Leaning Juniper IIA Wind Power Facility - Draft Proposed Order on Request for Site Certificate Amendment 3

To:	Oregon Energy Facility Siting Council
From:	Chase McVeigh-Walker, Senior Siting Analyst
Date:	February 29, 2024
Re:	Draft Proposed Order on Request for Amendment 3 of the Site Certificate for the Leaning Juniper IIA Wind Power Facility

Certificate Holder:	Leaning Juniper Wind Power II, LLC, a wholly owned subsidiary of Avangrid Renewables, LLC, the U.S. division of parent company Iberdrola, S.A.
Approved Facility (In Operation):	90.3 megawatt (MW) wind energy generation facility consisting of 43 wind turbines with 404-foot blade tip height

Proposed Amendment:

- Repower 36 wind turbines (replacement of rotors, nacelles and generator; and foundation reinforcement); increase blade tip height from 404 to 453 feet.
- Temporarily disturb approximately 396.2 acres (roads, collector line, turbine pad, laydown and crane assembly areas) within a proposed micrositing corridor (herein referred to as "RFA3 repower corridor")
- Install a new underground, 34.5 kilovolt (kV) collector line system
- Decommission two wind turbines
- New conditions (see RFA3 Attachment 1 Section VII)

Site Boundary/Location: 6,404 acre site boundary in Gilliam County

Review Process: Type A Review

Staff Recommendation: The Department recommends, subject to the existing, recommended amended and new site certificate conditions, that Council find that the facility, with the changes proposed in Request for Amendment 3 (herein referred to as "proposed RFA3 changes"), complies with the General Standard of Review OAR 345-022-0000 and OAR 345-027-0375. The Department also recommends that the Council find, based on a preponderance of the evidence on the record, that the site certificate may be amended as requested.

A public comment period is now open on the draft proposed order and complete amendment request. Written comments must be received by the Department by the public comment deadline of March 29, 2024. Section II.B of this draft proposed order contains additional information regarding the site certificate amendment review process. The public notice associated with the release of this draft proposed order also contains additional information regarding the comment period and next steps in the EFSC review process.

BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of Request for Amendment 3 of the Site Certificate for the **Leaning Juniper IIA Wind Power Facility**	))))	DRAFT PROPOSED ORDER

February 29, 2024

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I. INTRODUCTION

On September 22, 2023, Leaning Juniper Wind Power II, LLC (certificate holder), a wholly owned subsidiary of Avangrid Renewables, LLC (Avangrid) filed Request for Amendment 3 of the Site Certificate for the Leaning Juniper IIA Wind Power Facility (RFA3).

As described below, the Leaning Juniper IIA Wind Power Facility (facility) is an operational 90.3 megawatt (MW) wind energy generation facility, located in Gilliam County, within a 6,404 acre site boundary. The facility consists of 43 wind turbines, with a 404-foot blade tip height.

As described in Section II. of this order, in RFA3 the certificate holder requests Council approval for the following changes to the site certificate:

- Repower 36 wind turbines (replacement of rotors, nacelles and generator; and foundation reinforcement); increase blade tip height from 404 to 453 feet.
- Temporarily disturb approximately 396.2 acres (roads, collector line, turbine pad, laydown and crane assembly areas) within a proposed "RFA3 repower corridor"
- Install a new underground, 34.5 kilovolt (kV) collector line system
- Decommission two wind turbines
- Proposes new site certificate conditions specific to the repower (see RFA3 Attachment 1 Section VII)

In accordance with OAR 345-027-0365, the Oregon Department of Energy (Department), as staff to the Council, issues this order recommending approval of RFA3, subject to the existing and recommended amended and new conditions. This order, and the analysis and recommendations contained therein do not constitute a final determination by the Council.

I.A. Site Certificate Procedural History

The Council issued the Site Certificate for the Leaning Juniper IIA Wind Power Facility on September 21, 2007. Since this initial approval, Council authorized two Site Certificate amendments, on November 20, 2009 and June 28, 2013.

On September 21, 2007, the Council issued its Final Order on Application for the Site Certificate (*Final Order on ASC*) for the Leaning Juniper II Wind Power Facility, which authorized the construction and operation of a 279 MW wind power generation facility with up to 133 turbines, within an 8,565 acre site boundary. The facility was designed to be divided into two sections, "Leaning Juniper II North" (93 MW) and "Leaning Juniper II South" (186 MW).

On November 20, 2009, the Council issued its Final Order on Request for Amendment 1 (Final Order on RFA1) of the Leaning Juniper II Wind Power Facility Site Certificate, authorizing the construction and operation of up to 84 wind turbines (186 MW) and related or supporting facilities within 7,962 acres of new site boundary area, referred to as "Leaning Juniper IIB" (LJIIB). The previously approved facility components and site boundary (formally known as

Leaning Juniper II North and Leaning Juniper II South) were referred to as Leaning Juniper IIA (LJIIA).

On June 28, 2013, the Council issued its Final Order on Request for Amendment 2 (Final Order on RFA2) of the Leaning Juniper II Wind Power Facility Site Certificate, authorizing the division of the Leaning Juniper II Facility into two separate site certificates.

I.B. Approved Facility

I.B.1. Energy Facility

The facility is an operational, 90.3 MW wind energy generation facility consisting of 42 wind turbines. The existing turbine blade tip height is 404 feet.

I.B.2. Related or Supported Facilities

Operational related or supporting facilities include:

- Above- and belowground 34.5 kV power collection system
- One substation
- 230 kV transmission line (400 feet, aboveground)
- Two meteorological towers
- One operations and maintenance (O&M) building
- Control system
- Access roads

A description of each related or supporting facility is in Attachment A (Draft Amended Site Certificate).

I.C. Site Boundary and Micrositing Corridors

As presented in Figure 1: *Approved Site Boundary and Vicinity* below, the facility is located within an approximately 6,404 acre site boundary in Gilliam County, Oregon.[1] The facility site is located on private land south of the City of Arlington, and west of State Highway 19.

The facility micrositing corridors for wind turbines and related or supporting facilities are described in the *Final Order on ASC*, Attachment D.[2] Corridor widths vary from 400 feet for

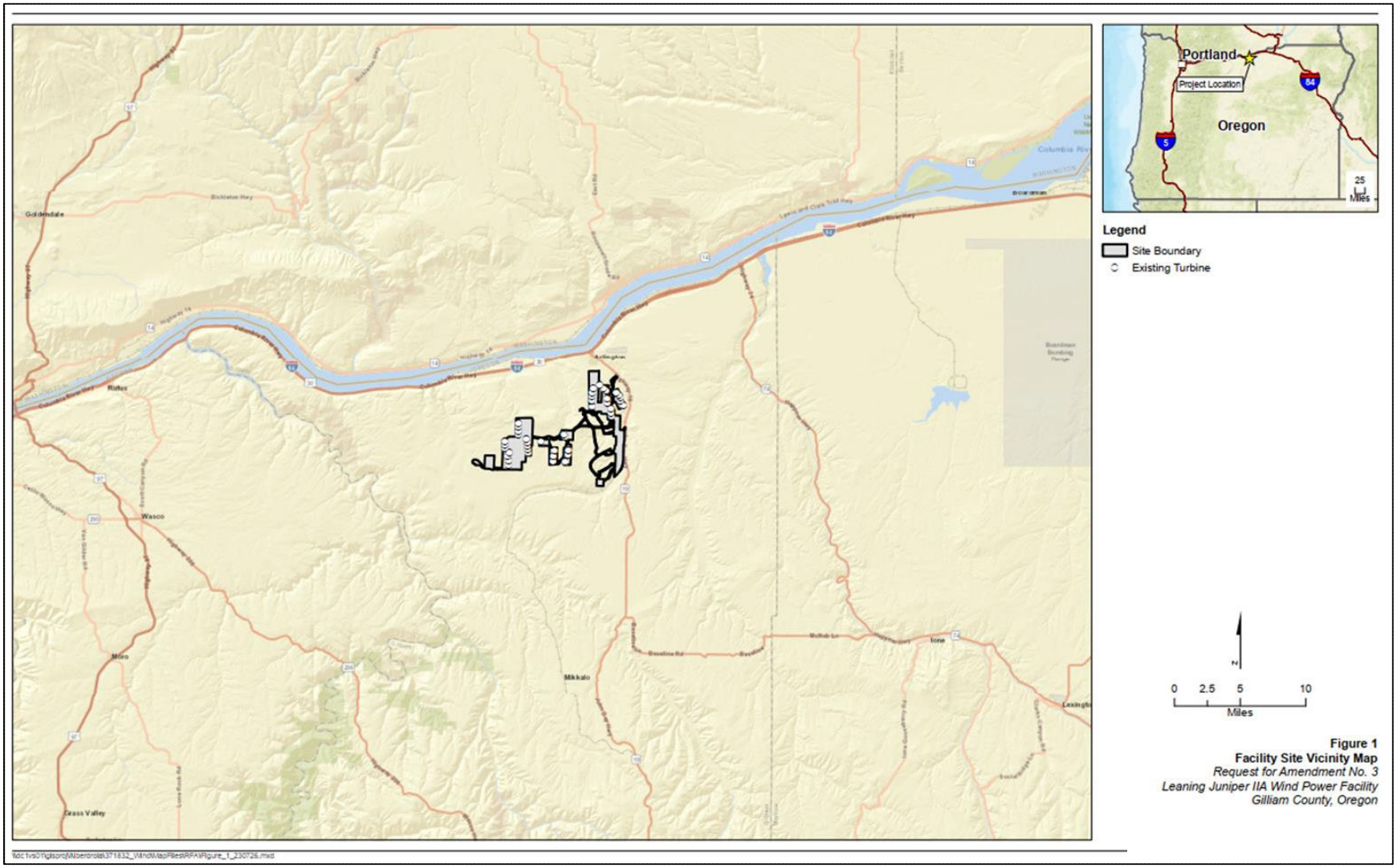
[1] OAR 345-001-0010(31) defines "site boundary" as "the perimeter of the site of a proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant."

[2] LJWAPPDoc125-4 LJW Final Order Att D.

roads connecting turbine strings, to up to 2,640 feet for a road and collector line corridor in the northeastern portion of the facility.[3]

[3] OAR 345-001-0010(21) defines micrositing corridor as, "a continuous area of land within which construction of facility components may occur, subject to site certificate conditions." Council permits final siting flexibility within a micrositing corridor when the certificate holder demonstrates that requirements of all applicable standards have been satisfied by adequately evaluating the entire micrositing area/corridor, the location of facility components, and temporary construction areas anywhere within the corridor.

Figure 1: Approved Site Boundary and Vicinity



II. AMENDMENT PROCESS

II.A. Proposed RFA3 Changes

In RFA3, the certificate holder seeks Council approval for the authorization of:

- Repower 36 wind turbines (replacement of rotors, nacelles and generator; and foundation reinforcement); increase blade tip height from 404 to 453 feet.
- Temporarily disturb approximately 396.2 acres within a proposed RFA3 repower corridor.[4] Temporary disturbance actions include road widening, underground collector line trenching, turbine foundation excavation, laydown and crane assembly areas).
- Install approximately 19 miles of a new underground, 34.5 kilovolt (kV) collector line system.
- Reduce quantity of operating turbines at the facility from 43 to 40 (includes the already decommissioned Turbine "Z2", and the decommissioning of turbines "Z1" and "M3")
- New conditions (see RFA3 Attachment 1 Section VII).[5]

Table 1 below provides a summary of changes proposed to existing wind turbines specifications and dimensions.

Table 1: Summary of Proposed RFA3 Changes

Component/Dimension	Existing Quantity or Dimension	Proposed RFA3 Change
Turbines	42	40 (4 original Suzlon; 36 repowered turbines; and decommissioned turbines)
Blades and Rotors	289 feet (88 meters) in diameter	381 feet (116 meters) in diameter
Generator Capacity	2.1 MW	2.5 MW
Generation Capacity	90.3 MW	98.4 MW
Tower Hub Height	259 feet (79 meters)	262.8 feet (80.1 meters)
Max. Blade Tip Height	404 feet (123 meters)	453.8 feet (138.1 meters)
Minimum Blade Tip Clearance	115 feet (35 meters)	69 feet (21 meters)
Turbine Foundation	Approximately 90 by 100 feet	No change

Proposed RFA3 Repower Micrositing Corridor

[4] The soils within the proposed repower corridor are cultivated or suitable for cultivation and therefore considered "arable" based on site-specific condition. Based on the Natural Resource Conservation Service (NRCS) soil classification system, soils within the repower corridor are predominately Class 3 and 6 (see evaluation in Section III.D Soil Protection and III.E. Land Use).

[5] Department also recommends new and amended site certificate conditions, see Attachment A to this order and applicable sections in this order.

Proposed RFA3 changes would be located within a proposed RFA3 repower micrositing corridor. The proposed RFA3 repower micrositing corridors/areas include approximately 1,564 acres.[6] Table 2 lists the maximum temporary disturbance footprint per component/activity associated with the proposed RFA3 changes.[7]

Table 2: Maximum Temporary Disturbance, Per Component/Activity

Component	Existing Footprint	RFA3 Temporary[1] Disturbance
Turbine Pads	25 feet (radius)	275[2] feet (radius)
Spur Road	15 feet (width)	85[2] feet (width)
String Road	15 feet (width)	85[2] feet (width)
Collector Line	-	75 feet (width)
Laydown Areas	-	22.8 acres
Crane Paths	-	100 feet (width)

Notes:
1. Certificate holder indicates that no new permanent disturbance is anticipated. Temporarily disturbed areas would be recontoured, revegetated, and restored to current conditions following completion of repowering, and as applicable to site certificate conditions.
2. Does not include existing permanent footprint that will be utilized during repower activities.
3. Where existing project roads cannot be utilized for repower activities, and to provide safe and efficient crane operation and movement between turbine strings, temporary crane paths may be required for the crane walks, operation of equipment, and work areas.

Source: LJIIAAMD3Doc7 Complete RFA_2024-02-14, Section 2.7 and Table 2-2.

Figures 2 and 3 below illustrate the proposed RFA3 repower corridor within the previously approved site boundary.

[6] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Table 5-2.

[7] The base of each turbine location, facility roads, collector line corridors, and construction laydown areas include temporary work areas that will be used for crane operation, support equipment operation and storage, truck movement, breakdown and assembly of turbine equipment, and work and parking areas for construction personnel. LJIIAAMD3Doc7 Complete RFA_2024-02-14. Table 2-2.

Figure 2: Proposed RFA3 Repower Corridor and Approved Site Boundary (Southwestern Portion)

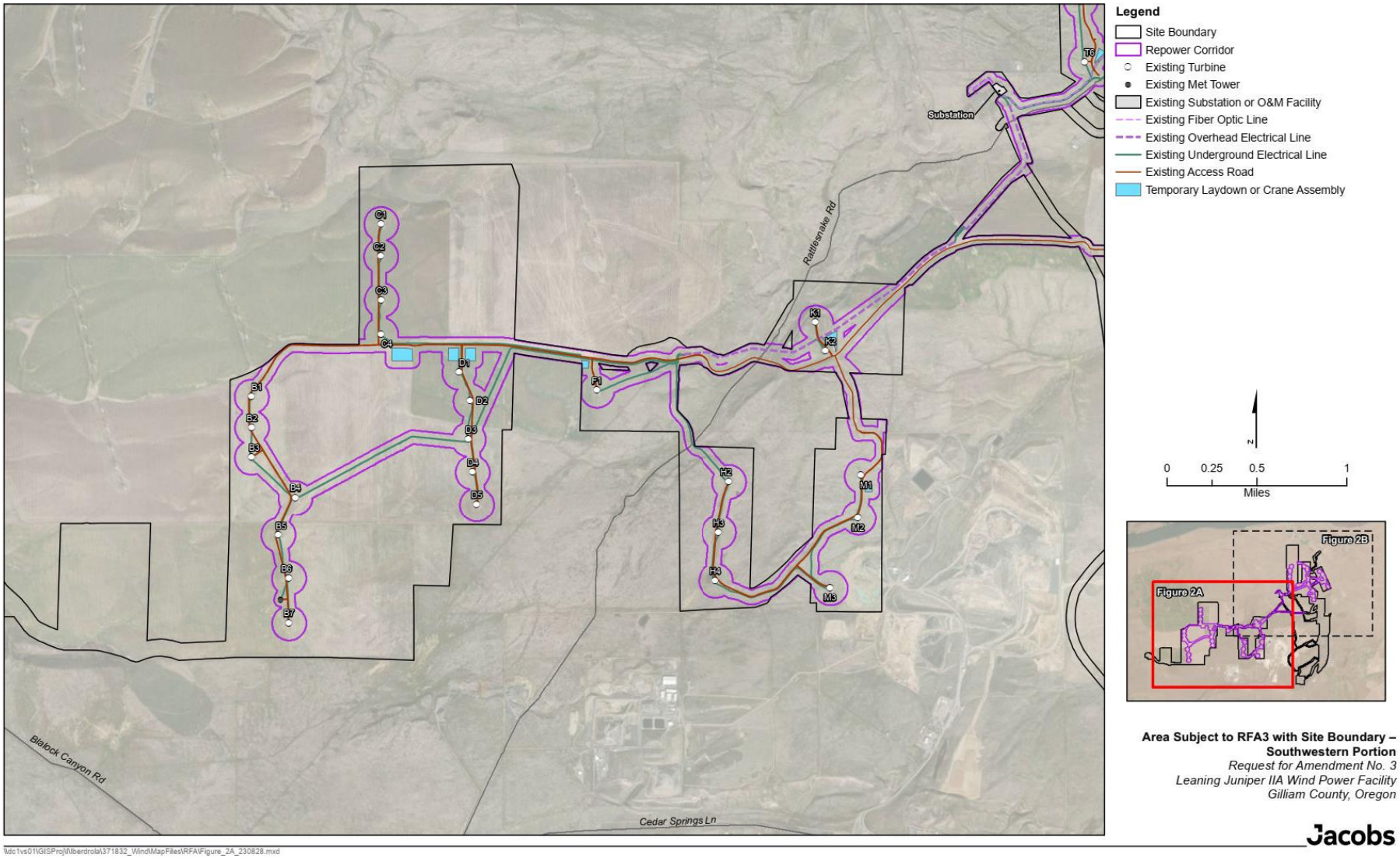
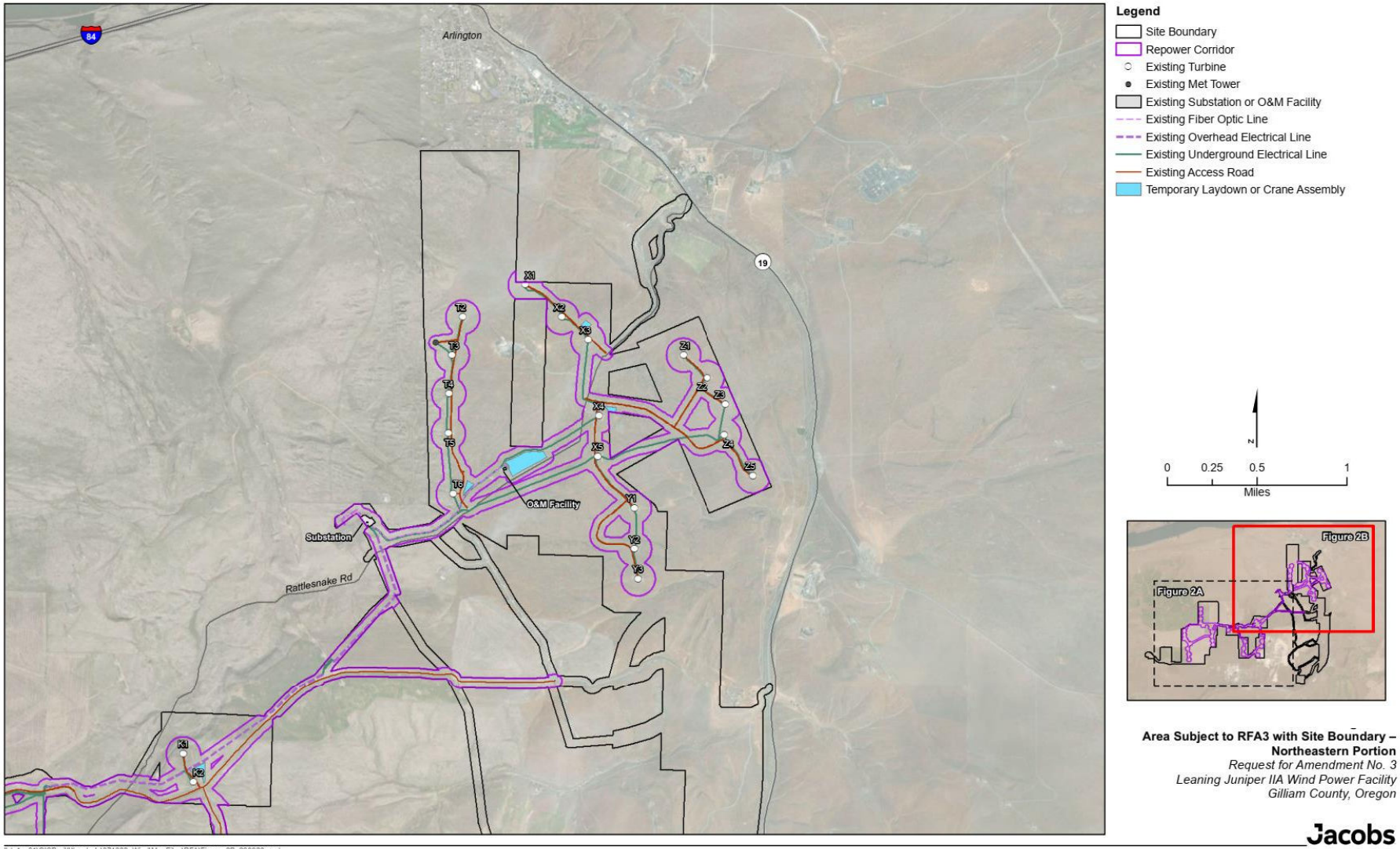


Figure 3: Proposed RFA3 Repower Corridor and Approved Site Boundary (Northeastern Portion)



II.B. Council Review Process

On September 22, 2023, the Department received preliminary Request for Amendment 3 of the Leaning Juniper IIA Site Certificate (pRFA3), inclusive of updated property owner information, and began reviewing pRFA3 to determine whether the request contained sufficient information for the Department to recommend findings of fact and conclusions of law.

On September 28, 2023, the Department issued Public Notice of receipt of pRFA3, as required by OAR 345-027-0360(2).[8] The Public Notice was mailed to adjacent property owners, the ODOE General Mailing List, special paper-copy mailing list for the facility, Click Dimensions electronic mailing list, reviewing agencies and Special Advisory Group (SAG). Reviewing agency comments were received from Gilliam County, ODFW and SHPO (see Attachment B of this order). Reviewing agency and SAG comments are summarized in Table 3 below.

Table 3: Summary of pRFA3 Reviewing Agency/Consultant Comments

Name, Agency	Date	Comment Summary
Michelle Colby, Planning Director, Gilliam County	10-03-2023, 02-16-2024	Gilliam County request that a new Road Use Agreement be executed prior to beginning repower activities.
Lindsay Somers, Habitat Biologist, ODFW	11-13-2023, 12-06-2023, 02-26-2024, 02-27-2024	ODFW considers repowering activities differently than applications for new site certificates because of prior disturbance. Temporary impacts to WGS habitat buffer are to be mitigated as Category 2, and at a level equivalent with permanent impacts. Enhanced monitoring for WGS. Approved proposed HMA and HMP.
Haley Aldrich	02-23-2024	Concurs with the result of the Barr Foundation Report; recommends that the foundation retrofits be implemented as recommended by Barr, and that the certificate holder be required to implement an anchor bolt inspection program to ensure bolts are properly secured during operations, once repowered.
John Pouley, State Archaeologist, SHPO	12-19-2023	SHPO concurs that impacts from the proposed RFA3 changes will not influence historic properties with the implementation of the recommended buffers for avoidance during repower.

On November 21, 2023, the Department notified the certificate holder that pRFA3 was incomplete and requested additional information be submitted by December 15, 2023.[9] On December 15, 2023, the certificate holder provided responses to the Department's Request for Additional Information (RAI).

[8] LJIIAAMD3Doc2 pRFA3 Public Notice 2023-09-28.

[9] LJIIAAMD3Doc4 Completeness Letter and RAI 2023-11-21

On February 9, 2024, the Department notified the certificate holder that pRFA3, in combination with RAI responses, was complete. The certificate holder submitted the complete RFA3 on February 14, 2024.

II.B.1. Draft Proposed Order

On February 29, 2024 the Department posted the complete RFA3 and an announcement on its project webpage as required by OAR 345-027-0365. On the same day, the Department issued Public Notice of RFA3 and the DPO, initiating a public comment period. The notice was distributed to all persons on the Council's general mailing list, to the special mailing list established for the facility (i.e. individuals that have signed up to receive paper notices or electronic notices from the Department for Leaning Juniper IIA Wind Power Facility or for all EFSC energy facilities), to an updated list of property owners supplied by the certificate holder, and to a list of reviewing agencies as defined in OAR 345-001-0010(52). The comment period extends from February 29 through March 29, 2024 and closes at the conclusion of the Public Hearing, unless otherwise extended by Council for good cause.

To raise an issue on the record of the Draft Proposed Order, a person must raise the issue in a written comment submitted between the date of the Public Notice of the Draft Proposed Order and the written comment deadline established in the Public Notice. The Council will not accept or consider public comments on the Request or on the Draft Proposed Order received after the written comment deadline.

