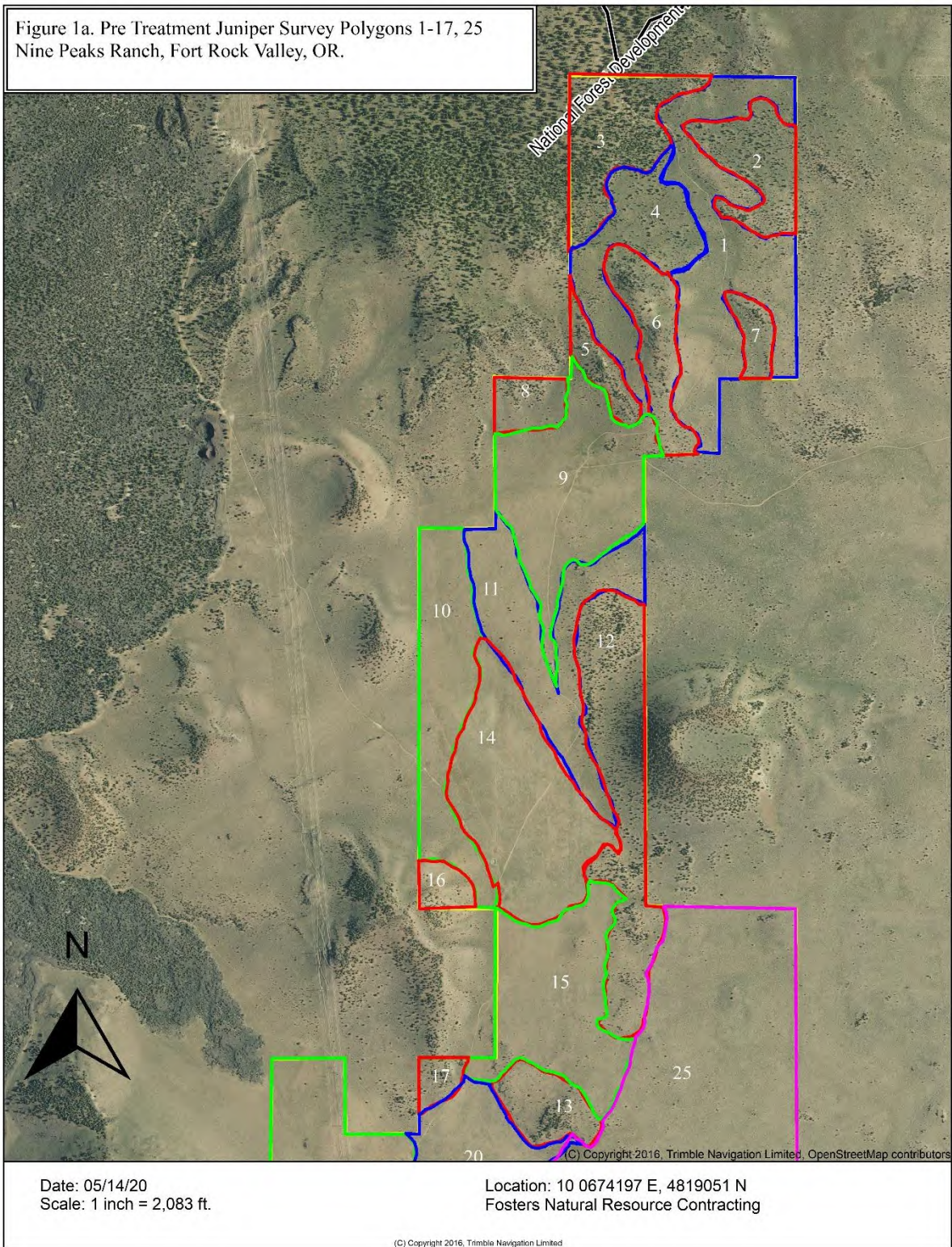
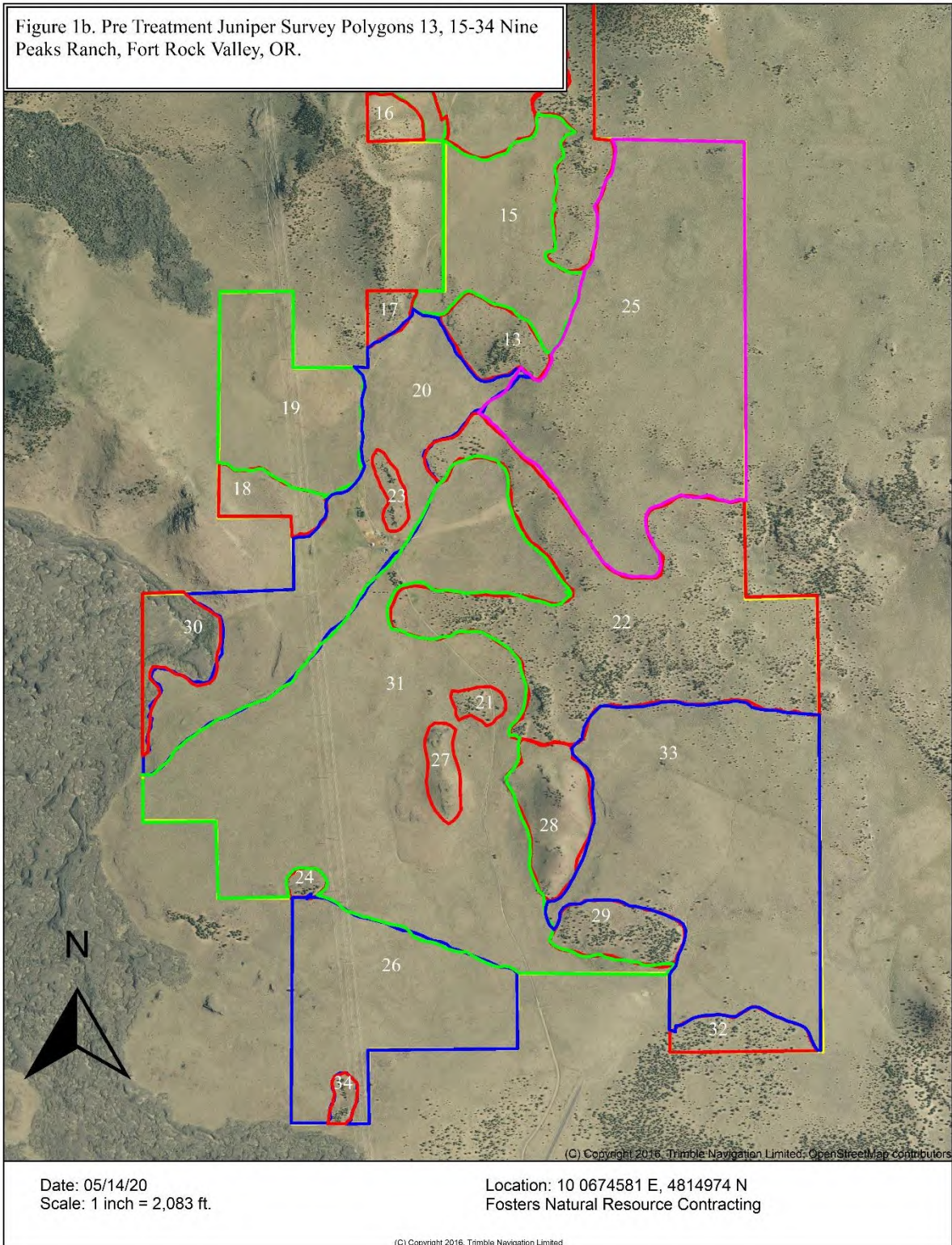


Figure 1b. Pre Treatment Juniper Survey Polygons 13, 15-34 Nine Peaks Ranch, Fort Rock Valley, OR.



Morrison Ranch

Field surveys were completed on approximately 1,939 acres in four parcels of the Morrison ranch. Results of the juniper survey are presented in Tables 3 and 4, and Figures 2 and 2a-d. Juniper densities shown in Table 3 were measured using one or more 100 yard X 20 yard (0.4 acre) transects per vegetation association polygon.

Soils are generally sandy to ashy loams with varying amounts of rock. Basalt outcrops and degraded lava flows make up a larger proportion of the Morrison mitigation area than are found on Nine Peaks Ranch. Average annual precipitation is 12 inches, most of which falls as snow in the winter. The Morrison parcels lie within the Paulina wildlife management unit (WMU) on big game winter range designated in the Lake County Comprehensive Land Use Plan.

The property has been managed as a working livestock operation since at least the early 1900's. Valley bottoms with sandy or ashy loam soils were converted to rye (*Secale cereale*) hay fields, then in the 1970's or 1980's those fields were seeded to crested wheatgrass (*Agropyron cristatum*). Gray rabbitbrush (*Ericameria nauseosus*) has established in the crested wheatgrass seedings. Cattle are grazed using a rest rotation system with the exception of the area made up of polygons 41 through 44 (Figure 2b). This area is used as a winter feed area for cattle.

Past management actions or wildfire have resulted in most of the juniper stands on sandy to ashy loam soils being in phase 1 or early phase 2 condition. Pre-settlement or mixed pre-settlement/late phase 2-phase 3 stands are common and occur on degraded lava flows or rock outcrops.

Elevations range from 4750 to 4450 feet. Dominant shrubs are Wyoming big sagebrush and gray rabbitbrush. Native bunch grasses are Idaho fescue, blue bunch wheatgrass, Thurber's needlegrass, Indian rice grass, squirrel tail grass and Sandberg's blue grass. Individual pre-settlement juniper is scattered throughout all vegetation associations that have not been converted to crested wheatgrass.

No weed species of concern (Table 1, Attachment 2) were found on either property. Cheatgrass (*Bromus tectorum*), is widely distributed across both properties. Tumble mustard (*Sysimbrium altissimum*) and tansy mustard (*Descurania spp.*) are common in disturbed sites. Although these species are non-native and invasive, they are widely naturalized throughout North America and should not be a specific target of weed control on big game winter range.

Table 3. Morrison Ranch, Fort Rock Valley, OR.							
Characteristics of Vegetation Association Polygons Delinated during Pre-treatment Juniper Suvey							
			Post-settlement				
		Juniper	Juniper	Dominant	Dominant		
Polygon	Acres	Phase	Stems/Ac.	Shrubs	Grasses		
35	12						
36	29	early 2	50	ERNA	AGCR		
37b	19	late 2/3	10	ERNA/ARTRW	FEID/AGCR		
38	44	Pre	10	ARTRW/ERNA	Native Mix		
39b	22	late 2/3	27	ARTRW/ERNA	Native Mix		
40b	104	1	12	ERNA/CHVI	AGCR		
41	39	Pre	10	ERNA/CHVI	Native Mix		
42	99	1	<5	ERNA/CHVI	Native Mix		
43	106	Pre	5	ERNA/CHVI	Native Mix		
44	233	Pre	<5	ERNA/CHVI	Native Mix		
45	140	Pre	25	ARTRW/ARTRT	Native Mix		
46	30	2	17	ARTRW/ERNA	Native Mix		
47	111	1	12	ARTRW/ERNA	Native/AGCR		
48	34	Pre	<5	ERNA/ARTRW	Native/AGCR		
49	48	1	15	ERNA/CHVI	AGCR		
50	103	1	20	ERNA/ARTRW	AGCR		
51	174	1	<5	ERNA/ARTRW	AGCR		
52	20	1	15	ARTRW/ERNA	Native Mix		
53	24	1	22	ARTRW/ERNA	FEID		
54	7	1	20	ARTRW/ERNA	FEID		
55	4	1	15	ARTRW/ERNA	Native Mix		
56	28	1	15	ARTRW/ERNA	Native Mix		
57	5	Pre	17	ERNA/ARTRW	Native Mix		
58	50	Pre	17	ERNA/ARTRW	Native Mix		
59	10	Pre	15	ERNA/ARTRW	Native Mix		
60	179	Pre	5	ERNA/ARTRW	Native Mix		
61	208	Pre	27	ARTRW/ERNA	Native Mix		
62	46	early 2	17	ARTRW/ERNA	Native Mix		
63	44	1	7	ARTRW/ERNA	Native Mix		
64	27	early 2	55	ARTRW/ERNA	Native Mix		
Shrub Abbreviations: ARTRT-basin big sagebrush, ARTRV-mountain big sagebrush, ARTRW- Wyoming big sagebrush,							
ERNA-Gray Rabbitbrush, CHVI-Green Rabbitbrush							
Grass Abbreviations: AGCR-crested wheatgrass, FEID-Idaho fescue							
Species in Native Mix: Idaho fescue, blue bunch wheatgrass, Thurber's needlegrass, squirrel tail grass, Sandberg's bluegrass, Indian ricegrass							

Table 4. Morrison Ranch, Fort Rock Valley, OR.									
Vegetation Association Polygon Comments									
Polygon	Comments								
35	Cinder Pit								
37b	Scattered pre-settlement throughout. Probably was a pre-settlement stand but ~ 100 years ago most trees cut - being replaced with older Post-settlement trees								
	Polygon 37a is 22 acres								
38	Post settlement trees are 10/ac of trees ~80 years old and <5/ac of trees ~20 years old								
39b	Scattered pre-settlement throughout. Polygon 39a is 4 acres								
40b	Juniper distribution patchy- large areas of <5 stems/ac. Polygon 40a is 60 acres.								
41	Within winter feed lot. Shrubs very sparse.								
42	Within winter feed lot. Shrubs very sparse.								
43	Denser stand of Pre-settlement and old Post-settlement trees. JUOC <40 years are <5/ac.								
	Within winter feed lot. Shrubs very sparse.								
44	Sparse stand of pre-settlement. Post-settlement trees ~ 20 yrs old and <5/ac								
45	A portion of the area west of the road was an old feed lot. In this area								
	post settlement <5/ac. Shrubs CHNA/CHVI.								
46	Scattered Pre-settlement throughout.								
47	Scattered Pre-settlement throughout.								
49	Scattered Pre-settlement throughout.								
50	Old rye hay field converted to AGCR ~ 40 years ago								
51	Old rye hay field converted to AGCR ~ 40 years ago								
52	Ward Well #1 on tablet pictures								
53	Shallow draw bottom between degrading lava flows. Ward Well #4 on tablet pictures								
54	Shallow draw bottom between degrading lava flows.								
55	Better soil inclusion in degraded lava flow								
56	Shallow draw between degraded lava flows. Juniper density increases south to north								
57	Degraded lava. Inclusions of sandy loam soils which have the most post settlement								
58	Degraded lava. Inclusions of sandy loam soils which have the most post settlement								
59	Degraded lava. Inclusions of sandy loam soils which have the most post settlement								
60	Degraded lava. Inclusions of sandy loam soils which have the most post settlement								
62	Scattered Pre-settlement throughout.								
63	Scattered Pre-settlement throughout.								
64	Scattered Pre-settlement throughout.								

Figure 2. Pre Treatment Juniper Survey Polygons
Morrison Ranch, Fort Rock Valley, OR.

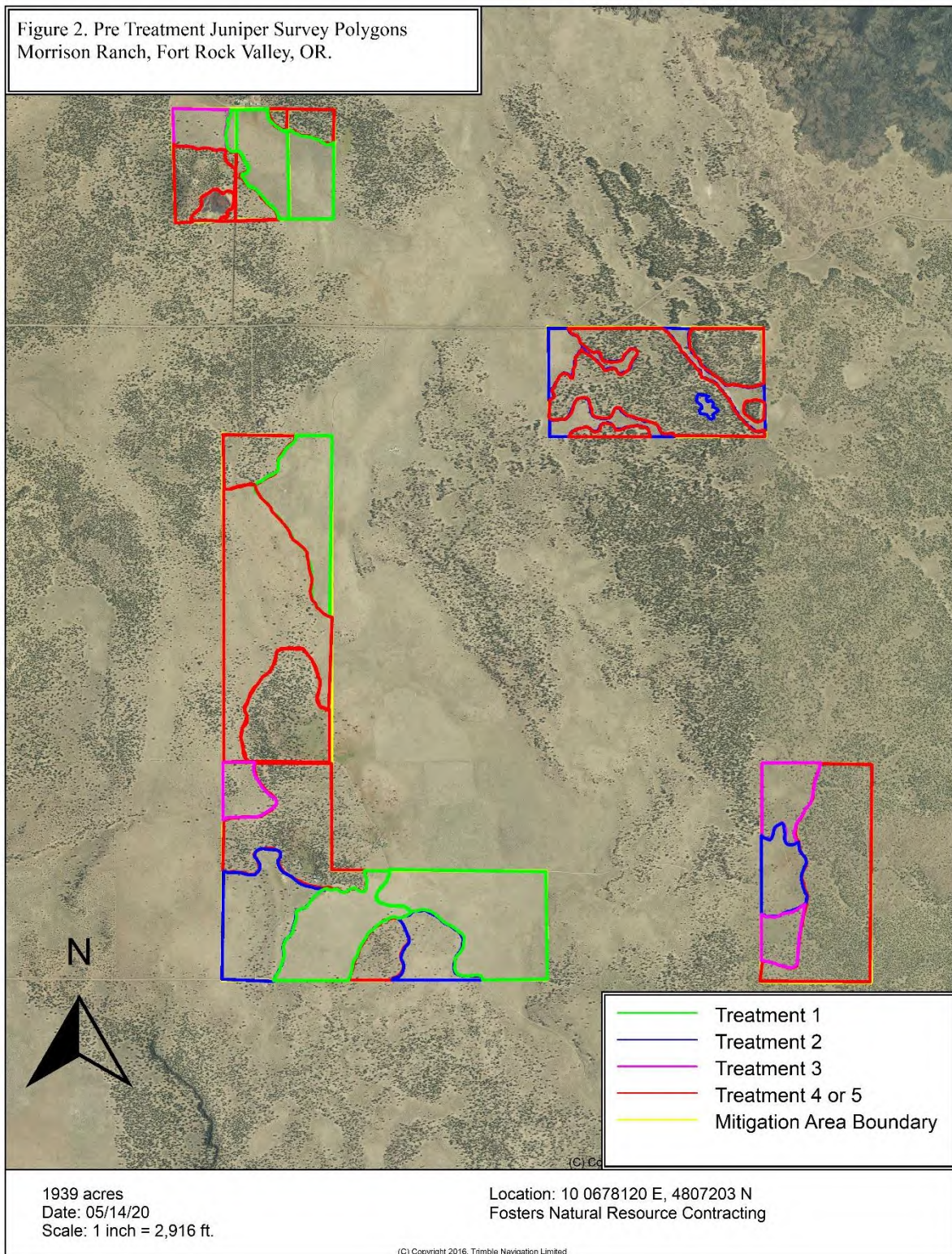


Figure 2a. Pre Treatment Juniper Survey Polygons 35-40
Morrison Ranch, Fort Rock Valley, OR.

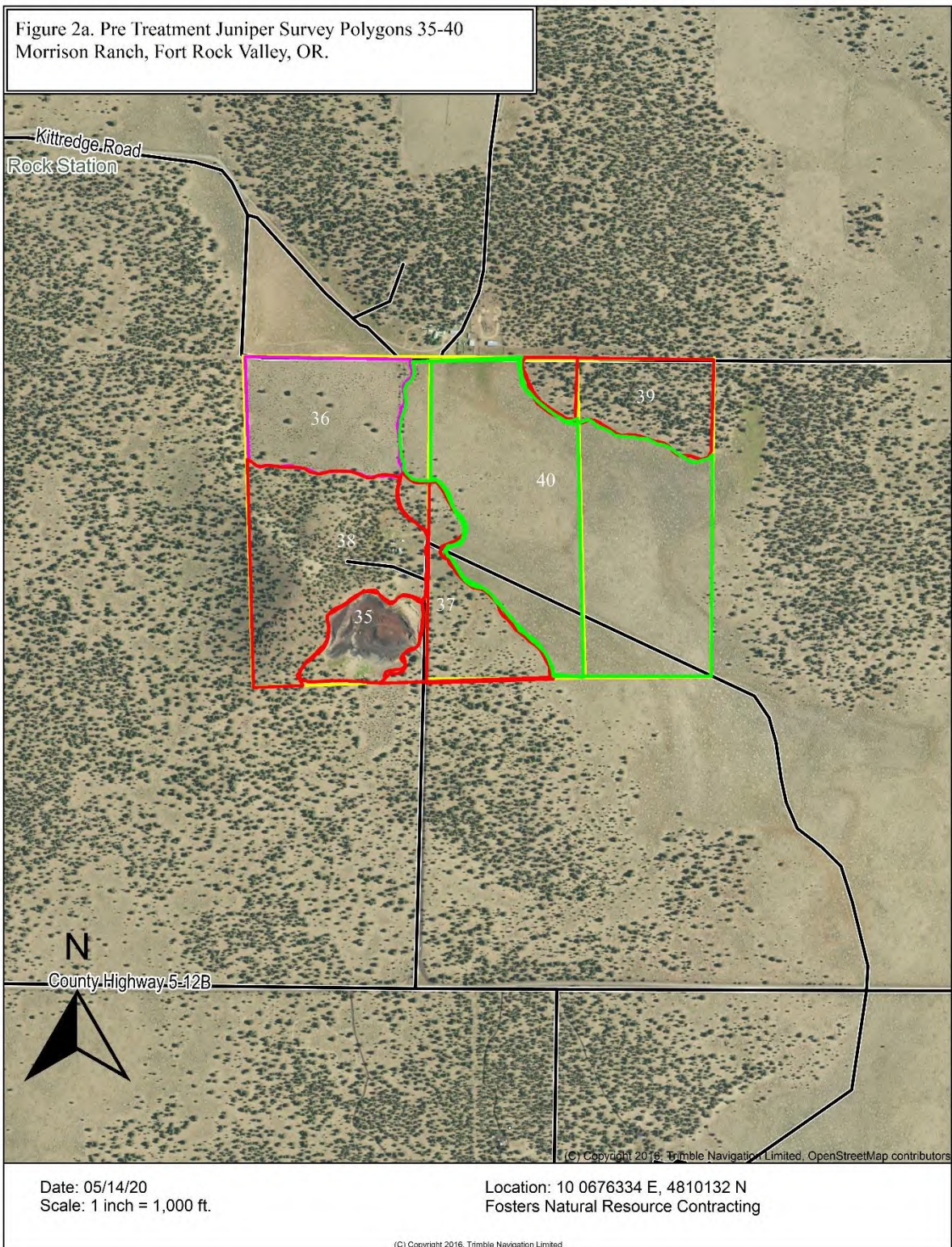


Figure 2b. Pre Treatment Juniper Survey Polygons 41-51
Morrison Ranch, Fort Rock Valley, OR.

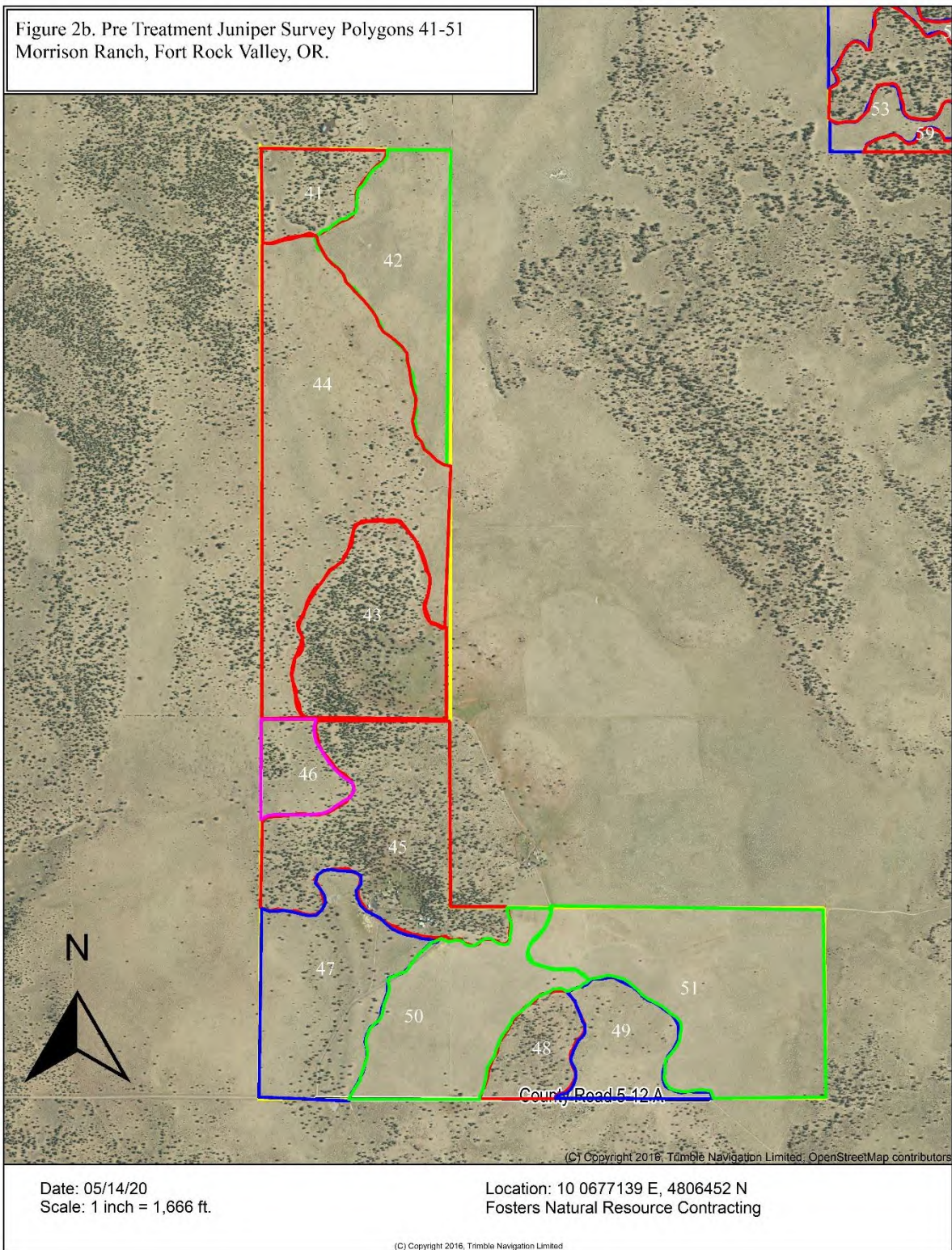


Figure 2c. Pre Treatment Juniper Survey Polygons 52-60
Morrison Ranch, Fort Rock Valley, OR.

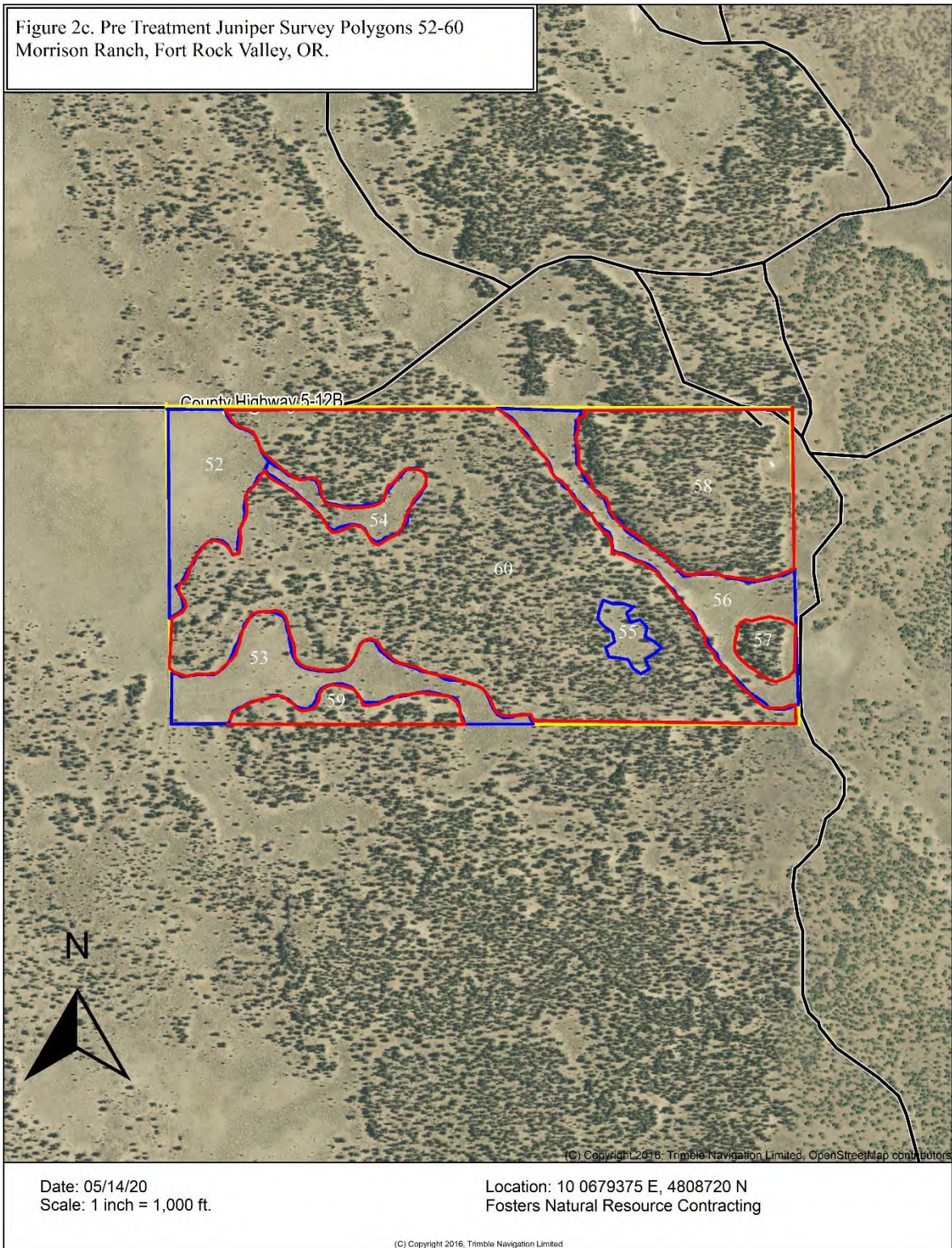
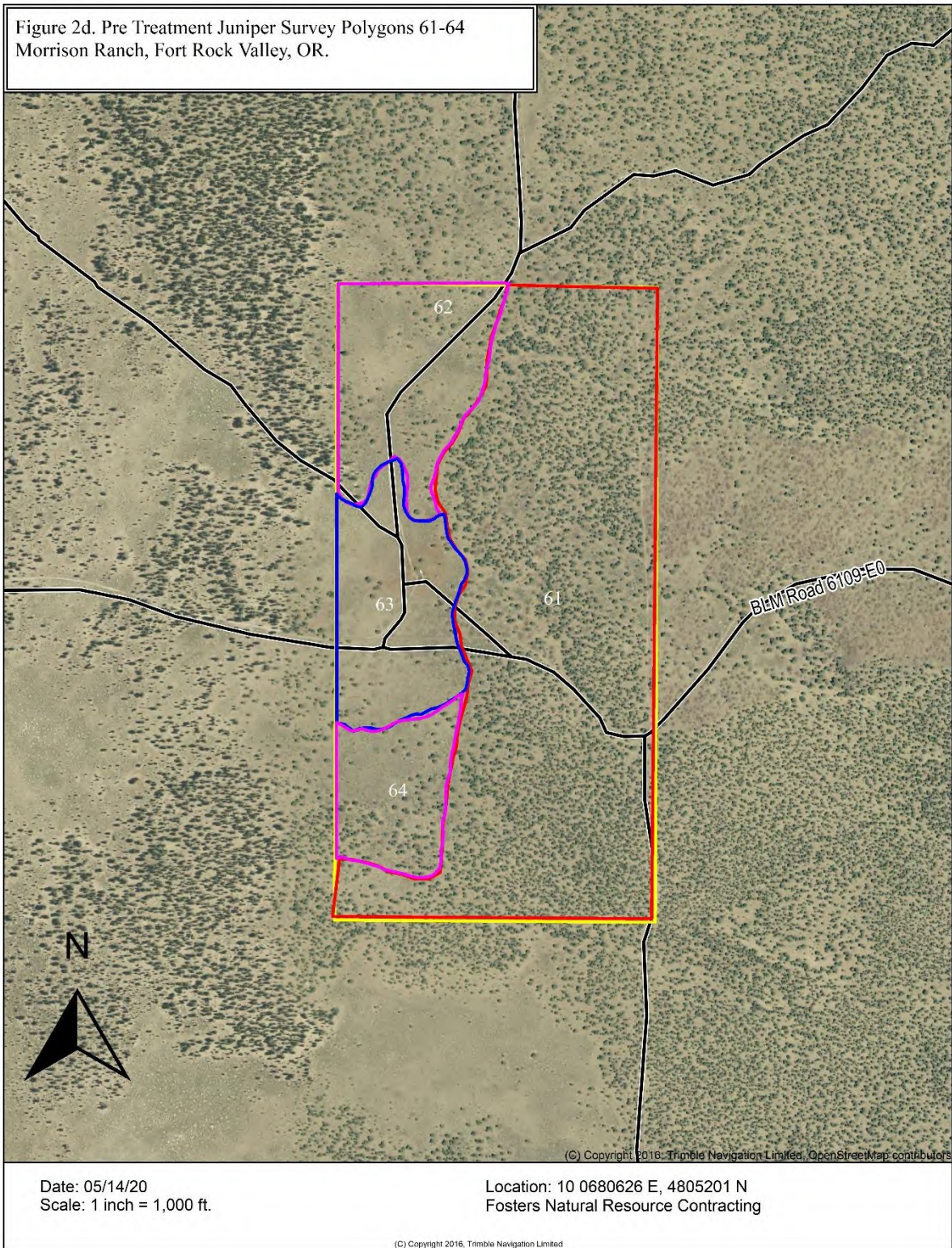


Figure 2d. Pre Treatment Juniper Survey Polygons 61-64
Morrison Ranch, Fort Rock Valley, OR.



Conclusions

In their existing condition the mitigation properties have a better mosaic of forage and cover areas for big game winter range than what is available on the Facility. Vegetation associations on the Facility are 95% sagebrush shrubland and the remaining 5% does not include forest vegetation associations. The mitigation properties currently have a forage:cover ratio of 62:38 (Nine Peaks 70:30, Morrison 45:55). However, juniper encroachment into the forage areas, if left unchecked will reduce forage quality and quantity. Juniper treatments in the mitigation area are designed to reduce juniper encroachment in sagebrush shrubland vegetation associations, and recruit or protect cover values in the forest vegetation associations which will maintain and improve habitat values for wintering big game.

Literature Cited

- Boyce, M.S., M.G. Turner, J. Fryxell, P. Turchin. 2003. Scale and heterogeneity in habitat selection by elk in Yellowstone National Park. *EcoScience*. 10(4), 421-431.
- Coe, P.K., D.A. Clark, R.M. Nelson, S.C. Gregory, J.B. Cupples, M.J. Hedrick, B.K. Johnson, D.H. Jackson. 2018. Multiscale models of habitat use by mule deer in winter. *J. Wildl. Manage.* 10.1002/jwmg.21484.
- Davies, K.W., C.S. Boyd, J.L. Beck, J.D. Bates, T.J. Svejcar, M.A. Gregg. 2011. Saving the sagebrush sea: strategies to conserve and restore big sagebrush plant communities. *Biol. Conserv.* 144, 2573-2584.
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- Vaitkus, M.S., L.E. Eddleman. 1987. Composition and productivity of western juniper understory and its response to canopy removal. In: Everett, R.L. (Ed.) *Proceedings Pinyon-Juniper Conference*. Gen. Techn. Rep. INT-215, USDA-FS, Intermountain Forest and Range Experiment Station. Ogden, UT. pp 456-460.

Appendix 2

WLIP Site Habitat Assessment Protocol

Prepared For:

**Obsidian Solar Center LLC
5 Center Point Drive, Suite 250
Lake Oswego, OR, 97035**

Prepared By:

**Fosters Natural Resource Contracting
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Introduction

Obsidian Solar Center LLC (Obsidian) is applying for a Site Certificate from the Oregon Energy Facilities Siting Council to build and operate the Obsidian Solar Facility in the Fort Rock Valley of Lake County, Oregon. A condition of the certificate will require Obsidian to mitigate for the facility's impacts to Category 2 big game winter range habitat and they have submitted a draft Habitat Mitigation Plan (HMP) for review and approval ([Final Order Attachment P-1](#)). The HMP proposes establishment of a Working Lands Improvement Program (WLIP) on two properties totaling 6,534 acres in the Fort Rock Valley (HMP [Attachment 3 Appendix 1](#)). The HMP identifies 5 steps to establish the WLIP (HMP Section 3.3, page 8). The purpose of this document is to describe the methods to complete a general habitat assessment of big game winter range and a pre-treatment inventory of juniper stands and weeds on the WLIP properties.

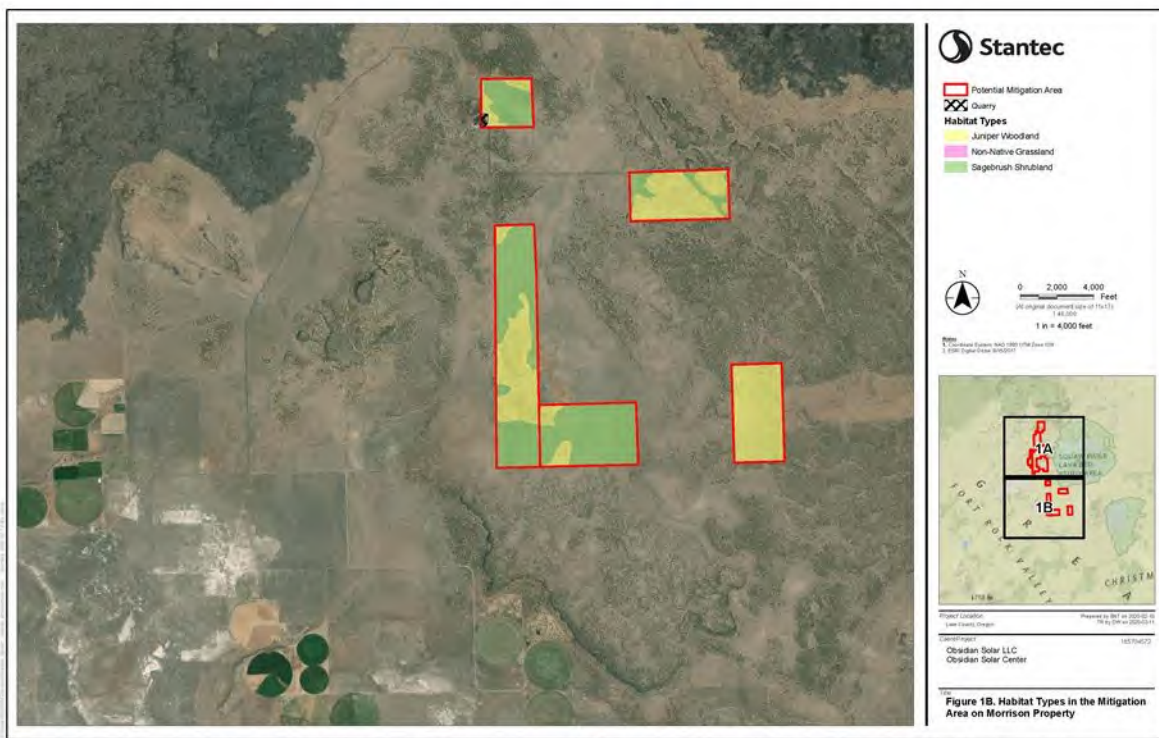
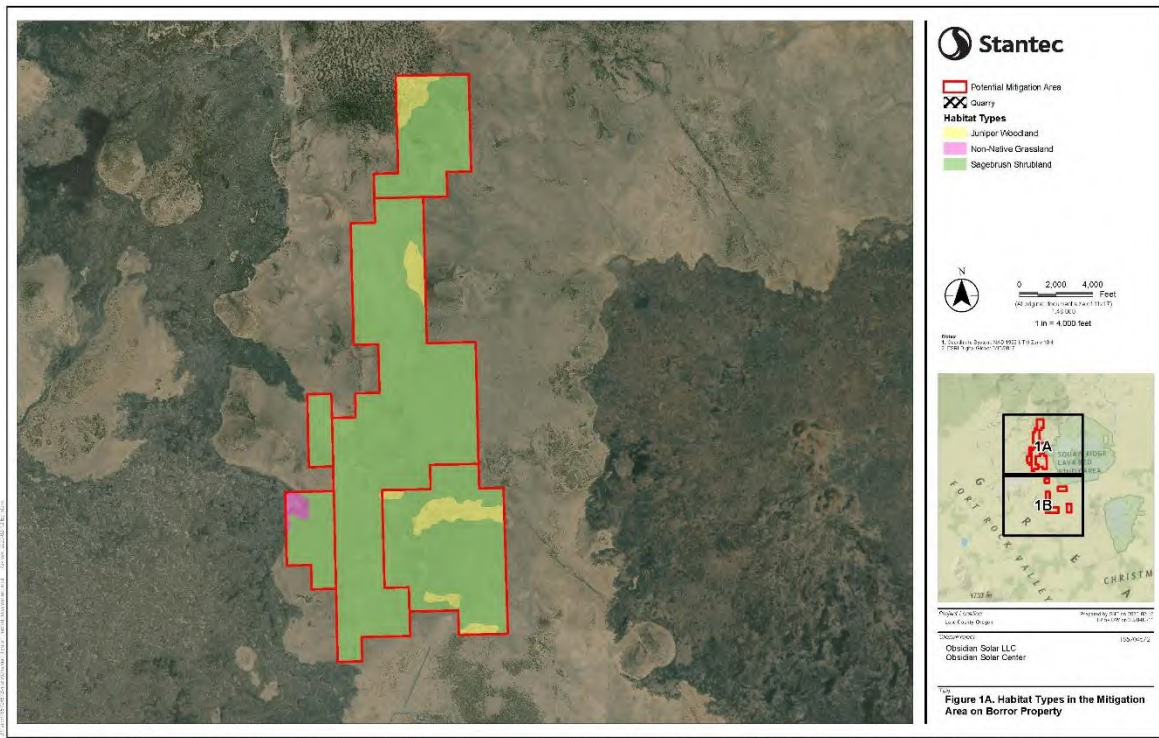
Habitat Assessment Protocol

Figures 1a and 1b from the HMP ([Final Order Attachment P-1](#)) identifies juniper woodland, non-native grassland and sagebrush shrubland as the vegetative types on the WLIP properties. It is very difficult to differentiate grass and shrub species from a desk top classification using photo imagery. The purpose of the habitat assessment is to better define plant associations and delineate their boundaries. The assessment will focus on forage and cover conditions for big game species, specifically mule deer (*Odocoileus hemionus*) and rocky mountain elk (*Cervus elaphus nelsoni*), by walking variable width transects throughout the 6,534 acres within the various plant associations to determine species present and vegetative condition. Transect width needs to be determined by the vegetative condition present at the time of inventory (e.g. delineating the boundary of a noxious weed infestation will require substantially tighter transect lines than determining the size and condition of a crested wheatgrass seeding), which will be conducted in Spring (April – May). The habitat assessment may be conducted in Summer or Fall, if completed by individuals experienced in plant identification when desiccated.