II.B.2. Proposed Order

Under OAR 345-027-0371(1), no later than 30 days after the Council has reviewed the DPO and considered all comments received on the record of the DPO public hearing under OAR 345-027-0367, the Department must issue a proposed order recommending approval, modification or denial of the request for amendment to the site certificate. The Department must consider any oral comments made at the public hearing, written comments received before the close of the record of the public hearing, agency consultation, and any Council comments. The Department may issue the proposed order at a later date, but the Department must, no later than 30 days after the Council has reviewed the DPO and considered all comments received on the record of the public hearing, notify the certificate holder in writing of the reasons for the delay. Concurrent with issuing the proposed order, the Department must send notice of the proposed order to Council's general mailing list, any special mailing list for the facility, reviewing agencies, as well as property owners under OAR 345-027-0360(1)(f). Under OAR 345-027-0371(4), on the same date as the notice of proposed order, the Department must send a notice of the opportunity to request a contested case by mail or email to the certificate holder, and to all persons who commented in person or in writing on the record of the DPO public hearing.

If there are no requests for a contested case proceeding, the Council, may adopt, modify or reject the proposed order based on the considerations described under the Scope of Council

Review in OAR 345-027-0375. In a written order, the Council must either grant or deny issuance of an amended site certificate.[10]

II.B.3. Council Evaluation of Requests for Contested Case Proceeding

Only those persons, including the certificate holder, who commented in person or in writing on the record of the DPO public hearing February 29 through March 29, 2024 at the close of the public comment period (unless extended by Council) may request a contested case proceeding on the proposed order for an amendment to the site certificate. Council's evaluation of whether to hold a contested case is described in OAR 345-027-0371 and is summarized below.

For consideration in a contested case, issues must:

- Be submitted within the comment timeframe;
- Be within the jurisdiction of the Council; and
- Include sufficient specificity with facts so that the Council, the Department, and the certificate holder understand the issue raised and are afforded an opportunity to respond to the issue;

Threshold for a contested case for a Type A Amendment:

- Council must find that the request raises a significant issue of fact or law that is reasonably likely to affect the Council's determination whether the facility, with the change proposed by the amendment, meets the applicable laws and Council standards included in chapter 345 divisions 22, 23 and 24.

Council Options on Requests for a Contested Case:

- Hold a contested case on properly raised issue(s) that could affect the Council's determination
- Remand Proposed Order to Department – Properly raised issue(s) could be addressed through new findings and/or conditions
- Deny – Request does not include properly raised issue(s)

II.B.4. Final Order

The Council may adopt, modify or reject the proposed order based on the considerations described in OAR 345-027-0375. If the proposed order is adopted or adopted, with modifications, the Council shall issue a final order granting issuance of an amended site certificate. If the proposed order is denied, the Council shall issue a final order denying issuance of the amended site certificate.

The Council's final order, including any denials of requests for contested case, is subject to judicial review by the Oregon Supreme Court as provided in ORS 469.403.

[10] OAR 345-027-0371(11).

II.C. Council Scope of Review

The Council's scope of review is established under OAR 345-027-0375. Council must determine whether the preponderance of evidence on the record supports the conclusion that the facility, with proposed RFA3 changes, complies with the applicable laws or Council standards that protect a resource or interest that could be affected by the proposed change.[11] OAR 345-027-0375(2)(e) also requires the Council to find that the amount of the bond or letter of credit required under OAR 345-022-0050 is adequate.

III. EVALUATION OF COUNCIL STANDARDS

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

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

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

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

(2) The Council may issue or amend a site certificate for a facility that does not meet one or more of the applicable standards adopted under ORS 469.501 if the Council determines that the overall public benefits of the facility outweigh any adverse effects on a resource or interest protected by the applicable standards the facility does not meet. The Council shall make this balancing determination only when the applicant has shown that the proposed facility cannot meet applicable Council standards or has shown, to the satisfaction of the Council, that

[11] OAR 345-027-0375(2)(c).

there is no reasonable way to meet the applicable Council standards through mitigation or avoidance of any adverse effects on a protected resource or interest. The applicant has the burden to show that the overall public benefits outweigh any adverse effects on a resource or interest, and the burden increases proportionately with the degree of adverse effects on a resource or interest. The Council shall weigh overall public benefits and any adverse effects on a resource or interest as follows:

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

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

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

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

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

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

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

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

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

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

(E) For facilities that are subject to a need standard, evidence underlying the Council's decision on compliance with the rules in OAR 345, Division 23, except that the Council shall not find that need for a facility is sufficient, by itself, to

outweigh any adverse effects on a resource or interest affected by the proposed facility.
*****[12]

III.A.1. Findings of Fact

OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council to find that a preponderance of evidence on the record supports the conclusion that the facility, with proposed RFA3 changes, complies with the requirements of EFSC statutes and the siting standards adopted by the Council and that the facility, with proposed RFA3 changes, complies with all other Oregon statutes and administrative rules applicable to the issuance of an amended site certificate for the facility.

As presented in Section II.A. *Proposed RFA3 Changes*, the certificate holder seeks approval to conduct repower activities within a proposed 1,564 acre repower corridor, with a maximum temporary disturbance of 396 acres (see Table 2 for maximum temporary disturbance footprint per component/activity). Based on the extent of literature review, field surveys and evidence provided in Request for Amendment 3, as presented in the recommended findings of fact and conclusions of law of this order, the Department recommends Council approve the proposed RFA3 repower corridor as a "micrositing corridor" authorizing flexibility for repower impacts to occur anywhere within.

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

Council's mandatory and site-specific conditions, as established in OAR 345 Division 25 are addressed under the General Standard of Review.

OAR 345-025-0006 lists certain mandatory conditions that the Council must adopt in every site certificate. Council rulemaking in 2020 moved the mandatory conditions from Division 27 to Division 25. Similarly, the site certificate conditions of OAR 345-025-0010 and -0015 were moved from Division 27 to Division 25 through Council's past rulemaking. As such, the Department recommends that Council amend the citation and language for previously imposed mandatory conditions to be consistent with the current Division 25 rules, as presented in the draft amended site certificate and provided in Attachment A of this order.

Council previously imposed Condition 3 to align with OAR 345-025-0006(3)(a), which requires that the certificate holder design, construct, operate, and retire the facility substantially as described in the site certificate. Condition 27 was also imposed by Council to establish wind turbine dimension specifications, such as maximum blade tip height, and minimum

[12] OAR 345-022-0000(2) and (3) do not apply to this RFA because the certificate holder has shown that the proposed facility modifications meet Council standards or that there is a reasonable way to meet the Council standards through mitigation or avoidance of the damage to protected resources.

aboveground blade tip clearance. Based upon review of the proposed wind turbine dimension changes presented in RFA3 as a result of the repower, the Department recommends Council find that establishing specific dimension requirements ignores the mandatory rule language in Condition 3 and OAR 345-025-0006(3)(a) that a certificate holder construct and operate the facility "substantially" as described in the site certificate and unnecessarily prohibits minor changes and automatically requires that the certificate holder obtain approval of a site certificate amendment without allowing review of whether an amendment is required based on the significance, or lack thereof, of the potential change.

To allow for some level of modification and flexibility in final specifications associated with the facility repower, without requiring an amendment, the Department recommends Council amend Condition 27 to continue to require that the facility be designed and operate consistently with the dimensions currently under review but relieve the automatic amendment in the future if there were to be minor dimensional changes during final engineering. The Department recommends Condition 27 be amended as follows:

> **Recommended Amended Condition 27:** The certificate holder shall construct ~~a~~ the facility as approved in the Final Orders on Amendment #1, #2, and #3, and as substantially ~~as~~ described in Section III of the site certificate. ~~Before beginning construction, the certificate holder shall provide the department with equipment specifications and a description of the wind turbine dimensions, to demonstrate compliance with this condition. and may select turbines of any type, subject to the following restrictions:~~
> ~~(a) The total number of turbines at the facility must not exceed 47 turbines.~~
> ~~(b) The peak generating capacity of each turbine must not exceed 3.0 megawatts.~~
> ~~(c) The combined peak generating capacity of the facility must not exceed 124 megawatts.~~
> ~~(d) The turbine hub height must not exceed 100 meters, and the turbine blade tip height must not exceed 150 meters.~~
> ~~(e) The minimum blade tip clearance must be 30 meters above ground.~~
> ~~(f) The certificate holder shall request an amendment of the site certificate to increase the combined peak generating capacity of the facility or to increase the number of wind turbines or the dimensions of wind turbines at the facility.~~
> [AMD1, AMD3]

Certificate Expiration [OAR 345-027-0313]

The facility repower is expected to take up to 12 months to complete.[13] The Department recommends Council impose deadlines for the commencement and completion of the facility repower, consistent with OAR 345-025-0006(4). To provide adequate time to complete pre-repower site certificate requirements, allow sufficient time to obtain required permits not governed by the site certificate, the Department recommends Council impose a new condition

[13] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.

establishing a repower commencement deadline within 2 years of execution of the amended site certificate, and a completion deadline three years following date commencement, as follows:

> **Recommended General Standard Condition 117:** The certificate holder shall:
> (a) Provide written notice to the Department of commencement of the facility repower and shall commence repower actions on or before June XX 2026. [TBD]
> (b) Provide written notice to the Department of repower completion. Repower actions shall be substantively complete within three years of repower commencement.
> [Mandatory Condition OAR 345-025-0006(4), AMD3]

III.A.2. Conclusions of Law

Based on the administrative project record for RFA3 and the recommended findings of fact and conclusions of law presented in this order, the Department recommends the Council find that the facility, with the proposed RFA3 changes, would continue to comply with the requirements of ORS 469.300 to 469.570 and 469.590 to 469.619, the Council's standards in OAR chapter 345, and all other Oregon statutes and administrative rules applicable to the issuance of an amended site certificate.

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

> *(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.*
>
> *(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.*
>
> *(3) If the applicant does not itself obtain a state or local government permit or approval for which the Council would ordinarily determine compliance but instead relies on a permit or approval issued to a third party, the Council, to issue a site certificate, must find that the third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering*

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

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

III.B.1. Findings of Fact

III.B.1.1. Certificate Holder and Parent Company Organizational Expertise

Leaning Juniper Wind Power II, LLC (certificate holder) is a registered Oregon Limited Liability Company and has a registered agent in Oregon.[15] The certificate holder is a wholly owned subsidiary of Avangrid Renewables, LLC (Avangrid Renewables), the U.S. division of parent company Iberdrola, S.A, and relies upon the organizational expertise and experience of its parent company. Under ORS 63.130(1)(a), members of a limited liability company have "equal rights in the management and conduct of the limited liability's business." An executed operating agreement between the certificate holder and its parent company, Avangrid Renewables, was provided in RFA3 Attachment 3a. Avangrid Renewables directs Leaning Juniper II, LLC, in its capacity as the certificate holder, to permit, design, construct, operate, and retire an energy facility.

Avangrid Renewables has operated renewable energy projects in Oregon since 2001. As of April 2023, Avangrid Renewables owns approximately 8.6 gigawatts of utility-scale wind and solar generation, including eight EFSC jurisdictional facilities. Iberdrola is the parent company for two EFSC-jurisdictional natural gas fired power plants in Klamath Falls totaling 620 MW.

The certificate holder's parent company has experienced compliance issues within the last 5 years for EFSC jurisdictional facilities. The Golden Hills Wind Project received two notices from Oregon Department of Environmental Quality (DEQ) related to water quality issues under the 1200-C/Erosion Sediment Control Plan (ESCP) permit. On April 19, 2023, following an April 13, 2023 site inspection, the Department issued corrective actions needed at the Montague Solar Facility for failure to protect soils under the 1200-C/ESCP. On October 3, 2023, DEQ issued a warning letter for water quality violations at the Bakeoven Solar Project site (2023-WLOTC-6715). The issues have been resolved or are actively being resolved by the certificate holder.

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

[15] LJIIAAMD3Doc7 Complete RFA_2024-02-14 Attachment 2: Articles of Incorporation

RFA3 proposes to temporarily disturb up to 396 acres of high-value farmland. Based on the extent of disturbance and historic issues/challenges of ensuring the best management practices under the 1200-C/ESCP are in place and corrected, as needed, in accordance with the impact timeline, the Department recommends that the certificate holder be required to submit progress reports on the status of compliance with the conditions applicable to the repower every 3-months, rather than every 6-months as established in rule (OAR 345-026-0080(1), for construction) to afford the Department the ability to more closely track compliance status (the Department also recommends Soil Protection Condition 120 to clarify the regulatory authority of the Department to revise the 1200-C permit). Recommended amended Condition 21 is presented below:

Recommended Amended Condition 21: OAR 345-026-0080: The certificate holder shall report according to the following requirements:

(a) General reporting obligation for energy facilities under construction or operating:

(i) Within ~~six~~ three months after beginning ~~construction~~ the facility repower, and every ~~six~~ three months thereafter during ~~construction of the energy facility~~ the facility repower ~~and related or supporting facilities~~, the certificate holder shall submit a ~~semiannual construction~~ repower progress report to the Department of Energy. In each ~~construction~~ repower progress report, the certificate holder shall describe any significant changes to major milestones ~~for construction~~. The certificate holder shall report on the progress ~~include such information related to~~ of ~~construction~~ the repower and shall address the subjects lists in subsection (c) of this condition. ~~as specified in the site certificate.~~ When the reporting date coincides, the certificate holder may include the ~~construction~~ progress report within the annual report described in this rule.

(b) After January 1 but not later than ~~By~~ April 30 of each year after beginning ~~construction~~ operation of the facility, the certificate holder shall submit an annual report to the Department addressing the subjects listed in ~~this rule~~ subsection (c) of this condition. For the purpose of this condition, the beginning of operation of the facility means the date when construction of a significant portion of the facility is substantially complete and the certificate holder begins commercial operation of the facility as reported by the certificate holder and accepted by the Department. The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.

(i) To the extent that information required by this rule is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule. The Council reserves the right to request full copies of such excerpted reports.

(c) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:

(i) Facility Status: An overview of site conditions, the status of facilities under construction and a summary of the operating experience of facilities that are in operation. ~~In this section of the annual report, t~~The certificate holder shall describe any unusual events, such as earthquakes, extraordinary windstorms,

major accidents or the like that occurred during the year and that had a significant adverse impact on the facility.

(ii) Reliability and Efficiency of Power Production: For electric power plants, the plant availability and capacity factors for the reporting year. The certificate holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems.

~~(iii) Fuel Use: For thermal power plants:~~

~~(A) The efficiency with which the power plant converts fuel into electric energy. If the fuel chargeable to power heat rate was evaluated when the facility was sited, the certificate holder shall calculate efficiency using the same formula and assumptions, but using actual data; and~~

~~(B) The facility's annual hours of operation by fuel type and, every five years after beginning operation, a summary of the annual hours of operation by fuel type as described in OAR 345-024-0590(5).~~

~~(iv)~~(iii) Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.

~~(v)~~(iv) Monitoring Report: A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with site certificate terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes.

~~(vi)~~(v) Compliance Report: A report describing the certificate holder's compliance with all ~~description of all instances of noncompliance with a~~ site certificate conditions that are applicable during the reporting period. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate.

~~(vii)~~(vi) Facility Modification Report: A summary of changes to the facility that the certificate holder has made during the reporting period without an amendment of the ~~determined do not require a~~ site certificate ~~amendment~~ in accordance with OAR 345-027-03~~0~~50.

~~(viii) Nongenerating Facility Carbon Dioxide Emissions: For nongenerating facilities that emit carbon dioxide, a report of the annual fuel use by fuel type and annual hours of operation of the carbon dioxide emitting equipment as described in OAR 345-024-0630(4).~~

[AMD3]

Contractors would be required to complete the actions associated with the facility repower. Contractors have not yet been selected. Once selected, executed contracts will require that the contractor adhere to the applicable conditions established in the Third Amended Site Certificate, and will state, "Contractor shall comply with all environmental, archeological, cultural resources, and wildlife requirements specified in Project permits, Applicable Laws, codes or regulations."

Council previously imposed Conditions 32, 33, 34 and 35 requiring that the certificate holder select, and identify to the Department, the qualifications and experience of its onsite contractors and managers; and that the certificate holder report any compliance issues within 72-hours of discovery. The Department recommends Council find that these conditions should apply prior to, during and post repower, as applicable (see Attachment A for conditions).

The certificate holder's organizational expertise must demonstrate their ability to design construct, and operate the facility, with proposed RFA3 changes, in a manner that protects public health and the environment and the ability to restore the site to a useful, nonhazardous condition. In addition, ORS 469.401(2) requires a site certificate to contain conditions for the protection of public health and safety and to ensure compliance with Council's standards. Per ORS 469.401(1), the site certificate or amended site certificate shall authorize the applicant (certificate holder) to construct, operate and retire the facility subject to the conditions set forth in the site certificate or amended site certificate. Pursuant to these statutes and Council's Organizational Expertise and Retirement and Financial Assurance standards (OAR 345-022-0010 and 345-022-0050, respectively), the Department recommends Council review and evaluate the adequacy of contingencies applied to the certificate holder's decommissioning estimate and accounted for in a bond or letter of credit (required under recommended amended Condition 30, recommended Retirement and Financial Assurance Conditions 108 and 122), based on ongoing site certificate compliance.

The decommissioning estimate referred in recommended Retirement and Financial Assurance Conditions 108 and 122 presumes the facility, with proposed RFA3 changes, is operated in compliance with the terms and conditions of the site certificate and all other applicable state permits. In circumstances where warnings and violations are issued by the Department or other state agencies for permits applicable to facility siting, the ability to decommission the facility and restore the site to a useful, nonhazardous condition based on the estimate provided in RFA3 could be in jeopardy of adequately funding site restoration tasks and actions. The Department recommends Council establish this authorization by incorporating the following language in recommended Conditions 108, and 122, and amending existing Condition 30 to include the same language as follows:

> "The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate."

III.B.1.2. <u>Public Health and Safety</u>

The facility, with proposed RFA3 changes, could result in health and safety risks from structural failure if the existing foundations and towers are not adequately designed to support changes in design load. This potential impact is evaluated under the Council's Public Health and Safety Standards for Wind Energy Facilities. The recommended findings of fact, as presented in Section III.P.1. are incorporated herein by reference.

III.B.1.3. Third-Party Permits

OAR 345-022-0010(3) addresses the requirements for potential third party permits. The certificate holder has not represented or proposed any additional third-party permits necessary for the proposed repower activities. In accordance with the standard, and to ensure that the certificate holder secures third-party permits prior to beginning the facility repower, the Department recommends Council impose the following condition to require the certificate holder to identify and obtain all necessary third-party permits in advance of the facility repower, as applicable to the action necessitating the permit:

> **Recommended Organizational Expertise Condition 106:** Prior to the facility repower, as applicable, the certificate holder shall identify any necessary permits normally governed by the site certificate for which it plans to obtain via a third-party contractor. Certificate holder shall demonstrate that third-party permits are obtained prior to actions regulated under the associated permit(s).
> [AMD3]

III.B.2. Conclusions of Law

Based on the foregoing recommended findings of fact and analysis, and subject to the existing and recommended conditions described above, the Department recommends Council find that the certificate holder, Leaning Juniper Wind Power II, LLC, would continue to satisfy the requirements of the Organizational Expertise standard in OAR 345-022-0010.

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

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

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

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

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

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

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

(3) The Council may not impose the Structural Standard in section (1) to deny an application for a special criteria facility under OAR 345-015-0310. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[16]

III.C.1. Findings of Fact

The analysis area for the Structural Standard is the area within the site boundary. Earthquakes and faults are evaluated within 50-miles of the site boundary.

The facility site boundary, as approved in the Second Amended Site Certificate, includes 6,404 acres in the north-central part of Gilliam County south of the Columbia River and east of the John Day River. Gilliam County is located within the Columbia Plateau physiographic province, and the facility site is located within an informal geographical area known as the Yakima Fold Belt subprovince, an area that is characterized by long, narrow anticlines (upward-arching folds in layered rocks) with intervening narrow to broad synclines (downward-arching folds) that extend in an easterly to southeasterly direction from the western margin of the plateau to its center.

The amendment request will not change the site or location of the facility. The amendment request proposes to repower 36 existing wind turbines, decommission two turbines, install approximately 19-miles of new underground 34.5 kV collector line and temporarily disturb up to 396.2 acres through road widening, crane walks, foundation excavation and temporary laydown areas at turbine pads and other designated locations within the proposed RFA3 repower corridor, a portion of the previously approved facility micrositing corridor. However, the certificate holder is obligated to evaluate whether the site contains any seismic or non-seismic hazards not previously identified that could impact the proposed RFA3 changes.

The following sources were evaluated to assess current seismic and non-seismic risk at the site:

- Leaning Juniper ASC Exhibit H[17]

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

[17] LJIIAAPP ASC Exhibit H. 2006. Leaning Juniper II Wind Power Facility Exhibit H. Available at: https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2007-05-15-LJIIA-ASC-Exhibits-H-L.pdf

- Barr Engineering Co., August 2009. Geotechnical Engineering Report, Leaning Juniper IIa Wind Project. Prepared for Iberdrola Renewables.[18]
- Barr Engineering Co., July 2023. Leaning Juniper IIa Wind Project, Wind Turbine Foundation Evaluation Report, Repowering with a GE2.5-116.[19]
- Barr Engineering Co., December 2023. Technical Memorandum: Leaning Juniper IIA Potential Hazards.
- City of Portland, 2023. Structural Design Requirements for Commercial Structures. https://www.portland.gov/bds/structural-engineering/commercial-structures
- Madin, IP and MA Mabey, 1996. Earthquake Hazard Maps for Oregon. Oregon Department of Geology and Mineral Industry\ies GMS-100 https://www.oregongeology.org/pubs/gms/gms-100.pdf
- Oregon Department of Geology and Mineral Industries, Oregon HazVu: Statewide Geohazards Viewer. https://gis.dogami.oregon.gov/maps/hazvu/[20]
- Oregon Department of Geology and Mineral Industries, SLIDO 4.4 https://www.oregon.gov/dogami/slido/Pages/index.aspx[21]
- Natural Resource Conservation Service, Soil Survey Geographic (SSURGO) Database. https://sdmdataaccess.sc.egov.usda.gov
- United States Department of Agriculture, Web Soil Survey. http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx
- United States Geological Survey, USGS National Seismic Hazard Model. https://www.usgs.gov/news/usgs-provides-update-nationalseismic-hazard-model
- United States Geological Survey, accessed November 2023. Interactive Fault Map http://earthquake.usgs.gov/hazards/qfaults/map/
- United States Geological Survey, accessed November 2023. Quaternary Fault and Fold Database of the United States - Arlington-Shutler Butte fault (Class A) No. 847. https://earthquake.usgs.gov/cfusion/qfault/show_report_AB_archive.cfm?fault_id=847&section_id=

III.C.1.2. *Seismic Hazards*

Based on review of the sources referenced above, seismic hazards in the analysis area are attributable to three sources: the Cascadia Subduction Zone (CSZ) interplate events, CSZ intraslab events and crustal events. The Arlington-Shutler Butte fault (a crustal fault) passes across the LJ-North area in a northwest-trending direction.

The general stratigraphy of the site boundary was characterized as follows:

- Silt topsoil - The topsoil/root zone thickness is approximately 6 inches, based on soil borings and other field tests soils were identified as consisting primarily of silt with

[18] LJIIAAMD3Doc7-a Barr Geotechnical Report 2009-08-05
[19] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 4(d).
[20] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 4(b), Figure 5.
[21] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 4(b), Figure 4.

varying amounts of clay and gravel and its thickness is generally determined by the depth of the topsoil vegetation root system.

- Loess with interspersed caliche - Loess was found in varying thicknesses ranging to greater than 60 feet in depth across most of the site with caliche interspersed within the loess deposits.
- Basalt gravels and fine grained alluvial soils – Associated with the Alkali Canyon formation consists of cemented, poorly-graded, basaltic cobble and interbedded tuffaceous sand and silt, including plastic silt/clay.
- Basalt flows – Volcanic basalt bedrock underlies sediments and ranges in depths from 4.5-61.5 feet.

Borings and subsurface drilling conducted as part of the field investigations did not encounter groundwater, but a review of records identified that groundwater is at approximately 150 feet below grade.[22]

Based on the above-referenced seismic sources and 2009 Geotechnical Investigation, the analysis area is within a region of moderate to strong seismicity and has a moderate risk of shaking with a possibility of earthquake related ground rupture.[23] Figure 4 below identifies the potential geological hazards and known faults within a 50-mile radius of the site boundary. Figure 5 below identifies the potential landslide hazards within the site boundary.

[22] LJIIADoc7-a Barr Geotechnical Report 2009-08-05

[23] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 4(b).