A biological assessment (Obsidian Solar, Biological Assessment, 2018 Unpubl. Report) of the solar development properties determined the primary impact to big game winter habitat was loss of forage. The primary forage species available in the Fort Rock Valley are sage brush, bitterbrush and perennial forbs for deer, and those species plus native and non-native grass for elk. Coe et al. (2017) reported that juniper stands are selected for winter habitat by deer and numerous studies have shown the importance of winter cover for elk. Cover availability will be determined during the juniper inventory.

Assessment of the non-native grassland association will identify: Dominate species and condition of grass, and perennial forbs. Dominate species and condition of shrubs (if any). Level of juniper encroachment. Assessment of the sagebrush shrubland association will identify: Dominate species and condition of shrubs. Level of juniper encroachment. Presence and species

of native grasses and forbs. Boundaries of vegetation associations will be delineated using GPS and mapped.



Juniper Inventory

Juniper stands will be classified to Phase. Age of juniper within the stands will be defined as either pre or post settlement (Miller et al., 2007). Below is the juniper Phase classification which will be used.

Phase 1 stands are defined as having post-settlement juniper that are either not abundant or old enough to compete with shrubs as indicated by the majority of the shrubs in the stand being robust with few or no dead limbs. Perennial herbaceous vegetation is abundant and bare soil is > 50%

Phase 2 stands have post-settlement juniper that are abundant and old enough to impact shrub growth, and shrub or herbaceous species establishment, which usually results in greater than 50% bare soil. Phase 2 stands are further defined as being early or late: Shrubs in early Phase 2 stands are still relatively abundant but dead limbs within individual plants are common. Skeletons of dead shrubs are common throughout the stand and seedling shrubs are uncommon. Shrubs in late Phase 2 stands are common but there are more dead than live limbs within individual plants. Skeletons of dead shrubs are common throughout the stand and seedling shrubs are absent or restricted to a few individual plants.

Phase 3 stands have pre and/or post-settlement juniper that are abundant and old enough to have out competed most of the shrubs in the understory. Shrubs remaining are stunted with few live limbs and bare soil usually exceeds 70%, unless nonnative annual grasses have encroached into the stand. Skeletons of dead shrubs are generally uncommon because they have already broken down.

Pre-settlement juniper are older than 200 years and established prior to or at the approximate time of European settlement of the western U.S. Within the Fort Rock Valley, they occur as individual trees within a younger stand or as distinct stands of juniper dominated by pre-settlement trees.

Boundaries of juniper stands will be delineated using GPS and mapped. If individual pre-settlement juniper trees are found their location will be recorded so they can be retained in any scheduled treatment.

Noxious Weed Inventory

A noxious weed inventory will be conducted on the WLIP properties. All disturbed sites, roads and areas near water will be surveyed for noxious weeds (Table 1), medusa head rye (*Taeniatherum caput-medusae*) and ventenata (*Ventenata dubia*). The location and boundaries of any infestations found will be recorded using GPS and mapped. Additionally, the location and boundaries of all infestation found during the habitat assessment and juniper inventory will be recorded using GPS and mapped, (Bartz, 2006).

Table 1: Weed Species of Concern

Weed Species Common Name	Scientific Name	Threat Level
Canada Thistle	<i>Cirsium arvense</i>	3
Common Reed	<i>Phragmites australis, ssp. Australis</i>	0
Cutleaf teasel	<i>Dipsacus Laciniatus</i>	1
Dalmatian toadflax	<i>Linaria dalmatica</i>	2
Diffuse knapweed	<i>Centaurea diffusa</i>	1
Dyer's Woad	<i>Isatis tinctoria</i>	3
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>	0
Field Bindweed	<i>Convolvulus arvensis</i>	1
Hoary Cress (whitetop)	<i>Lepidium draba, Lepidium et. Al</i>	2
Kochia	<i>Kochia scoparia</i>	3
Leafy Spurge	<i>Euphorbia esula</i>	0
Mediterranean sage	<i>Salvia aethiopis</i>	3
Medusahead rye	<i>Taeniatherum caput-medusae</i>	3
Musk thistle	<i>Carduus nutans</i>	2
Myrtle Spurge	<i>Euphorbia myrsinites</i>	2
Perennial Pepperweed	<i>Lipidium latifolium</i>	1
Puncturevine	<i>Tribulus terrestris</i>	2
Purple loosestrife	<i>Lythrum salicari</i>	1
Rush Skeletonweed	<i>Chondrilla juncea</i>	0
Russian knapweed	<i>Acroptilon repens</i>	1
Saltceder	<i>Tamarix ramosissima</i>	1
Scotch broom	<i>Cytisus scoparius</i>	0
Scotch thistle	<i>Onopordum acanthium</i>	3
Spotted Knapweed	<i>Centaurea stoebe (c.maculosa)</i>	2
Spinny Cocklebur	<i>Xanthium spinosum</i>	3
Summer Pheasant eye	<i>Adonis vernailis</i>	2
Sulfur cinquefoil	<i>Potentilla recta</i>	2
Yellow Starthistle	<i>Centaurea solstitialis</i>	1
Yellow Toadflax	<i>Linaria vulgaris</i>	3

Threat key

- 0 Watch For
- 1 Establishing
- 2 Controllable
- 3 Widespread
- x Not detected

Literature Cited

Bartz, E., 2006. Noxious weed plan. Las Vegas Field Office, Nevada BLM: A plan for integrated weed management. Appendix 3: Weed Survey Protocol. Unpubl. Report. pp. 16-17.

Coe, P.K., D.A. Clark, R.M. Nelson, S.C. Gregory, J.B. Cupples, M.J. Hedrick, B.K. Johnson, D.H. Jackson. 2018. Multiscale models of habitat use by mule deer in winter. *J. Wildl. Manage.* 10.1002/jwmg.21484.

Miller, R.F., J.D. Bates, T.J. Svejcar, F.B. Peirson, and L.E. Eddleman. 2007. Western juniper field guide: asking the right questions to select appropriate management actions. U.S. Geological Survey Circular 1321. 61pp.

~~Attachment 1~~

~~Obsidian Solar Center Habitat Mitigation Plan
(Provided Under Separate Attachment)~~

~~Attachment 2~~

~~Obsidian Solar Center
2018 Habitat Assessment and Biological Resources Field Report
(Provided Under Separate Attachment)~~

Attachment 3
Supplemental Evidence for Success of Juniper Removal

- Boyce, M.S., M.G. Turner, J. Fryxell, P. Turchin. 2003. Scale and heterogeneity in habitat selection by elk in Yellowstone National Park. *EcoScience*. 10(4), 421-431.
- Coe, P.K., D.A. Clark, R.M. Nelson, S.C. Gregory, J.B. Cupples, M.J. Hedrick, B.K. Johnson, D.H. Jackson. 2018. Multiscale models of habitat use by mule deer in winter. *J. Wildl. Manage.* 10.1002/jwmg.21484.
- Davies, K.W., C.S. Boyd, J.L. Beck, J.D. Bates, T.J. Svejcar, M.A. Gregg. 2011. Saving the sagebrush sea: strategies to conserve and restore big sagebrush plan communities. *Biol. Conserv.* 144, 2573-2584.
- Leckenby, D. A., and A. W. Adams. 1986. A weather severity index on a mule deer winter range. *Journal of Range Management* 39:244–248.
- Miller, R.F., J.R. Rose. 1995. Historic expansion of *Juniperus occidentalis* in southeast Oregon. *Great Basin Nat.* 55, 37-45.
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- Vaitkus, M.S., L.E. Eddleman. 1987. Composition and productivity of western juniper understory and its response to canopy removal. In: Everett, R.L. (Ed.) *Proceedings Pinyon-Juniper Conference*. Gen. Techn. Rep. INT-215, USDA-FS, Intermountain Forest and Range Experiment Station. Ogden, UT. pp 456-460.

~~Attachment 2~~Appendix 3

Juniper Phase Mapping Technical

To:	Michelle Slater and Laurie Hutchinson	From:	Ilja Nieuwenhuizen
	Obsidian Solar Center LLC		Stantec Consulting Services Inc
File:	obsidian_juniperphasesmemo_01162020	Date:	January 16, 2020

Reference: Preliminary Juniper Woodland Succession Phases

Stantec Consulting Services Inc. (Stantec) prepared a preliminary map of juniper woodland succession phases within the approximately 22,722-acre Working Lands Improvement Program area (WLIP area) for the Obsidian Solar Center Project. Stantec also provided general guidance for selecting a mitigation site within the WLIP area for western juniper (*Juniperus occidentalis*) removal. The map and guidance are based on desktop analysis only; no field visit was conducted as part of this effort.

Stantec used aerial imagery and guidance provided in *Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions* (Miller et al. 2007) to delineate the program area into three phases of juniper succession. The delineations are estimates based on a review of aerial imagery. A summary of the phase characteristics is provided below and a figure showing the WLIP area and the three phases is attached to this letter.

Phase 1 (13,554 acres): Early woodland succession, with the tree canopy open and actively expanding. The tree canopy cover is less than 10 percent and the shrub layer is intact.

Phase 2 (3,935 acres): Mid woodland succession, with the tree canopy actively expanding. The tree canopy cover is 10 to 30 percent, and the shrub layer is nearly intact to significant thinning.

Phase 3 (3,905 acres): Late woodland succession, with the tree canopy expansion nearly stable. The tree canopy cover is more than 30 percent and the shrub layer is more than 75% dead or absent.

A 1,328-acre portion of the WLIP area does not occur in the three juniper succession phases because juniper trees are not present or present only in very small numbers or the area is unsuitable for juniper mitigation. Sagebrush shrubland habitat totals 1,168 acres in the WLIP area. Stantec classified this habitat based on aerial photography review and our familiarity with the landscape. We presume big sagebrush (*Artemisia tridentata* ssp. *tridentata*) is a major component of the sagebrush shrubland, as well as other shrubs commonly associated with big sagebrush, including other sagebrush species, rubber rabbitbrush (*Ericameria nauseosa*), and antelope brush (*Purshia tridentata*). Based on aerial imagery review, it appears no juniper trees are present in the mapped sagebrush shrubland habitat; however, a field review would be required to confirm their absence.

Lava beds compose 148 acres of the WLIP area and are likely not suitable for mitigation purposes because of the low percent cover of understory species and the rocky substrate. According to Miller et al. (2007), sites with low percent cover of understory species typically do not respond well to juniper removal and are not prime sites for mitigation. A small quarry (approximately 12 acres) is also present in the WLIP area, as seen on aerial photography.

January 16, 2020

Michelle Slater and Laurie Hutchinson

Page 2 of 2

Reference: Preliminary Juniper Woodland Succession Phases

Stantec Consulting Services Inc.



Sarah Tona

Associate Biologist

Phone: 530 222 5347 x136

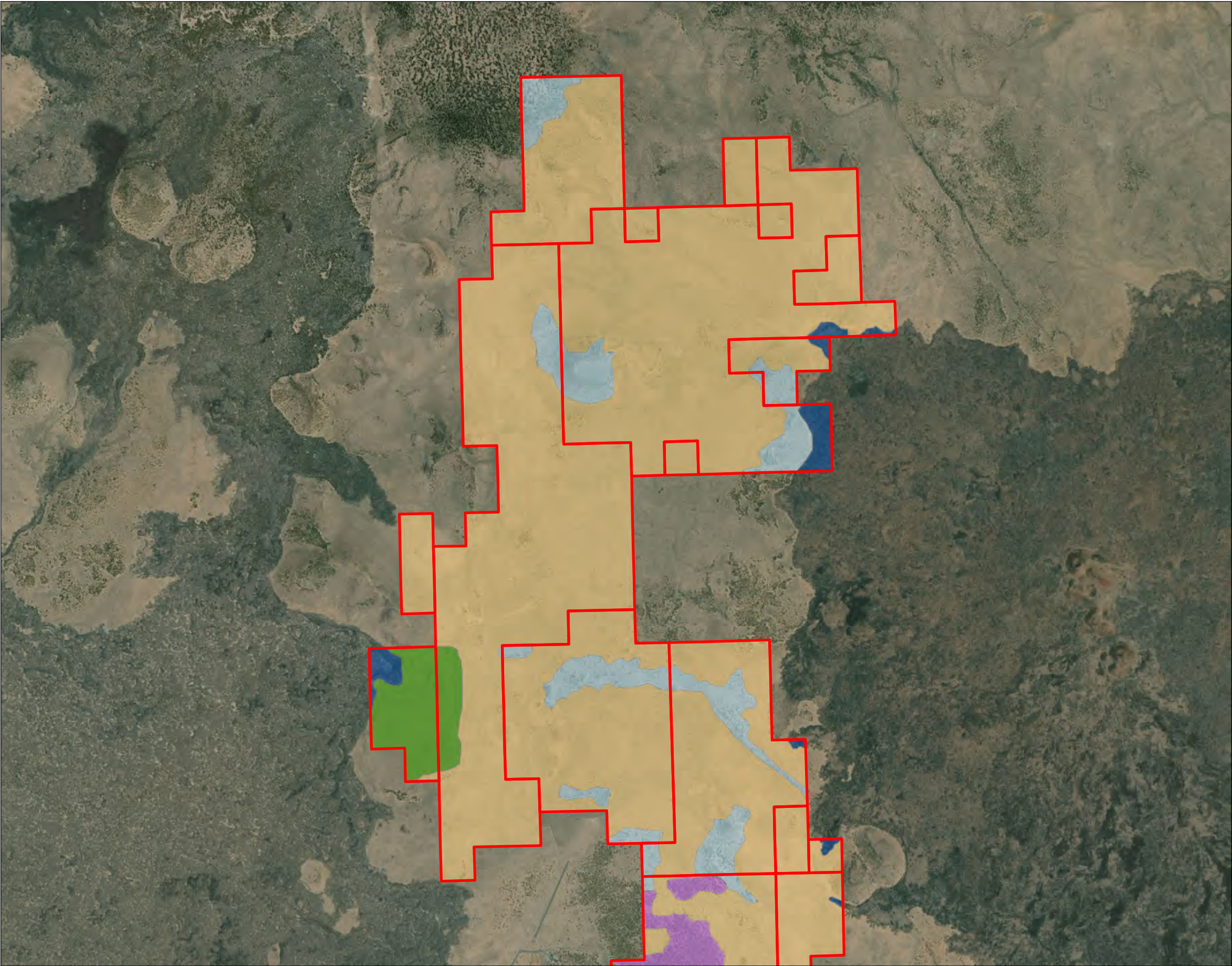
sarah.tona@stantec.com

Attachment: Preliminary Juniper Woodland Succession Phases Map.

Reference

Miller, R.F., J.D. Bates, T.J. Svejcar, F.B. Pierson, and L.E. Eddleman. 2007. Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions: U.S. Geological Circular 1321, 61 p.

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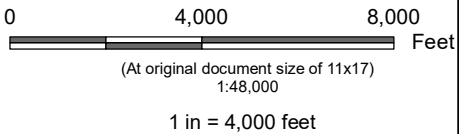


- Working Lands Improvement Program (WLIP) Area
- Non-WLIP Area
- Lava Bed
- Quarry
- Sagebrush Shrubland

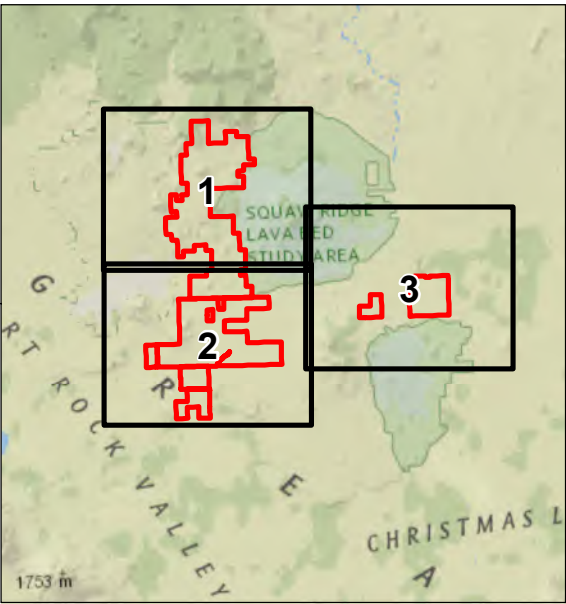
Juniper Woodland Succession Phases

- Phase 1 (Juniper Subordinate)
- Phase 2 (Juniper and Shrubs Co-Dominant)
- Phase 3 (Juniper Dominant)

Note: mapping based on desktop interpretation of aerial imagery



- Notes**
- 1. Coordinate System: NAD 1983 UTM Zone 10N
 - 2. ESRI Digital Globe: 8/15/2017
 - 3. Woodland succession phases follow guidance provided in "Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions" (Miller et al. 2007).



Project Location
Lake County, Oregon

Prepared by SNT on 2020-01-16
TR by DW on 2020-01-16

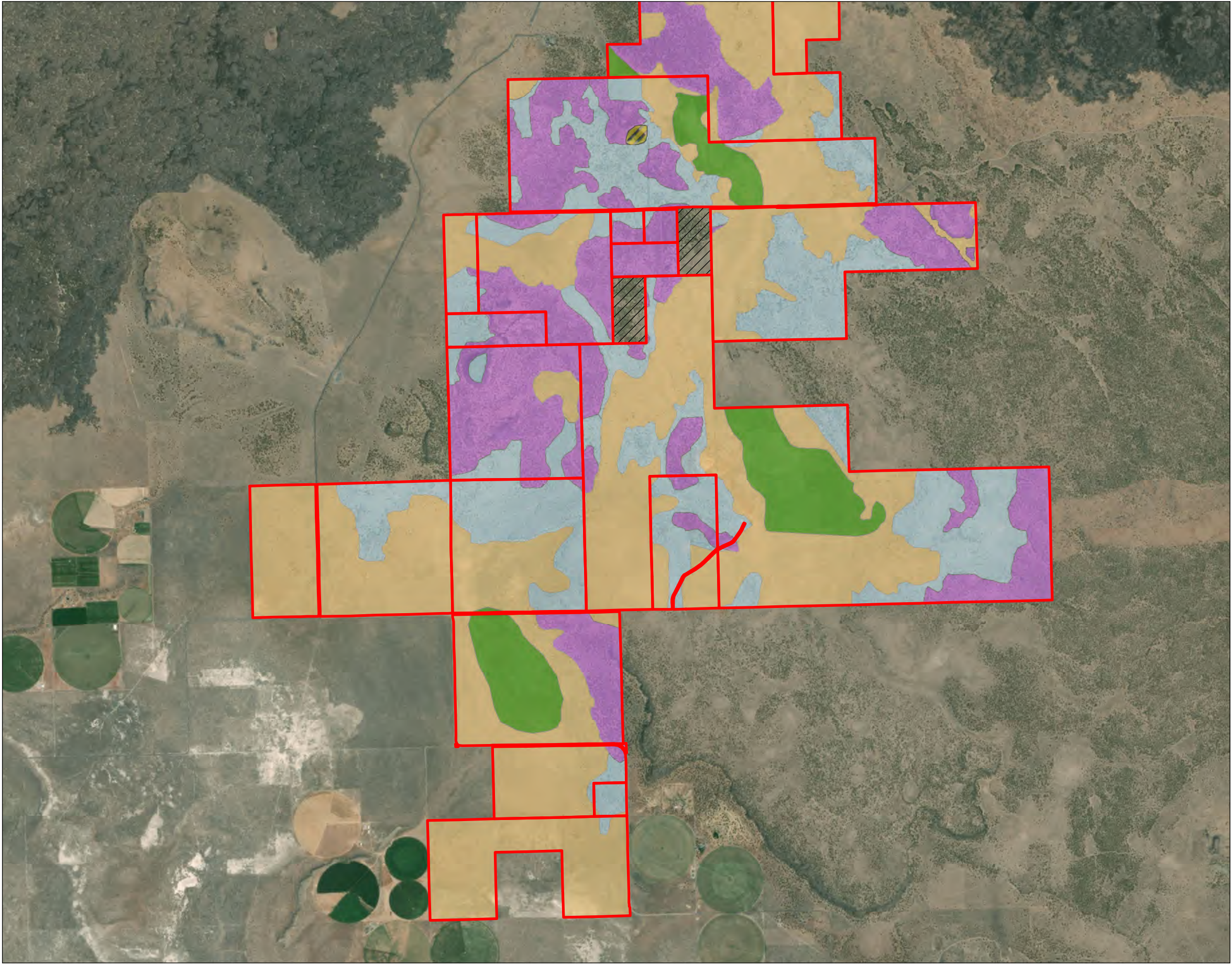
Client/Project
Obsidian Solar LLC
Obsidian Solar Center

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Title
Preliminary Juniper Woodland Succession Phases

Page 1 of 3

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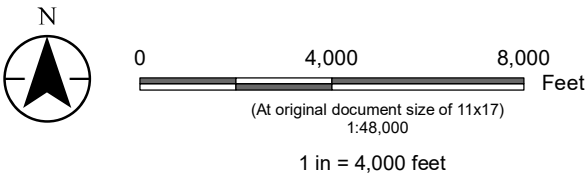


- Working Lands Improvement Program (WLIP) Area
- Non-WLIP Area
- Lava Bed
- Quarry
- Sagebrush Shrubland

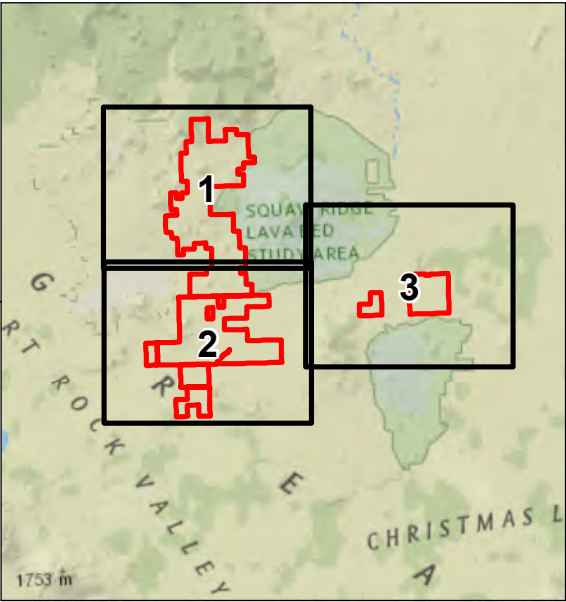
Juniper Woodland Succession Phases

- Phase 1 (Juniper Subordinate)
- Phase 2 (Juniper and Shrubs Co-Dominant)
- Phase 3 (Juniper Dominant)

Note: mapping based on desktop interpretation of aerial imagery



Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. ESRI Digital Globe: 8/15/2017
3. Woodland succession phases follow guidance provided in "Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions" (Miller et al. 2007).



Project Location
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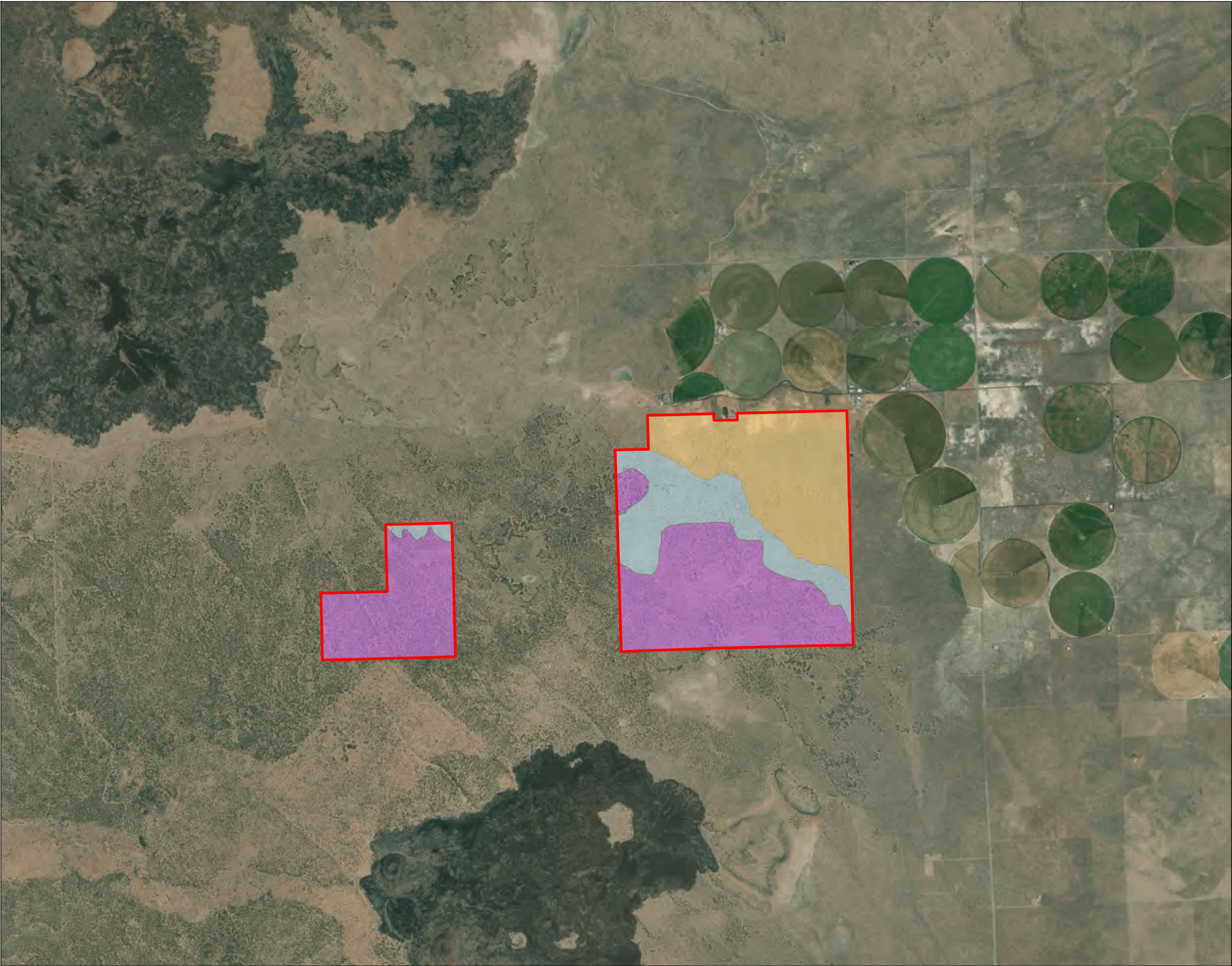
Prepared by SNT on 2020-01-16
TR by DW on 2020-01-16

Client/Project
Obsidian Solar LLC
Obsidian Solar Center

185704572 REV A

Title
Preliminary Juniper Woodland Succession Phases

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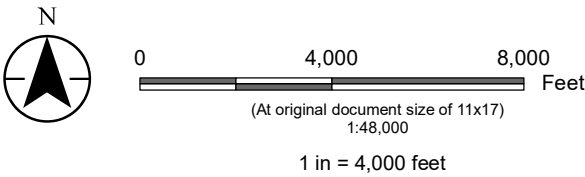


- Working Lands Improvement Program (WLIP) Area
- Non-WLIP Area
- Lava Bed
- Quarry
- Sagebrush Shrubland

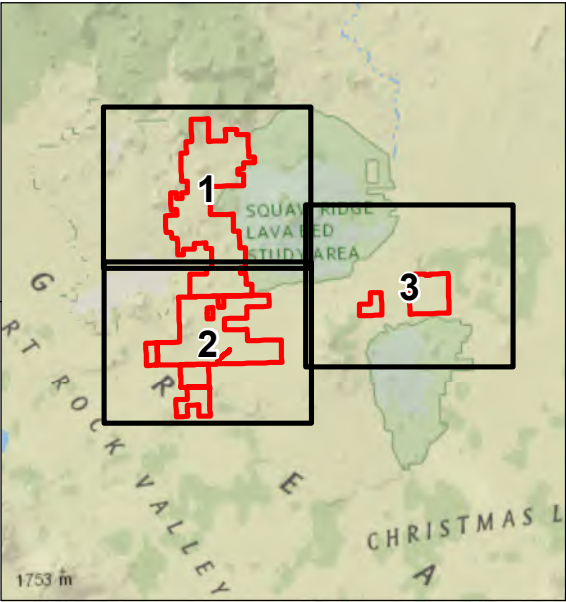
Juniper Woodland Succession Phases

- Phase 1 (Juniper Subordinate)
- Phase 2 (Juniper and Shrubs Co-Dominant)
- Phase 3 (Juniper Dominant)

Note: mapping based on desktop interpretation of aerial imagery



Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. ESRI Digital Globe: 8/15/2017
3. Woodland succession phases follow guidance provided in "Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions" (Miller et al. 2007).



Project Location
Lake County, Oregon

Prepared by SNT on 2020-01-16
TR by DW on 2020-01-16

Client/Project
Obsidian Solar LLC
Obsidian Solar Center

185704572 REVA

Title
Preliminary Juniper Woodland Succession Phases

~~Attachment 3~~Appendix 4

Desktop Habitat Mapping Technical
Memorandum

To:	Michelle Slater and Laurie Hutchinson	From:	Ilja Nieuwenhuizen
	Obsidian Solar Center LLC		Stantec Consulting Services Inc
Reference:	Habitat Assessment of the Obsidian Solar Center Project Potential Mitigation Area	Date:	February 13, 2020

Introduction

Stantec Consulting Services Inc. (Stantec) prepared a desktop-based habitat assessment within approximately 6,534 acres of potential mitigation lands for the Obsidian Solar Center Project (proposed project). This includes all or portions of parcels in two general locations: 1) a northern area on Nine Peaks Ranch owned by Aaron and Rebecca Borror that consists of approximately 4,595 acres (Figure 1A), and 2) a southern area on the Morrison Ranch owned by Morrison Family Revocable Liv Trust that consists of approximately 1,939 acres (Figure 1B).¹ These two mitigation areas are within approximately 2 to 20 miles of the proposed project site. The proposed project site, the Nine Peaks Ranch, and the Morrison Ranch are all located within the Oregon Department of Fish and Wildlife (ODFW)-mapped elk (*Cervus canadensis*) winter range and mule deer (*Odocoileus hemionus*) winter range (referred to as ODFW Big Game Winter Range). The purpose of this habitat assessment is to help inform the suitability of these areas for mitigation, which includes removing western juniper (*Juniperus occidentalis*) trees as habitat mitigation for the proposed project.

Stantec used aerial imagery and general knowledge of the area obtained from past nearby field efforts to delineate and describe habitat types in the potential mitigation areas. Past field efforts include a habitat assessment performed on the proposed project in March and June of 2018 (Ecology and Environment 2018) and a pre-treatment western juniper inventory performed for a 15-acre parcel within the southern area in the potential mitigation area in December 2019 (Stantec 2019).

Stantec used a modified version of the dichotomous key developed for the proposed project's *2018 Habitat Assessment and Biological Resources Field Report* to delineate habitat types in the potential mitigation area (Ecology and Environment 2018). Ecology and Environment, Inc., integrated vegetation characteristics of the region with the Natural Vegetation Classification Standard, Version 2 (Federal Geographic Data Committee 2008) to create the dichotomous key (Ecology and Environment 2018).

Dichotomous Key to Determine Habitat Types

Determining the Vegetation Stratum

1a) Tree canopy cover >10%= Part A: Forest or Woodland, lead 4a

1b) Tree canopy cover <10%, lead 2a.

2a) Shrub canopy cover >10%= Part B: Shrubland, lead 5a.

¹ The GIS data show the mitigation area acreage as slightly larger than the tax lot acres. The GIS data show the Nine Acres Ranch mitigation area at approximately 4,595 acres and the Morrison Ranch mitigation area at approximately 1,939 acres, rather than 4,500 and 1,870 acres, respectively. Stantec disregards this minor acreage discrepancy for purposes of this analysis.

Reference: **Habitat Assessment of the Obsidian Solar Center Project Potential Mitigation Areas**

2b) Shrub canopy cover <10%, lead 3a

3a) Herbaceous cover >5%= Part C: Herbaceous Vegetation, lead 6a

3b) Herbaceous cover <5% = **Barren**

Identifying the Habitat Type

Part A: Forest or Woodland

4a) Tree canopy cover dominated by western juniper = **Juniper Woodland**

4b) Tree canopy cover not dominated by western juniper = **Non-juniper Woodland or Forest**

Part B: Shrubland

5a) Shrub cover includes robust sagebrush (*Artemisia* spp.) component = **Sagebrush Shrubland**

5b) Shrub cover does not include robust sagebrush component = **Non-sagebrush Shrubland**

Part C: Herbaceous Vegetation

6a) Graminoids predominantly native species = **Native Grassland**

6b) Graminoids predominantly non-native species = **Non-native Grassland**

Mapped Habitat Types

Stantec mapped the following habitat types in the potential mitigation area: juniper woodland, sagebrush shrubland, and non-native grassland (Figure 1). A quarry approximately 6 acres in size is in the southern mitigation area on the Morrison Ranch and constitutes a lack of habitat due to the absence of vegetation and the disturbed nature of the quarry (Figure 1B).

The text below describes each habitat type in the mitigation areas and their associated juniper succession phase(s), according to Miller et al. (2007). Attachment 1 to this memo describes and evaluates juniper succession phases of land previously evaluated for participation in Obsidian's Working Lands Improvement Program, including the mitigation areas on Nine Peaks Ranch and Morrison Ranch. For all habitat types, the percentage cover of vegetation within each stratum is expected to vary considerably depending on unique characteristics of each location, including aspect, hydrology, soils, and disturbances. The descriptions below are based on the desktop methods described above and will be field verified at a later date (except for the 15-acre parcel that was assessed in the field in December 2019).

Juniper Woodland (1,291 acres): Juniper woodland contains greater than 10 percent cover of western juniper. Western juniper trees and saplings likely range from ground level to about 30 feet tall in the mitigation area. The percentage of mature trees versus new sapling recruitment would vary depending on the location in the mitigation area.

Reference: Habitat Assessment of the Obsidian Solar Center Project Potential Mitigation Areas

In areas with dense juniper, the understory is expected to be minimal to bare. These areas would constitute phase 3 of juniper encroachment, which includes areas where tree canopy expansion is nearly stable, and the shrub layer is more than 75 percent dead or absent (see Attachment 1). Where juniper trees have a lower cover, the understory is expected to be dominated by a variety of shrub species, including big sagebrush (*Artemisia tridentata* ssp. *tridentata*), rubber rabbitbrush (*Ericameria nauseosa*), and yellow rabbitbrush (*Chrysothamnus viscidiflorus*). These areas would constitute phase 2 of juniper encroachment where the tree canopy is actively expanding, and the shrub layer has a varied cover ranging from intact to thinning (Attachment 1). The shrubs likely vary in height and would generally fall between 2 and 7 feet tall. Herbaceous species present may include perennial bunch grasses, including but not limited to crested wheatgrass (*Agropyron cristatum*), bottlebrush (*Elymus elymoides*), and fescues (*Festuca* spp.). Cheatgrass (*Bromus tectorum*), an invasive annual grass, are expected to occur throughout the habitat type at varying percent cover. Other shrub, grass, and forb species may also dominate the habitat type in the mitigation area.

Nine Peaks Ranch Mitigation Area: 330 acres of Juniper Woodland

Morrison Ranch Mitigation Area: 961 acres of Juniper Woodland

Sagebrush Shrubland (5,196 acres): Sagebrush shrubland contains less than 10 percent tree cover, or trees are absent in some areas, and greater than 10 percent shrub cover. Stantec expects that the shrub cover in the potential mitigation areas includes a robust sagebrush component, and we delineated all shrubland areas as sagebrush shrubland. A field-based assessment may determine that other shrubs are dominant in portions of this habitat type, in which case, these areas would need to be mapped as non-sagebrush shrubland.

Areas with no juniper trees present constitute no juniper encroachment, while areas with some juniper trees constitute phase 1 of juniper encroachment (Attachment 1). The shrub layer varies in percentage cover throughout the habitat type and is likely dominated by big sagebrush with rubber rabbitbrush and yellow rabbitbrush occurring to lesser extents. The shrubs likely range between 2 and 7 feet in height. Herbaceous cover also likely varies and may contain perennial bunch grasses, including crested wheatgrass, bottlebrush, and fescues. Cheatgrass is also expected to occur at varying degrees throughout the site. Other shrub, grass, and forb species may also dominate the habitat type in the mitigation area. Bare ground between shrubs is expected to be a major component in a portion of the habitat.

Nine Peaks Ranch Mitigation Area: 4,225 acres of Sagebrush Shrubland

Morrison Ranch Mitigation Area: 971 acres of Sagebrush Shrubland

Non-Native Grassland (41 acres): This habitat type occurs in an area where historical lava flows have resulted in a substrate dominated by coarse volcanic gravel and rock. From aerial imagery interpretation, it appears that shrub and tree cover are both less than 10 percent, making the habitat type herbaceous. Stantec expects that the herbaceous layer is dominated by non-native grasses, including cheatgrass. Non-native grassland does not correspond to a juniper encroachment phase since juniper trees are not expected to be present. All 41 acres of this habitat type occurs on the Nine Peaks Ranch.

Quarry (6 acres): This developed/disturbed area consists of an active rock quarry with little to no vegetation. All six acres of this developed area are on the Morrison Ranch.

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Reference: **Habitat Assessment of the Obsidian Solar Center Project Potential Mitigation Areas**

Comparison of Mitigation and Project Habitat Types

The primary habitat type within the proposed project area is sagebrush shrubland, which is the most common habitat type in the mitigation areas. Based on incidental observations of nearby areas made during the western juniper field inventory of the 15-acre parcel conducted in December 2019 (Stantec 2019), as well as other incidental observations made in this area in the last several years, the sagebrush shrubland habitat in the mitigation areas is similar to the sagebrush shrubland habitat documented in the proposed project area in that it is likely dominated by big sagebrush, rubber rabbitbrush, and yellow rabbitbrush. Mitigation areas also likely have similar dominant herbaceous species to the proposed project area, primarily perennial bunch grasses invasive cheatgrass. The main difference between the mitigation and proposed project areas lies in western juniper cover. There are few western junipers in the proposed project area, while the mitigation areas contain some juniper woodland habitats and the sagebrush shrublands exhibit varying degrees of juniper encroachment. Most of the sagebrush shrubland habitats in the mitigation areas are undergoing some degree of western juniper encroachment or are under threat of encroachment; however, due to the apparent prevalence of big sagebrush and perennial bunch grasses in the understory in most juniper woodland habitats in the mitigation area, the historical habitat type in the mitigation area was likely sagebrush shrubland. Areas with juniper encroachment phases 1 and 2 would be good candidates for western juniper removal to restore to historical sagebrush shrubland conditions, based on the preliminary desktop analysis.

Stantec Consulting Services Inc.