Figure 4: Seismic Hazards within the Analysis Area

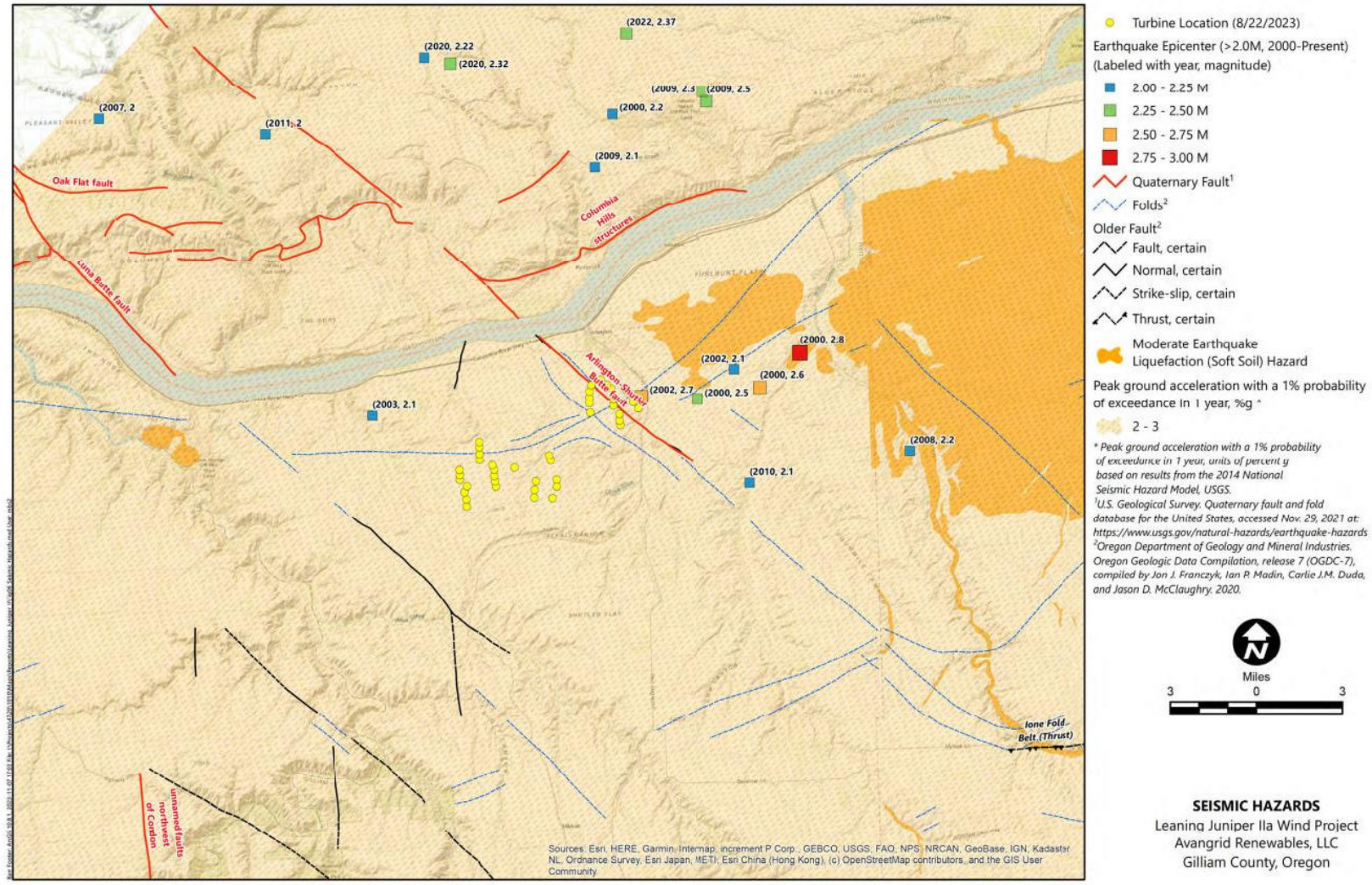
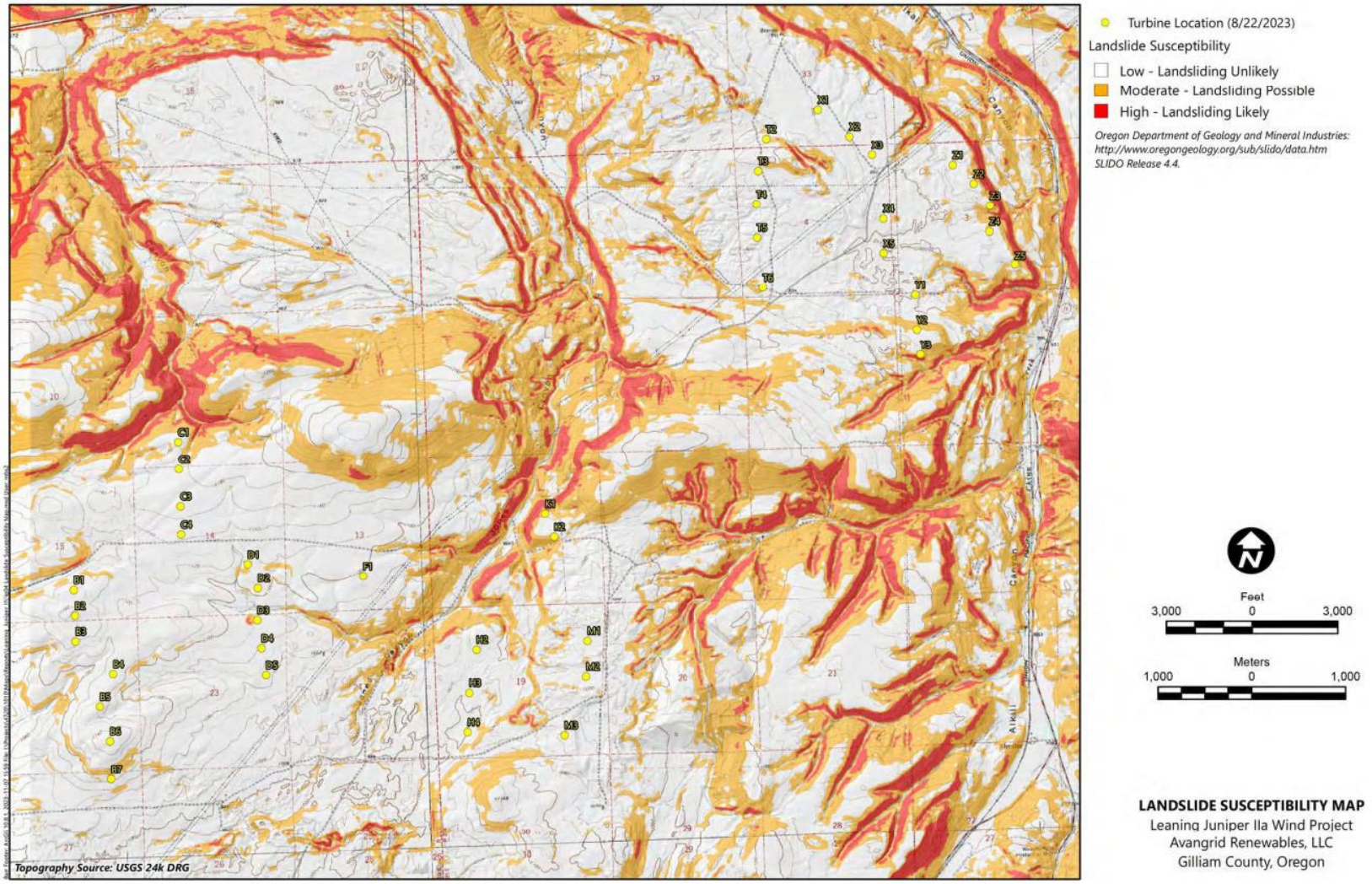


Figure 5: Landslide Risk within the Analysis Area



III.C.1.3. Non-seismic Geologic and Soils Hazards

Potential non-seismic risks within the analysis area include erosion, which is comprehensively addressed under Section III.D *Soil Protection* of this order.

III.C.1.4. Design, Engineer and Construct Proposed Facility to Avoid Potential Seismic and Non-Seismic Hazards within Surrounding Area

American Society of Civil Engineer (ASCE) standards establish minimum design loads for buildings and other structures. Barr Engineering Co. evaluated the existing turbine foundations based on ASCE 7-16 and relied on the updated ASCE 7-22 for seismic coefficients to evaluate seismic design necessary for the foundations. Foundation design for the proposed repowering of 36 wind turbines is based on the requirements of the 2021 International Building Code. Use of current ASCE and IPC requirements ensures compliance with Condition 12, as presented below.

Existing site certificate conditions that would ensure compliance with the standard include the following:

> **Condition 12** requires that the certificate holder design, engineer and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events.
>
> **Condition 13** requires that the certificate holder 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.
>
> **Condition 14** requires that the certificate holder 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.
>
> **Condition 51** requires that the certificate holder design, engineer and construct the facility to avoid dangers to human safety presented by non-seismic hazards. As used in this condition, "non-seismic hazards" include settlement, landslides, flooding and erosion.

III.C.2. Conclusions of Law

Based on the foregoing recommended findings of fact, and subject to compliance with existing site certificate conditions described above, the Department recommends that the Council find the certificate holder has adequately characterized potential seismic and geologic hazards at

the site and can design and operate the facility, with the proposed RFA3 changes, to avoid dangers to human safety and the environment presented by those hazards.

III.D. Soil Protection: OAR 345-022-0022

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

III.D.1. Findings of Fact

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

Soil Types and Existing Land Uses

Soil types within the analysis area, based on 2022 web-soil survey data from Natural Resources Conservation Service (NRCS), are presented below in Table 4 and Figure 6.

Table 4: Dominant Soil Types in Analysis Area

Soil Name	Drainage	Elevation	Slopes	Principal Use	Native Vegetation
Krebs	Well drained	500 – 900 feet	20 – 40%	Range	Needle & thread and bluebunch wheatgrass
Olex	Well drained	300 – 1,100 feet	0 – 65%	Livestock Grazing	Bunchgrass, forbs and shrubs
Ritzville	Well drained	800 – 3,000 feet	0 – 70%	Dryland Wheat production and Livestock Grazing	Bluebunch wheatgrass, Sandberg bluegrass, Wyoming big sagebrush, and yarrow
Sagehill	Well drained	400 – 2,600 feet	0 – 60%	Dryland Wheat and Rye production, Livestock Grazing, Irrigated Crop production	Bluebunch wheatgrass, Sandberg bluegrass, Thurber needlegrass, needle-and-thread, Wyoming big sagebrush
Warden	Well drained	500 – 1,300 feet	0 - 65%	Irrigated Crop production, Dryland Wheat and Rye production, Livestock Grazing	Bluebunch wheatgrass, Sandberg bluegrass, needle-and-thread, and big sagebrush

Table 4: Dominant Soil Types in Analysis Area

Soil Name	Drainage	Elevation	Slopes	Principal Use	Native Vegetation
Willis	Well drained	500 – 3,000 feet	0 – 65 %	Dryland winter wheat	Bluebunch wheatgrass, Sandberg bluegrass, arrowleaf, balsamroot, yarrow, and big sagebrush

To determine existing land uses in the analysis area, the certificate holder reviewed recent aerial photos, consulted with NRCS data, evaluated current uses from underlying landowners and their leasers, and reviewed data to determine boundaries of the Columbia Valley American Viticultural Area (AVA). In addition to the operation of the wind energy facility and its related or supporting facilities, existing land uses within the site boundary include cultivated as dry-land wheat and livestock grazing.

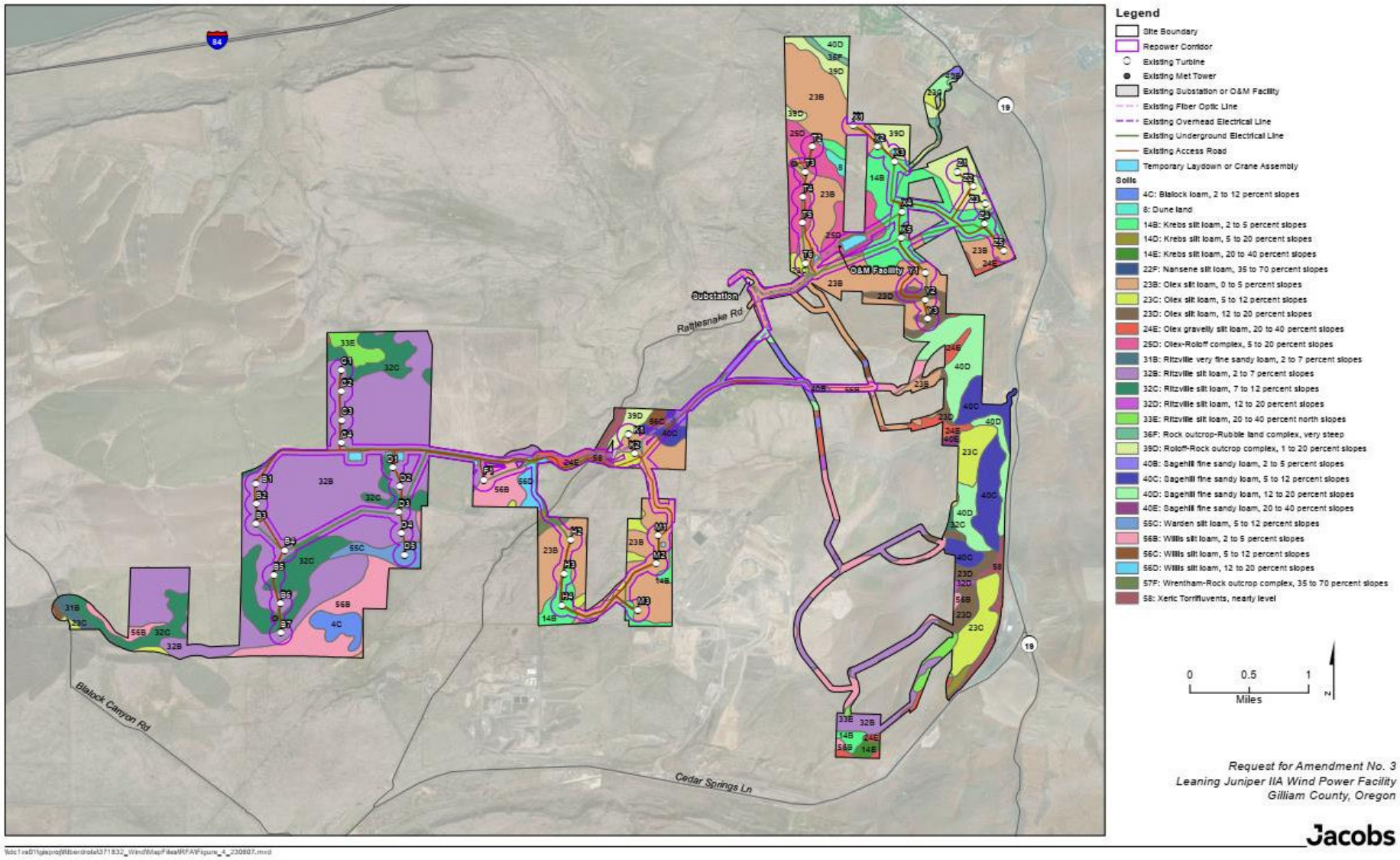
As discussed further in Section III.E. *Land Use*, and in RFA3 Section 5.6.2.2, the area within the repower corridors remains within Gilliam County Exclusive Farm Use (EFU) zone. The soils within the repower corridor predominately composed of NRCS Class 3 and 6 under the NRCS soil classification system. Table 5 below, lists the NRCS Soil Classifications at the site and how much of the RFA3 repower corridor is located within each soil class. Soils within the site are cultivated or suitable for cultivation and therefore considered "arable" based on site-specific conditions. However, the proposed RFA3 repower corridor is located in aspects and elevations of the Columbia Valley American Viticulture Area (AVA), by operation of law and the definition in ORS 195.300(10)(f)(C), and are therefore defined "high-value farmland". Approximately 903 acres (57.8 percent) of the 1,565 acre RFA3 repower corridor are within the Columbia Valley AVA.[24]

Table 5: Soils in RFA3 Repower Corridor By NRCS Class

NRCS Soil Classification	Acres within RF3 Repower Corridor	Percent (%) of RFA3 Area	RFA3 Temporary Impact Acres
3	531.2	34	146.9
4	199.6	13	42.8
6	824.5	53	205.8
7	4.1	<1	0.5
8	5.1	<1	0.2
Total =	**1,564.5**		**396.2**

[24] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.6.2.2, New Applicable Substantive Criteria.

Figure 6: Soils Within Analysis Area



Potential Adverse Impacts to Soils and Mitigation Measures

The proposed repower will result in approximately 396.2 acres of temporary disturbance, as presented in Table 5 above. Table 6 below lists the maximum temporary disturbance by the proposed RFA3 facility component or activity.

Table 6: Maximum Temporary Disturbance, Per Component/Activity

Component	Existing Footprint	RFA3 Temporary Disturbance	RFA3 Total Repower Corridor Dimensions
Turbine Pads	25 feet (radius)	275 feet (radius)	300 feet (radius)
Spur Road	15 feet (width)	85 feet (width)	95 feet (width)
String Road	15 feet (width)	85 feet (width)	95 feet (width)
Collector Line	-	70 feet (width)	70 feet (width)
Laydown Areas	-	22.8 acres	22.8 acres
Crane Paths	-	100 feet (width)	100 feet (width)
Source: LJIIAAMD3Doc7 Complete RFA_2024-02-14, Section 2.7 and Table 2-2. See also RFA3 Figures 2A and 2B.			

To minimize potential impacts on soils during repower activities, the certificate holder will adhere to the requirements of a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit 1200-C Erosion and Sediment Control Plan (ESCP). This permit is issued by the Oregon Department of Environmental Quality (DEQ), under federal delegation by the U.S. Environmental Protection Agency for implementation of the Clean Water Act. Under separate legal authority, Council relies upon the implementation and adherence to the requirements of a NPDES Construction Stormwater General Permit 1200-C/ESCP to ensure that impacts to soil from wind and water erosion are minimized, in compliance with the Soil Protection standard.

Under the NPDES Construction Stormwater General Permit 1200-C, an ESCP can be revised throughout disturbance activities to address numerous changes.[25] The Department recommends Council impose new conditions that require the certificate holder to, prior to repower disturbance, obtain a NPDES Construction Stormwater General Permit 1200-C; and, during facility repower, require adherence to the requirements of a 1200-C/ESCP. The Department that the conditions require the certificate holder or its contractor to revise its ESCP if determined necessary by the Department for protection of soils during the repower. Recommended conditions are presented below:

[25] DEQ Construction Stormwater Application and Forms Manual. Accessed June 11, 2023: wqp1200cInfo.pdf (oregon.gov), pg. 17-18. ESCP revisions under the 1200-C permit can be made for: emergency situations; registrant change of address; change in size of project; change in size or location of disturbed areas; changes to best management practices; changes in erosion and sediment control inspector; and changes in DEQ or agent requests.

Recommended Soil Protection Condition 106: Prior to the facility repower, the certificate holder shall submit to the Department an ODEQ-issued NPDES 1200-C General Construction Permit and Erosion Sediment Control Plan (ESCP).
[AMD3]

Recommended Soil Protection Condition 120: During the facility repower, the certificate holder shall conduct all work in compliance with the NPDES 1200-C General Construction Permit, ESCP or revised ESCP, if applicable. The ESCP shall be revised if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department. Any Department-required ESCP revisions shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address erosion issues.
[AMD3]

RFA3 Attachment 5 (Revegetation and Noxious Weed Control Plan) includes a draft Repower Soil Monitoring Plan (SMP). The Department recommends Council amend the draft SMP, as presented in Attachment C of this order. Specifically, the Department recommends Council not require implementation of actions proposed in the certificate holder's SMP including nutrient testing and long-term monitoring to evaluate soil impacts. These actions do not result in the ability to complete additional mitigation actions following review of the results, and therefore is data collection only. While the certificate holder may complete such actions at their will, the Department requests that Council not incorporate such representations as requirements that the Department is then obligated to track, review and enforce. The Department recommends Council require implementation of actions that have the potential to mitigate impacts, which include a pre-disturbance survey to evaluate existing agriculture features and inform repower design/agricultural feature avoidance and short-term/immediate compaction testing to inform adequacy of decompaction before contractors leave the site.

To minimize impacts to soils, the Department recommends Council impose Soil Protection Conditions 107 and 122, below, requiring the certificate holder to adhere to the requirements of the SMP prior to and during facility repower.

Recommended Soil Protection Condition 107: Prior to the facility repower, the certificate holder shall collect the data described in Sections 1.1 and 1.2 of the Soil Monitoring Plan as provided in Final Order on Amendment 3 Attachment C. Results shall be reported to the Department.
[AMD3]

Recommended Soil Protection Condition 121: During the facility repower, the certificate holder shall implement the Soil Monitoring Plan, as provided in the Final Order on Amendment 3 Attachment C.
[AMD3]

Council previously imposed conditions that will continue to apply to the facility repower and operations.

- Condition 69 requires that the certificate holder report and cleanup any spill or release at the site.

- Condition 75 requires regular operational inspection at the site for signs of erosion or sedimentation and, as necessary, maintain or repair erosion control measures (BMPs), and reseed areas disturbed during facility repair or maintenance activities.

III.D.2. Conclusions of Law

Based on the foregoing findings of fact and subject to compliance with the recommended new and existing site certificate conditions described above, the Department recommends Council find that potential impacts to soils from the facility, with proposed RFA3 changes, would not result in significant adverse impacts to soils and, therefore complies with the Council's 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

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

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

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

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

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

(c) The following standards are met:

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

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

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

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

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

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

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

(c) The level of consistence of the applicable substantive criteria from the various zones and jurisdictions.[26]

III.E.1. Findings of Fact

The facility, with the changes proposed in RFA3, is in Gilliam County.

III.E.1.1. <u>Gilliam County Applicable Substantive Criteria</u>

The Land Use standard requires the Council to find that the facility, with proposed RFA3 changes, would continue to comply with statewide planning goals. Council can make this finding based on a determination that the facility with proposed changes complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use ordinances that are required by the statewide planning goals and in effect on the date the certificate holder submitted the preliminary Request for

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

Amendment (pRFA). The facility is in Gilliam County and the certificate holder submitted pRFA3 on September 22, 2023. Therefore, Council analyzes whether the facility, with proposed RFA3 changes, would comply with applicable substantive criteria from the Gilliam County Zoning and Land Development Ordinance (GCZO) in effect on September 22, 2023.

Local Applicable Substantive Criteria

The applicable substantive criteria for which the certificate holder must comply are established in the Gilliam County Zoning and Land Development Ordinance (GCZO) and Gilliam County Comprehensive Plan (GCCP), as updated and amended in 2017. The applicable criteria from GCZO and goals and policies from GCCP are presented below in Table 7, *Gilliam County Applicable Substantive Criteria*

Table 7: Gilliam County Applicable Substantive Criteria

Gilliam County Zoning and Land Development Ordinance (GCZO)	
Article 4 – Use Zones	
Section 4.020	Exclusive Farm Use
Section D	Conditional Uses Permitted
Section J	Property Development Standards
Article 7 – Conditional Uses	
Section 7.010	Authorization to Grant or Deny Conditional Uses
Section A	General Approval Criteria
Section 7.020	Standards Governing Conditional Uses
Section A	Conditional Uses, Generally
Section Q	Conditional Uses in Exclusive Farm Use Zones
Section T	Wind Power Generation Facility Siting Requirements
Gilliam County Comprehensive Plan (GCCP)	
(Goal 2) Land Use Planning – Policy 7 (Goal 3) Agricultural Lands – Policy 3 (Goal 5) Natural Resources – Policies 2 and 12 (Goal 6) Air, Water, and Land Resources Quality – Policies 6 and 7 (Goal 8) Recreation – Policy 3 (Goal 12) Transportation – Policies 10 and 14 (Goal 13) Energy Conservation – Policy 3	

The Gilliam County applicable substantive criteria that are required for a new wind facility are presented in Table 7: *Gilliam County Applicable Substantive Criteria* above. GCZO Article 4 establishes that wind facilities for the primary purpose of generating power for public use by sale are allowed subject to conditional use review, in addition to other referenced standards. GCZO Article 7 covers conditional uses, including wind energy facilities located on Exclusive Farm Use (EFU)-zoned land, such as the Leaning Juniper IIA facility.

At the time of the original site certificate issuance and the first and second certificate amendments, the Council approved the facility's conditional use permit, and Gilliam County subsequently issued a conditional use permit. Article 7, Section 7.020(T)(7)(c)(2) of the GCZO defines when an amendment to a conditional use permit for a wind energy facility is required. It is noted that the 2017 GCZO update includes specific code provisions that apply to wind energy facilities, including turbine setback requirements and other criteria that were not in effect at the time of the original site certificate authorization or the previous site certificate amendment approval. As presented below, because a conditional use permit amendment is not triggered by the proposed RFA3 changes, these changes do not apply to this review.

There are two areas of the GCZO Article 7 that could apply to potential amendments to existing conditional use permits. The first is the preamble language in Section 7.010:

> *A conditional use listed in this ordinance shall be permitted, altered or denied in accordance with the standards and procedures of this ordinance and this article by action of the Planning Commission or Planning Director. In the case of a use existing prior to the effective date of this ordinance, and classified in this ordinance as a Conditional Use, a change in use or in lot area or an alteration of a Conditional Use, a change in use or in lot area or an alteration of structure shall conform with the requirements for a Conditional Use.*

The second area is GCZO Article 7, Section 7.020(T)(7)(c)(2) governing the decision as to when an existing conditional use permit is required to be amended:

> *An amendment to the conditional use permit shall be required if proposed facility changes would:*
> *a. Increase the land area taken out of agricultural production by an additional 20 acres or more;*
> *b. Increase the land area taken out of agricultural production sufficiently to trigger taking a Goal 3 exception;*
> *c. Require an expansion of the established facility boundaries;*
> *d. Increase the number of towers;*
> *e. Increase generator output by more than 25 percent relative to the generation capacity authorized by the initial permit due to the repowering or upgrading of power generation capacity.*

Because GCZO Article 7, Section 7.020(T)(7)(c)(2) is the more specific language, it should be considered controlling, and the Department must only evaluate the criteria in subsections (a) – (e) to determine whether or not an amendment to the Gilliam County conditional use permit is required.

Based on the record of the request for amendment 3, the RFA3 activities would not:

- Increase the land area taken out of agricultural production;
- Require an expansion of the facility site boundary;

- Increase the number of turbine towers; or
- Increase generator output by more than 25 percent.

Based on the recommended findings presented here, the Department recommends that Council find that the RFA3 activities would not trigger any of the criteria listed in (a)-(e), and as such, the RFA3 activities (repowering) would not require an amended conditional use permit. The Department therefore recommends that no further evaluation of Gilliam County's applicable substantive criteria must be conducted. Council previously imposed site certificate Condition 39, requiring specific setback distances of facility components from residential properties, public roads, and the lease area. Repowered turbines at 453.6 maximum blade tip height will comply with existing setback requirements, as required under Condition 39.[27]

III.E.1.2. Directly Applicable Rules

OAR 660-033-0130(37) – Standards for Approval for Wind Power Generation Facility in Exclusive Farm Use Zones

OAR 660-033-0130(37):

> *(a) For high-value farmland soils described at ORS 195.300(10), the governing body or its designate must find that all of the following are satisfied:*
>
> > *(A) Reasonable alternatives have been considered to show that siting the wind power generation facility or component thereof on high-value farmland soils is necessary for the facility or component to function properly or if a road system or turbine string must be placed on such soils to achieve a reasonably direct route considering the following factors:*
> >
> > > *(i) Technical and engineering feasibility;*
> > > *(ii) Availability of existing rights of way; and*
> > > *(iii) The long term environmental, economic, social and energy consequences of siting the facility or component on alternative sites, as determined under paragraph (B);*

The proposed facility repower would temporarily affect up to 396.2 acres of land that is predominantly composed of NRCS Class 3 and 6 soils, which are not considered "high value" under the NRCS soil classification system but given the facility's location within the Columbia Valley AVA, the entire repower corridor must also be considered "high-value farmland" for purposes of GCZO 7.020(T)(a)(10) and OAR 660-033-0130(37). The certificate holder maintains that there is no reasonable alternative to the repowering proposed in RFA3 because the facility is an existing, operating wind facility sited on high value farmland.[28] The purpose of RFA3 is to

[27] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 22 Mapset.
[28] ORS 195.300(10)(f)(C)

repower existing turbines to extend their operational life and make the facility more efficient. The Department agrees and recommends Council find there is no reasonable or technically feasible way to repower the existing facility on an alternative site.

> *(B) The long-term environmental, economic, social and energy consequences resulting from the wind power generation facility or any components thereof at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located on other agricultural lands that do not include high-value farmland soils;*

The proposed facility repower is not expected to cause any significant economic, social, environmental, and energy consequences within the land use analysis area for the following reasons.

Regarding environmental consequences, the proposed facility repower would involve only temporary disturbance. The certificate holder's compliance with the applicable Division 22 Standards, including compliance with conditions discussed in this order ensure that environmental impacts (e.g., impacts to soils, fish and wildlife habitat, threatened and endangered species) will be avoided, minimized, and/or mitigated (see Attachment A, Sections IV and V).

Regarding economic and social consequences, the proposed facility repower would allow continuation of facility operations within the existing site without permanently impacting other agricultural land or removing any additional agricultural land from production. Further, the underlying landowners will benefit from longer lease terms, workers will benefit from the temporary increase in construction jobs and longer durations for operational jobs and the local government will benefit from ongoing and additional property tax payments.

Regarding energy consequences, the proposed facility repower will allow the ongoing production of clean renewable energy and by repowering an existing facility, considerably less resources would be expended than constructing a new energy facility.

The Department agrees with these reasons and recommends Council find the long-term environmental, economic, social and energy consequences resulting from repowering the existing wind power generation facility are not significantly more adverse than would result from a similar proposal on other agricultural lands.

> *(C) Costs associated with any of the factors listed in paragraph (A) may be considered, but costs alone may not be the only consideration in determining that siting any component of a wind power generation facility on high-value farmland soils is necessary;*

This factor is not applicable. The certificate holder is not proposing to repower the existing facility (which is located on high-value farmland) to save costs compared to constructing or repowering another facility on other lands that are not high value farmland. Rather, it is

proposing the repowering to extend the life of the existing facility. The Department therefore recommends Council conclude that reasonable alternatives affecting less high-value farmland are not available.

> *(D) The owner of a wind power generation facility approved under subsection (a) shall be responsible for restoring, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in this subsection shall prevent the owner of the facility from requiring a bond or other security from a contractor or otherwise imposing on a contractor the responsibility for restoration; and*

Under Council's Retirement and Financial Assurance Standard, OAR 345-022-0050, the certificate holder must demonstrate that the facility, as modified, can be restored to a useful, nonhazardous condition following permanent cessation of operations and is required to provide financial assurance in the form of a bond or letter of credit in an amount Council finds satisfactory to complete that restoration work. As presented in Section III.G *Retirement and Financial Assurance*, the certificate holder provided an updated decommissioning estimate for the facility, with proposed RFA3 changes, using new, updated methods and assumptions; and has provided an updated financial letter. The certificate holder has a current bond on file with the Department, as part of its existing obligation under the site certificate. The Department recommends Retirement and Financial Assurance Conditions 111 and 112 to require that the bond or letter of credit amount be updated prior to the facility repower, consistent with the changes proposed and evaluated in this order. The Department recommends Council find that the certificate holder will be responsible for restoring the site to its former condition.

> *(E) The criteria of subsection (b) are satisfied.*

For the reasons discussed immediately below, the Department recommends Council find this standard is met.

> *(b) For arable lands, meaning lands that are cultivated or suitable for cultivation, including highvalue farmland soils described at ORS 195.300(10), the governing body or its designate must find that:*
>
> > *(A) The proposed wind power facility will not create unnecessary negative impacts on agricultural operations conducted on the subject property. Negative impacts could include, but are not limited to, the unnecessary construction of roads, dividing a field or multiple fields in such a way that creates small or isolated pieces of property that are more difficult to farm, and placing wind farm components such as meteorological towers on lands in a manner that could disrupt common and accepted farming practices;*

The proposed facility repower would cause temporary soil disturbance, which would be subsequently remediated and restored pursuant to an updated Revegetation and Weed Control

Plan (Condition 82). A Draft Repower Revegetation and Noxious Weed Control Plan, as amended by the Department, is provided in Attachment F of this order (and referenced in Condition 82). Soil protection would also be governed by the Draft Soil Monitoring Plan, Attachment C, of this order and discussed further in Section III.D. *Soil Protection*.

> *(B) The presence of a proposed wind power facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the submittal and county approval of a soil and erosion control plan prepared by an adequately qualified individual, showing how unnecessary soil erosion will be avoided or remedied and how topsoil will be stripped, stockpiled and clearly marked. The approved plan shall be attached to the decision as a condition of approval;*

The proposed facility repower would be subject to an NPDES 1200-C permit, which requires the permittee to implement an Erosion and Sediment Control Plan ("ESCP"), satisfactory to the Oregon DEQ, to limit soil erosion and the loss of topsoil during construction. Recommended Soil Protection Condition 106 requires the certificate holder to conduct all construction work in compliance with the ESCP and Recommended Soil Protection Condition 120 authorizes the Department to revise the 1200-C permit to address erosion issues on site if the measures in the 1200-C permit are insufficient. Based on compliance with this condition, the Department recommends Council find that this standard is met.

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

The Department recommends Council impose Soil Protection Conditions 107, and 122 to ensure that areas impacted during construction are adequately decompacted following repower completion following the protocols established in the Soil Monitoring Plan, Attachment C to this order. Based on compliance with these conditions, the Department recommends Council find that this standard is met.

> *(D) Construction or maintenance activities will not result in the unabated introduction or spread of noxious weeds and other undesirable weeds species. This provision may be satisfied by the submittal and county approval of a weed control plan prepared by an adequately qualified individual that includes a long-term maintenance agreement. The approved plan shall be attached to the decision as a condition of approval*.

Site Certificate Condition 82 requires the certificate holder to implement a weed control plan. RFA3 Attachment 5 includes a Revegetation and Noxious Weed Control Plan (Attachment F to this order), specific to the areas disturbed during facility repower. The Department recommends that the requirements of existing noxious weed control for the facility be incorporated into this plan, under Condition 82. Subject to Condition 82, the Department recommends Council find this standard is met.

III.E.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with recommended site certificate conditions described above, the Department recommends the Council find that the facility, with the proposed RFA3 changes, will comply with the statewide planning goals adopted by the Land Conservation and Development Commission.

III.F. Protected Areas: OAR 345-022-0040

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

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

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

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

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

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

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

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

(4) The Council shall apply the version of this rule adopted under Administrative Order EFSC 1-2007, filed and effective May 15, 2007, to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.[29]

III.F.1. Findings of Fact

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

III.F.1.1. Protected Areas and Potential Impacts from RFA3 Activities

There are 11 protected areas within the 20-mile analysis area, as presented in Table 8, *Protected Areas within Analysis Area*, below. Figure 7 shows the location of all protected areas within the analysis area. In the *Final Order on ASC*, Council previously evaluated 5 of these protected areas and found that the facility would not be likely to result in significant impacts to these protected areas.

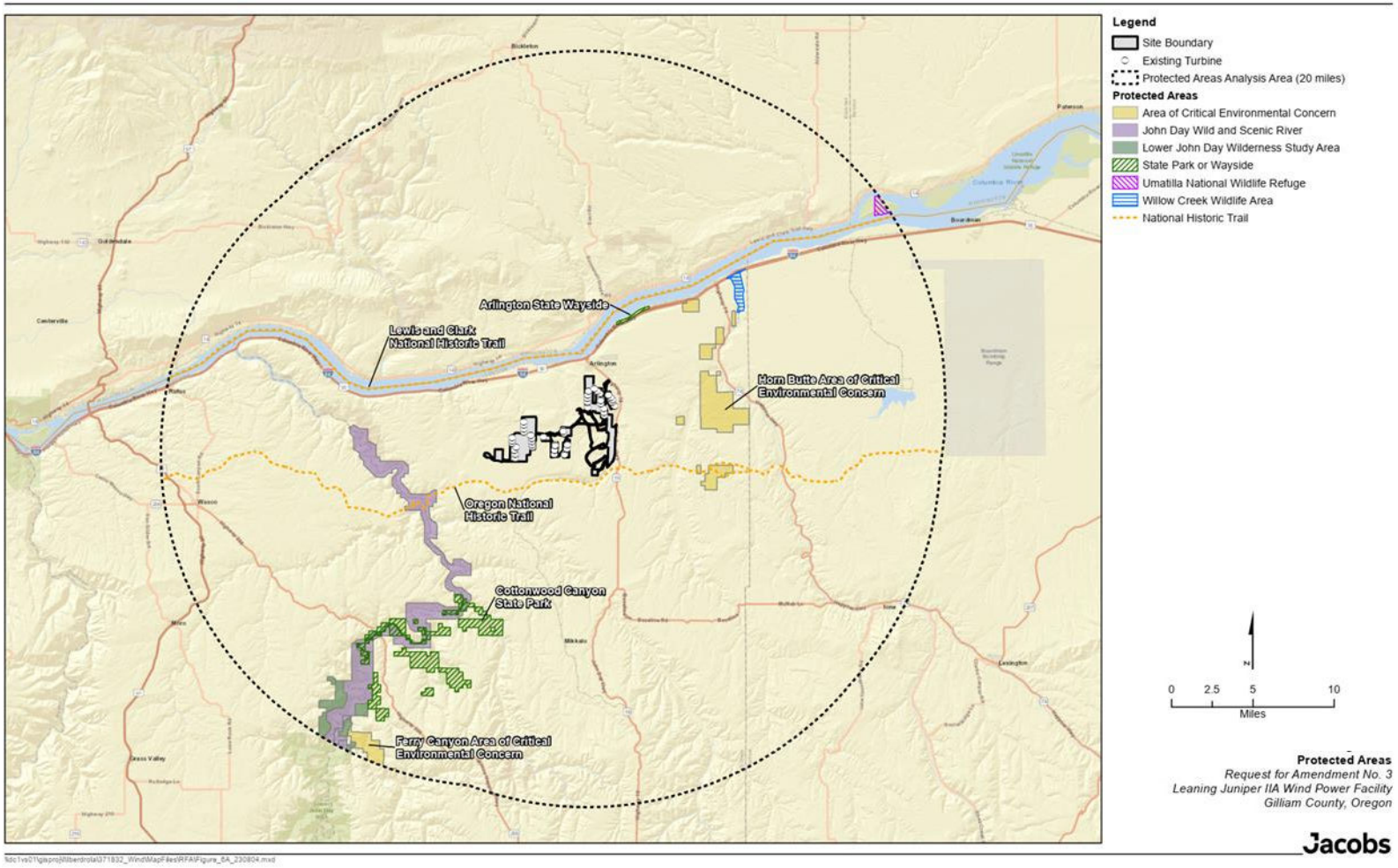
[29] OAR 345-022-0040, effective December 19, 2022.

Table 8: Protected Areas within Analysis Area

Protected Area Category	Protected Area Name	Distance from Site Boundary	Direction from Site Boundary	Noise Audible from Facility?	Traffic impacts from Facility?	Turbines, with proposed RFA Changes, Visible from Protected Area?	Previously Evaluated by Council?
National Park *OAR 345-001-0010(26)(a)*	Oregon National Historic Trail	1.4 miles	South	No	No	Yes	Yes – no further evaluation required
National Park *OAR 345-001-0010(26)(a)*	Lewis and Clark National Historic Trail	2.2 miles	North	No	No	Yes	No – See evaluation
BLM Area of Critical Environmental Concern (ACEC) *OAR 345-001-0010(26)(o)*	Horn Butte ACEC	3.7 miles	East	No	No	Yes	Yes – no further evaluation required
State Parks and Waysides *OAR 345-001-0010(26)(h)*	Arlington State Wayside	4.7 miles	Northeast	No	No	No	Yes – no further evaluation required.
Wild and Scenic Rivers *OAR 345-001-0010(26)(k)*	John Day Wild and Scenic River	5.1 miles	Southwest	No	No	Yes	Yes – no further evaluation required
State Wildlife Refuge *OAR 345-001-0010(26)(d)*	John Day River State Wildlife Refuge	6.0 miles	West	No	No	No	Yes – no further evaluation required
State Parks and Waysides *OAR 345-001-0010(26)(h)*	Cottonwood Canyon State Park	8.9 miles	Southwest	No	No	Yes	No – See evaluation
State Wildlife Areas *OAR 345-001-0010(26)(p)*	Willow Creek Wildlife Area	9.2 miles	Northeast	No	No	No	No – See evaluation
Wilderness Areas *OAR 345-001-0010(26)(c)*	Lower John Day Wilderness Study Area	17.1 miles	Southwest	No	No	No	No – See evaluation
BLM Area of Critical Environmental Concern (ACEC) *OAR 345-001-0010(26)(o)*	Ferry Canyon ACEC	18.9 miles	Southwest	No	No	No	No – See evaluation
National and State Wildlife Refuges *OAR 345-001-0010(26)(d)*	Umatilla National Wildlife Refuge	19.6 miles	Northeast	No	No	No	No – See evaluation

1

Figure 7: Protected Areas within Analysis Area



The facility is an operating, wind energy facility, consisting of 42 turbines with a blade tip height of 404 feet. Repower changes to turbines are presented in Table 1 of this order. Council's evaluation of facility impacts, as presented in the *Final Order on ASC*, was based on 47 wind turbines with a maximum blade tip height of 492 feet. The maximum blade tip height proposed in RFA3 is 453.8 feet. Therefore, the Department recommends Council rely on its prior findings for the 5 previously evaluated protected areas and continue to find that the facility, with proposed RFA3 changes, would not be likely to result in significant adverse impacts to protected areas within the analysis area. The following evaluation is for the 6 new or previously unidentified protected areas that are within the RFA3 analysis area.

Lewis and Clark National Historic Trail

The Lewis and Clark National Historic Trail is a discontinuous trail that spans 16 states, multiple jurisdictions, across 4,900 miles of the country from Pennsylvania to the Pacific Ocean and commemorates the routes taken by the Lewis and Clark Expedition between 1803-1806 (See Figure 8 below). It is managed by the NPS under the Lewis and Clark National Historic Trail Comprehensive Management Plan (NPS 1982) and subsequent Foundation Document (2012). A segment of the trail runs east-west north of the facility boundary, and is mapped along the center of the Columbia River, where the expedition traversed the region by boat. At its nearest point, this trail is approximately 2.2 miles north of the existing facility. The trail is managed by the NPS as an NPS management unit and falls under the designated plans.

Noise

Maximum modeled noise levels from the facility, with proposed RFA3 changes, is 39 dBA at approximately 1,580 feet.[30] Noise attenuates based on distance and topography, at a rate of 3 dBA per doubling of distance. The noise analysis submitted with RFA3 concluded that noise from the facility would not be audible at a distance beyond 1.4 miles. At 2.2 miles, it is important to note that this resource is down in the river and any ambient or background noise would not be audible due to the noise from wind and river and highway related activities occurring between the river and the facility. Additionally, the noise generated by the facility, with proposed RFA3 changes, would not significantly increase because of repower activities. For these reasons the Department recommends that Council find that noise from the facility, with proposed RFA3 changes, would not be audible at the Lewis and Clark National Historic Trail.

Based on these facts, the Department recommends that Council find that the facility, with proposed RFA3 changes, would not result in significant noise impacts to this protected area.

Traffic

The Lewis and Clark National Historic Trail within the analysis area is in the Columbia River, commemorating the route taken by boat by the Lewis and Clark Expedition. This segment of the Columbia River has been significantly impacted by the construction of the railroad and U.S.

[30] LJIIAMD3 Request for Amendment 3 2024-02-16 Attachment 23 Figure 1.

Interstate 84 (I-84) on the southern bank of the river and by the construction of hydroelectric dams and associated reservoirs along the lower Columbia River. Traffic along the Columbia River will not be impacted by the construction or operation of the facility during or after the repower. Access points to this river segment of the trail will not be altered or impacted by facility-related traffic. For these reasons, the Department recommends that Council find the repower will not have a significant impact on traffic patterns or access to this river segment of the historic trail.

Visibility

The visual impact assessment provided for RFA3 includes a map showing the visibility of the facility from protected resources (See Figure 8). While the existing facility is visible from some portions of this river corridor, the visual impacts (some visibility of turbine structures) are similar, and at a greater distance, to those previously evaluated by Council for the ONHT for which the Council found while also an important protected area, there was no significant impact as result of the construction and operation of the facility.

Cottonwood Canyon State Park

Cottonwood Canyon State Park is a state park created in 2013 and managed by the Oregon Parks and Recreation Department (OPRD) under the Cottonwood Canyon State Park Comprehensive Management Plan[31]. The park encompasses over 8,000 acres along Cottonwood Canyon and within the John Day watershed and provides visitor access for a range of outdoor recreational activities including hiking, camping, wildlife viewing, hunting, fishing, boating, and river access, picnicking, mountain biking and horseback riding on designated multi-use trails. This state park is approximately 8.9 miles southwest of the site boundary and is accessed via Highway 206.

Noise

Maximum modeled noise levels from the facility, with proposed RFA3 changes, is 39 dBA at approximately 1,580 feet.[32] Noise attenuates based on distance and topography, at a rate of 3 dBA per doubling of distance. The noise analysis submitted with RFA3 concluded that noise from the facility would not be audible at a distance beyond 1.4 miles. For this reason, at 8.9 miles, noise from the facility, with proposed RFA3 changes, would not be audible.

Based on these facts, the Department recommends that Council find that the facility, with proposed RFA3 changes, would not result in significant noise impacts to this protected area.

Traffic

[31] Oregon Parks and Recreation Department, Cottonwood Canyon State Park Comprehensive Plan. 2011. Available online at: https://www.oregon.gov/oprd/PRP/Documents/PLA-Adopted-Cottonwood-2011.pdf Accessed by the Department on December 7, 2023.

[32] LJIIAMD3 Request for Amendment 3 2024-02-16 Attachment 23 Figure 1.

Access to Cottonwood Canyon State Park is served via Highway 206. The routes to be used during the proposed RFA3 repower activities include I-84, OR 19, and Rattlesnake Road. Because the primary access road to Cottonwood Canyon State Park will not be used during proposed RFA3 activities, the Department recommends Council find that the facility, with proposed RFA3 changes, would not result in significant traffic impacts to this protected area.

Water Use and Wastewater

The proposed RFA3 changes do not include water or wastewater use that relates to water or wastewater associated with Cottonwood Canyon State Park. Based on these facts, the Department recommends that Council find that the RFA3 activities would not result in any significant impacts on water use or wastewater for this protected area.

Visibility

RFA3 included an updated visual impact assessment for the facility as shown in Figure 8 below. Based upon this analysis, the certificate holder identified that portions of the facility will be visible from this protected area, however, these visual impacts will be like those previously evaluated by Council for the Horn Butte ACEC and the John Day Wild and Scenic River, which are of comparable distance from the facility and comprise areas of similar topography. While the facility was already constructed at the time the park was established, the updated visual impact assessment shows that while the facility will remain visible from certain viewpoints within the park, these visual impacts will not significantly change from those of the approved and constructed facility.

For these reasons, and with existing site certificate conditions to minimize visual impacts, and the fact that RFA3 proposed changes will not change the maximum allowable height or location of turbines from what was previously approved by Council, the Department recommends that Council find that RFA3 activities would not result in any significant visual impacts to this protected area.

<u>Willow Creek Wildlife Area</u>

Located approximately 9.2 miles northwest of the facility, this protected area is owned by the US Army Corp of Engineers (USACE) and was originally acquired as part of the John Day Lock and Dam Project but is now managed by the Oregon Department of Fish and Wildlife (ODFW) under the Columbia Basin Wildlife Areas Management Plan as part of a larger management system on the Columbia under a lease agreement with USACE. [33] The wildlife area is managed to protect and enhance fish and wildlife resources and their habitats, while providing public

[33] Oregon Department of Fish and Wildlife. Columbia Basin Wildlife Areas Management Plan. Available online at: https://www.dfw.state.or.us/wildlife/management_plans/wildlife_areas/docs/columbia_basin.pdf Accessed by the Department on December 28, 2023.

use of those resources. Designated uses for these wildlife areas include public access, hunting, fishing, wildlife viewing and recreation and interpretation. Management goals include the protection, enhancement and management of wetland and upland habitats for the benefit of desired fish and wildlife and public education. The Willow Creek Wildlife Area ranges in elevation from approximately 260 feet at water level (Willow Creek Bay) to 480 feet. Willow Creek Wildlife Area native plant communities include: bluebunch wheatgrass (Pseudoroegneria spicata), Needle and Thread, Sandberg bluegrass, Indian ricegrass and big sagebrush. Basin wildrye (Leymus cinereus) is typically found in high densities in soil types within the canyon bottom.[34]

Noise

Maximum modeled noise levels from the facility, with proposed RFA3 changes, is 39 dBA at approximately 1,580 feet.[35] At 9.2 miles from the facility, any noise resulting from repower or operations activities would not be audible. For these reasons, the Department recommends that Council find that RFA3 activities would not result in any significant noise impacts to this protected area.

Traffic

This protected area is located adjacent to Interstate 84 (I-84) and while along a designated route for facility-related traffic, these impacts will not exceed, or be different, from what Council previously evaluated for the other I-84 adjacent protected area (Horn Butte ACEC). Further, the certificate holder commits to a staggered schedule for repower construction which will minimize traffic impacts on the previously approved route that includes the use of I-84. For these reasons, the Department recommends that Council find that there will be no significant impacts to transportation or traffic access to or from this protected area as a result of RFA3 activities.

Water Use and Wastewater

Due to the distance from the facility, and because the certificate holder is not proposing any water uses or discharges resulting from RFA3 changes that could impact this protected area, the Department recommends that Council find that the RFA3 activities would not result in any significant impacts to water use or wastewater for this protected area.

Visual Impacts

Based upon the RFA3 updated visual impact assessment as shown in Figure 8 below, the facility will not be visible from this protected area due to the difference in topography which would block views of the facility from this protected area. For this reason, the Department

[34] Ibid.

[35] LJIIAMD3 Request for Amendment 3 2024-02-16 Attachment 23 Figure 1.

recommends that the Council find that RFA3 activities would not result in any significant visual impact on this protected area.

Lower John Day Wilderness Study Area

Located approximately 17.1 miles southwest of the facility, this protected area is managed by the U.S Bureau of Land Management (BLM), Prineville District, under the John Day Basin Record of Decision and Resource Management Plan. Due to the distance from the from the facility and the Department recommends Council find there are no significant noise or visual impacts on this protected area, nor is there potential to discharge into protected area waters from this distance, or potential to significantly impact access or transportation to this protected area because of RFA3 activities.