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Attachments: Figures
Preliminary Juniper Woodland Succession Phases – December 2019

References

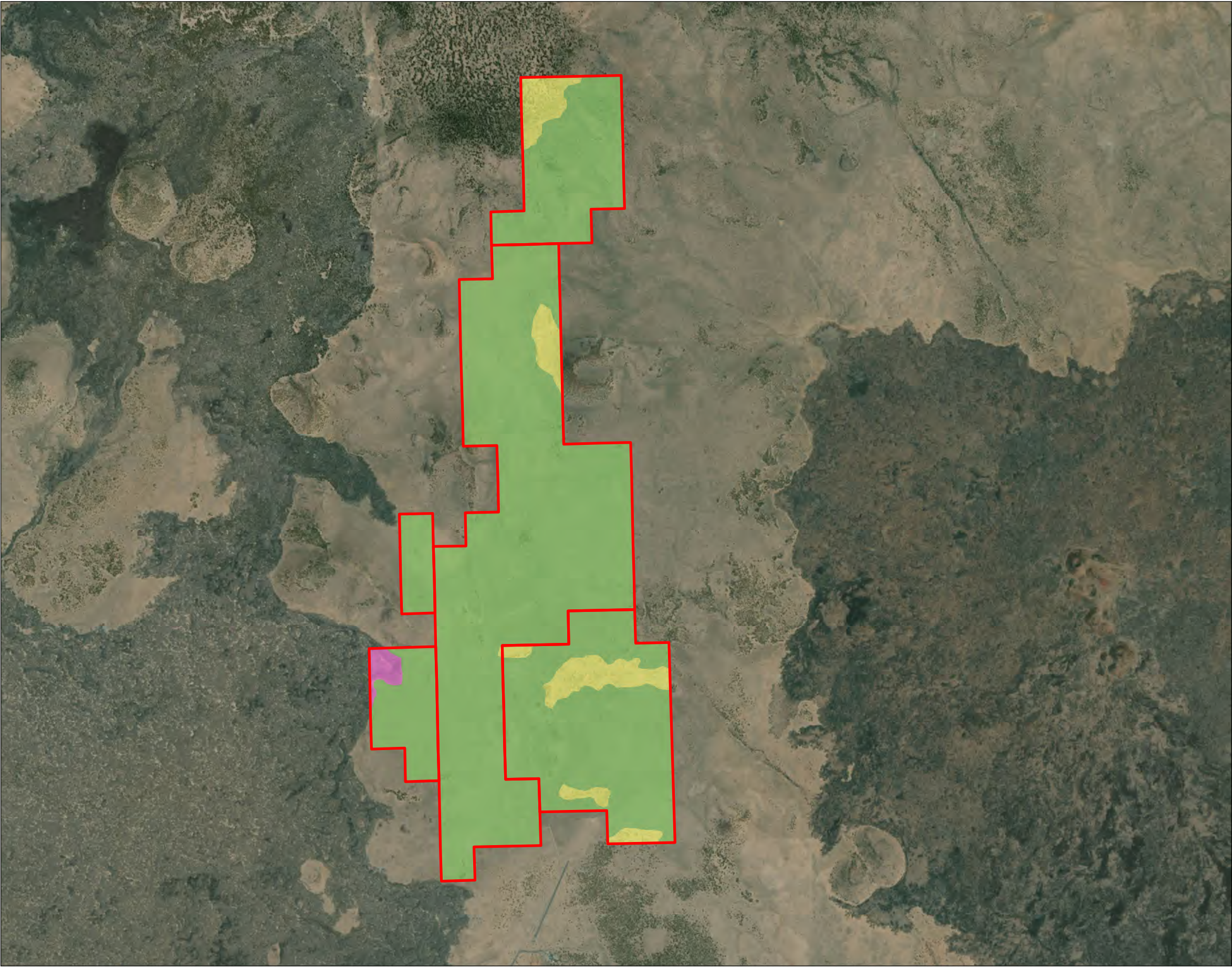
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 Mitigation Area

 Quarry

Habitat Types

 Juniper Woodland

 Non-Native Grassland

 Sagebrush Shrubland

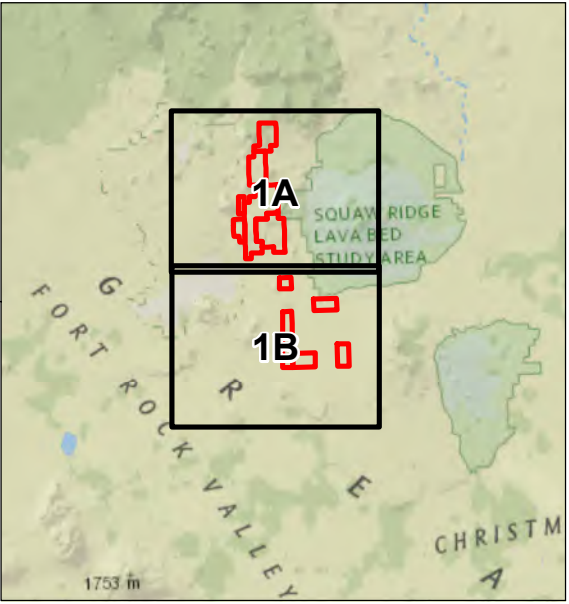


0 2,000 4,000
Feet

(At original document size of 11x17)
1:48,000

1 in = 4,000 feet

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 10N
2. ESRI Digital Globe: 8/15/2017



Project Location
Lake County, Oregon

Prepared by SNT on 2020-02-10
TR by DW on 2020-02-11

Client/Project
Obsidian Solar LLC
Obsidian Solar Center

185704572

Title
Figure 1A. Habitat Types in the Mitigation Area on Borror Property

Attachment E: Draft Amended Revegetation and Noxious Weed Control Plan

Obsidian Solar Center Revegetation and Noxious Weed Control Plan

**Prepared by:
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As amended by the Energy Facility Siting Council's Final Order on Request for Amendment 2
June 13, 2025

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Acronyms and Abbreviations

Applicant	Obsidian Solar Center LLC
CWMA	Cooperative Weed Management Area
EPA	U.S. Environmental Protection Agency
Facility	Obsidian Solar Center
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy

1.0 INTRODUCTION

Obsidian Solar Center LLC (Applicant) proposes to construct the Obsidian Solar Center (Facility) in Lake County, Oregon, which would have alternating current generating capacity of up to 400 megawatts and may include battery storage technology. The Facility will be located approximately 8 miles southeast of Fort Rock, Oregon, in the Christmas Valley portion of northern Lake County.

The site boundary contains about 3,921 acres, but approximately 331 acres will not be developed in order to avoid impacts on sensitive resources, or because these areas fall within unused portions of the generation-tie transmission line corridor. Construction of the Facility will disturb approximately 3,590 acres of vegetation within the site boundary, comprising sagebrush shrubland (95.3 percent), sand dune (3.0 percent), non-native forb (1.2 percent), and playa (0.5 percent).

This Revegetation and Noxious Weed Control Plan outlines the objectives, methods, and success criteria that Applicant will use to direct revegetation efforts in areas of soil disturbance not associated with permanent Facility components, and to control noxious weeds on the Facility site. Applicant is coordinating with the Oregon Department of Fish and Wildlife (ODFW) to develop an approach to mitigating permanent habitat impacts on the majority of the area within the site boundary (refer to Exhibit P for details). Applicant's two primary goals are (1) encouraging revegetation within the site boundary to reduce the potential for windblown and water erosion by reestablishing vegetation ground cover and root structure, and (2) avoiding or controlling the introduction and spread of noxious weeds. With the exception of controlling noxious weeds, Applicant is not required to meet specific restoration standards, such as meeting specific success criteria, except as they pertain to Facility permit conditions (e.g., 1200-C Construction Stormwater permit), or conditions of approval to the Site Certificate. However, to help promote use by native wildlife species after construction, Applicant will focus on revegetating with mostly native plant species, to the extent practicable.

Applicant consulted Lake County and the Cooperative Weed Management Area (CWMA) program in developing this plan. Lake County works closely with private landowners and the CWMA to control noxious weeds in Lake County. Section 3.0 provides details of correspondence with the CWMA.

2.0 REVEGETATION METHODS

Applicant will not mow vegetation in most areas within the site boundary prior to starting other construction activities. In some areas, vegetation will be smashed by trucks driving over it, and in other areas where trenching or grading will occur, vegetation will be removed either entirely or to within several inches of the ground. Vegetation root structures and topsoil seed bases will be preserved in most Facility areas, and additional soil management measures, such as topsoil stripping and segregation, will not be required. In most of these areas, Applicant will allow vegetation to restore "passively," i.e., without re-seeding. Noxious weed prevention and control will be necessary within the site boundary.

Soil disturbances at permanent Facility components, such as inverter pad and substation footprints,

will not be restored. However, in other areas with soil disturbance, such as trenches for underground cable installation, “active” restoration, i.e., with re-seeding, may be necessary to ensure timely recovery of vegetation, control erosion, and prevent the establishment and spread of noxious weeds. The following subsections describe the measures and practices that Applicant will employ to actively restore vegetation in areas of soil disturbance, with the exception of noxious weed control.

2.1 Soil Management

Soil management measures will begin at the start of construction. Construction crews will adhere to the soil management measures and practices listed below. Applicant will maintain these measures and practices until the affected areas meet the success criteria detailed in Section 4.2.

- 1.1.1 Establish stable surface and drainage conditions and use standard erosion control devices and techniques to minimize soil erosion and sedimentation, including the installation of silt fencing, straw bales, mulch, straw wattle, erosion control fabric, and slope breakers, as appropriate. Applicant will use certified weed-free straw bales, straw mulch, hydromulch, and/or other appropriate weed-free mulch materials.
- 1.1.2 Due to the limited extent of grading during construction, and due the relatively narrow areas (approximately 3 feet wide) where trenching will occur, Applicant does not foresee the need to strip and segregate topsoil. However, if large areas of soil disturbance (e.g., 50 by 50 feet or larger) that require revegetation are identified during construction, Applicant may implement topsoil stripping and segregation to preserve topsoil. In such instances, Applicant would strip topsoil (generally defined as the upper 6 to 12 inches of soil) from subsoil, segregate it into stockpiles, and then reapply the topsoil to its original location after construction.

2.2 Revegetation

Applicant will initiate revegetation measures (i.e., re-seeding) in construction disturbance areas that create gaps in vegetation, as soon as appropriate after activities in work areas are completed. For example, Applicant expects to install solar modules on approximately 60-acre portions of the Facility at a time. Therefore, any necessary reseedling would occur in the next approved seeding window (refer to Section 2.2.1) after construction activities in each 60-acre area are complete.

Applicant may delay some revegetation activities based on seasonal considerations or weather conditions. Areas that require re-seeding that cannot be done so promptly will be stabilized with mulch or otherwise treated to minimize erosion, if necessary, until seeding can be conducted. Applicant will implement measures to prevent the establishment and spread of noxious weeds (refer to Section 3.0) in conjunction with re-seeding efforts.

2.2.1 Seed Mixture

Applicant will consult the ODFW to develop a final seed mixture appropriate for revegetation efforts on the Facility site. Table 1 provides Applicant’s preliminary proposed revegetation seed mixture developed by consulting the Natural Resources Conservation Service office in Lakeview, Oregon (Corning 2019) and the Lake County CWMA (Jaeger 2019). Applicant may modify this preliminary seed mixture ahead of revegetation at the request of landowners, Lake County, or further coordination with the CWMA or ODFW. The seed mixture may be modified in consultation with ODFW and LCCWA if nonnative seeds (like Crested Wheatgrass and/or Covar sheep fescue) may be needed to more aggressively respond to noxious weeds. The preliminary seed mixture uses four native and one non-native species that are adapted to the conditions of the Facility site to help ensure the greatest probability of germination and long-term survival. All plant materials shall meet the following requirements:

- Seeds will be “source identified.” The original source for the seed mixture(s) should be the Northern Basin and Range ecoregion. The seed should be a locally adapted biotype, adapted to conditions similar to the Facility site.
- Seed will be certified “weed-free.”
- Seed application rates presented in Table 1 assume that drill seeding methods will be employed. If broadcast seeding methods are used, the seed application rates in Table 1 will be doubled.

Table 1. Preliminary Revegetation Seed Mixture

Common Name	Latin Name	Variety	Pure Live Seed Pounds per Acre ¹	Purpose
Bluebunch wheatgrass	<i>Pseudoregneria spicata</i>	Secar	4	(N) (EC)
Thickspike wheatgrass	<i>Elymus lanceolatus</i>	Critana	4	(N) (EC)
Indian ricegrass	<i>Achnatherum hymenoides</i>	Nezpar	3	(N) (EC)
Basin wildrye	<i>Elymus cinereus</i>	Magnar	4	(N) (EC)
Crested Wheatgrass	<i>Agropyron desertorum</i>	Hycrest	4	(I) (EC)
TOTALS			19	
Notes to Table 1: ¹ assume drill seeding methods will be employed. If broadcast seeding methods are used, the seed application rates in Table 1 will be doubled. Key: (N) = Native, (I) = Introduced, NA = not applicable, (EC) = Erosion Control				

2.2.2 Seed Planting Methods and Schedule

Applicant will apply the proposed seed mixture (Table 1) at an approximate rate of 19 pounds per acre (for drill rate; double the rate for broadcast or hydroseeding). Applicant may employ a combination of broadcast seeding, drill seeding, and hydroseeding, depending on slope and other

site conditions. Applicant may apply straw mulch, hydromulch, and/or other appropriate weed-free mulch material, as needed, immediately after seeding. When hydroseeding, Applicant will add green-dyed, wood-fiber mulch to the slurry mixture at a rate of 1,000 pounds per acre. In addition to serving as a carrying agent for the seed, the biodegradable green mulch serves as a tracer for visually checking distribution to ensure uniform coverage of the disturbed areas.

Applicant will attempt to conduct re-seeding efforts in November to early March in order to take advantage of soil moisture needed for germination by April. Reseeding may occur in February to early April, depending on weather conditions, for construction activities completed during the winter. In areas where crews complete construction activities from mid-April to early November, re-seeding will occur in October or early November. If construction crews complete activities during time periods that do not allow for prompt re-seeding, the affected areas will be stabilized with mulch or otherwise treated to minimize erosion, if necessary, until seeding can be conducted.

3.0 NOXIOUS WEEDS

Invasive, non-native plants are opportunistic, may readily colonize disturbed areas, and can inhibit native plant species from re-establishing. Invasive plants may have significant adverse impacts on agricultural operations and on natural resources, including wildlife habitat. Lake County and the State of Oregon designate certain invasive plant species with elevated economic or environmental concerns as noxious weeds and prioritize these species during weed management planning and operations.

The Oregon Department of Agriculture designates three categories of noxious weeds: “A” list species, “B” list species, and “T” species (ODA 2018). A-listed weeds are economically important and occur in the state in small enough infestations to make eradication or containment possible, or are rare species not known to occur in the state but have a presence in neighboring states, making future occurrence imminent. B-listed weeds are economically important and regionally abundant, but may have limited distribution in some counties. T-designated weeds are selected by the Oregon State Weed Board to be the focus for prevention and control by the Noxious Weed Control Program. T-designated noxious weeds are species selected from either the A or B lists. Refer to ODA’s 2018 Noxious Weed Policy and Classification System for a list of state-designated noxious weeds. In addition, Lake County maintains a list that designates three categories of Noxious Weeds: “A,” “B,” and “C” (Lake County 2018). The County’s “A” and “B” designations are similar to ODA’s definitions, and the “C” category denotes species that are of economic importance and are abundant county-wide and in neighboring counties. Note that there is only partial overlap between the ODA’s and the County’s weed designations for each species (e.g., a species may have one designation per the ODA and another per the county).

Applicant consulted Lake County and the CWMA program in developing this plan. Lake County works closely with private landowners and the CWMA to control noxious weeds in Lake County (Johnson 2018). Applicant provided draft noxious weed measures for the Facility to the CWMA program contact, who provided feedback. The CWMA’s primary concern is to prevent the spread of noxious weeds to adjacent agricultural areas. With regards to specific noxious weed species, the CWMA is most concerned about the introduction and spread of diffuse knapweed (*Centaurea diffusa*) and spotted knapweed (*Centaurea maculosa*) (Jaeger 2018, 2019). Although diffuse

knapweed is a category “B” on the state list, Lake County considers this species to be category “A.” The CWMA offered to coordinate with Applicant to further refine noxious weed control approaches for the Facility during construction and operation (Jaeger 2018).

Applicant intends for the measures described in this section to meet the requirements of Lake County, prevent the introduction of new noxious weed species to the Facility site, and control existing populations of noxious weeds, where feasible.

3.1 Prevention and Control Measures

Applicant will implement noxious weed control measures in accordance with existing state and Lake County regulations. Applicant will attempt to prevent and eradicate new populations of noxious weeds that are identified during construction or operation, and that are caused by the Facility. Applicant’s consultants did not document noxious weed populations during habitat mapping efforts and other field surveys within the site boundary (refer to Exhibit P, Appendix P-1). Should noxious weeds be identified within the site boundary prior to, during, or after construction, the goal will be to prevent further spread, unless eradication is feasible.

Applicant will implement the following measures, as appropriate:

- **Environmental training:** Conduct environmental awareness and sensitivity training before soil and vegetation disturbance activities to educate all personnel regarding environmental concerns and requirements, including weed identification (particularly diffuse knapweed), prevention, and control methods. Qualified personnel will conduct this training.
- **Pre-construction surveys and reporting:** Conduct surveys for designated noxious weeds within proposed Facility disturbance areas concurrently with other pre-construction surveys, such as pre-construction surveys for migratory bird nests. Any incidental observations of Boggs Lake hyssop, Crosby’s Buckwheat, and Grimy Ivesia, Columbia yellowcress, or other threatened or endangered plant species made during preconstruction surveys shall be recorded and impacts to the plants shall be avoided until appropriate mitigation can be determined by the Department, in consultation with the Oregon Department of Agriculture – Native Plant Conservation Program. Survey report(s) shall be submitted to the Department and Oregon Department of Agriculture – Native Plant Conservation Program contacts.
- **Signage:** Demarcate any problem noxious weeds areas on the site (e.g., infestations of ODA or Lake County category A species, or potentially large but well-defined areas of ODA or Lake County category B, C, or T species) with signs, as appropriate.
- **Pretreatment:** Prior to vegetation or soil disturbance, Applicant may treat areas of known noxious weeds with herbicides or manually remove them, if practicable.
- **Treatment during construction:** During construction, Applicant may treat identified new noxious weed populations, as necessary. Treatment methods and timing will be based on species-specific and area-specific conditions (e.g., proximity to water, agricultural areas, topography, land use, and time of year) and will be coordinated with and follow requirements and guidelines of Lake County or the ODA.

- **Clean vehicles/equipment:** Personnel will thoroughly clean all vehicles and equipment of soil and plant material before mobilizing to the Facility site, and will clean all clearing and grading equipment prior to leaving any identified noxious weed sites.
- **Cleaning station:** If some vehicles or equipment cannot be cleaned prior to mobilization to the Facility site, and pre-construction surveys have identified multiple problem noxious weed areas, Applicant will construct a fixed water cleaning station at the point of Facility site entry for construction equipment and vehicles. The Facility environmental inspectors and management staff will determine the need for a fixed water cleaning station, taking the findings of pre-construction surveys into consideration. The water cleaning station will use high-pressure water over a non-permeable synthetic fabric so that the soil and plant material from the cleaning operation can be removed and disposed of without contaminating the underlying soil. Cleaning efforts will be concentrated on tracks, feet, or tires and on the undercarriage, with special emphasis on axles, frames, cross members, motor mounts, the underside of running boards, and front bumper/brush guard assemblies.
- **Mobile cleaning stations:** As needed, construction crews will clean seeds, roots, and rhizomes off equipment and vehicles used to move vegetation and topsoil in identified noxious weed-infested areas during the clearing phases before proceeding to other parts of the Facility site. In most infestation locations, personnel will clean vehicles with compressed air.
- **Weed-free straw bales:** The contractor will ensure that all straw bales used for sediment and erosion controls, mulch distribution, and restoration seed mixes—if used—are certified as weed-free from the supplier.
- **Post-construction monitoring:** After construction, during operation, Facility staff will monitor for noxious weeds and treat weeds, as appropriate. If needed, a state-licensed weed control contractor will be used to treat noxious weeds.

3.2 Treatment Methods

Noxious weed treatment methods typically include manual methods (e.g., pulling plants by hand or clipping seed heads), mechanical methods (e.g., mowing or burning), chemical methods (i.e., application of herbicides), or biological methods (e.g., introduction of insects for biological control). For construction and operation of the Facility, Applicant expects to utilize manual or chemical weed control methods only. Applicant will coordinate with Lake County and the CWMA to determine appropriate treatment methods and schedules. The decision to use either manual or chemical methods will depend on a variety of factors, including the species of the noxious weed population, the density and geographic extent of the population, and the location of the population in relation to other sensitive resources (e.g., proximity to waters or sensitive crops).

If manual control methods are used, any removed plant parts, including seeds, roots, and rhizomes, will be removed from the Facility site and disposed of properly. If herbicide treatment is necessary, Applicant will only use herbicides that are approved for use in the state of Oregon by the U.S. Environmental Protection Agency (EPA) and the ODA. Applicant will notify landowners of the

herbicide proposed for use on their lands and obtain approval prior to application. Applicant will apply herbicides to treatable noxious weed populations as described below.

Applicant will hire a state-licensed weed control contractor to apply herbicides according to EPA and ODA standards. In general, herbicide application will not occur when the following conditions exist:

- Wind velocity exceeds 15 miles per hour for granular application or 10 miles per hour for liquid applications;
- Snow or ice covers the foliage of target species; or
- Adverse weather conditions are forecasted in the next few days.

The weed control contractor will use vehicle-mounted sprayers (e.g., handgun, boom, and injector) mainly in open areas that are readily accessible by vehicle. They may use hand application methods (e.g., backpack spraying) in areas not accessible by vehicle. Equipment will be calibrated prior to spraying and periodically during spraying to ensure proper application rates.

The state-licensed weed control contractor will follow all applicable state requirements and guidelines in effect at the time.

4.0 MONITORING, SUCCESS CRITERIA, AND REPORTING

As stated above, after construction of the Facility Applicant will comply with the requirements of specific Facility permit conditions, including the 1200-C Construction Stormwater permit, and of any applicable conditions of approval to the Site Certificate. In addition, Applicant will comply with state and county requirements to control noxious weeds. Applicant's primary goals for post-construction monitoring are (1) meet the Oregon Department of Environmental Quality's final vegetative stabilization measures, as will be described in the 1200-C Construction Stormwater permit, and (2) avoid the introduction to or spread from the Facility of noxious weeds. Applicant will include mostly native plant species within the seed mixture to revegetate the Facility site to help promote use by native wildlife species after construction.

4.1 Monitoring

Applicant will conduct revegetation and noxious weed monitoring. The purpose of monitoring is to evaluate soil stability, vegetation composition and cover, and occurrence of noxious weeds within areas of construction-related soil disturbance.

Vegetation will be allowed to reestablish on most portions of the Facility. The monitors will inspect and record general (visual) observations of revegetation success across the entire Facility site. More detailed observations may be recorded in portions of the Facility site boundary where Applicant conducted reseeded activities.

The monitors will survey a representative sample of Facility areas (including both revegetated and undisturbed areas) annually to gauge revegetation success and noxious weed control needs. In addition, monitors will survey for noxious weeds along all perimeter and main internal access

roads.

Monitoring will begin in the first year following initial revegetation of disturbance areas and continue until the revegetation areas meet the success criteria (refer to Section 4.2). If areas do not meet success criteria within five years, Applicant will coordinate additional monitoring with Lake County and notify the Oregon Department of Energy (ODOE).