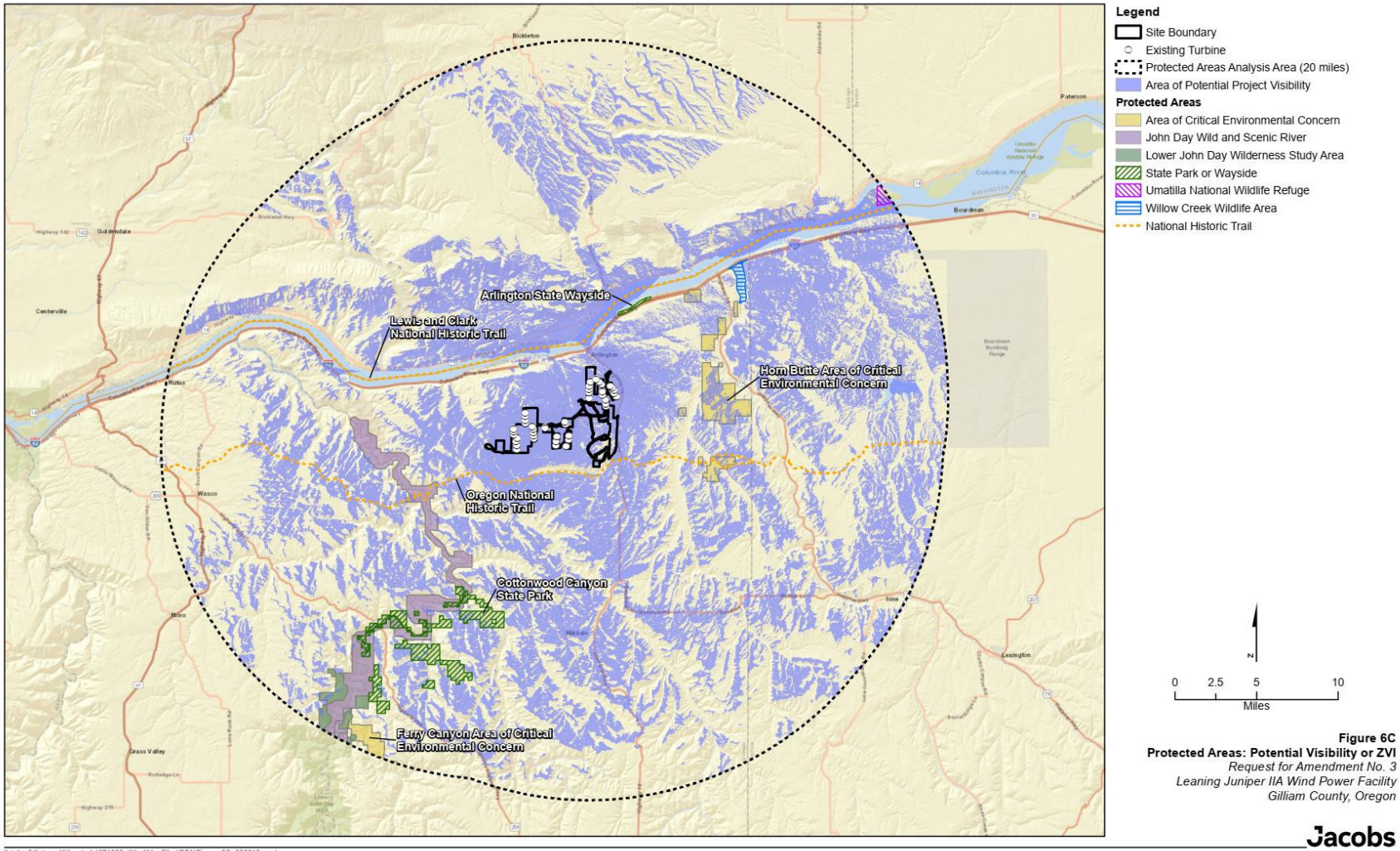
Ferry Canyon ACEC

Located approximately 18.9 miles southwest of the facility, this protected area is managed by the U.S Bureau of Land Management (BLM), Prineville District, under the John Day Basin Record of Decision and Resource Management Plan. Due to the distance from the from the facility and the Department recommends Council find there are no significant noise or visual impacts on this protected area, nor is there potential to discharge into protected area waters from this distance, or potential to significantly impact access or transportation to this protected area because of RFA3 activities.

Umatilla National Wildlife Refuge

Located approximately 19.6 miles southwest of the facility, this protected area is managed by the U.S Forest Service), Umatilla National Forest, under the Umatilla National Forest Land Management Plan. Due to the distance from the from the facility and the Department recommends Council find there are no significant noise or visual impacts on this protected area, nor is there potential to discharge into protected area waters from this distance, or potential to significantly impact access or transportation to this protected area because of RFA3 activities.

Figure 8: RFA3 Visual Impact Assessment for Protected Areas



\\dc1vs01\gisproj\Iberdrola\371832_Wind\MapFiles\RFA\Figure_6C_230816.mxd

III.F.2. Conclusions of Law

Based on the foregoing recommended findings of fact, the Department recommends Council find that the facility, with proposed RFA3 changes, is not likely to result in significant adverse impacts to any protected areas and, therefore, complies with the Council's Protected Areas standard in OAR 345-022-0040.

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

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

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

(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.[36]

III.G.1. Findings of Fact

Methods and Assumptions for Decommissioning Cost Estimate

Restoration of the site to useful, nonhazardous condition is based on decommissioning of 43 turbines (36 existing turbines proposed to be repowered, four existing turbines not repowered, and the three turbines proposed to be decommissioned).

Existing Condition 9 requires the certificate holder to retire the facility according to a final retirement plan, approved by the Council. As described above in Section II.A. *Proposed RFA3 Changes*, the certificate holder intends to reduce the quantity of operating turbines following the repower from 43 to 40. One of the three turbines included in the reduction of operating turbines has already been decommissioned, following a fire at the turbine in 2018. The other two would be decommissioned because of the repowering. However, in the absence of a Council approved retirement plan as required by Condition 9, the Department recommends Council establish the decommissioning estimate for the facility, with proposed RFA3 changes, based on inclusion of the three "decommissioned" turbines.

Repowered turbines would have a certified life of 20 years; the four remaining turbines, which are 14 years old, will have an estimated 11 to 16 years of additional life.

[36] OAR 345-022-0050, effective April 3, 2002.

RFA3 Attachment 10 provides an updated retirement cost estimate, prepared by Senior Cost Estimator Robert Wells of Jacops Engineering Group.[37] The cost estimate is a Class 4 estimate, as defined by the Association for the Advancement of Cost Engineering International.[38] A Class 4 estimate has an accuracy range of 15 to 50%, is based on limited information of 1 to 15% project definition. Costs of tasks and actions are based on labor rates published from Davis-Bacon for Gilliam County, Oregon and RSMeans.[39] RFA3 Attachment 10 indicates that the estimate is only valid for a 90-day period.

The RFA3 cost estimate is based on site layout, manufacturer technical data, client information and decommissioning requirements. Assumptions include the following:

- Contractor will be allowed to stage construction to obtain the most efficient workflow
- Contractor will not be required to perform work using the same means or methods used to produce this estimate
- Contractor will be allowed to use the most appropriate, safest, and efficient methods available to them at the time of performing work
- Contractor will secure and provide any required demolition permits or certificate
- Site access is available
- Crane movement and setup is separate from dismantling operation
- All recyclable material is processed to manageable sizes for transport
- Turbine blades will be disposed at waste facilities within 10 miles
- No salvage value has been applied
- Dump fees have been included
- Salvaged roadway material and foundation concrete rubble is stockpiled or delivered to a point onsite where recycler can reclaim and remove materials
- Substation transformer and switchgear will be recycled
- Site restoration includes roadway removal and regarding, including deep tilling to remove compaction of soils at road and tower site

Estimated Costs of Site Restoration

The estimated decommissioning costs for the facility, with proposed RFA3 changes, is $7.9 million (Q3 2023 dollars), as presented in Table 9 below. Attachment D to this order includes additional details for the certificate holders decommissioning unit and general costs. This amount does not include the contingencies that Council applies to support implementation and use of the bond or letter of credit, should it be necessary. These contingencies and adjusted decommissioning estimate are described below.

[37] LJIIAMD3 Complete RFA 2024-02-16, Attachment 11 Appendix B.

[38] The Cost Estimate Classification System provides phases and stages of cost estimating, ranging from Class 1 to Class 5 (Class 1 being the most accurate, Class 5 being the least).

[39] RSMeans is a data source for construction costs, often relied upon by Council in reviewing decommissioning estimates.

Table 9: Decommissioning Cost Estimate (Facility, with Proposed RFA3 Changes)

Wind Facility Components	Quantity	Unit Cost	Unit	Total Cost
Turbines and Towers				
Disconnect Electrical	1	$6,987.00	Each	$6,987.00
Fell Turbine Towers	43	$13,430.75	Each	$577,522.00
Process Tower for Recycling	43	$48,110.04	Each	$2,068731.72
Remove and Load Nacelle and Hub	43	$1,984.53	Each	$85,334.79
Process and Dispose of Blades	129	$6,066.24	Each	$782,544.96
Remove Pad Transformers/Foundations	43	$1,710.43	Each	$73,548.49
Remove Tower Foundation & Dispose	3093	$394.90	Cubic Yd.	$1,221,425.70
			Subtotal =	*$4,816,094.91*
Met Towers				
Fell Met Towers	2	$7,827.50	Each	$15,655.00
Destruct and Dispose Met Towers	2	$7,250.00	Each	$14,500.00
			Subtotal =	*$30,155.00*
O&M Building				
Dismantle and dispose O&M Facility	1	$25,298.00	Each	$25,298.00
			Subtotal =	*$25,298.00*
Substation				
Remove Substation Equipment	1	$34,086.00	Each	$34,086.00
Remove Collector Substation	1	$35,830.00	Each	$35,830.00
			Subtotal =	*$69,916.00*
Power Line				
Above-ground Collector 34.5kV Lines	2	$7,103.00	Miles	$14,206.00
230 kV Transmission Lines	0.1	$56,120.00	Miles	$5,612.00
Remove Below-Ground 34.5kV Tails	43	$472.30	Each	$20,309.90
			Subtotal =	*$40,126.00*
Access Roads				
Road removal, grading and seeding	16.7	$67,188.29	Miles	$1,122,044.44
			Subtotal =	*$1,122,044.44*
Temporary Areas				
Grading and seeding around access roads, met towers, O&M facilities and turbine turnouts	396.2	$506.67	Acres	$200,742.65
			Subtotal =	*$200,742.65*
General Costs				
Permits, mobilization, engineering	1	$178,102.00	Each	$178,102.00
			Subtotal =	*$178,102.00*
			RFA3 Subtotal =	**$ 6,482,479.91**
Performance Bond	1		Percent	$ 64,824.79
			Gross Cost (Q3 2023 Dollars)	**$ 6,547,304.71**

Table 9: Decommissioning Cost Estimate (Facility, with Proposed RFA3 Changes)

Wind Facility Components	Quantity	Unit Cost	Unit	Total Cost
Department Applied Contingencies				
Administration and Project Management Costs	10		Percent	$654,730.47
Future Developments Contingency	10		Percent	$654,730.47
		Applied Contingencies Subtotal=		*$1,309,460.94*
Total Site Restoration Cost			**Q3 2023**	**$7,856,765.65**
Total Site Restoration Cost (rounded to nearest $1,000)			**Q3 2023**	$7,857,000.00

As presented in Table 9, the Department recommends that Council add a 10 percent contingency cost for both the administrative and project management expenses, and a future development contingency of 10 percent. A performance bond of 1 percent is also to be applied. For all types of energy facilities, the subtotal of line-item costs, including contractor's overhead, profit and insurance costs, and specialty contract costs is increased by one percent to account for the cost of a performance bond that would be posted by the contractor as assurance that the work would be completed as agreed, if the facility needs to be retired absent the certificate holder.

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

The 10 percent future development contingency the Council applies to all tasks, actions and certificate holder contingencies is necessary to be applied to account for uncertainty in the decommissioning estimate because, if site restoration becomes necessary, it might be many years in the future where there is uncertainty of continued adequacy of the retirement cost estimate. For all types of energy facilities, the subtotal of line-item costs, including contractor's overhead, profit and insurance costs, and specialty contract costs is increased by one percent to account for the cost of a performance bond that would be posted by the contractor as assurance that the work will be completed as agreed.

The Department recommends Council find that $7.857 million (Q3 2023 dollars) is a reasonable estimate of an amount satisfactory to restore the site to a useful, nonhazardous condition, subject to the Department and Council's ability to evaluate the adequacy of the applied contingencies, as described below.

As presented in Section III.B. *Organizational Expertise* of this order, the certificate holder's organizational expertise must demonstrate their ability to design construct, and operate the facility, with proposed RFA3 changes, in a manner that protects public health and the

environment and the ability to restore the site to a useful, nonhazardous condition. In addition, ORS 469.401(2) requires a site certificate to contain conditions for the protection of public health and safety and to ensure compliance with Council's standards. Per ORS 469.401(1), the site certificate or amended site certificate shall authorize the applicant (certificate holder) to construct, operate and retire the facility subject to the conditions set forth in the site certificate or amended site certificate. Pursuant to these statutes and Council's Organizational Expertise and Retirement and Financial Assurance standards (OAR 345-022-0010 and 345-022-0050, respectively), the Department recommends Council review and evaluate the adequacy of contingencies applied to the certificate holder's decommissioning estimate and accounted for in a bond or letter of credit (required under recommended amended Condition 30, recommended Retirement and Financial Assurance Conditions 108 and 122), based on ongoing site certificate compliance.

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

To demonstrate that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in the amount necessary for site restoration, RFA3 Attachment 9 includes a November 1, 2023 letter from Liberty Mutual, a financial institution pre-approved by Council, which states that "[Liberty Mutual's] surety relationship and experience with Avangrid Renewables, LLC has been superior in all respects and is qualified for issuance of a single bond in the amount of $10,000,000 with an aggregate capacity of $35,000,000." In addition, because this facility is an existing, operational facility, the certificate holder is obligated to maintain a bond or letter of credit, and adjust annually for inflation, with the Department. The Department affirms that Leaning Juniper II Wind Power Facility has in place bond K08640609 with Westchester Fire Insurance Company for $13.9 million dollars, as of April 2023.

Based on the November 2023 bank letter and the certificate holder's demonstrated ability to obtain and submit a bond for the existing facility components, the Department recommends Council find that the certificate holder continues to demonstrate a reasonable likelihood of obtaining a bond or letter of credit in the amount necessary for site restoration.

Site Restoration Conditions

Council previously imposed Conditions 7, 8, 9, 30, and 31 to ensure the certificate holder could restore the site to a useful, nonhazardous condition in accordance with the Retirement and Financial Assurance standard, as summarized below:

- Condition 7 requires that the certificate holder prevent the development of any conditions on site that would preclude restoration of the site to a useful, nonhazardous condition.
- Condition 8 requires that the certificate holder submit a bond or letter of credit to the State of Oregon, through the Council, in a form and amount satisfactory to the Council to restore the site to a useful nonhazardous condition. [the certificate holder has

provided a bond for $6,413,000 (Q2 2023), in accordance with the site certificate, related to the existing and operational facility components]

- Condition 9 requires that the certificate holder retire the facility in accordance with a Council-approved retirement plan.
- Condition 30 requires that the certificate holder submit a bond or letter of credit, based on final design, prior to construction.
- Condition 31 requires the certificate holder to ensure that the surety is obligated to comply with the requirements of applicable statutes, Council rules, and the site certificate when the surety exercises any legal or contractual right it may have to assume construction, operation, or retirement of the facility, if a bond is used to meet the requirements of Condition 30.

To both accommodate the existing requirements of Condition 30 to include the Department's suggested adjustments to the decommissioning cost estimate (including increasing the quantity of turbines included, Department applied contingencies, and updated unit costs included to this order as Attachment D), and to delineate the applicability of condition requirements based on phase of repower (preconstruction, construction, operation), the Department recommends Council amend Condition 30 and impose two new conditions as follows:

Recommended Retirement and Financial Assurance Condition 108: Prior to the facility repower, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit rider in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The bond or letter of credit amount is $7.9 million (in 2023 dollars), adjusted to the date of issuance as described in (b), or the amount determined as described in (a).

(a) The certificate holder may adjust the amount of the bond or letter of credit rider based on the final design of the repowered facility by applying the unit costs and general costs illustrated in the Final Order on Request for Amendment 3 (RFA3) Attachment D to the final design of the repowered facility and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department. Any modification to the unit costs of the retirement cost estimate, as presented in the Final Order on RFA3 Attachment D, are subject to review and approval by the Council.

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

(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in 2023 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 (the "Index") and using the annual average index value for 2023 dollars and the quarterly index value for the date of issuance of the bond or letter of credit rider. If at any time the Index is no

longer published, the Council shall select a comparable calculation to adjust 2023 dollars to present value.

(ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.

(iii) Add 10 percent of the adjusted Gross Cost for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost for the adjusted future developments contingency.

(iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the resulting total to the nearest $1,000 to determine the adjusted financial assurance amount.

(c) The certificate holder shall use a form of bond or letter of credit approved by the Council.

(d) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.

[AMD3]

Recommended Retirement and Financial Assurance Condition 122: During the facility repower, the certificate holder shall describe the status of the bond or letter of credit in the semi-annual report submitted to the Council under Condition 21(a). If repower activities extend for more than 12 months, the certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in Condition 30(b). The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate to maintain health and safety of the public and environment.
[AMD3]

Recommended Amended Condition 30: ~~Before beginning construction of the LJIIA components as described in the Final Order on Amendment #1 for LJF~~ During facility operation, the ~~certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount is $8.847 million (in 2006 dollars), adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The~~ certificate holder shall

(a) Annually adjust the amount of the bond or letter of credit ~~on an annual basis~~ thereafter as described in Retirement and Financial Assurance Condition 111(b).

~~(a) The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the LJIIA components by applying the unit costs and general costs illustrated in Table 2 and Table 3 of the Final Order on the Application to the final design and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department.~~

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

~~i. Adjust the Subtotal component of the bond or letter of credit amount (expressed in 2006 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 (the "Index") and using the annual average index value for 2006 dollars 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 2006 dollars to present value.~~

~~ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.~~

~~iii. Add 10 percent of the adjusted Gross Cost for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost for the adjusted future developments contingency.~~

~~iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the resulting total to the nearest $1,000 to determine the adjusted financial assurance amount.~~

~~(c) The certificate holder shall use a form of bond or letter of credit approved by the Council.~~

~~(d) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.~~

(b) ~~The certificate holder shall~~ Describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition 21(b).

(c) Ensure that the bond or letter of credit ~~shall~~ is not ~~be~~ subject to revocation or reduction before retirement of the facility site.

The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate to maintain health and safety of the public and environment.

[AMD2, AMD3]

III.G.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the existing, recommended amended, and new site certificate conditions described above, the Department recommends the Council find that the site can be restored adequately to a useful, non-hazardous condition following permanent cessation of operation of the facility, with the proposed RFA3 changes, 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.*[40]

III.H.1. Findings of Fact

As authorized under OAR 345-027-0360(3), the Department establishes the analysis area for the Fish and Wildlife Habitat standard as the area within the proposed RFA3 repower corridor.[41]

This standard creates requirements for mitigating impacts to fish and wildlife habitat, based on the functional quantity and quality of the habitat impacted as well as the nature, extent, and duration of the impact. Functional quality is presented using a habitat classification system based on the function and value of the habitat it would provide to a species or group of species likely to use it. ODFW policy identifies six habitat categories, with Category 1 being the most valuable, and Category 6 the least valuable.

> *"Habitat Category 1" is irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is limited on either a physiographic province or site-specific basis, depending on the individual species, population or unique assemblage.*

The mitigation goal for Category 1 habitat is no loss of either habitat quantity or quality. This goal requires avoidance of impacts.

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

If impacts are unavoidable, the mitigation goal for Category 2 habitat is no net loss of either habitat quantity or quality and provision of a net benefit of habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved and

[40] OAR 345-022-0060, effective Mar. 8, 2017.

[41] The Council's procedural requirements for site certificate amendments (OAR 345-027-0360(3) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The November 21, 2006 Amended Project Order establishes the analysis area as the area within the site boundary. As authorized under OAR 345-027-0360(3), following a pre-amendment conference on May 1, 2023, the Department approved a modified analysis area for the Fish and Wildlife Habitat standard based on the scope and extent of potential impacts associated with the proposed RFA3 changes.

both habitat quantity and habitat quality must be improved. To achieve this goal, impacts must be avoided or unavoidable impacts must be mitigated through reliable "in-kind, in-proximity" habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity and quality must be provided.

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

The mitigation goal for Category 3 habitat is no net loss of either habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved. The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts through reliable "in-kind, in-proximity" habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.

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

Like Category 3, the mitigation goal for Category 4 habitat is no net loss in either existing habitat quantity or quality. The Council interprets this to mean that both existing habitat quantity and quality must be preserved. The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts. In contrast to Category 3, mitigation options are less constrained and may involve reliable "in-kind or out-of-kind, in-proximity or off-proximity" habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.

> *"Habitat Category 5" is habitat for fish and wildlife having high potential to become either essential or important habitat*.

If impacts are unavoidable, the mitigation goal for Category 5 habitat is to provide a net benefit in habitat quantity or quality. The Council has previously interpreted this to mean that there must be some improvement in either habitat quality or quantity. To clarify the "net benefit" goal, ODFW has advised: "The improvement in habitat quantity or quality achieved need not rise to the level of improvement required to meet a goal of 'no net loss' (i.e., the level required or recommended in the Mitigation Policy for Habitat Categories 2, 3, and 4)." The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts through "actions that contribute to essential or important habitat."

> *"Habitat Category 6" is habitat that has low potential to become essential or important habitat for fish and wildlife.*

Impacts to Category 6 habitat does not require mitigation under the standard.

III.H.1.1. <u>Discovery Measures</u>

RFA3 included an evaluation prepared by the certificate holder's qualified biologists (with Jacobs[42] and WEST[43]) consisting of a literature review and field survey, an avian assessment and a habitat field survey report. The desktop survey delineated potential habitat units using aerial photograph imagery within the approved site boundary to verify previously identified habitat types and categories and to identify any new or additional habitat types or categories within the analysis area.

Habitat surveys within the proposed repower corridor were conducted in June and August 2023. Protocol-surveys for WGS were completed in April and May 2023.[44]. WGS surveys were completed in two rounds (April 17–21 and May 15–23 of 2023) during the active squirrel season (March 1 to May 31) when WGS were most likely to be detected.

III.H.1.2. Fish and Wildlife Habitat within Analysis Area

The 2023 desktop assessment and field survey report[45] confirm that the habitat types in the analysis area include: shrub steppe, grassland, exposed basalt bedrock, developed/agricultural, and wetlands/waters.

Table 10 identifies the habitat types by ODFW habitat category within the analysis area, including Category 2, 3 and 4[46]; Figure 9 presents the habitat type/category within the analysis area.

Table 10: Summary of Habitat within Analysis Area

Habitats by Subtype and Description	Acres in Repower Corridor	ODFW Habitat Category[1]
HW - Herbaceous Wetland	0.2	2
SSA - Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass	154.5	
ESC – Escarpment	5.9	
SSC - Erigonum/Poa sandbergii-annual grass	22.4	
AG - Annual Grass and weeds	40.9	3
EB – Exposed Basalt	0.5	
SSA - Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass	82.1	
SSB - Rabbitbrush-snakeweed-eriogonum/bunchgrass	623.4	
AG - Annual Grass and weeds	50.0	4

[42] LJIIAAMD3 RFA3 Attachment 5. 2023 Confidential Washington Ground Squirrel Survey Report prepared by Jacobs.

[43] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 11: Avian Risk Assessment 2023-11-09 Technical Memorandum Prepared by WEST.

[44] ODFW reviewed and approved the survey methodology before surveys were conducted (citing Cherry, pers. comm. 2023). LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 5 WGS Report Confidential. Page 2. 2023 Washington Ground Squirrel Surveys for Leaning Juniper IIA Wind Power Facility. Prepared by Jacobs.

[45] LJIIAMD3 pRFA Attachment 5 WGS Report Confidential. Jacobs. 2023.

[46] All WGS habitat within the analysis area is categorized as Category 2, based on the definition under OAR 635-415-0025(2). See LJIIAAMD3Doc3-5 pRFA3 Reviewing Agency Comment ODFW 2023-12-06.

Table 10: Summary of Habitat within Analysis Area

Habitats by Subtype and Description	Acres in Repower Corridor	ODFW Habitat Category[1]
EB – Exposed Basalt	1.4	
DW – Dryland Wheat	573.3	6
DX – Developed	8.6	
Total acres =	**1,563.2**	-

Data obtained from LJIIAAMD3Doc7 Complete RFA_2024-02-14. Table 5-4. Habitat categorization updated per notes below.