During revegetation monitoring surveys, monitors will collect the information listed below from representative monitoring locations, including along main access roads and areas of especially heavy disturbance, as well as at sample plots across the Facility site (one sample plot per quarter-section, or 160 acres). One sample plot will be randomly selected from a grid of 10 square 16-acre (approximately 0.025 square miles) plots within each quarter-section. The sample plots will be compared with reference sample plots in undisturbed areas of the same habitat type within the site boundary (i.e., avoidance areas).

- Confirmation that all disturbance areas requiring active revegetation have been re-seeded;
- Visual estimates of:
 - Percentage of total vegetative ground cover of individual plant species in two categories (grasses/forbs and shrubs), and
 - Percentage of bare soil;
- Presence of noxious weeds species (including density and geographical extent of populations); and
- Presence of windblown or water erosion problems that require additional measures.

Applicant will maintain records of monitoring results and assess the progress of vegetation establishment. If the field observations indicate that the revegetation efforts are not trending toward success, the monitors will describe remedial measures—including additional re-seeding—to correct deficiencies or shortcomings. Following each monitoring event, Applicant will implement remedial measures, as needed. The nature of the remedial actions will depend on the specific issues that arise. Applicant will report recommended remedial action in an annual report to ODOE (refer to Section 4.2). Applicant will implement warranted remedial actions promptly, taking into account the season, weather conditions, and other site-dependent constraints.

4.2 Success Criteria and Reporting

The success criteria for revegetation efforts will largely be driven by the Oregon Department of Environmental Quality's requirements in the 1200-C Construction Stormwater permit. The success criteria for noxious weed control will be based on qualitative observations to attempt to comply with Lake County and ODA recommended actions to control each category of noxious weed (ODA 2018; Lake County 2018).

Applicant will use the following criteria to determine success of revegetation efforts, unless instructed to use other criteria by Lake County or ODA:

1. The vegetation percent cover (both seeded and naturally recruited) is approximately 70 percent or more, or not substantially less than the percent vegetation cover of surrounding undisturbed areas.
2. State- or County-listed noxious weeds are absent or constitute only a very small percentage (e.g., less than 1%) of vegetation otherwise dominated by native or desirable non-native species, unless the noxious weeds present are similar to pre-construction conditions or adjacent undisturbed areas.
3. The percentage of bare soil in the sample plot is not substantially greater than the percentage of bare soil in surrounding undisturbed areas.

In general, Applicant will consider restoration successful when the restored areas are similar to surrounding undisturbed areas in vegetation percent cover and erosion potential, and noxious weeds are not dominant in the plant community (or the noxious weeds present are similar to pre-construction conditions).

Applicant will prepare a Revegetation and Noxious Weed Control Monitoring Report annually, following the initial re-seeding effort until success criteria are achieved. Each annual report will be submitted to ODOE and will summarize field data collected during field visits and assess whether revegetation efforts are meeting the success criteria. The reports will also document remedial actions taken to date, additional remedial actions planned for areas that are not trending toward success, and the anticipated dates of completion of each of these actions. Once the Department determines that revegetation and noxious weed control is successful, certificate holder will report this in the relevant annual report. Upon reaching success, Applicant will have no further obligation to monitor revegetation of the Facility site. Noxious weed control will continue for the life of the Facility, as required by county and state regulations.

5.0 REFERENCES

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Attachment F-1: Draft Construction Wildfire Mitigation Plan

Draft Construction Wildfire Mitigation Plan

Obsidian Solar Center

As amended by the Energy Facility Siting Council's Final Order on Request for Amendment 2
June 13, 2025

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1.0 Finalizing Wildfire Mitigation Plan Prior to Construction (PRE)

1.1 Update Applicable Sections of WMP

To finalize this WMP prior to construction of the facility:

Update Section 3.1 based on final facility design including a brief description of areas within the site that are subject to high wildfire risk, fire prevention features at the site, such as roads dimensions, setbacks, fire breaks, entry/exit locations, location of water truck(s) and fire protection equipment locations.

Update Section 3.2 and include in this WMP the facility site maps described in Section 3.2.

Update Section 3.4 with fire department, certificate holder, and operational manager contact information and emergency response procedures. Update Section 3.4 with analysis area residence contact information and confirm analysis area residence contact letter sent to residences within site boundary and 0.5 miles from the facility.

Update Section 3.5 with best management practices (BMPs) that will be used to minimize fire risk from vehicle travel, equipment use, and fueling activities will be implemented at the site during construction.

Update section 3.7 to describe vegetation management and areas that will be managed to be vegetation-free, noncombustible space, or gravel surface.

2.0 Prior to Construction Task List (PRE)

Prior to construction of the facility, complete the activities in Sections 2.1 and 2.2.

2.1 Secure access to fire protection and emergency services (PRE):

To ensure there is adequate capacity to respond to emergencies at the site, the certificate holder, prior to beginning construction of the facility, shall provide evidence to the Department demonstrating that:

- The facility has been annexed to CVRFPD's service territory, or that certificate holder has executed a contract with CVRFPD to provide structural fire-response services at the site; and
- The certificate holder has enrolled as a member of the High Desert Rangeland Fire Protection Association (RFPA) and coordinated with the RFPA to provide fire protection and response to the site as described Section 3.1.
- The certificate holder has notified the Lake County Sheriff's Office of the facility location, including access roads used, the facility size, estimated staffing on-site daily, and any potential service needs from the Sheriff's Office.
- The certificate holder has retained emergency medical technicians to be on site to arrange for any necessary medical transport during construction.
- The certificate holder has consulted with local fire officials regarding design criteria for all fire access roads and designed facility fire access roads in compliance with Oregon Fire Code Chapter 503.

2.2 Training (PRE):

Before beginning construction, the certificate holder will hold an on-site training for on-site contractors and construction personnel. The certificate holder will invite specialty contractors, local fire departments, the Lake County Sheriff's Office, participating and adjacent landowners, emergency management office personnel, ODOE, and any other emergency management agency. The training will cover:

- Description of construction phasing;
- The type, location, and proper use of fire protection equipment;
- Fire protection equipment usage and maintenance requirements;
- The location(s) of water source(s) and proper usage, storing and maintenance for fire suppression equipment;
- Overview of smoking policy and locations;
- Overview of procedures and restrictions of construction maintenance activities during Fire Season and Red Flag Warnings designated in this Plan;
- Rescue, Alarm, Contain and Extinguish RACE procedures including:
 - Rescue anyone in danger (if safe to do so);
 - Alarm – call the control room, who will then determine if 911 should be alerted;
 - Contain the fire (if safe to do so); and
 - Extinguish the incipient fire stage (if safe to do so) or, alternatively, monitor and contain the fire until it burns itself out, as appropriate.

During the training the certificate holder will provide information about and encourage attendees to sign up for the County's emergency management notification system.

Training attendee list and training materials must be provided to the Department to demonstrate compliance.

The certificate holder will fill out and submit to the Department the template resident outreach letter provided as Attachment 1 of this WMP. Once the Department confirms the letter to be sufficient, the certificate holder will mail it to each residence within the 0.5 mile analysis area. The certificate holder will confirm mailing and submit to Department.

2.3 Facility Site Map(s) Submission (PRE):

Submit updated site maps from Section 3.2 concurrently to local fire departments and the Department.

3.0 Construction Wildfire Mitigation Plan (CON)

3.1 Summary of Facility Description with Design Features and Location of Fire Protection Equipment

Through its participation in the High Desert RFPA, the certificate holder and other RFPA members have access to wildland fire suppression equipment. The following equipment will be stored [at the eastern site access gate just off Oil Dri Road and/or off Connley Lane near the site of the GSU:] [location(s) TBD]

- XX
- XX
- XX

To reduce the risk of fire from and to the facility during construction, the facility will be designed as follows:

- Perimeter fire break within the fence line will have a 30-foot wide vegetation-free zone to act as fire breaks.
- All internal access roads will be a minimum 12-feet wide and maintained to act as fire breaks and allow for access by emergency vehicles.
- Any required fire access roads will be designed and surfaced to allow all-season access by fire-trucks and other emergency vehicles in compliance with Oregon Fire Code Chapter 503, or as otherwise authorized by the fire code official pursuant to Oregon Fire Code 503.1.1(2) pertaining to solar photovoltaic power generation facilities.

The Facility will have signage that includes safety information at all entrances to the Facility for emergency responders to identify the location of water supplies and other fire protection equipment.

3.2 Facility Site Map(s):

This Construction WMP includes facility site maps that identify:

- The phasing for construction of facility features and components;
- Location and dimensions of facility roads;
- Location of vegetation free, noncombustible, defensible spaces;
- Wildfire risk at the site;
- High-fire consequence areas/resources (includes existing infrastructure, residences, sensitive habitat, or cultural resources)
- The location of facility access points;
- A description and the location of emergency access procedures, including how emergency responders and/or adjacent landowners may access site for fire protection equipment or to extinguish an on-site fire when personnel will not be onsite;
- The type and location of fire protection equipment on site;
- The location(s) of water source(s) that will be on-site during construction.

3.3 Specifications for Fire Protection Equipment

The following fire suppression equipment will be carried in vehicles conducting work at the site and stored on-site at the O&M building at all times:

- Fire Extinguisher: Dry chemical. 2A:10BC (5 pound), properly mounted or secured;
- Pulaski;
- Hand Shovel: Round point. 26 to 28 in "D" Handle, blade - 12 inches long and 10 inches wide;
- Collapsible Pail or Backpack Pump: 5-gallon capacity; and
- Drip Can: 5-gallon capacity.

During fire season (designated Fire Season or June to October each year) water truck(s)/water source, water buffalo, or tank with minimum 500-gallon capacity must be on site. The water truck or water supply shall include the following, unless approved by the Department:

- Pump should be maintained ready to operate and capable to provide a discharge of not less than 20 gallons per minute at 115 psi at pump level. Note: Volume pumps will not produce the necessary pressure to effectively attack a fire start. Pressure pumps are recommended.
- Provide enough hose (500 feet minimum) not less than 3/4" inside diameter to reach areas where

- power driven machinery has worked.
- Water supply, pump, and at least 250' of hose with nozzle must be maintained as a connected, operating unit ready for immediate use.

All internal combustion engines must be equipped with exhaust systems, mufflers and screens, or include an appropriate spark arrestor; and must be kept in good operating condition. All combustion engines (including but not limited to off road vehicles, chainsaws, and generators) will be equipped with a spark arrestor that meets U.S. Forest Service Standard 5100-1.

All power-driven machinery will be kept free of excess flammable material which may create a risk of fire.

3.4 Facility Contact Information and Emergency Response Procedures

Call 911 in the event of:

- A fire or emergency on-site that cannot be addressed by personnel on-site and requires the assistance of fire or emergency medical personnel;
- A fire ignition on-site that spreads out of the fence line;
- Any fire off-site that does not have emergency responders on site.
 - To the extent that construction personnel can safely assist and/or provide equipment to help extinguish off-site fires until emergency responders are on site, it is encouraged to do so to assist in the spread of the fire, loss of life, property and damage to the environment.

In the event of an emergency at the site, the certificate holder's primary contact and contact of construction contractor manager(s) is:

- X
- X

Contacts for fire, police protection, and emergency service providers are provided in the table below. Workers with minor injuries will be treated on site or transported by vehicle to La Pine Community Health Center in the community of Christmas Valley. Patients with moderate injuries will be transported by vehicle to St. Charles Medical Center in Bend. For severe injuries, the certificate holder may use the services of the Air Ambulance to transport patients to Bend.

Draft Construction Wildfire Mitigation Plan

Service Provider (w Notes)	Location/Distance from Facility	Contact Info
Law Enforcement		
Lake County Sheriff – Main Office	513 Center Street Lakeview, Oregon 97630	Main Phone: (541) 947-6027 Lake County Dispatch: (541) 273-6955 General Information: heversole@co.lake.or.us Daniel Tague, Sheriff: dtague@co.lake.or.us
Lake County Sheriff – Christmas Valley Substation	87127 Christmas Valley Hwy, Christmas Valley, OR 97641	Phone: (541) 576-2781
Oregon State Police – Southern Command Center		Dial *OSP or *677 from mobile or call (800) 442-2068 General Information: ask.osp@osp.oregon.gov
Fire Protection		
Christmas Valley Rural Fire Protection District	58733 Holly Lane Christmas Valley, OR 97641	Phone: (541) 977-0627
High Desert Rangeland Fire Protection Association (RFPA)	High Desert RFPA PO Box 34 Summer Lake Oregon 97640	Kevin Leehmann, Chair Phone: 541-408-0919 Email: k_leehmann@hotmail.com Doug White, Communications and Dispatch Phone: 541-517-4926 Email: white.dougw.doug@gmail.com
Medical Providers		
North Lake County Emergency Medical Services	87391 Holly Lane Christmas Valley, OR 97641	Phone: (541) 576-2759
REACH Air Ambulance	Lands at Christmas Valley Airport	Phone 800.338.4045
La Pine Community Health Center – No urgent care available at this facility	87520 Bay Rd, Christmas Valley, OR 97641	Phone: (541) 576-2343
St. Charles Health System Hospital – Level II Trauma Center	2500 NE Neff Rd, Bend, OR 97701	Phone: (541) 382-432

Maintain a list of residence addresses within the site boundary and 0.5 miles from the site boundary (the analysis area).

Residence/landowner outreach letter is provided as Attachment 1 of this WMP. Provide this letter to new or updated residences with the analysis area as designated in Section 4.0, Plan Updates and Reporting Requirements.

3.5 Use of Vehicles and Power Driven Machinery at Site

Best management practices (BMPs) to minimize fire risk from vehicle travel, equipment use, and fueling activities will be implemented at the site during construction. BMPs may include the following:

- The movement of vehicles will be planned and managed to minimize fire risk.
- The contractor(s) will be responsible for identifying and marking paths for all off-road vehicle travel. All off-road vehicle travel will be required to stay on the identified paths. No off-road vehicle travel will be permitted while working alone. Travel off road or parking in vegetated areas will be restricted during fire season as designate din this Plan.
- Areas with grass that are as tall or taller than the exhaust system of a vehicle must be wetted before vehicles travel through it.
- Workers will be instructed to shut off the engine of any vehicle that gets stuck and periodically inspect the area adjacent to the exhaust system for evidence of ignition of vegetation. Stuck vehicles will be pulled out rather than “rocked” free and the area will be inspected again after the vehicle has been moved.
- The contractor(s) will designate a location for field fueling operations at the temporary construction yards. Any fueling of generators, pumps, etc. shall take place at this location only.
- Fuel containers, if used, shall remain in a vehicle or equipment trailer, parked at a designated location alongside a county right-of-way. No fuel containers shall be in the vehicles that exit the right-of-way except the five-gallon container that is required for the water truck pump.
- All power-driven machinery will be kept free of excess flammable material which may create a risk of fire.

3.6 Fire Precaution Levels and Restrictions during Fire Season

Definitions:

 **Non-Fire Season** – Approximately October - May

 **Fire Season** – Approximately June-September, formally designated by the Oregon Department of Forestry (ODF). Under ORS 478.960 (4), a Fire Chief can establish Fire Season within a Fire District when ODF, under ORS 477.505, declares Fire Season. Begins seasonal restrictions for public and industry.

  **Fire Weather Watch** - A fire weather watch is issued when there is a high potential for the development of a red flag event. A watch is issued 18 to 96 hours in advance of the expected onset of criteria. Intent of a fire weather watch is to alert forecast users at least a day in advance for the purposes of resource allocation and fire fighter safety. A watch means critical fire weather conditions are possible but not imminent or occurring.



Red Flag Weather Warning - A red flag warning is used to warn of impending or occurring red flag conditions. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with local red flag event criteria will occur in 48 hours or less. Specific Red Flag criteria differ for each situation and district in Oregon. Be extremely careful with open flames and other activities that emit sparks.

Hot Work - Any cutting, grinding, welding, or other activity that creates spark or open flame, including use of power mowers with metal blades and similar vegetation management activities.

Fire Watch Service -

Fire watch shall:

- Be physically capable and experienced to operate firefighting equipment.
- Have facilities for transportation and communications to summon assistance.
- Observe portions of the facility where equipment activity occurred during the day.

Upon discovery of a fire, fire watch personnel must: First report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire (or contain and monitor during burn out), consistent with firefighting training and safety.

Fire-Prevention Measures and Restrictions Associated with Fire Season:

Certificate holder shall maintain a log when construction activities are impacted by Fire Restrictions during Fire Season as designed in this Section. The log will include:

- The date;
- Fire Precaution Level;
- Description of actions taken, including if any measures were taken to reduce wildfire risk that are not identified in this Plan.
-



Non-Fire Season

- All hot work (must be conducted on roads or on non-combustible surfaces.
- Smoking in designated areas only.



Fire Season

- Before the start of each daily shift, at approximately 07:00 a.m. local time, the Technician in charge will check the fire danger posting by the National Weather Service for any Red Flag Warnings for that day.
- All hot work (any cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces.
- Water source meeting specifications in this Plan will be on site during fire season.
- Following the completion of hot work, the Certificate Holder or contractor(s) must maintain a fire watch for 60 minutes to monitor for potential ignition.
- Fire watch shall be on duty during any breaks and for one hour after all power driven machinery used by the operator has been shut down for the day.
- Smoking in designated areas only.



Fire Weather Watch

- No hot work permitted.

- Driving and parking only permitted on non-combustible surfaces.
- Fire watch shall be on duty during any breaks and for one hour after all power driven machinery used by the operator has been shut down for the day.
- No smoking on site.



Red Flag Weather Warning

- No hot work permitted.
- On-site personnel must be aware of Red Flag Warning.
- Driving and parking only permitted on non-combustible surfaces.
- Fire watch shall be on duty during any breaks and for one hour after all power driven machinery used by the operator has been shut down for the day.
- No smoking on site.

Table 1: Fire Prevention Measures During Fire Season Summary

Requirement	 Non-Fire Season	 Fire Season	 Fire Weather Watch	 Red Flag Warning
Fire weather advisory	Not required	Check for fire weather advisory daily before work begins.	Check for fire weather advisory daily before work begins.	Check for fire weather advisory daily before work begins. On-site personnel must be aware of Red Flag Warning.
On-site water source	N/A	As specified in Section 3.2	As specified in Section 3.2 and 3.3.	As specified in Section 3.2 and 3.3.
Hot work	Only permitted on roads or on non-combustible surfaces.	Only permitted on roads or on non-combustible surfaces; fire watch required for 60 minutes after completion	Not Permitted	Not Permitted
Vegetation Management	Follow SOLV Vegetation Management and Fire Prevention Plan	Follow SOLV Vegetation Management and Fire Prevention Plan	Follow SOLV Vegetation Management and Fire Prevention Plan	Follow SOLV Vegetation Management and Fire Prevention Plan
Fire Watch Service	Not required	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.
Driving and Parking	As described in Section 3.5.	As described in Section 3.5.	Only permitted on roads or on non-combustible	Only permitted on roads or on non-combustible

Table 1: Fire Prevention Measures During Fire Season Summary

Requirement	 Non-Fire Season	 Fire Season	 Fire Weather Watch	 Red Flag Warning
			surfaces and Section 3.5.	surfaces and Section 3.5.
Smoking	Designated areas only	Designated areas only	Not permitted	Not permitted

3.7 Vegetation Management

3.7.1 Vegetation-free, Noncombustible Space, and Vegetation Standards

Certificate holder and contractor(s) will maintain vegetation within the Site Boundary in accordance with the approved Revegetation and Reclamation Plan for the facility. Certificate holder will also maintain a defensible space clearance along Facility features. Vegetation in work areas, if not removed, will be limited to a height of 10-12 inches, with a minimum clearance of 12 inches from electrical equipment. Vegetation near, at, or taller than the maximum height shall be removed or mowed. Mowing must be done in advance of fire season or in accordance with any fire restrictions. At no point shall vegetation come in contact with electrical equipment. Any vegetation removed from the site will be disposed of and not stored onsite. Certificate holder and contractors will prevent the accumulation of combustible “burn piles” on site.

During construction clearing, grubbing and grading, the Contractor will create a vegetation-free, noncombustible space, or gravel surface for at least 30 feet around perimeter of facility. In addition, vegetation on the 12-foot wide access roads within solar arrays and around other facility features will be managed by mechanical and/or chemical control of vegetation and other combustible material.

3.7.2 Safety Training

Once a year after construction begins, organize and hold an on-site training with certificate holder and construction personnel, inviting equipment manufacturers, specialty contractors, local fire department(s), participating and adjacent landowners, emergency management office personnel, ODOE, and any other emergency management agency that covers:

- The location of electrical facility components and the fire safety measures associated with each component that have been constructed;
- Description of remaining construction phasing;
- The type, location, and proper use of fire protection equipment;
- Fire protection equipment usage and maintenance requirements;
- The location(s) of water source(s) and proper usage, storing and maintenance for the pump, hose nozzle; and water hose;
- Overview of smoking policy and locations;
- Overview of procedures and restrictions of construction activities during Fire Season, Fire Weather Watches, and Red Flag Warnings designated in this Plan;
- Rescue, Alarm, Contain and Extinguish (RACE) procedures including:
 - Rescue anyone in danger (if safe to do so);
 - Alarm – call the control room, who will then determine if 911 should be alerted;
 - Contain the fire (if safe to do so); and

- Extinguish the incipient fire stage (if safe to do so) or, alternatively, monitor and contain the fire until it burns itself out, as appropriate.
- Provide information and encourage attendees County's emergency management notification system.