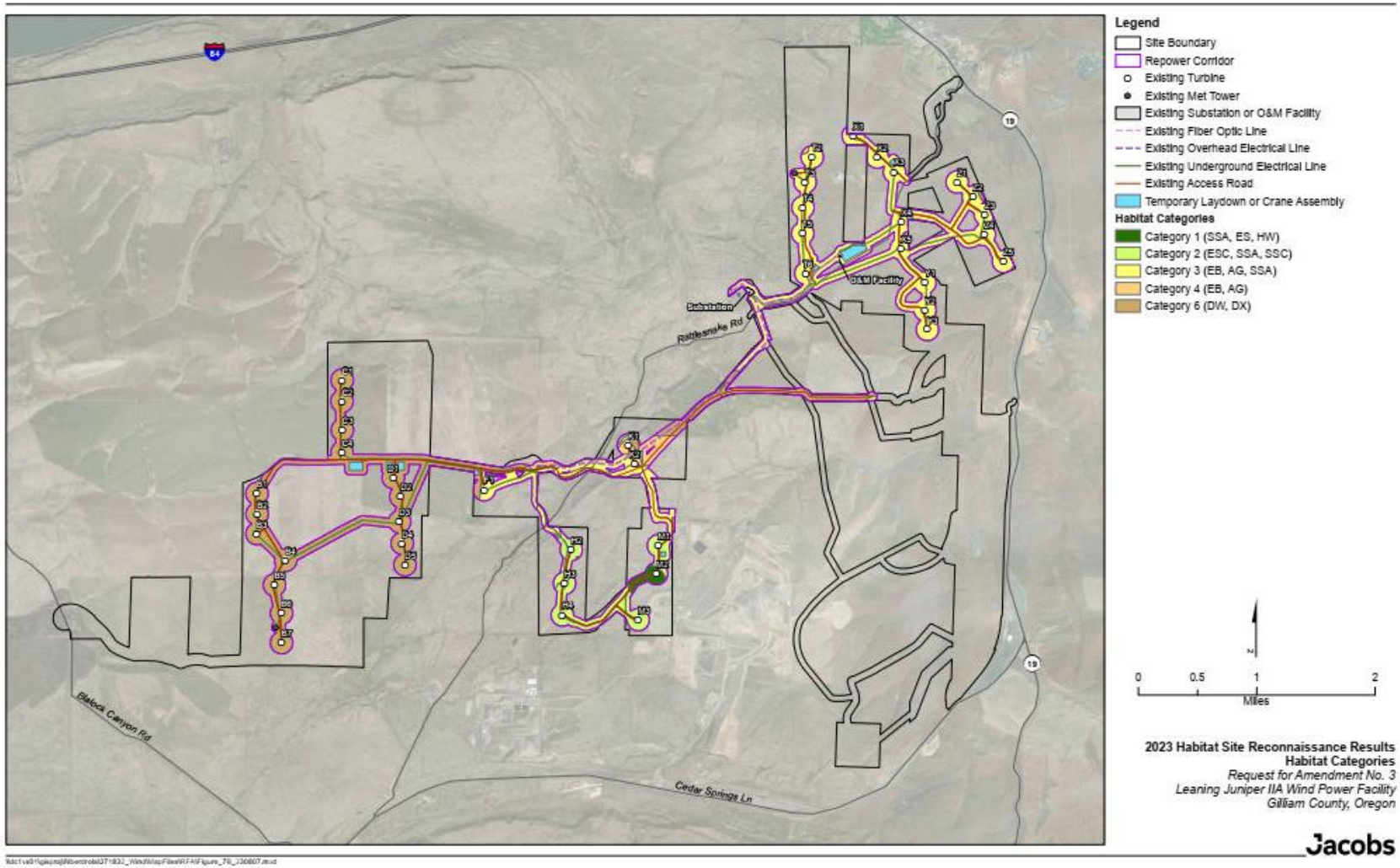
Notes:

1. In RFA3 Table 5-4, Category 1 WGS habitat is identified. The Department recommends Council find that the identified Category 1 WGS habitat be considered Category 2 WGS habitat, as presented in this table, consistent with ODFW's Habitat Mitigation Policy and habitat categorization. Category 2 is applied for all WGS habitat identified within the analysis area because the habitat has already been disturbed from facility development impacts and includes existing energy infrastructure and therefore does not meet the Category 1 habitat definition. See LJIIAAMD3Doc3-5 pRFA3 Reviewing Agency Comment ODFW 2023-12-06.

Source: LJIIAAMD3Doc7 Complete RFA_2024-02-14. Table 5-4.

1

Figure 9: Habitat Categories within Fish and Wildlife Habitat Analysis Area



III.H.1.3. Potential Impacts to Fish and Wildlife Habitat in RFA3 Analysis Area

The facility, with proposed RFA3 changes, will result in approximately 243.6 acres of temporary habitat impacts (Category 2, 3 and 4), as presented in Table 11; and approximately 54 acres of temporal habitat impacts, as presented in Table 12.[47]

Table 11: Estimated Temporary Habitat Impacts

ODFW Habitat Category	RFA3 Repower Corridor (Acres)	Temporary Impact (Acres)
2	183.0	44.2
3	746.9	186.7
4	51.4	12.7
6	581.9*	152.6
Non-Category 6 Totals	**981.3**	**243.6**

*Includes 0.78 acres of existing permanent facility footprint
Source: LJIIAAMD3Doc7 Complete RFA_2024-02-14. Table 5-4: Habitat in Repower Corridor and Estimated Area of Temporary Disturbance.

Table 12: Estimated Temporal Habitat Impacts

Habitat Category and Subtype[1]	RFA3 Repower Corridor (Acres)	Temporal Impacts (acres)
Category 2 SSA	138.0	36
Category 3 SSA	82.1	18
Total	**220.1**	**54**

Acronyms:
SSA = Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass
Notes:
1. Only habitats that would result in temporal impacts, and require compensatory mitigation, are included.

Sources: LJIIAAMD3 Complete RFA 2024-02-16 Table 5-4.

III.H.1.4. Habitat Mitigation and Recommended Conditions

Temporary habitat impacts will be mitigated through a Revegetation and Noxious Weed Control Plan, under Condition 82.

[47] Temporal loss refers to loss of habitat function and values from the time an impact occurs to the time when the restored habitat provides a pre-impact level of habitat function. Habitat subtypes identified within the survey area, including Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass are reasonably expected to require a longer restoration timeframe (5+ years) and therefore would be expected to result in temporal loss requiring compensatory mitigation beyond the certificate holder's revegetation obligation.

The Draft Repower Revegetation and Noxious Weed Control Plan is provided in Attachment F of this order. Actions proposed to achieve a no net loss and a net benefit in habitat quality for Category 2, and a no net loss in habitat quality for Categories 3 and 4 include:

- Seeding using a mix of Sandberg bluegrass, Sherman big bluegrass, Streambank wheatgrass, Thickspike wheatgrass and sand dropseed
- Noxious weed control
- Monitoring based on evaluation of results in paired monitoring and reference sites
- And, evaluation of results against success criteria (revegetated areas must have cover of 50% shrub component, 15% of which should be the dominant species found on reference site; cover of native and desirable species must be at least 85% similar to reference site; presence of noxious weeds must be equal or less than reference sites)

The Department conferred with ODFW on the success criteria and recommend Council found that the success criteria would ensure that the mitigation goals for Category 2 and 3 are met. The draft Repower Revegetation and Noxious Weed Control Plan, as provided in Attachment F of this order, includes several actions that apply prior to facility repowering, which should be completed and used to inform the adequacy of the success criteria at that time. The Department recommends that Council impose the following condition requiring that the draft Revegetation and Noxious Weed Control Plan be finalized prior to facility repower, and that the plan be implemented and adhered to during construction and the facility operational lifetime.

Recommended Fish and Wildlife Habitat Condition 109: Prior to the facility repower, the certificate holder shall finalize the Repower Revegetation and Noxious Weed Control Plan as provided in Final Order on Amendment 3 Attachment F, subject to approval by the Department in consultation with ODFW. Finalization includes selection of seed mix, predisturbance data collection, selection of monitoring and reference sites and final review of success criteria, as described in the plan.
[AMD3]

Recommended Fish and Wildlife Habitat Condition 123: During the facility repower, the certificate holder shall implement the Repower Revegetation and Noxious Weed Control Plan, as finalized under Fish and Wildlife Habitat Condition 109.
[AMD3]

The certificate holder proposes to mitigate temporal habitat impacts through a Habitat Mitigation Plan, as provided in RFA3 Attachment 13. The draft Habitat Mitigation Plan proposes to apply enhancement actions to existing lands secured within its habitat mitigation area (HMA), based on an acreage ratio of 0.5 acre for every 1 acre of Category 2 and 3 habitat (a 0.5:1 ratio). As presented above, the mitigation goal for Category 2 impacts requires no net loss and a net benefit in habitat quantity and quality. To achieve this goal for temporal habitat impacts, Council typically relies upon a mitigation ratio of 1:1. The Department recommends Council continue to rely on a 1:1 ratio for calculating mitigation needed to achieve Category 2 habitat mitigation goals. Based on this proposed methodology, the HMA would be required to

include 36 acres of Category 2 and 9 acres of Category 3 habitat as mitigation for temporal habitat loss (approximately 45 acres total secured in the HMA, depending on final repower impacts).

In the draft HMP, the enhancement actions proposed to achieve a net benefit and no net loss in Category 2 habitat impacts include: a 1-time herbicide treatment for annual grasses followed by reseeding of native grasses and forbs, if necessary, on up to 27 acres within the HMA with the goal of increasing native grass and forb percent cover and diversity. The Department presents its evaluation of whether the draft HMP demonstrates consistency with Category 2 and 3 habitat mitigation goals in the table below.

Table 13: Department's Evaluation of Whether RFA3 Habitat Mitigation Plan Achieves Category 2 and 3 Mitigation Goals

Habitat Category	Habitat Subtype	Temporary Impact (Acres)	Mitigation Goal	Mitigation/Success Criteria	Does the draft Repower HMP Meet Category 2 and 3 Mitigation Goals?
2	Sage-brush Rabbitbrush	36.1	Net benefit/No net loss	27 acres included in mitigation area; 27 acres to be treated and seeded	No, not for Category 2 impacts. Mitigation area should include 45 acres; treatment should apply to 45 acres. Yes, for Category 3.
3		18	No net loss		

In order for the draft Repower HMP to achieve the applicable mitigation goals, the Department recommends the following changes to the plan:

- Mitigation area must include 45 acres, or be based on a mitigation ratio of 1:1 for Category 2 SSA impacts
- Enhancement actions of treating and seeding shall apply to 45 acres, or as calculated prior to the repower based on final design, using the 1:1 acreage ratio for Category 2 SSA and 0.5:1 ratio for Category 3 SSA habitat categories/subtype

The draft Repower HMP, as provided in Attachment F of this order, includes several actions that apply prior to facility repowering, which should be completed and used to inform the adequacy of the proposed treatment, seeding, schedule and success criteria at that time. The Department recommends that Council impose the following condition requiring that the draft Repower HMP be finalized prior to facility repower, and that the plan be implemented and adhered to during construction and the facility operational lifetime.

The Department recommends that Council impose the following conditions:

Recommended Fish and Wildlife Habitat Condition 110: Prior to the facility repower, the certificate holder shall finalize the Repower Habitat Mitigation Plan as provided in Final Order on Amendment 3 Attachment E, subject to approval by the Department in

consultation with ODFW. Finalization shall be based on the pre-treatment baseline monitoring results to inform initial monitoring treatment actions and schedule; and establish success criteria.
[AMD3]

Recommended Fish and Wildlife Habitat Condition 124: During the facility repower, the certificate holder shall implement the Repower Habitat Mitigation Plan, as finalized under Fish and Wildlife Habitat Condition 110.
[AMD3]

III.H.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the existing and recommended new site certificate conditions described above, the Department recommends the Council find that the design, construction and operation of the facility, with the proposed RFA3 changes, are consistent with the mitigation goals and requirements of the Oregon Department of Fish and Wildlife's Fish and Wildlife Habitat Mitigation Policy under OAR 635-415-0025.

III.I. Threatened And Endangered Species: OAR 345-022-0070

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

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

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

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

(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.[48]

III.I.1. Findings of Fact

[48] OAR 345-022-0070, effective May 15, 2007.

As authorized under OAR 345-027-0360(3), the Department establishes the analysis area for the Threatened and Endangered (T&E) Species standard as 2,404 acres within and extending 1,000 feet of the proposed RFA3 repower corridor, within areas of suitable Washington Ground Squirrel (WGS) habitat.[49]

Threatened and Endangered Species with Potential to Occur the Analysis Area

Field surveys for WGS were completed by Jacobs in April and May 2023.[50]. WGS surveys were completed in two rounds (April 17–21 and May 15–23 of 2023) during the active squirrel season (March 1 to May 31) when WGS were most likely to be detected. Qualified biologists walked meandering transects spaced approximately 200 feet (60 meters) apart of the repower corridor and adjacent areas within the larger 2,404-acre WGS study area following the existing methods as outlined in the WMMP and used for operational surveys.

Category 1 habitat, based on the identification of one new active WGS colony, during 2023 surveys is within the proposed RFA3 repower corridor. The WGS colony contained approximately 20 burrows within a gently sloped landform surrounded by predominantly native grasses and forbs with a lower percent coverage of low shrubs.

Protection and Mitigation Measures

ODFW acknowledges the validity of WGS protocol-level survey results for a 3-year period. While the 2023 survey data may be relied upon in this order and will be valid through 2026, the Department and ODFW recommend preconstruction reverification (non protocol-level) surveys to validate presence or relocation of the WGS colony prior to the start of facility repower activities, as presented in recommended Threatened and Endangered Species Condition 111 below.

The certificate holder proposes to adhere to a 150-foot avoidance restriction around any WGS colonies identified during the pre-repower WGS surveys. ODFW concurs that a 150-foot buffer is adequate for protection of direct impacts. The Department recommends Council impose the following conditions to ensure avoidance of sensitive WGS habitat, and to protect known WGS burrows during preconstruction and construction of the facility repower:

[49] The Council's procedural requirements for site certificate amendments (OAR 345-027-0360(3) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The November 21, 2006 Amended Project Order establishes the analysis area as the area within the site boundary. As authorized under OAR 345-027-0360(3), following a pre-amendment conference on May 1, 2023, the Department approved a modified analysis area for the Threatened and Endangered Species standard based on the scope and extent of potential impacts associated with the proposed RFA3 changes.

[50] ODFW reviewed and approved the survey methodology before surveys were conducted (citing Cherry, pers. comm. 2023). LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 5 WGS Report Confidential. Page 2. 2023 Washington Ground Squirrel Surveys for Leaning Juniper IIA Wind Power Facility. Prepared by Jacobs.

Recommended Threatened and Endangered Species Condition 111: Prior to the facility repower, in areas of ground disturbance within 1,000-feet of previously identified WGS colonies (2023 Survey), the certificate holder shall perform WGS surveys (non-protocol, spot check) and update maps and flagging. Provide updated maps to the Department and ODFW and identify any significant change in previously identified WGS habitat. [AMD3]

Recommended Threatened and Endangered Species Condition 125: During the facility repower, certificate holder shall install flagging/temporary fencing extending 150-feet from any WGS colonies identified during the pre-repower WGS spot check (Threatened and Endangered Species Condition 111). Certificate holder shall require all onsite vehicles to adhere to a 20-mile speed limit.
[AMD3]

Council previously imposed Condition 88 requiring that the certificate holder obtain an Incidental Take Permit from ODFW, to address potential impacts to WGS. This condition continues to apply.

III.I.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with existing and recommended new site certificate conditions described above, the Department recommends the Council find that the design and operation of the facility, with the proposed RFA3 changes, are not likely to cause a significant reduction in the likelihood of survival or recovery of species listed as threatened or endangered by the Oregon Department of Agriculture or Oregon Fish and Wildlife Commission.

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

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

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

(3) A scenic resource is considered to be significant or important if it is identified as significant or important in a current land use management plan

*adopted by one or more local, tribal, state, regional, or federal government or agency. * * **[51]

III.J.1. Findings of Fact

The analysis area for scenic resources is the area within and extending 10 miles from the site boundary. Based on review of the local, state and federal plans within the analysis area, there are three significant or important scenic resources within the analysis area, as presented in Table 14 below.

Table 14: Significant or Important Scenic Resources within Analysis Area

Name of Scenic Resource	Manager and Management Plan	Distance/Direction	Previously Evaluated by Council? Y/N
John Day State/Federal Wild and Scenic River	BLM Prineville Dist. *John Day Basin Record of Decision and Resource Management Plan, Wild and Scenic River Designation*	5.1 miles/NW	Yes – requires no further evaluation
Blue Mountain Scenic Byway	U.S. Forest Service *Umatilla National Forest Management Plan*	6.4 miles/E	No – see evaluation
Cottonwood Canyon State Park	Oregon Parks and Recreation Department *Cottonwood Canyon State Park Comprehensive Plan Scenic Resources Management*	8.9 miles/SW	No – see evaluation

III.J.1.1. Important Scenic Resources in the Analysis Area and Potential Impacts

Blue Mountain Scenic Byway

The Blue Mountain Scenic Byway, designated in 1989 under the National Scenic Byway Program, allows east-west travelers an alternative route between the Columbia River near Arlington and Baker City, Oregon. Portions of this scenic byway cross through lands managed by the Umatilla National Forest and is included as a scenic resource in the Umatilla National Forest's Management Plan. The byway provides a seasonal route between Arlington and Baker City, spanning 130 miles of paved, two-lane road, crossing Morrow and Umatilla counties in northeast Oregon. The byway contains a variety of scenery along with historic sites and recreation opportunities at various points along the byway. The byway is designated in the plan as providing natural and scenic views[52]. The nearest point to the facility is approximately 6.6

[51] OAR 345-022-0080, effective December 19, 2022.

[52] Umatilla National Forest. Blue Mountain Scenic Byway. Available online at: https://www.fs.usda.gov/recarea/umatilla/recarea/?recid=56909 Accessed by the Department: 2023-12-28.

miles away. Figure 10 below shows the location of the segment of the byway that falls within the 10-mile analysis area for this standard. Based upon topography, distance and intervening vegetation and landforms, the visual impact assessment submitted with RFA3 shows that the facility will not be visible from the portions of the scenic byway that fall within the analysis area.

Potential Impact of Facility Structures

At 6.4 miles or more from the facility the visual impact assessment conducted by the certificate holder for RFA3 (See Figure 11 below) shows that the facility will not be visible from this scenic resource. For these reasons, the Department recommends that the Council find that RFA3 repower activities will not have a significant visual impact on this scenic resource.

Potential Visual Impact of Loss of Vegetation

No vegetation removal is proposed in RFA3 that would result in a loss of vegetation that would alter the visibility of the facility from this scenic resource. At 6.4 miles, the existing vegetation and its ability to block views of facility structures will not be impacted from current conditions.

For these reasons, the Department recommends that Council find that RFA3 repower activities will not have a significant visual impact on this scenic resource, nor will repower activities result in a loss of vegetation that would make the facility visible from this scenic resource.

<u>Cottonwood Canyon State Park</u>

Cottonwood Canyon State Park was created in 2013 and is managed by the Oregon Parks and Recreation Department (OPRD) under the Cottonwood Canyon State Park Comprehensive Management Plan (2011). The park encompasses over 8,000 acres along Cottonwood Canyon and within the John Day watershed and provides visitor access for a range of outdoor recreational activities including hiking, camping, wildlife viewing, hunting, fishing, boating, and river access, picnicking, mountain biking and horseback riding on designated multi-use trails. Scenic and natural resources within the park are part of the management plan and values to protect and enhance the natural landscape within the park management area and includes management goals for recreation, interpretation, and important views and viewpoints.[53] This park is also included and evaluated under the Protected Areas standard (See Section III.F, *Protected Areas*).

Potential Visual Impact of Facility Structures

[53] Oregon Parks and Recreation Department. Cottonwood Canyon State Park Comprehensive Plan. 2011. Page 78. Available online at: https://cottonwoodcanyon.files.wordpress.com/2011/07/cottonwood_canyon_20110712_low.pdf Accessed by the Department: December 28, 2023.

At 8.9 miles from the facility the visual impact assessment conducted by the certificate holder for RFA3 (See Figure 11 below) shows that the facility will be visible from some locations within the park, but those visual impacts will not change from current conditions of the existing facility. Because RFA3 repower activities will not change the previously approved height or location of wind turbines, or other related components and the park was established after the construction of the existing facility, the Department recommends Council find that RFA3 activities will not result in any change from current conditions with regards to visibility of structures.

Potential Visual Impact of Loss of Vegetation

No vegetation removal is proposed in RFA3 that would result in a loss of vegetation that would alter the visibility of the facility from this scenic resource. At 8.9 miles, the existing vegetation and its ability to block views of facility structures will not be impacted from current conditions.

For these reasons, the Department recommends that Council find that the facility, with proposed RFA3 changes, will not have a significant visual impact on this scenic resource, nor will repower activities result in a loss of vegetation that would alter current visibility from some locations throughout the park.

Figure 10: Important or Significant Scenic Resources within Analysis Area

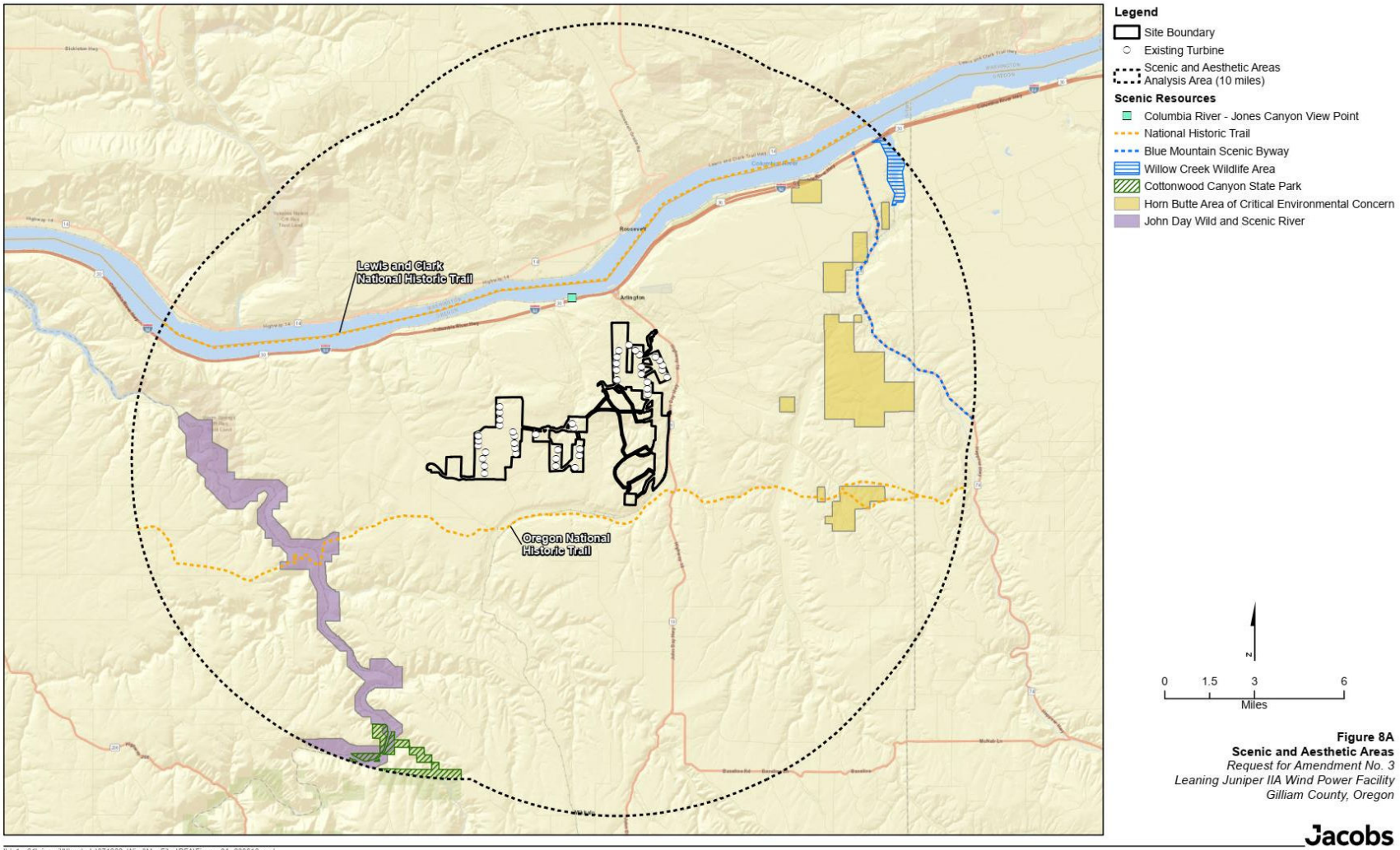
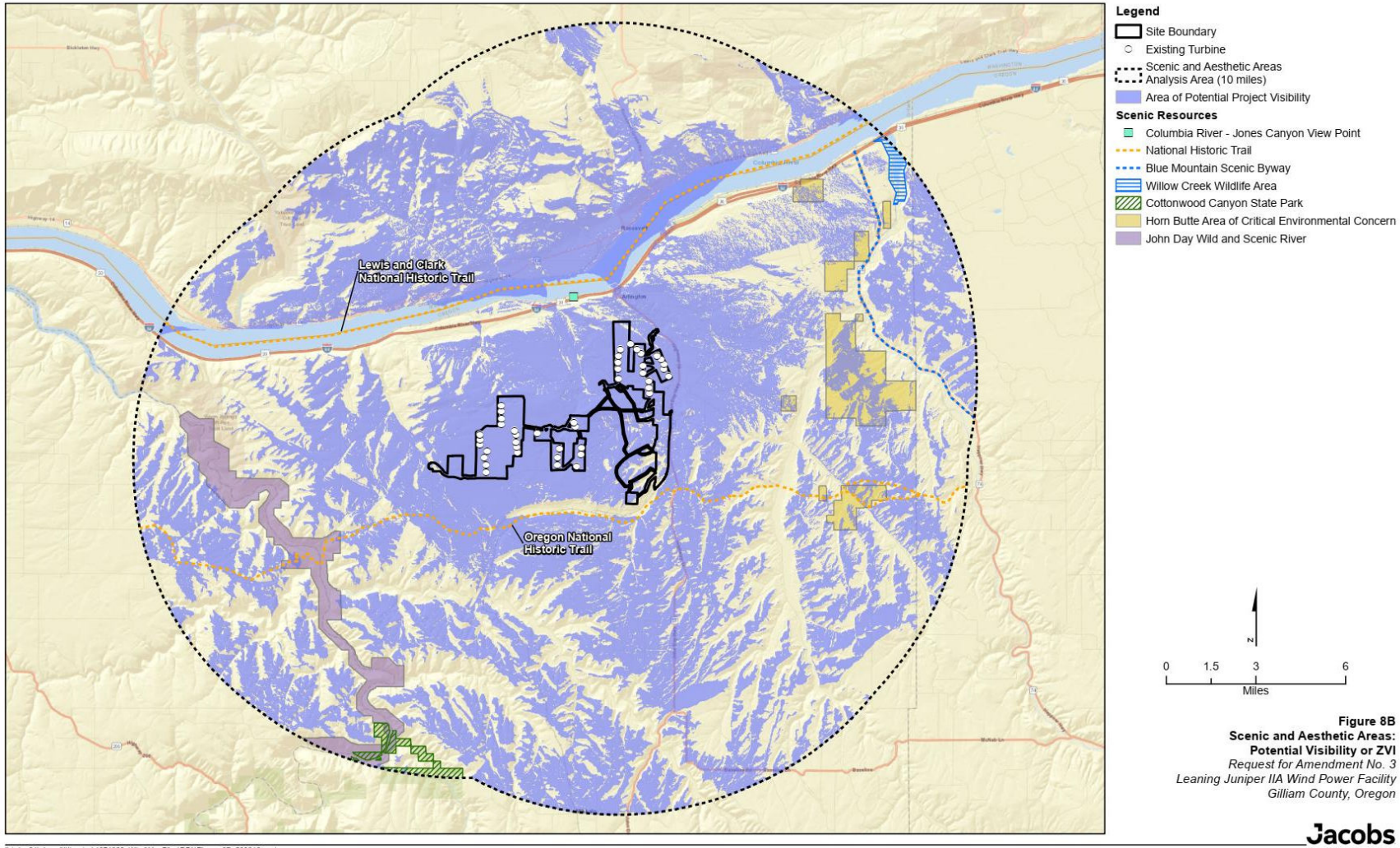


Figure 11: Visual Impact Assessment for Important or Significant Scenic Resources in Analysis Area



Potential Impact of Loss of Vegetation

No vegetation removal is proposed in RFA3 that would result in a loss of vegetation that would alter the visibility of the facility from this scenic resource. At 6.4 miles, the existing vegetation does not significantly alter the natural landscape features that currently block views of facility structures from the byway. For these reasons the Department recommends that Council find that RFA3 repower activities will not result in a loss of vegetation that could block views of the facility from the byway.

III.J.2. Conclusions of Law

Based on the foregoing recommended findings of fact, the Department recommends Council find that the facility, with the proposed RFA3 changes, will continue to comply with the Council's Scenic Resources standard.

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

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

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

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

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

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

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[54]

[54] OAR 345-022-0090, effective May 15, 2007, amended by minor correction filed on July 31, 2019.

III.K.1. Findings of Fact

As authorized under OAR 345-027-0360(3), the Department establishes the analysis area for the Historic, Cultural and Archaeological Resources standard as the area within and extending 0.25-mile from the proposed RFA3 repower corridor.[55] Resources evaluated within the analysis area include archeological sites (ORS 358.905(1)(c)), archeological objects (ORS 358.905(1)(a)) and any historic, cultural or archeological resource listed or likely eligible for listing on the National Register of Historic Places (NRHP).

The Legislative Commission on Indian Services identified the Confederated Tribes of the Warm Springs Indian Reservation of Oregon (CTWSRO), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), and the Burns Paiute Tribe as culturally affiliated and potentially affected by the proposed RFA3 changes pursuant to OAR 345-001-0010(51)(o). The Department coordinated with these tribes on review of the proposed RFA3 changes.[56]

III.K.1.1. <u>Discovery Methods and Results</u>

The following databases and resources were reviewed to identify previous surveys and recorded resources within the analysis area:

- SHPO's Oregon Archeological Records Remote Access
- SHPO's Oregon Historic Sites Database
- Oregon Historic Trails website
- Historic maps and aerial photographs (including 1867 U.S. General Land Office plats for Gilliam County; 1934 Gilliam County Atlas)

Review of the above-referenced sources identified eleven (11) previous studies that overlap with the proposed RFA3 repower corridor including: 9 pedestrian surveys, 1 controlled excavation for the evaluation of a site, and 1 ethnographic study.

Intensive pedestrian field surveys were conducted on June 6 and 10, July 10 and 13, August 11 and November 6, 2023, covering 1,653 acres and following SHPO guidelines.[57] Seven previously

[55] The Council's procedural requirements for site certificate amendments (OAR 345-027-0360(3) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The November 21, 2006 Amended Project Order establishes the analysis area as the area within the site boundary. As authorized under OAR 345-027-0360(3), following a pre-amendment conference on May 1, 2023, the Department approved a modified analysis area for the Historic, Cultural and Archeological Resources standard based on the scope and extent of potential impacts associated with the proposed RFA3 changes.

[56] LJIIAAMD3Doc3, Doc3-1 pRFA receipt Notice 2023-09-29.

[57] The entire site boundary was surveyed in 2004, 2005, 2006 as part of the original 2007 LJII Application for Site Certificate. These surveys included what is now the LJWIIA site boundary. Multiple surveys have been conducted within the RFA3 repower corridor as part previous evaluations by Council: Ballantyne and McClintock (2005), McClintock (2006a), McClintock (2006b), McClintock and Sharp (2009), Wilt and McClintock (2011).

recorded sites (35GM137, 35GM140, 35GM372, 35GM373, 35GM375, 35GM388, LJ-S-2) in or near the proposed RFA3 repower corridor were revisited and assessed for general condition and potential NRHP eligibility. The site boundary of 35GM373 overlaps with the proposed RFA3 repower corridor; therefore, six shovel test probes were excavated to confirm the resource site boundary. RFA3 field surveys also attempted to locate the four previously recorded isolates in the proposed RFA3 repower corridor (Isolates: 43-2-IF, 46-2-IF, 549-1-IF, and 551-1-IF). Only one, 43-2-IF, a historic fence line, was located.

Resources identified during the 2023 literature and field surveys, and potential impacts to those recommended as likely NRHP-eligible, are presented in Table 15 below.

1

Table 15: Historic, Archaeological and Cultural Resources within Analysis Area

Resource Type	Site or Resource #	NRHP Status/ Recommended NRHP Eligibility	Potential Impacts/Avoidance Measure	Resource Type (a, b)[1]
Historic site – Homestead and debris scatter	35GM137 (aka LJ-S-1)	Not eligible	NA	NA
Stacked Rock Feature – Possible precontact and/or historic site	35GM140 (aka LJ-S-3)	Unevaluated/Likely NRHP-Eligible	No	(a), (b)
Historic site- Fence	35GM372	Not eligible	NA	NA
Historic site – Ranch or homestead	35GM373	Unevaluated/ Likely or potentially eligible	Yes, 100-foot avoidance buffer	(a), (b)
Historic site - Refuse scatter	35GM375	Unevaluated/Likely NRHP-Eligible	No	(a), (b)
Historic site - Refuse scatter w Depressions	35GM388	Unevaluated/ Likely NRHP-Eligible	Yes, 100-feet avoidance buffer	(a), (b)
Historic site - Refuse scatter, foundation and pits	LJ-S-2	Unevaluated/ Likely NRHP-Eligible	No	(a), (b)
Historic Isolate - glass fragment	43-1-IF	Not eligible	No	NA
Historic Isolate – fenceline	43-2-IF	Not eligible	No	NA
Historic Isolate – cast iron cog/gear	46-2-IF	Not eligible	No	NA

Table 15: Historic, Archaeological and Cultural Resources within Analysis Area

Resource Type	Site or Resource #	NRHP Status/ Recommended NRHP Eligibility	Potential Impacts/Avoidance Measure	Resource Type (a, b)[1]
Historic Isolate – 6 milk glass fragments	549-1-IF	Not eligible	No	NA
Historic Isolate – 1 fuel can	551-1-IF	Not eligible	No	NA
Historic Structure – Hay Cover	-	Not-likely NRHP Eligible	No	NA
Historic Structure - BPA Slat-John Day No. 1 Transmission Line	-	NRHP Eligible	No	(a)
Historic Structure - BPA Morrow Flat-Jones Canyon No. 1 Transmission Line	-	NRHP Eligible	No	(a)
Historic Structure - BPA Jones Canyon-Santiam No.1 Transmission Line	-	NRHP Eligible	No	(a)
Historic Structure - BPA Ashe-Marion No. 2 Transmission Line	-	NRHP Eligible	No	(a)

Notes:
"shaded" cells represent likely NRHP-resources with site boundaries within the proposed RFA3 repower corridor.
Resource definition:
(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;
(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c).

1

III.K.1.2. Applicable Conditions and Recommended Amended Site Certificate Conditions

As presented above, two archeological sites (35GM373 and 35GM388) are recommended as likely NRHP eligible. The certificate holder agrees to avoid direct impacts by installing flagging to demark and support avoidance of direct impacts to the resource during ground disturbing activities. SHPO concurs that the avoidance buffer will ensure that there are no effects to the historic properties.[58] The Department recommends Council impose the following conditions:

> **Recommended Historic, Cultural, and Archaeological Resources Condition 112:** Prior to disturbance within 200-feet of recorded sites 35GM373 and 35GM388, the certificate holder shall install flagging extending 100-feet from the site boundaries, excluding areas that extend to existing roads.
> [AMD3]
>
> **Recommended Historic, Cultural, and Archaeological Resources Condition 126:** During the facility repower, the certificate holder shall prohibit ground disturbance within 100-feet from the site boundaries of 35GM373 and 35GM388; the 100-foot buffer does not apply to existing roads. Flagging shall be maintained to protect the resources. Sensitive resource maps identifying the resource location and avoidance area shall be maintained onsite and provided to contractors.
> [AMD3]

All projects must have a plan for inadvertent discovery. RFA3 Attachment 16, Attachment D provides an Inadvertent Discovery Plan (IDP), consistent with SHPO's current template. The Department recommends Council impose the following condition to require update/finalization of contact information and implementation of the IDP during repower construction and O&M.

> **Recommended Historic, Cultural, and Archaeological Resources Condition 113:** Prior to the facility repower, the certificate holder shall review/update the contact information presented in Section 2.1.2 (No. 4) of the Inadvertent Discovery Plan (IDP).
> [AMD3]
>
> **Recommended Historic, Cultural, and Archaeological Resources Condition 118:** The certificate holder, and any onsite contractors, shall adhere to the requirements of the Inadvertent Discovery Plan. The IDP Section 2.1.2 (No. 4) shall be reviewed and updated annually, as applicable.
> [AMD3]

III.K.2. Conclusions of Law

[58] LJIIAAMD3Doc3-6 SHPO Response Letter Case Nbr 23-1643 2023-12-19.

Based on the foregoing recommended findings of fact, and subject to compliance with recommended conditions described above, the Department recommends the Council find that the design and operation of the facility, with the proposed RFA3 changes, are not likely to result in significant adverse impacts to historic, cultural or archaeological resources that have been listed on, or would likely be listed on the NRHP or other archaeological objects or sites identified under OAR 345-022-0090.

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) Outstanding or unusual qualities;

(d) Availability or rareness;

*(e) Irreplaceability or irretrievability of the opportunity. * * * **[59]

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.

Council has previously evaluated the facility for important recreational opportunities and potential impacts under this standard and found that the facility, as currently approved and constructed, would not have a significant impact on any important recreational opportunities in the analysis area.[60] In the *Final Order on ASC*, the Council found that there was only one recreational opportunity that would be considered important within the analysis area for this standard, the Oregon National Historic Trail (ONHT). Council additionally found that no important recreational opportunities existed within the facility site boundary. In the *Final Order on ASC*, the Council found that the design, construction and operation of the facility would not

[59] OAR 345-022-0100, effective December 19, 2022.

[60] LJW Final Order on ASC (2007), Final Order on Request for Amendment 1 (2009) and Final Order on Request for Amendment 2 (2013). Available at: https://www.oregon.gov/energy/facilities-safety/facilities/Pages/LJA.aspx

be likely to result in a significant adverse impact on any important recreational opportunity in the analysis area. The Department reviewed the updated information provided in RFA3 and identified one new important recreational opportunity within the analysis area not already evaluated by Council in the *Final Order on ASC* or subsequent Amendments 1 or 2, as presented in the table below.

Table 16: Important Recreational Opportunities within Analysis Area

Recreational Opportunity	Distance and Direction from Site Boundary	Special Designation/ Management	Degree of Demand	Outstanding/ Unusual Recreational Quality	Availability/ Rareness	Irreplaceable/ Irretrievable
Oregon National Historic Trail	1.4 miles South	National Trails Act, National Historic Trail, National Park Service Management	Low to moderate	Historic and scenic trail	Relatively rare	Relatively irreplaceable
Lewis and Clark National Historic Trail	2.2 miles North	National Trails Act, National Historic Trail, National Park Service Management	Low to moderate	Historic and scenic trail	Relatively rare	Relatively irreplaceable

In RFA3, the certificate holder identified a previously unevaluated segment of the Lewis and Clark National Historic Trail in the 5-mile analysis area. Both resources are also evaluated under the Protected Areas and Scenic Resources sections of this order. The two trails are intermittent, discontinuous and extensive historic trail alignments that follow the approximate routes used by the Oregon Wagon Trail and the Lewis and Clark Expedition. They cross multiple states and jurisdictions and range of ownerships. Both historic trails are managed for historic, scenic and recreational values and are important recreational opportunities under this standard. While rare and likely irreplaceable resources, the segments that cross through the 5-mile analysis area under this standard represent a small percentage of the larger trail alignments.

Oregon National Historic Trail Segment

The one previously evaluated important recreational opportunity is a segment of the Oregon National Historic Trail (ONHT) which trends east-west south of the facility site boundary approximately 1.4 miles away at its closest point. (See Figure 12 below). The ONHT is managed by the National Park Service (NPS), Council previously evaluated the potential impacts to the ONHT under this standard in the *Final Order on ASC* and found there would be no significant impacts to this recreational opportunity because of the construction or operation of the facility.

Lewis and Clark National Historic Trail Segment

The Lewis and Clark National Historic Trail is a discontinuous trail that spans 16 states, multiple jurisdictions, across 4,900 miles of the country from Pennsylvania to the Pacific Ocean and commemorates the routes taken by the Lewis and Clark Expedition between 1803-1806 (See Figure 12 below). It is managed by the NPS under the Lewis and Clark National Historic Trail Comprehensive Management Plan (NPS 1982) and subsequent Foundation Document (2012). A segment of the trail runs east-west north of the facility boundary, and is mapped along the center of the Columbia River, where the expedition traversed the area by boat. At its nearest point, this trail is approximately 2.2 miles north of the existing facility.

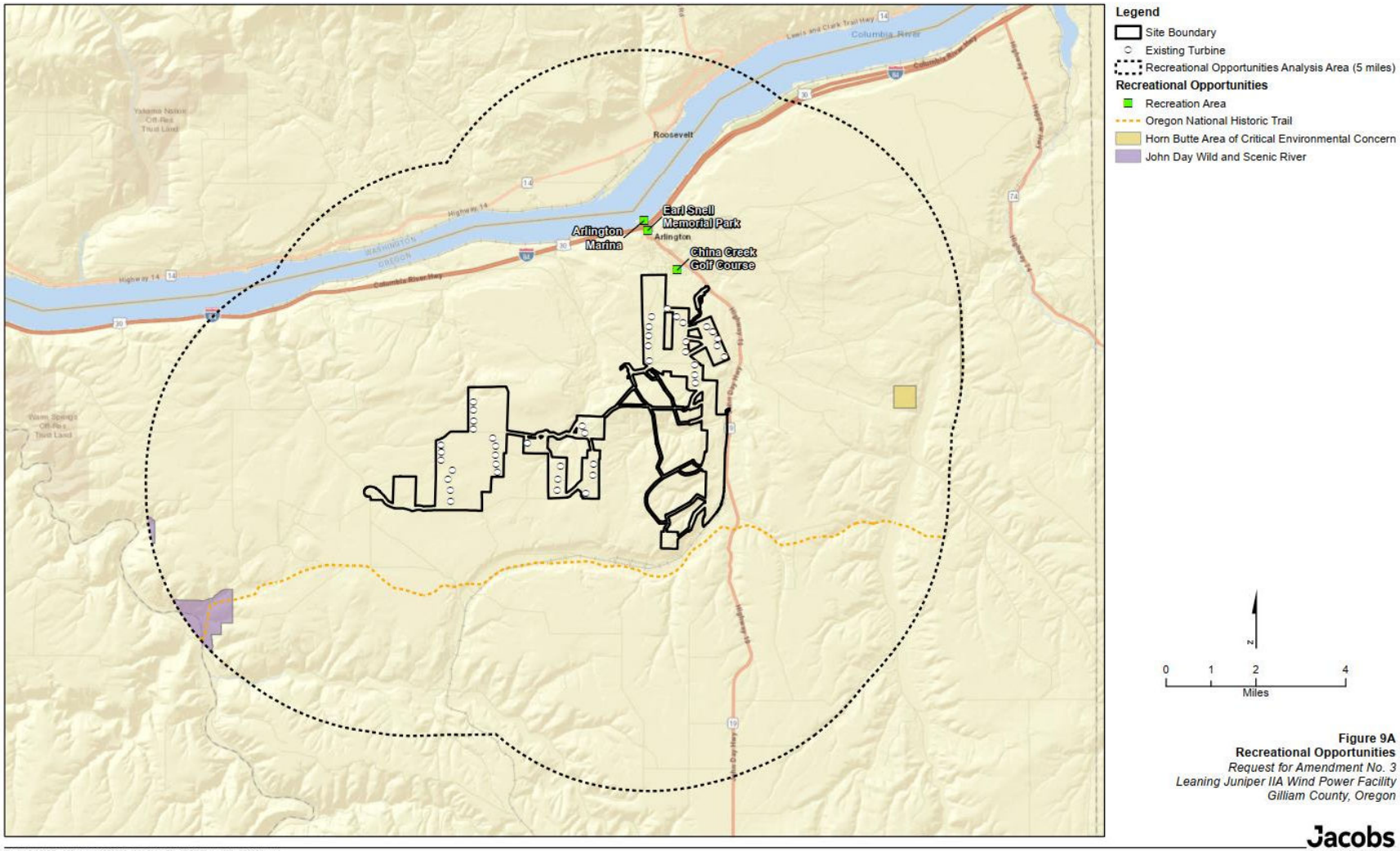
Like the ONHT, the trail is an important recreational opportunity under this standard. Because this historic river trail segment was not previously evaluated under this standard, the Department reviewed the RFA3 information, additional NPS information, and visual impact assessment submitted with RFA3, and Council's prior evaluations and findings in the *Final Order on ASC*, and the Final Orders on Amendments 1 and 2.

Potential Indirect Impacts

The visual impact assessment submitted as part of RFA3 shows that while facility may be visible from the Columbia River along portions of this river corridor/ trail alignment within the 5-mile analysis area, it will not be visible from most of this trail alignment from the river, which extends both upstream and downstream of the analysis area (See Figure 12). Based on this visual impacts map, the existing facility is visible from portions of this river corridor, however, the impacts are similar, and at a greater distance, to those previously evaluated by Council for the ONHT for which the Council found while also an important recreational opportunity, there was no significant impact as result of the construction and operation of the facility. RFA3 activities will not impede traffic, access or use of this portion of the historic trail alignment within the Columbia River. Due to its location on the Columbia River waterway, any noise from the RFA3 activities is unlikely to be audible from this portion of the historic trail alignment.

Council has previously found that potential facility impacts (visual, noise and traffic) to a similar and comparable recreational opportunity, the ONHT segment, located at a closer distance to the facility than the Lewis and Clark trail segment, were not significant. For all of these reasons, the Department recommends that Council find that the facility, with RFA3 proposed changes, will not have a significant impact on this additional recreational opportunity.

Figure 12: Important Recreational Opportunities within Analysis Area



Direct Loss to Recreational Opportunities

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

Indirect Loss to Recreational Opportunities

An indirect loss to a recreational opportunity occurs when construction or operation of the facility impacts access or use of a resource due to increased noise, traffic, visual impacts, or other reasons. RFA3 repower activities would not result in any new or additional indirect facility impacts not previously identified and evaluated by Council under this standard. While RFA3 has identified an additional recreational opportunity not previously evaluated within the analysis area, the Department has provided the evaluation of this resource above and recommends that Council find that the facility, with proposed RFA3 changes, will not significantly impact any important recreational opportunities within the analysis area.

III.L.2. Conclusions of Law

The Department recommends Council continue to find that the facility, with the changes proposed in RFA3, would not likely result in significant adverse noise, visual or traffic impacts to any important recreational opportunities within the analysis area. The Department also recommends Council continue to find that the facility, with the changes proposed in RFA3, is not likely to result in significant adverse traffic impacts to any important recreational opportunities. Based on these findings, the Department recommends the Council continue to find that the facility, with the changes proposed in RFA3, complies with the Council's Recreation Standard.

III.M. Public Services: OAR 345-022-0110

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

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

(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[61]

III.M.1. Findings of Fact

Sewage, Stormwater and Solid Waste

The facility, with proposed RFA3 changes, will not result in connection or use of any public sewer/sewage treatment facility or stormwater management system. Therefore, the Department recommends Council find that the facility, with proposed RFA3 changes, would not be likely to have a significant adverse impact on providers of sanitary sewer and sewage treatment services.

Solid waste generated during the proposed facility repower will be recycled to the maximum extent practicable. As described in Section III.O *Waste Minimization*, the Department recommends Council impose Waste Minimization Condition 131 requiring that the certificate holder recycle turbine parts removed during repower activities to the maximum extent practicable. Based on compliance with the recommended Waste Minimization Condition 131 the Department recommends Council find that the facility, with proposed RFA3 changes, would not be likely to have a significant adverse impact on providers of solid waste services.

Water

The certificate holder anticipates needing up to 35 million gallons of water during facility repower, primarily for dust control and concrete mixing.[62] Water will likely be obtained from the City of Arlington (City) via truck. RFA3 Attachment 18 provides a November 9, 2023 letter from City of Arlington Public Works Superintendent, Shanna Gronquist, confirming a reasonable ability to provide up to 35 million gallons of water for dust suppression. Based on the evidence provided in RFA3 Attachment 13 from the City of Arlington, the Department recommends Council find that the facility, with proposed RFA3 changes, would not be likely to have a significant adverse impact on water service providers.

Schools, Housing, Fire Protection and Health Care

The facility repower will result in up to 235 temporary workers coming from outside the local area and assumed they would have an average household size of 2.0 persons, resulting in up to

[61] OAR 345-022-0110, effective April 3, 2002.

[62] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.

470 temporary residents over an anticipated 12 month repowering schedule.[63] Impacts to schools are not expected because workers are not expected to re-locate their families and temporarily utilize local schools.

Arlington has three hotels, Boardman has six hotels, Hermiston has nine hotels and Goldendale has seven hotels. Dufur and Morro each have one hotel and Biggs Junction has three hotels. Airbnb identified up to 107 rentals in the Arlington area. Multiple commercial RV parks are also located in the region. When other nearby wind power projects were constructed, some of the construction crews were housed in an RV park in Wasco.[64] Gilliam County confirmed that, based on recent Avangrid-projects within the county, temporary impacts to housing are not expected to result in a significant impact to housing services.[65] Based on the availability of local housing options and Gilliam County comments, the Department recommends Council find that the facility, with proposed RFA3 changes, would not be likely to have a significant adverse impact on temporary housing services.

Facility repower could result in increased onsite fire risk. As evaluated in Section III.N *Wildfire Prevention and Risk Mitigation*, the certificate holder would be required to implement a Repower WMP and a long-term operational WMP intended to address wildfire risk from the facility through inspections and vegetation management. Based on compliance with recommended Wildfire Prevention and Risk Mitigation Conditions 116, 128, and 130, the Department recommends Council find that the facility, with proposed RFA3 changes, would not be likely to have a significant adverse impact on fire protection providers.

Council previously imposed Condition 66 requiring that contractors develop and adhere to health and safety plans, and that the contractors have onsite employees that are trained and equipped with tower rescue and certified in first aid and CPR. The Department recommends Council find that this condition applies to the facility repower and is adequate to ensure that impacts to health care service providers would not likely be significant.

Police and Traffic Safety

Facility repower will result in short-term increases in traffic volume and road wear on state and local roads including I-84, OR 19, and Rattlesnake Road. Increases in traffic volume could have an impact on police resources and on traffic safety.

To address impacts to police resources that may be impacted by increased patrolling needs in proximity to the facility site, as a result in the increase in population from temporary workers, the Department recommends Council impose the following condition to require the certificate holder coordinate/notify local police services of the repower and expected increased vehicular.

[63] Final Order on the Application (9-21-2007), pp. 107-108. Available at: https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2007-09-21-LJIIA-Final-Order.pdf

[64] LJIIAMD3 Complete RFA 2024-02-16. Section 5.14, page.5-30.

[65] LJIIAMD3 pRFA3 Reviewing Agency Comments Gilliam County. 2024-02-06.

Recommended Public Services Condition 114: Prior to the facility repower, the certificate holder shall notify local police services of the schedule and expected number of temporary workers and traffic volume to result from repower activities. [AMD3]

To address local traffic safety impacts, the Department and Gilliam County Planning Department recommend Council impose the following conditions which require the certificate holder execute a Road Use Agreement with the County to ensure that all damages resulting from facility repower are repaired.[66]

Recommended Public Services Condition 115: Prior to the facility repower, the certificate holder shall execute a Road Use Agreement with the Gilliam County Public Works Department. [AMD3]

Recommended Public Services Condition 119: During and post-facility repower, as applicable, the certificate holder shall adhere to the terms and conditions of the Road Use Agreement. [AMD3]

The Department recommends Council find that, based upon compliance with the above-recommended conditions, impacts to police services from the facility, with proposed RFA3 changes, would not likely be significant.