4.0 Plan Updates: Amendments and Reporting Requirements:

The following will be provided to the Department in the semi-annual construction report required per OAR 345-026-0080:

- Section 3.1 and 3.2, any changes in wildfire risk at the site or changes in facility components or preventative features.
- Section 3.4, any changes in local fire protection agency personnel and operational managers.
- Section 3.4, any changes in analysis area residence/landowner addresses or contact information.
- A copy of the Fire Season Restriction Log identified in Section 3.6.
- Changes in wildfire risk if different from the Site Plan provided prior to construction.

Evaluation of wildfire risk will be consistent with the requirements of OAR 345-022-0115(1) using current data from reputable sources.

This information may be used to establish the performance of the WMP. If determined by certificate holder or Department, adjustments or improvements must be proposed to ensure the WMP provides wildfire mitigation. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard.

This Plan may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council (EFSC) or ODOE, acting within its delegated authority of EFSC. Such amendments may be made without amendment of the site certificate. EFSC authorizes ODOE to agree to amendments to this Plan. ODOE will notify EFSC of all amendments, and EFSC retains the authority to approve, reject, or modify any amendment of this Plan agreed to by ODOE.

Attachment 1: Residence/Landowner Outreach Letter

COMPANY LOGO/LETTERHEAD

DATE

RE: Community Outreach Letter for XXX Energy Facility

My name is XXX and I'm the XXX for XX LLC. We are the certificate holder of the XXX Energy Facility, approved by the Oregon Energy Facility Siting Council (EFSC). Construction of the facility will start/was completed in XX. The facility is a XX megawatt solar facility located XX. You are receiving this letter because your address is within 0.5 miles from the facility site boundary and we want to make sure you are aware of the following information:

- Safety at the facility is our highest priority. We have emergency procedures in place in the event of an emergency on site or off site that may impact the facility and adjacent areas. This includes an EFSC Wildfire Mitigation Plan (WMP) that addresses vegetation management, facility inspections, and maintenance protocols to ensure that the facility minimizes fire risk. The WMP also requires fire protection equipment to be on site and allows for emergency access for fire departments in the event of a fire on site or off site.
- In the event of an emergency on site or off site that cannot be addressed by facility personnel, local emergency and law enforcement will be contacted and procedures designated by the XX County's Office of emergency management will be followed, if necessary.
- If you have not already done so, we recommend you sign up for XX County emergency notification system. You may sign up via the County's webpage or directly via this link:
Link: XX

Please contact me if you have any questions about the facility, XX company, or any other concerns regarding construction and operation of the facility. Further, the Oregon Department of Energy (ODOE) is staff to EFSC and can be contacted if you have questions. Follow the link below for contact information:

<https://www.oregon.gov/energy/facilities-safety/facilities/Pages/Compliance-Program.aspx>

Thank you,

NAME

TITLE

CONTACT INFORMATION

DATE

Attachment F-2: Draft Operational Wildfire Mitigation Plan

Draft Operational Wildfire Mitigation Plan

Obsidian Solar Center

As amended by the Energy Facility Siting Council's Final Order on Request for Amendment 2
June 13, 2025

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1.0 Finalizing Wildfire Mitigation Plan Prior to Operation (PRO)

1.1 Update Applicable Sections of WMP

To finalize this WMP prior to operation of the facility:

Update Section 3.1 based on final facility design including a brief description of areas within the site that are subject to high wildfire risk, fire prevention features at the site, such as road dimensions, setbacks, fire breaks, entry/exit locations, water truck(s) and fire protection equipment locations. Describe fire detection, fire suppression, and emergency shut off systems that will be activated in the event of a fire.

Update Section 3.2 and include in this WMP the facility site maps described in Section 3.2.

Update Section 3.4 with fire department, certificate holder, and operational manager contact information and emergency response procedures. Update Section 3.4 with analysis area residence contact information and confirm analysis area residence contact letter sent to residences within site boundary and 0.5 miles from the facility.

Update section 3.6 to describe vegetation management and areas that will be managed to be vegetation-free, noncombustible space, or gravel surface.

Update Section 3.7 and Table 2: *Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results*, based on manufacturer recommendations associated with each type of facility component and vegetation management consistent with this WMP and Revegetation Plan; and include an appendix with excerpts of manufacturer recommendations.

Update Section 3.10 with any additional details about facility monitoring.

Update Section 4.0 with any additional standards for future review and plan updates. Note that Table 2: *Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results*, will be used as a compliance checklist by the Department to establish the performance of the WMP. If determined by certificate holder or Department, adjustments or improvements must be proposed to ensure the WMP provides wildfire mitigation.

2.0 Prior to Operation Task list (PRO)

Prior to operation of the facility, complete the activities in Sections 2.1 and 2.2.

2.1 Training (PRO)

Before the facility begins commercial operations, the certificate holder will hold an on-site training with operational personnel, inviting equipment manufacturers, specialty contractors, local fire department(s), the Lake County Sheriff's Office, participating and adjacent landowners, emergency management office personnel, ODOE, and any other emergency management agency. The training will cover:

- The location of electrical facility components and the fire safety measures associated with each component;
- Battery-specific safety protocols, including how to appropriately address chemical fires, in the event of an emergency;
- The type, location, and proper use of fire protection equipment;
- Fire protection equipment maintenance requirements;

- The location(s) of water source(s) and proper usage, storing and maintenance for the pump, hose nozzle; and water hose;
- Overview of smoking policy and locations;
- Overview of procedures and restrictions of operational maintenance activities during Fire Season and Red Flag Warnings designated in this Plan; Rescue, Alarm, Contain and Extinguish (RACE) procedures, including:
 - Rescue anyone in danger (if safe to do so);
 - Alarm – call the control room, who will then determine if 911 should be alerted;
 - Contain the fire (if safe to do so); and
 - Extinguish the incipient fire stage (if safe to do so).
 - Monitoring a fire through burn out (where and when appropriate)
- Provide information and encourage attendees to sign up for the County’s emergency management notification system.

Training attendee list and training materials must be provided to the Department to demonstrate compliance.

The certificate holder will fill out and submit to the Department the template resident outreach letter provided as Attachment 1 of this WMP. Once Department confirms the letter to be sufficient, the certificate holder will mail it to each residence within the 0.5 mile analysis area. The certificate holder will confirm mailing and submit to Department.

2.2 Facility Site Map(s) Submission (PRO):

Submit updated site maps from Section 3.2 concurrently to local fire departments and the Department.

3.0 Operational Wildfire Mitigation Plan (OPR)

3.1 Summary of As-Built Facility Description with Design Features and Location of Fire Protection Equipment

Include summary and description of areas within the site that are subject to high wildfire risk, fire prevention features at the site, such as road dimensions, setbacks, fire breaks, entry/exit locations, and water truck(s) and fire protection equipment locations. Describe fire detection, fire suppression, and emergency shut off systems that will be activated in the event of a fire.

Through its participation in the High Desert RFPA, the certificate holder and other RFPA members have access to wildland fire engines and fire suppression equipment. The following equipment will be stored[at the eastern site access gate just off Oil Dri Road and/or off Connley Lane near the site of the GSU]:

- XX
- XX
- XX

The facility was designed with the following features to reduce the risk of fire from and to the facility:

- A 30-foot vegetation-free buffer zone around the Facility perimeter to act as fire breaks.
- Internal access roads are 12-feet wide and maintained to act as fire breaks and allow for access by emergency vehicles.
- Access roads to collector substation sites and other required fire access roads are designed and surfaced to allow all-season access by fire-trucks and other emergency vehicles in compliance with Oregon Fire Code Chapter 503.

- Signs are posted at all facility entrances with information to assist emergency responders to identify the location of water supplies, other fire protection equipment, system disconnects, electrical conduits, and to identify how to isolate and shutdown electrical power coming from the PV array.
- All facility electrical equipment meets all applicable National Electric Code and Institute of Electrical and Electronics Engineers standards.
- The facility is electronically monitored through a supervisory and data acquisition (SCADA) system. The SCADA system is programmed with various multi-level priority alarms for electrical hazards, fire, and other operational issues. The SCADA notifies persons of alarms based on the priority. For a high priority alarm, for example, the SCADA provides notice via email or SMS to all operators, operational managers, and asset managers. The facility operator is immediately notified of all alerts.

3.2 Facility Site Map(s):

This Operational WMP includes facility site maps that identify:

- Location and dimensions of facility roads;
- Location of vegetation free, noncombustible, defensible spaces;
- Wildfire risk at the site and date;
- High-fire consequence areas/resources (includes existing infrastructure, residences, sensitive habitat, or cultural resources)
- The location of facility access points;
- A description and the location of emergency access procedures, including how emergency responders and/or adjacent landowners may access site for fire protection equipment or to extinguish an on-site fire when personnel will not be onsite;
- The type and location of fire protection equipment on site;
- The location(s) of water source(s) that will be on-site during operations.

3.3 Specifications for Fire Protection Equipment

The following fire suppression equipment will be carried in vehicles conducting maintenance activities and stored on-site at the O&M building:

- Fire Extinguisher: Dry chemical. 2A:10BC (5 pounds), properly mounted or secured;
- Pulaski;
- Hand Shovel: Round point. 26 to 28 in "D" Handle, blade - 12 inches long and 10 inches wide;
- Collapsible Pail or Backpack Pump: 5-gallon capacity; and
- Drip Can: 5-gallon capacity.

During fire season (designated Fire Season or June to October each year) water truck(s)/water source, water buffalo, or tank with minimum 500-gallon capacity must be on site. The water truck or water supply shall include the following, unless approved by the Department:

- Pump should be maintained ready to operate and capable of providing a discharge of not less than 20 gallons per minute at 115 psi at pump level. Note: Volume pumps will not produce the necessary pressure to effectively attack a fire start. Pressure pumps are recommended. Provide enough hose (500 feet minimum) not less than 3/4" inside diameter to reach areas where power driven machinery has worked.
- Water supply, pump, and at least 250' of hose with nozzle must be maintained as a connected, operating unit ready for immediate use.

All internal combustion engines must be equipped with exhaust systems, mufflers and screens, or include an appropriate spark arrestor; and must be kept in good operating condition.

All combustion engines (including but not limited to off road vehicles, chainsaws, and generators) will be equipped with a spark arrester that meets U.S. Forest Service Standard 5100-1.

All power driven machinery will be kept free of excess flammable material which may create a risk of fire.

3.4 Facility Contact Information and Emergency Response Procedures

Call 911 in the event of:

A fire or emergency on-site that cannot be addressed by personnel on-site and requires the assistance of fire or emergency medical personnel;

A fire ignition on-site that spreads out of the fence line;

Any fire off-site that does not have emergency responders on site.

To the extent that construction personnel can safely assist and/or provide equipment to help extinguish off-site fires until emergency responders are on site, it is encouraged to do so to assist in the spread of the fire, loss of life, property and damage to the environment.

In the event of an emergency at the site, the certificate holder's primary contact and contact of operational manager(s) is:

- X
- X

Contacts for fire, police protection, and emergency service providers are provided in the table below. Workers with minor injuries will be treated on site or transported by vehicle to La Pine Community Health Center in the community of Christmas Valley. Patients with moderate injuries will be transported by vehicle to St. Charles Medical Center in Bend. For severe injuries, the certificate holder may use the services of the Air Ambulance to transport patients to Bend.

Service Provider (w Notes)	Location/Distance from Facility	Contact Info
Law Enforcement		
Lake County Sheriff – Main Office	513 Center Street Lakeview, Oregon 97630	Main Phone: (541) 947-6027 Lake County Dispatch: (541) 273-6955 General Information: heversole@co.lake.or.us Daniel Tague, Sheriff: dtague@co.lake.or.us
Lake County Sheriff – Christmas Valley Substation	87127 Christmas Valley Hwy, Christmas Valley, OR 97641	Phone: (541) 576-2781
Oregon State Police – Southern Command Center		Dial *OSP or *677 from mobile or call (800) 442-2068 General Information: ask.osp@osp.oregon.gov
Fire Protection		
Christmas Valley Rural Fire Protection District	58733 Holly Lane Christmas Valley, OR 97641	Phone: (541) 977-0627
High Desert Rangeland Fire Protection Association (RFPA)	High Desert RFPA PO Box 34 Summer Lake Oregon 97640	Kevin Leehmann, Chair Phone: 541-408-0919 Email: k_leehmann@hotmail.com Doug White, Communications and Dispatch Phone: 541-517-4926 Email: white.dougw.doug@gmail.com
Medical Providers		
North Lake County Emergency Medical Services	87391 Holly Lane Christmas Valley, OR 97641	Phone: (541) 576-2759
Air Ambulance	Lands at Christmas Valley Airport	
La Pine Community Health Center – No urgent care available at this facility	87520 Bay Rd, Christmas Valley, OR 97641	Phone: (541) 576-2343
St. Charles Health System Hospital – Level II Trauma Center	2500 NE Neff Rd, Bend, OR 97701	Phone: (541) 382-432

Residence/landowner outreach letter is provided as Attachment 1 of this WMP. The certificate holder will use this letter to provide to new or updated residences with the analysis area as designated in Section 4.0, Plan Updates and Reporting Requirements.

3.5 Fire Precaution Levels and Restrictions during Fire Season

Definitions:

 **Non-Fire Season** – Approximately October - May

 **Fire Season** – Approximately June-September, formally designated by the Oregon Department of Forestry (ODF). Under ORS 478.960 (4), a Fire Chief can establish Fire Season within a Fire District when ODF, under ORS 477.505, declares Fire Season. Begins seasonal restrictions for public and industry.

 **Fire Weather Watch** - A fire weather watch is issued when there is a high potential for the development of a red flag event. A watch is issued 18 to 96 hours in advance of the expected onset of criteria. Intent of a fire weather watch is to alert forecast users at least a day in advance for the purposes of resource allocation and fire fighter safety. A watch means critical fire weather conditions are possible but not imminent or occurring.

 **Red Flag Weather Warning** - A red flag warning is used to warn of impending or occurring red flag conditions. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with local red flag event criteria will occur in 48 hours or less. Specific Red Flag criteria differ for each situation and district in Oregon. Be extremely careful with open flames and other activities that emit sparks.

Hot Work - Any cutting, grinding, welding, or other activity that creates spark or open flame, including use of power mowers with metal blades and similar vegetation management activities.

Fire Watch Service:

Fire watch shall:

- Be physically capable and experienced to operate firefighting equipment.
- Have facilities for transportation and communications to summon assistance.
- Observe portions of the operation on which activity occurred during the day.

Upon discovery of a fire, Firewatch personnel must: First report the fire, summon any necessary firefighting assistance, describe intended fire suppression activities; then, after determining a safety zone and an escape route that will not be cut off if the fire increases or changes direction, immediately proceed to control and extinguish the fire, consistent with firefighting training and safety.

Fire-Prevention Measures and Restrictions Associated with Fire Season:

Certificate holder shall maintain a log when operational activities are impacted by Fire Restrictions during Fire Season as designed in this Section. The log will include:

- The date;
- Fire Precaution Level;

- Description of actions taken, including if any measures were taken to reduce wildfire risk that are not identified in this Plan.

Non-Fire Season

- All hot work must be conducted on roads or on non-combustible surfaces.
- Smoking in designated areas only.

Fire Season

- Before the start of each daily shift, at approximately 07:00 a.m. local time, the Technician in charge will check the fire danger posting by the National Weather Service for any Red Flag Warnings for that day.
- All hot work (any cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces.
- Water source meeting specifications in this Plan will be on site during fire season.
- Following the completion of hot work, the Certificate Holder or contractor(s) must maintain a fire watch for 60 minutes to monitor for potential ignition.
- Fire watch shall be on duty during any breaks and for one hour after all power driven machinery used by the operator has been shut down for the day.
- Smoking in designated areas only.

Fire Weather Watch

- No hot work permitted.
- Driving and parking only permitted on graveled surfaces.
- Fire watch shall be on duty during any breaks and for one hour after all power driven machinery used by the operator has been shut down for the day.
- No smoking on site.

Red Flag Weather Warning

- No hot work permitted.
- On-site personnel must be aware of Red Flag Warning.
- Driving and parking only permitted on graveled surfaces.
- Fire watch shall be on duty during any breaks and for one hour after all power driven machinery used by the operator has been shut down for the day.
- No smoking on site.

Table 1: Fire Prevention Measures During Fire Season Summary

Requirement	 Non-Fire Season	 Fire Season	 Fire Weather Watch	 Red Flag Warning
Fire weather advisory	Not required	Check for fire weather advisory daily before work begins.	Check for fire weather advisory daily before work begins.	Check for fire weather advisory daily before work begins.

Table 1: Fire Prevention Measures During Fire Season Summary

Requirement	 Non-Fire Season	 Fire Season	 Fire Weather Watch	 Red Flag Warning
				On-site personnel must be aware of Red Flag Warning.
On-site water source	N/A	As specified in Section 3.2	As specified in Section 3.2 and 3.3.	As specified in Section 3.2 and 3.3.
Hot work	Only permitted on roads or on non-combustible surfaces.	Only permitted on roads or on non-combustible surfaces; fire watch required for 60 minutes after completion	Not Permitted	Not Permitted
Vegetation Management	Follow SOLV Vegetation Management and Fire Prevention Plan	Follow SOLV Vegetation Management and Fire Prevention Plan	Follow SOLV Vegetation Management and Fire Prevention Plan	Follow SOLV Vegetation Management and Fire Prevention Plan
Fire Watch Service	Not required	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.	During breaks and for 60 minutes after all power-driven machinery has been shut down for the day.
Driving and Parking	As described in Section 3.9.	As described in Section 3.9.	Only permitted on roads or on non-combustible surfaces and Section 3.9.	Only permitted on roads or on non-combustible surfaces and Section 3.9.
Smoking	Designated areas only	Designated areas only	Not permitted	Not permitted

3.6 Vegetation Management

3.6.1 *Vegetation-free, Noncombustible Space*

Certificate holder and contractor(s) will maintain vegetation within the Site Boundary in accordance with the approved Revegetation and Reclamation Plan for the facility. Certificate holder will also maintain a defensible space clearance along Facility features. Vegetation in work areas, if not removed, will be limited to a height of 10-12 inches, with a minimum clearance of 12 inches from electrical equipment. Vegetation near, at, or taller than the maximum height shall be removed or mowed. Mowing must be done in advance of fire season or in accordance with any fire restrictions. At no point shall vegetation come in contact with electrical equipment. Any vegetation removed from the site will be disposed of and not stored onsite. Certificate holder and contractors will prevent the accumulation of combustible “burn piles” on site.

During construction clearing, grubbing and grading, the Contractor will create a vegetation-free, noncombustible space, or gravel surface for at least 30 feet around perimeter of facility. In addition, vegetation on the 12-foot wide access roads within solar arrays and around other facility features will be managed by mechanical and/or chemical control of vegetation and other combustible material.

Design features to reduce the risk of fire from and to the facility:

- A 30-foot vegetation-free buffer zone around the Facility perimeter to act as fire breaks.
- Internal access roads that are 12-feet wide and maintained to act as fire breaks and allow for access by emergency vehicles.
- Access roads to collector substation sites and other required fire access roads are designed and surfaced to allow all-season access by fire-trucks and other emergency vehicles in compliance with Oregon Fire Code Chapter 503.
- Signs are posted at all facility entrances with information to assist emergency responders to identify the location of water supplies, other fire protection equipment, system disconnects, electrical conduits, and to identify how to isolate and shutdown electrical power coming from the PV array.
- All facility electrical equipment meets all applicable National Electric Code and Institute of Electrical and Electronics Engineers standards.
- The facility is electronically monitored through a supervisory and data acquisition (SCADA) system. The SCADA system is programmed with various multi-level priority alarms for electrical hazards, fire, and other operational issues. The SCADA notifies persons of alarms based on the priority. For a high priority alarm, for example, the SCADA provides notice via email or SMS to all operators, operational managers, and asset managers. The facility operator is immediately notified of all alerts.

3.6.2 *Vegetation Standards, Surveys and Management*

Certificate holder and contractor(s) will maintain vegetation within the Site Boundary in accordance with the approved Revegetation and Reclamation Plan for the facility. Certificate holder will also maintain a defensible space clearance along Facility features. Vegetation in work areas, if not removed, will be limited to a height of 10-12 inches, with a minimum clearance of 12 inches from electrical equipment. Vegetation near, at, or taller than the maximum height shall be removed or mowed. Mowing must be done in advance of fire season or in accordance with any fire restrictions. At no point shall vegetation come in contact with electrical equipment. Any vegetation removed from the site will be disposed of and not stored onsite. Certificate holder and contractors will prevent the accumulation of combustible “burn piles” on site.

A vegetation assessment survey of the fenced area will be completed at least twice a year to monitor for vegetation clearances and maintenance of fire breaks, and wildfire hazards. One survey will occur before the fire season begins, in May or June. The second survey will occur in October or November. Additional

vegetation surveys and management may be required throughout the year based on seasonally heightened fire risk, vegetation growth, or observations from operational maintenance staff.

The survey will be conducted by the a vegetation specialist and will be used to assess the frequency of upcoming vegetation maintenance and will assess and document the following:

- Location;
- Species;
- Height;
- Proximity to facility components;
- Estimated growth rate;
- Abundance;
- Clearance/setbacks; and
- Risk of fire hazard.

Results of surveys shall be provided in the annual updates to this WMP, designated in Section 4.0.

Vegetation control includes: (to be consistent with this WMP, Revegetation Plan, Soil Reclamation Plan and Noxious Weed Plan.)

- XXX
- XXX

3.7 Inspections and Maintenance

Facility components will be inspected and maintained as designated in Table 2: *Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results* below. Update Table 2 based on manufacturer recommendations associated with each type of facility component and vegetation management consistent with this WMP and Revegetation Plan.

Table 2 includes an operational check list that will be filled out designating which personnel conducted inspections and maintenance, the dates of inspections and maintenance, and results. As designated in Section 4.0, of this WMP, this table checklist will be submitted to demonstrate compliance with the WMP and used to determine if changes to the WMP are necessary. Other checklists may be provided prior to operation and in the annual review of the WMP, as approved by the Department.

Manufacturers' recommendations, or excerpts for inspections and maintenance are included as Appendix XX to plan.

Lock Out/Tag Out Program:

During maintenance activities, electrical equipment is de-energized and physically locked or tagged in the de-energized positions to avoid inadvertent events that could result in arc flash.

- Ensure equipment is maintained to prevent and control sources of ignition.

Table 2: Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results

Facility Component(s)	Inspection Procedure	Inspection Frequency	Standard ¹	Maintenance Schedule	Date and Personnel Completing Inspection(s); Inspection Results	Date and Personnel Completing Maintenance; Maintenance Results
System Protection	Protection Relays - Verify calibration and check functionality. Breaker Trip Testing - Verify the ability to trip breakers via coil.	X	Manufacturer's maintenance recommendations	Repair or replace once every 5 years or per manufacturer's recommendations	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
System Protection	System Protection Potential Transducers ("PTs") and Current Transducers ("CTs") Verify calibration and check functionality.	X	Manufacturer's maintenance recommendations	Repair or replace once every 11 years or per manufacturer's recommendations	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
Solar Inverter	- Visual inspection of inverter and surrounding area. - Verify torque specifications. - For alternating current (AC)/direct current (DC), perform inspection of communication and control power terminations. - Cycle AC/DC disconnects, inspect AC/DC contactors and cooling fans. - Perform infrared scan. Inverter Testing and Preventative Parts Replacement - Preventative maintenance replacement of inverter parts (e.g.: cooling system and power supplies that are operating effectively but scheduled for replacement per manufacturer's recommendations).		Spill Prevention, Control, and Countermeasures (SPCC) Plan ³ Manufacturer's maintenance recommendations	- Monthly SPCC Plan - Bi-annual Preventative Maintenance - Per manufacturer's recommendations	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
	Vegetation: Visual inspection during component inspections and visual inspections during vegetation surveys twice a year.	Vegetation: Twice a year during vegetation surveys and additional visual inspections during routine inspections of components.	Vegetation: Herbicide application on gravel pad around inverter to prevent vegetation growth. IEEE 80 NEC 70	Vegetation: Yearly, depending on vegetation condition. Or more frequent based on vegetation survey results or upon visual inspections listed above.	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
Tracker System	- Perform visual inspection of tracking components; sync data with the Applicant's Operations Center. - Perform visual inspection of module clamps and rail		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date:	Date:
					Personnel:	Personnel:

Table 2: Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results

Facility Component(s)	Inspection Procedure	Inspection Frequency	Standard ¹	Maintenance Schedule	Date and Personnel Completing Inspection(s); Inspection Results	Date and Personnel Completing Maintenance; Maintenance Results
	fasteners for integrity. - Perform visual inspection of gear drives and shaft assemblies for alignment. - Grease gear boxes and/or drive shaft. - Verify wind stow functionality and lubricate slew ring.				Results: Notes:	Results: Notes:
Solar Array Structures	Perform visual inspection of mounting structures, grounding, and cabling.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel:	Date: Personnel:
					Results: Notes:	Results: Notes:
Solar Array Panels, Harnesses, and Combiner Boxes	At Applicant's sole discretion, to perform one of the following options: - Infra-red ("IR") Flyover - IR scan of Site providing DC health of the Facility down to string level reporting; - Physical DC Health Inspection - Perform visual inspection of whips and wires connectors for damage or exposed conductors in gutters of harness combiner boxes. - Measure and record current of each whip using clamp-on meter and identify low performing whips. or		Applicant's discretion Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel:	Date: Personnel:
					Results: Notes:	Results: Notes:
	Vegetation: Visual inspection during component inspections and visual inspections during vegetation surveys twice a year.	Vegetation: Twice a year during vegetation surveys and additional visual inspections during routine inspections of components	Vegetation: Vegetation under solar arrays will be maintained to a height of 10-12 inches, with a minimum clearance of 12 inches from electrical equipment. Methods include manual removal, mowing, or as designate din this Plan.	Vegetation: Twice a year, or more often, as designate din this Plan.	Date: Personnel:	Date: Personnel:
					Results: Notes:	Results: Notes:
Collector Substation	- Perform visual inspection of the grounding system. - Perform thermographic and visual inspection. - Perform uninterrupted power supply (UPS) inspection and maintenance.		Manufacturer's maintenance recommendations North American Electric Reliability Corporation (NERC)	Per manufacturer's recommendations	Date: Personnel:	Date: Personnel:

Table 2: Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results

Facility Component(s)	Inspection Procedure	Inspection Frequency	Standard ¹	Maintenance Schedule	Date and Personnel Completing Inspection(s); Inspection Results	Date and Personnel Completing Maintenance; Maintenance Results
	Vegetation: Visual inspection during component inspections and visual inspections during vegetation surveys twice a year.	Vegetation: Twice a year during vegetation surveys and additional visual inspections during routine inspections of components.	Vegetation: Herbicide application on substation gravel pad. IEEE 80 NEC 70	Vegetation: Yearly, depending on vegetation condition. Or more frequent based on vegetation survey results or upon routine visual inspections.	Results: Notes:	Results: Notes:
BESS	- Set battery maintenance (system check, cell balancing). - Battery cable, appearance, grounding, dust removal. - Inspect battery management system alarms. - Visual inspection of electrical terminations using thermal imager.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel:	Date: Personnel:
	Vegetation: Visual inspection during component inspections and visual inspections during vegetation surveys twice a year.	Vegetation: Twice a year during vegetation surveys and additional visual inspections during routine inspections of components.	Vegetation: Herbicide application on substation gravel pad. IEEE 80 NEC 70	Vegetation: Yearly, depending on vegetation condition. Or more frequent based on vegetation survey results or upon routine visual inspections.	Results: Notes:	Results: Notes:
Unit Control Enclosure Battery	- Check for correct operations of battery monitoring system and battery charging system. - Perform visual inspection of the battery room, mounting rack, batteries, and connections.		Manufacturer's maintenance recommendations	Repair or replace monthly	Date: Personnel:	Date: Personnel:
					Results: Notes:	Results: Notes:
Unit Control Enclosure Battery	Perform individual cell float charge and specific gravity checks.		Manufacturer's maintenance recommendations	Repair or replace quarterly	Date: Personnel:	Date: Personnel:
					Results: Notes:	Results: Notes:
Unit Control Enclosure Battery	Measure float cell voltage, pilot cell voltage, and electrolyte temperature of pilot cell.		Manufacturer's maintenance recommendations	Repair or replace annually	Date: Personnel:	Date: Personnel:
					Results: Notes:	Results: Notes:
Supervisory, Control	Plant equipment will be evaluated every 5 years to		Manufacturer's	Upgrade, repair, or replace every	Date:	Date:

Table 2: Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results

Facility Component(s)	Inspection Procedure	Inspection Frequency	Standard ¹	Maintenance Schedule	Date and Personnel Completing Inspection(s); Inspection Results	Date and Personnel Completing Maintenance; Maintenance Results
and Data Acquisition (SCADA) & Network Equipment	determine state of health and provide recommendations to Savion.		maintenance recommendations	5 years or per manufacturer's recommendations	Personnel: Results: Notes:	Personnel: Results: Notes:
BESS Junction Box/ Auxiliary System/Miscellaneous	- Auxiliary equipment maintenance and inspection. - Enclosure dust removal. - Inspect cable entry, grounding, sealing, dust removal. - Critical sensor calibration check. - Maintenance report.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel: Results: Notes:	Date: Personnel: Results: Notes:
BESS Fire Safety System	- Fire alarm and detection system inspection. - Fire alarm and detection system maintenance. - Fire suppression System Inspection.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel: Results: Notes:	Date: Personnel: Results: Notes:
BESS Thermal Management System	- Thermal management system inspection. - Thermal management system maintenance. - Motor Lubrication. - Clean Filters by rinsing with water. - Electric Heater - Dust accumulation on the coil, signs of overheating on the heater frame, traces of water or rust on the electric heater control box.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel: Results: Notes:	Date: Personnel: Results: Notes:
BESS Thermal Management System	Coolant tester visual inspection.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel: Results: Notes:	Date: Personnel: Results: Notes:
BESS General	System configuration check.		Manufacturer's maintenance recommendations	Per manufacturer's recommendations	Date: Personnel: Results:	Date: Personnel: Results:

Table 2: Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results

Facility Component(s)	Inspection Procedure	Inspection Frequency	Standard ¹	Maintenance Schedule	Date and Personnel Completing Inspection(s); Inspection Results	Date and Personnel Completing Maintenance; Maintenance Results
					Notes:	Notes:
Medium Voltage (MV) and High Voltage (HV) Breaker	- Clean out dirt and debris. - Perform a manual operation test. - Perform an electrical test. - Perform a gas leakage test.		Manufacturer's maintenance recommendations NERC	Repair or replace per manufacturer's recommendations	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
Generator Step-Up (GSU) Transformer	- Perform a visual inspection and check for proper operation of fan motor, oil pump motor, and breather. - Inspect and maintain substation transformer bushings and control panel. - Perform visual inspection of bushings for indications of local heating, oil leaks, proper oil level and indication of contaminants.		SPCC Plan ³ Manufacturer's maintenance recommendations	Repair, overhaul, refurbish, or replace per manufacturer's recommendations	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
Inverter Step-up Transformer	- Perform infrared scans on low side of transformer when power is >80%. - Verify temperature and pressure sync with the contractor's Operations Center. - Perform visual inspection of the physical integrity of the enclosure and check for oil leakage. - Perform visual inspection for damage or discoloration of bushings. - Perform oil sample analysis on MV transformer(s). - Collect MV transformer oil sample(s) for 3rd party analysis. - Perform electrical test of transformer. - Verify integrity of surge arresters and check for proper tap position.		SPCC Plan ³ Manufacturer's maintenance recommendations	Replace or repair per manufacturer's recommendation	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
	Vegetation: Visual inspection during component inspections and visual inspections during vegetation surveys twice a year.	Vegetation: Twice a year during vegetation surveys and additional visual inspections during routine inspections of components.	Vegetation: Herbicide application on gravel pad around inverter to prevent vegetation growth. IEEE 80 NEC 70	Vegetation: Yearly, depending on vegetation condition. Or more frequent based on vegetation survey results or upon visual inspections listed above.	Date:	Date:
					Personnel:	Personnel:
					Results:	Results:
					Notes:	Notes:

Table 2: Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results

Facility Component(s)	Inspection Procedure	Inspection Frequency	Standard ¹	Maintenance Schedule	Date and Personnel Completing Inspection(s); Inspection Results	Date and Personnel Completing Maintenance; Maintenance Results
Overhead electrical lines	Visual inspection of components, grounding and APLIC measures.		APLIC		Date: Personnel:	Date: Personnel:
	Vegetation: Visual inspection of vertical clearance distance between conductor and vegetation.		Vegetation: National Energy Reliability Corporation (NERC) - Vegetation maintenance standard FAC-003-0. Mow vegetation to achieve clearance requirements between conductor and ground.	Vegetation: Yearly, depending on vegetation condition.	Results: Notes:	Results: Notes:
1. The Operational SPCC 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.						

3.8 Use of Vehicles and Power Driven Machinery at Site

The following best management practices (BMPs) to minimize fire risk from vehicle travel, equipment use, and fueling activities will be implemented at the site during operational activities:

- The movement of vehicles will be planned and managed to minimize fire risk.
- As necessary, contractor(s) or operational personnel will be responsible for identifying and marking paths for all off-road vehicle travel. All off-road vehicle travel will be required to stay on the identified paths. No off-road vehicle travel will be permitted while working alone. Travel off road or parking in vegetated areas will be restricted during fire season as designate din this Plan.
- Areas with grass that are as tall or taller than the exhaust system of a vehicle must be wetted before vehicles travel through it.
- Workers will be instructed to shut off the engine of any vehicle that gets stuck, and periodically inspect the area adjacent to the exhaust system for evidence of ignition of vegetation. Stuck vehicles will be pulled out rather than “rocked” free and the area will be inspected again after the vehicle has been moved.
- Fuel containers, if used, shall remain in a vehicle or equipment trailer, parked at a designated location alongside a county right-of-way. No fuel containers shall be in the vehicles that exit the right-of-way except the five-gallon container that is required for the water truck pump.
- All power driven machinery will be kept free of excess flammable material which may create a risk of fire.

3.9 Operational Training(s)

3.9.1 Annual or Biannual Safety Training

Each year, the certificate holder will organize and hold an on-site training with operational personnel, inviting equipment manufacturers, specialty contractors, local fire department(s), participating and adjacent landowners, emergency management office personnel, ODOE, and any other emergency management agency, that covers:

- The location of electrical facility components and the fire safety measures associated with each component;
- Battery-specific safety protocols, including how to appropriately address chemical fires, in the event of an emergency;
- The type, location, and proper use of fire protection equipment;
- Fire protection equipment maintenance requirements;
- The location(s) of water source(s) and proper usage, storing and maintenance for the pump, hose nozzle; and water hose;
- Overview of smoking policy and locations;
- Overview of procedures and restrictions of operational maintenance activities during Fire Season and Red Flag Warnings designated in this Plan; Rescue, Alarm, Contain and Extinguish (RACE) procedures, including:
 - Rescue anyone in danger (if safe to do so);
 - Alarm – call the control room, who will then determine if 911 should be alerted;
 - Contain the fire (if safe to do so); and
 - Extinguish the incipient fire stage (if safe to do so).

- Monitor and control fire to burn out (when and as appropriate)
- Provide information and encourage attendees to sign up for the County's emergency management notification system.

Training attendee list and training materials must be provided to the Department to demonstrate compliance.

3.9.2 Electrical Safety Program

All operational workers will be trained in electrical safety and the specific hazards of the facility. This training will address:

- Minimum experience requirements to work on different types of electrical components;
- Lockout/tagout procedures
- Electrical equipment testing and troubleshooting;
- Switching system;
- Provisions for entering high voltage areas (e.g., substation);
- Minimum approach distances; and
- Required personal protective equipment.

3.10 Facility Monitoring

Facility components that are monitored via the supervisory, control, and data acquisition (SCADA) system are the solar inverters, collector substation, battery energy storage system (BESS), and overhead electrical lines associated with the alternate gen-tie line.

Facility components will be monitored remotely with the SCADA system 24 hours a day, 7 days a week.

Smoke and fire detectors are placed throughout the facility, will be connected to the SCADA system, and will contact local firefighting services if needed. The BESS will also have integrated fire safety and monitoring systems to detect and alarm if a fire condition is detected.

Facility has remote shutdown capabilities that involve XXX.

4.0 Plan Updates Amendments and Reporting Requirements

This WMP will be updated annually and results will be provided to the Department in the annual report required per OAR 345-026-0080. Updates to this WMP will include:

- Section 3.1 and 3.2, any changes in wildfire risk at the site or changes in facility components or preventative features.
- Section 3.4, any changes in local fire protection agency personnel and operational managers.
- Section 3.4, any changes in analysis area residence/landowner addresses or contact information.
- Fill out Table 2: *Operational Electrical Component and Vegetation Inspection and Maintenance Schedule and Results*, with the dates, personnel, and results of inspections and maintenance performed. A different form or checklist of operational inspection, vegetation management, and maintenance may be used if approved by the Department.
- A copy of the Fire Season Restriction Log identified in Section 3.5. Changes in wildfire risk if different from the Site Plan provided prior to operations. Evaluation of wildfire risk will be consistent with the requirements of OAR 345-022-0115(1) using current data from reputable sources.

Identify changes in standards, policies, future technologies or best practices that could be implemented at the facility to address wildfire prevention or protection, including but not limited to those identified in Table 3, below.

This information may be used to establish the performance of the WMP. If determined by certificate holder or Department, adjustments or improvements must be proposed to ensure the WMP provides wildfire mitigation. Any Department required updates shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address wildfire hazard.

Energy Facility Siting Council (EFSC) or ODOE, acting within its delegated authority of EFSC. Such amendments may be made without amendment of the site certificate. EFSC authorizes ODOE to agree to amendments to this Plan. ODOE will notify EFSC of all amendments, and EFSC retains the authority to approve, reject, or modify any amendment of this Plan agreed to by ODOE.

Table 3: Standards for Future Review

Reference	Description	Method
American Clean Power	Industry ground that establishes best practices for renewable energy projects.	The applicant is a member of ACP and participates in best practice development ¹ .
National Electric Reliability	National Energy Reliability Corporation develops electrical standards for large energy facilities.	The applicant will follow NERC Standard FAC-003-0 for its vegetation management program of transmission lines ² , or updates to this standard as approved by NERC.
Oregon Specialty Building Codes	Building codes applicable to inhabitable spaces, including the O&M building and the substation enclosure.	Remodeling to the O&M and enclosure structure that requires permits will follow any updates to the OSPC at that time.
Oregon Fire Code	The Oregon State Fire Marshal adopts the Oregon Fire Code, establishing minimum fire prevention and protection systems requirements applicable to certain structures, including but not limited to, energy systems.	The applicant will adhere to any applicable standards of the Oregon Fire Code and will incorporate features necessary to meet those standards into the design of the facility. Certificate holder will annually review and apply applicable standards that may apply to an operational facility.
NFPA Codes and Standards	The National Fire Protection Association publishes codes and standards intended to minimize the possibility and effects of fire and other risks/	The applicant will identify and adhere to any applicable codes and standards and will incorporate features necessary to meet those standards into the design of the facility. Certificate holder will annually review and apply applicable standards that may apply to an operational facility.
APLIC	Avian protection methods for electrical facility reduce fires related to bird/mammal nests on	The applicant is a member of APLIC ³ . An operational wildlife monitoring program will inspect

Table 3: Standards for Future Review

Reference	Description	Method
	electrical equipment.	for wildlife nesting on facilities that could cause fire, and take actions following applicable laws (e.g., MBTA).
ORS chapter 477, OAR chapter 629-043	Standards and rules for fire prevention in forest and range land administered by Oregon Department of Forestry	The applicant will be familiar with and operate consistently with the applicable standards, including any updates to rules or standards and will provide a summary of standards that are updated and implemented at the facility.
OAR chapter 860, division 024	Safety standards for transmission lines adopted by Oregon PUC	The applicant will maintain consistency with any applicable vegetation clearance requirements, pruning standards, and high fire risk zone safety standards and will provide a summary of standards that are updated and implemented at the facility.
1. Link to ACP Standards & Practices: https://cleanpower.org/resources/types/standards-and-practices/ . 2. NERC FAC-003-0: https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-0.pdf . 3. Link to APLIC member organization: https://www.aplic.org/member_websites.php .		

Attachment 1: Residence/Landowner Outreach Letter

COMPANY LOGO/LETTERHEAD

DATE

RE: Community Outreach Letter for XXX Energy Facility

My name is XXX and I'm the XXX for XX LLC. We are the certificate holder of the XXX Energy Facility, approved by the Oregon Energy Facility Siting Council (EFSC). Construction of the facility will start/was completed in XX. The facility is a XX megawatt solar facility located XX. You are receiving this letter because your address is within 0.5 miles from the facility site boundary and we want to make sure you are aware of the following information:

- Safety at the facility is our highest priority. We have emergency procedures in place in the event of an emergency on site or off site that may impact the facility and adjacent areas. This includes an EFSC Wildfire Mitigation Plan (WMP) that addresses vegetation management, facility inspections, and maintenance protocols to ensure that the facility minimizes fire risk. The WMP also requires fire protection equipment to be on site and allows for emergency access for fire departments in the event of a fire on site or off site.
- In the event of an emergency on site or off site that cannot be addressed by facility personnel, local emergency and law enforcement will be contacted and procedures designated by the XX County's Office of emergency management will be followed, if necessary.
- If you have not already done so, we recommend you sign up for XX County emergency notification system. You may sign up via the County's webpage or directly via this link:
Link: XX

Please contact me if you have any questions about the facility, XX company, or any other concerns regarding construction and operation of the facility. Further, the Oregon Department of Energy (ODOE) is staff to EFSC and can be contacted if you have questions. Follow the link below for contact information:

<https://www.oregon.gov/energy/facilities-safety/facilities/Pages/Compliance-Program.aspx>

Thank you,

NAME

TITLE

CONTACT INFORMATION

DATE