Air Traffic Safety

RFA3 Attachment 19 includes determinations from the Oregon Department of Aviation (ODAv), dated September 26, 2023, for 43 wind turbines. The determinations are based on ODAv's completion of an aeronautical study and conclude that the repowered turbines are not hazards or obstructions to the imaginary surface as set forth in Federal Aviation Administration FAR 77.

Based on RFA3 Attachment 19 affirming that the proposed repowered turbines would not be a hazard, the Department recommends Council find that impacts to air traffic from the facility, with proposed RFA3 changes, would not likely be significant.

III.M.2. Conclusions of Law

For the foregoing reasons, and subject to recommended conditions presented in the above section, the Department recommends Council find the facility, with proposed RFA3 changes, would not have a significant adverse effect on the ability of public and private providers within

[66] LJIIAMD3Doc3-3 pRFA3 Reviewing Agency Comment Gilliam County 2023-10-03. See Attachment B for complete copy of Gilliam County comments.

the analysis area to provide public services to the facility and, therefore, the certificate holder meets Council's Public Services standard in OAR 345-022-0110.

III.N. Wildfire Prevention and Risk Mitigation: OAR 345-022-0115

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(3) This Standard does not apply to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 on or before the effective date of this rule.[67]

III.N.1. Findings of Fact

The Council adopted the Wildfire Prevention and Risk Mitigation standard on July 29, 2022, after approval of the site certificate and past site certificate amendments. Compliance with the standard has, therefore, not previously been evaluated by Council and is applicable to the proposed RFA3 changes.

III.N.1.1. Characterization of Wildfire Risk within Analysis Area

Data from the following three sources was used to evaluate wildfire risk including consideration of site topography, vegetation, existing infrastructure, regional climate, and burn probability within the analysis area:[68]

- Oregon Community Wildfire Planning Tool (CWPP)[69]
- Oregon Wildfire Risk Explorer[70]

[67] OAR 345-022-0115, effective July 29, 2022.
[68] LJIIAAMD3Doc7 Complete RFA_2024-02-14 Section 5.
[69] Oregon Community Wildfire Protection Plan Planning Tool. Available at: https://tools.oregonexplorer.info/oe_htmlviewer/index.html?viewer=wildfireplanning Accessed by the Department on 2024-02-13.
[70] Oregon Wildfire Risk Explorer. Available at: https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=wildfire Accessed by the Department on 2024-02-13.

- The Gilliam County Multiple-Jurisdictional Natural Hazards Mitigation Plan Baseline[71]

The Department recommends Council find that these are reliable data sources to identify and characterize wildfire risk at the site.

III.N.1.2. Baseline Wildfire Risk: OAR 345-022-0115(1)(a)(A)

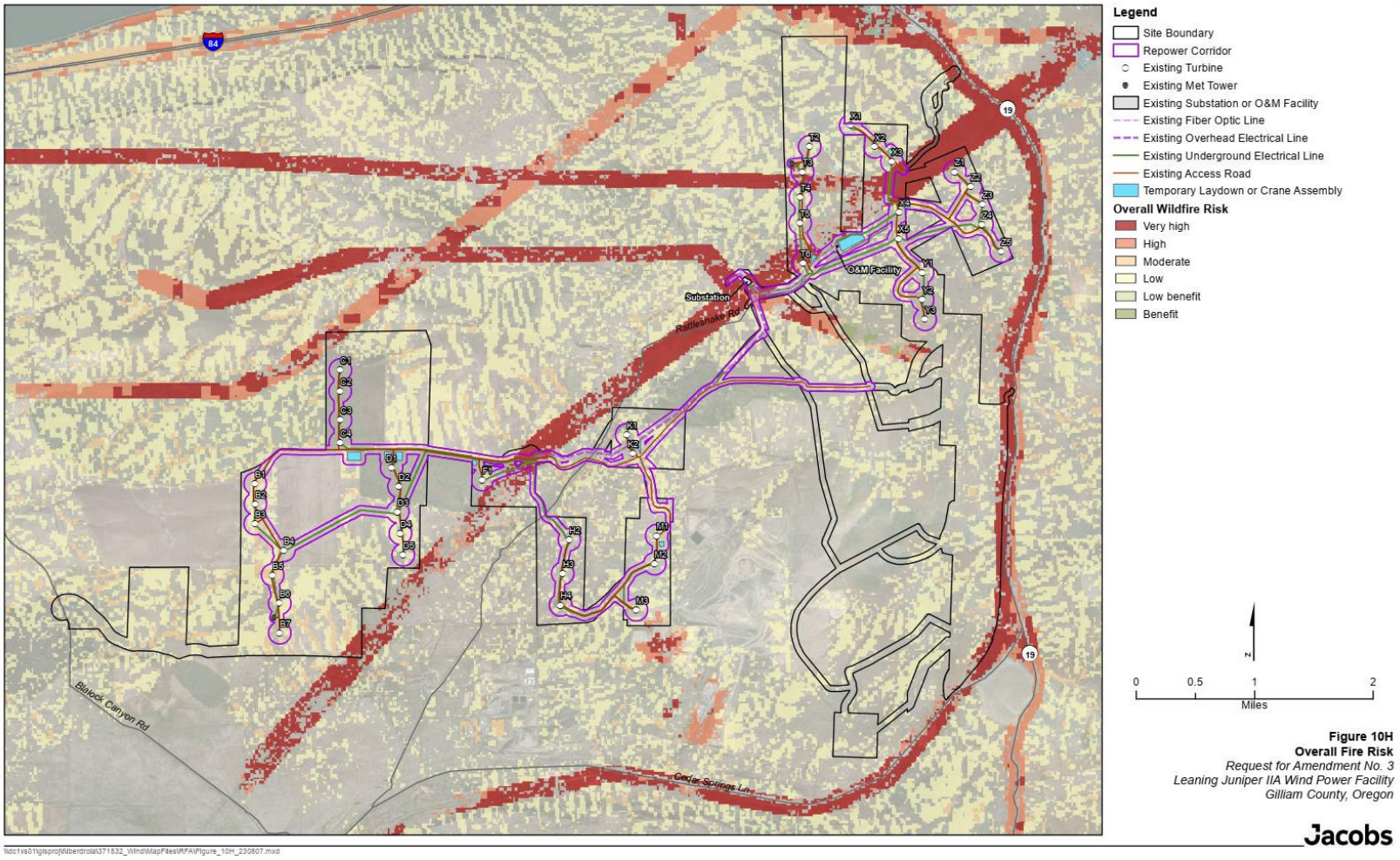
Data from the Oregon Community Wildfire Protection Plan (CWPP) Planning Tool was used to assess overall wildfire risk at the site, as presented in Figure 13 below.[72] Based on the CWPP Planning Tool, approximately 5 percent of the total acreage within the site boundary has a very high/high wildfire risk, and approximately 95 percent of the site boundary has a low wildfire risk. Areas of low and high risk are dispersed throughout the site boundary (see RFA3 Figures 10C, 10D, 10E, 10F, 10G). The areas of very high risk are attributed to the BPA Slatt-Buckley 500 kV transmission line that crosses the site boundary and that risk is associated with vegetation, existing residential and commercial structures, and the seasonal extremely dry climate. Other areas with high risk to assets identified include areas with developed infrastructure along John Day Highway to the east of the site boundary, and to the southeast near the Columbia Ridge Landfill operations. Underlying topography was not identified to be a contributing factor to the wildfire baseline risk.

The Gilliam County Multiple-Jurisdictional Natural Hazards Mitigation Plan (NHMP) describes a county-wide risk assessment for wildfire as "high" probability and describes many areas in the county as "conducive for large and fast-moving wildfires" due to high winds typical for regional dry conditions and terrain.

[71] Gilliam County Multi-Jurisdictional Natural Hazards Mitigation Plan. Available at: https://cms3.revize.com/revize/gilliamnew/6.20.2022-Gilliam%20County%20NHMP%202019.pdf Accessed by the Department on 2024-02-13.

[72] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Figure: 10.H: Overall Fire Risk. Source: Oregon Community Wildfire Protection Plan Planning Tool. Available at: https://tools.oregonexplorer.info/oe_htmlviewer/index.html?viewer=wildfireplanning

Figure 13: Overall Wildfire Risk and Areas of Heightened Risk



Measures to Prevent and Minimize Wildfire Risk

In the *Final Order on ASC*, the Council previously imposed Conditions 61, 62, 64 and 65 to address impacts to public service providers (fire protection districts) from fire risk at the site. While these existing conditions pre-date Council's Wildfire Standard, they outline fire prevention and emergency measures for the facility and will continue to apply the facility, with proposed RFA3 changes:

- Condition 60 requires that, during operations, the certificate holder maintain a 10-foot non-vegetative cover around turbine pads.[73]

- Condition 61 requires that, during operations, the certificate holder develop and implement fire safety plans in consultation with the North Gilliam County Rural Fire Protection District and the Arlington Fire Department to minimize the risk of fire and to respond appropriately to any fires that occur on the facility site. It also requires the certificate holder to meet annually with District and Fire Department personnel to discuss emergency planning.

- Condition 62 requires that the certificate holder equip the O&M building and all service vehicles with shovels and portable fire extinguishers of a 4A5OBC or equivalent rating.

- Condition 64 requires that, during operations, the certificate holder ensure that North Gilliam County Rural Fire Protection District and the Arlington Fire Department have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site.

- Condition 65 requires that, during operations, all on-site employees receive annual fire prevention and response training, including tower rescue training, by qualified instructors.

III.N.1.3. Wildfire Mitigation Plans OAR 345-022-0115(1)(b)

The Council's Wildfire Prevention and Risk Mitigation standard requires that certificate holders have a Wildfire Mitigation Plan (WMP) for construction and operations, which describes the procedures, standards, and timeframes that will be adhered to for inspections and vegetation management.

RFA3 Attachment 20 provides the certificate holders construction and operational WMP. This draft WMP is provided as Attachment H of this order, with changes proposed by the Department, as presented in this section.

[73] As presented in Attachment 1 of the Order, the Department recommends minor language changes to Condition 60 to clarify its applicability to operations.

The draft WMP Section 8 (see Attachment H of this order) establishes the wildfire mitigation measures that will apply during the facility repower and includes a representation that the certificate holder will require its contractor to develop, in consultation with North Gilliam Rural Fire Protection District and the Arlington Fire Department, a site-Specific Fire Safety Plan that will include weather monitoring, personnel training and emergency response and communication procedures.

The Department recommends Council impose the two conditions below to require the WMP be developed in accordance with the representations in the draft WMP Section 8, and require the WMP be updated as needed throughout facility repower to address changes in site conditions or wildfire risk at the site:

> **Recommended Wildfire Prevention and Risk Mitigation Condition 116:** Prior to the facility repower, the certificate holder shall submit a Final Repower Wildfire Mitigation Plan (WMP) to the Department for review and approval. The Repower WMP shall include requirements for weather monitoring, personnel training and emergency response and communication procedures.
> [AMD3]
>
> **Recommended Wildfire Prevention and Risk Mitigation Condition 127:** During the facility repower, the certificate holder shall require onsite contractors and employees to adhere to the Repower WMP. The Repower WMP shall be updated, as needed, to address changes in site conditions or wildfire risk at the site.
> [AMD3]

The draft WMP, as provided in Attachment H of this order, includes the following monthly, semi-annual and annual inspections following completion of the facility repower:

- Monthly inspection requirements during operations:
  - Ensure equipment is appropriately maintained to control sources of combustible materials.
  - Remove and prevent the accumulation of combustible materials.
  - Collect and properly dispose of combustible waste.
  - Ensure flammable chemicals are stored in a flammable cabinet.
  - If any leaks are identified during inspections, stop the leak immediately. If the leak cannot be stopped, contain it. Once the leak has been stopped or contained, clean the area immediately to mitigate any fire hazard and then report the leak to Avangrid's Environmental Health and Safety Department.
  - Inspect and maintain safeguards installed on heat-producing equipment to prevent accidental ignition of combustible materials, in accordance with equipment O&M manuals.
  - Visually inspect portable fire extinguishers on a monthly basis.
  - Visually inspect substation and surrounding area on a monthly basis and complete Avian Power Line Interaction Committee (APLIC) inspection forms.

- Semiannual inspection requirements during operations:
  - Each time technicians enter a wind turbine they will inspect the turbine for cleanliness and fire hazards.
  - Thoroughly clean and inspect wind turbines on a semiannual basis in accordance with Oregon Department of Emergency Management maintenance requirements.
  - Conduct semiannual visual inspections of overhead electrical lines and complete APLIC inspection forms.

- Annual inspection requirements during operations:
  - Test fire protection equipment in accordance with the manufacturer specifications and National Fire Protection Association requirements. Portable dry chemical fire extinguishers will have a maintenance check annually and a hydrostatic test every 12 years. Carbon dioxide extinguishers will have an annual maintenance check and a hydrostatic test every 5 years. A contractor knowledgeable in the requirements will perform the check and testing. This check and testing will also be performed after an extinguisher has been used on a fire.

The existing Suzlon S88 wind turbine models at the facility will adhere to the following additional operational requirements due to a known manufacturer equipment issue associated with the cabling connections in the junction box:

- Temperature strips are to be installed on the aluminum junction boxes at each Suzlon S88 turbine. Temperature strips will be inspected every time a turbine is visited by a plant technician, at least twice per year.
- If the maximum temperature on the strip exceeds 900 degrees Celsius, the cabling connections will be trimmed and reterminated by a qualified vendor.

The draft WMP will also require that the certificate holder mow vegetation under overhead electrical lines, and implement ongoing vegetation management as follows:

- Apply herbicide on gravel pad around turbine pad and turbine access road to prevent vegetation, annually at a minimum, and as needed based on site conditions.
- Apply herbicide on substation gravel pad, annually at a minimum, and as needed based on site conditions. Highly compacted gravel foundations of substation are not suitable for vegetation ground.
- Mow vegetation beneath overhead electrical lines to achieve clearance requirements between conductor and ground, annually at a minimum, and as needed based on site conditions.
- Monitor success of noxious weed treatments in first five years of operations and develop a long-term operational weed control plan in consultation with the Oregon Department of Energy (ODOE), Oregon Department of Agriculture, and Gilliam County (if required) after the initial five-year monitoring period.
- Control noxious weed populations, if identified during operational monitoring, through manual, mechanical, chemical, and/or biological methods. The specific method of control

will be chosen based on the most appropriate method for the specific noxious weed identified.

OAR 345-022-0115(1)(b)(D) requires the WMP to identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards if a wildfire occurs at the facility site, regardless of ignition source. The draft WMP (see Attachment H Table 1) proposes the following measures to minimize risks under this requirement:

Public health and safety	The public will be excluded from the substation by fencing. Turbine doors will be locked to prevent unauthorized entry. Pad mount step-up transformers at the base of turbines, and electrical junction boxes, will be surrounded by bollards to minimized inadvertent vehicle and farm equipment collisions with electrical equipment.
First Responders	The certificate holder will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires at the Facility, unlikely as they may be, should focus on controlling spread to adjacent lands. Operational staff will be trained in the use of fire extinguishers for responding to incipient stage fires on site.
Resource Protection	Resources covered by Council standards near the Facility area include agricultural land, shrub-steppe habitat, and cultural resources. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields or into wildlife habitat. The two closest cultural sites are Site 35GM373, a historic farmstead or ranch complex located at an intersection of roads in Jones Canyon; and Site 35GM 388, a small debris scatter near the eastern edge of the repower corridor survey area. The certificate holder will avoid these resources during Facility planning and implementation.

The draft WMP Section 7 identifies that the plan will be updated at the certificate holder's sole discretion, based on their review of best management practices (BMPs) identified through the North American Electric Reliability Corporation (NERC), the Oregon Specialist Building Codes (OSBC) and the Avian Power Line Interaction Committee (APLIC). The Department recommends that the draft WMP be amended to require that the certificate holder review and report annually to the Department on the status of updates to BMPs and technologies, rather than provide "sole discretion" to the certificate holder for determination when to evaluate and whether to update the plan. Therefore, the Department recommends Council impose the following condition:

Recommended Wildfire Prevention and Risk Mitigation Condition 129: During operation, the certificate holder shall adhere to the requirements of the WMP, as provided in the Final Order on Amendment 3 Attachment H. In every annual report required under Condition 21 (OAR 345-026-0080), provide an updated WMP based on changes in best management practices or technologies identified through review of WMP Table 2 sources, as applicable, or as needed based on site conditions and modeled wildfire risk.
[AMD3]

III.N.2. Conclusions of Law

Based on the foregoing recommended findings of fact, and subject to compliance with the existing and recommended conditions described above, the Department recommends the Council find that the certificate holder has adequately characterized wildfire risk at the site using current data from reputable sources, and that, subject to Council approval, the facility, with proposed RFA3 changes, will be repowered in compliance with the standard.

III.O. Waste Minimization: OAR 345-022-0120

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

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

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

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.
(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.[74]

III.O.1. Findings of Fact

[74] OAR 345-022-0120, effective May 15, 2007.

The Waste Minimization standard requires the Council to find that the certificate holder will minimize the generation of solid waste and wastewater, and that the waste generated would be managed to minimally impact surrounding and adjacent areas. Pursuant to OAR 345-022-0020(2), the Council may issue a site certificate for a wind facility without making findings regarding the Waste Minimization standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

Waste generated during the repower would consist primarily of concrete waste from turbine pad reinforcement, wood waste from wood forms for concrete pad reinforcement, and replaced wind turbine components. Other repower construction materials could include erosion control material such as straw bales and silt fencing, and packaging materials for turbine parts and other electrical equipment.[75] As discussed in Section III.M *Public Services* above, the certificate holder will take solid waste generated during the RFA3 repowering activities to the Columbia Ridge landfill or another licensed facility by a licensed hauler.[76] Council previously imposed site certificate conditions 98 and 99 which require the certificate holder to implement a waste management plan during construction and establishes requirements specific to the disposal of concrete waste.

As a result of the proposed RFA3 changes, 38 nacelles (1 nacelle per turbine) and 114 blades (3 blades per turbine) would be removed creating solid waste that would need to be recycled or disposed.[77] RFA3 Attachment 21 provides a Recycling Statement from Mortenson (Mortenson statement), a contractor that has been engaged in the pursuit of the RFA3 repower. The Mortenson statement indicates that the process of decommissioning wind turbine blades requires multiple steps, including removal of blades from existing wind turbines, initial processing of blades on site for hauling to recycling facility, transport from project site to the recycling facility, and final processing and use of the material within cement kilns, all steps involve multiple parties. The Mortenson statement continues stating that, at the time of the letter, the final processing of the blades within the cement kilns would occur at Veolia North America in Missouri. If selected as the contractor, Mortenson would oversee all the above-described steps and subcontractors. Certificate holder states that, because a final contract and recycling agreement has not been executed, recycling wind turbine components cannot be guaranteed at the time of the issuance of this order.

To ensure that turbine blade and component recycling or reuse is achieved, to the maximum extent feasible, to reduce solid waste generated from the RFA3 repower, the Department recommends Council impose recommended Waste Minimization Condition 130, listed below. Recommended Waste Minimization Condition 130 requires that, prior to facility repowering, the certificate holder submit copies of any agreements or contracts with contractors who will manage the recycling or reuse of wind turbine components. If there is no feasible recycling or

[75] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.16.

[76] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.14.

[77] Certificate holder indicates that, due to a turbine fire, one of the fully decommissioned turbines may not be recyclable due to damage. LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.16.

reuse options for the wind turbines, then the condition requires the certificate holder to explain the reasons why it is not available and document the process and final disposal of the components. Recommended Waste Minimization Condition 130 would also apply during facility operation in circumstances where wind turbine blades or components are damaged, fail, are decommissioned, or otherwise must be recycled or disposed of.[78]

> **Recommended Waste Minimization Condition 130:** Prior to the facility repower and during facility operations, as applicable, the certificate holder shall:
> (a) Submit to the Department a copy of the contract or agreement with the contractor for wind turbine component recycling. If not included with contract or agreement, provide a description of methods and vendors for the packaging, transport, and recycling of wind turbine components; or
> (b) Submit to the Department a copy of the contract or agreement with the contractor for wind turbine component use, or description of reuse. If not included with contract, agreement, or description, provide a description of methods and vendors for the packaging, transport, and reuse purpose for wind turbine components; or
> (c) If recycling or reuse of wind turbine components is not feasible. Submit to the Department an explanation of why no reasonable option for the recycling or reuse of wind turbine components is available. Provide description of the methods, vendors, and location for the disposal of wind turbine components.
> [AMD3]

Subject to Conditions 68, 69, 99, 100 and recommended Condition 130 the Department recommends Council find that, the facility with the proposed RFA3 changes, would minimize solid waste during repower.

The certificate holder anticipates the washdown of concrete trucks to be the primary source of wastewater during facility repower and indicates that continued compliance with existing Condition 73 would ensure that wastewater from onsite wash does not run off the construction site and into otherwise undisturbed areas. The certificate holders' preparation for and response to spills and accidental releases of hazardous materials during construction and operation of the facility (addressed in Condition 69), would continue to apply.

The would be no changes to waste or wastewater generation once the facility repower is complete.[79]

III.O.2. Conclusions of Law

[78] Contracts for recycling facility wind components are more reasonable and feasible for facility repowering due to the large number of wind components being removed or replaced from the facility. Recycling of operational replacement of select wind turbine(s) may not be available, in which case, as per sub (c) of Waste Minimization Condition 131, certificate holder shall indicate the process and final disposal location for the wind turbine components.

[79] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Section 5.14.

Based on the foregoing analysis, and subject to compliance with the recommended and existing site certificate conditions described above, the Department recommends the Council find that the certificate holder's solid waste and wastewater plans are likely to minimize generation of solid waste and wastewater from the facility, with proposed RFA3 changes, and will manage the accumulation, storage, disposal and transportation of wastes in a manner that will result in minimal adverse impacts to surrounding and adjacent areas.

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

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

(1) Can design, construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment.

(2) Can design, construct and operate the facility to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and testing procedures designed to warn of impending failure and to minimize the consequences of such failure.[80]

III.P.1. Findings of Fact

Potential Public Health and Safety Impacts from Proximity to Turbine Blades

Public health and safety impacts from proximity to turbine blades, once repowered, will be minimized through compliance with existing Condition 39 (setbacks) and 55 (design standards), as described below. Additionally, the facility is located on private lands, limiting public access to the turbines.

Council previously imposed Condition 39 requiring that the facility be designed to comply with specific setback distances for wind turbines from residential properties, public roads, and the lease area. Repowered turbines at 453.6 maximum blade tip height will comply with these existing setback requirements.[81] Council previously imposed Condition 55 requiring that the certificate holder preclude public access to wind turbines by ensuring that wind turbines were designed without exterior ladders and with lockable doors. The changes proposed in RFA3 do not propose changes to the existing turbine design, which currently complies with condition requirements.

[80] OAR 345-024-0010, effective May 15, 2007.

[81] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 22 Mapset.

The certificate holder is required to report safety incidents to the Department under Condition 23. Since the facility commenced operation in 2011, there have not been any incidents of public access or public safety impacts reported.

Design, Construct and Operate Proposed Facility to Prevent Structural Failure and have Adequate Safety Devices and Testing Procedures (OAR 345-024-0010(2))

Repowering existing turbines will include use of new GE parts on existing Suzlon turbines. Because the turbine manufacturer and specifications differ for the existing turbines compared to the repowered turbines, a foundation analysis was prepared to evaluate whether the existing foundations could support changes in design loads based on 2023 industry standards. RFA3 includes a 2023 Foundation Assessment Report[82] prepared by Barr Engineering Company (Barr). This report was reviewed by registered Structural Engineer, Gary Mochizuki, on behalf of the Department.[83]

Barr's 2023 Foundation Assessment Report concludes that the existing foundation and tower/foundation connection passed all design checks for normal, extreme and fatigue conditions except the concrete fatigue strength in bearing (i.e., side blowout of the concrete podium beneath the bottom flange of the tower). The Barr 2023 Foundation Assessment Report recommends two options to address concrete fatigue strength of the existing foundations:

1. Provide confinement of the circular pedestal by adding a concrete ring around the pedestal;
2. Provide confinement of the circular pedestal by adding a fiber-reinforced polymer wrap around the entire vertical face of the pedestal.

Registered Structural Engineer, Gary Mochizuki, concurs with the recommendations provided in Barr's 2023 Foundation Assessment Report.[84] Based on his professional judgement and expertise, the Department recommends Council require that the foundation strengthening options be implemented as part of the facility repower. Condition 27 requires that the facility be designed, constructed and operated substantially as described in the Site Certificate. The Department recommends that the facility description in Section III.1.a of the site certificate state the following:

> "Repowered turbine foundations shall be designed and constructed to include a concrete ring around the pedestal or by adding a fiber-reinforced polymer wrap around the entire vertical face of the pedestal."

[82] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 4(d): Barr Engineering Company. 2023 Leaning Juniper IIa Wind Project Wind Turbine Foundation Evaluation Report Repowering with a GE2.5-116.
[83] See Attachment B for technical memo evaluating the 2023 Foundation Assessment Report.
[84] *Id.*

Barr recommends that the certificate holder implement a maintenance program, following completion of foundation retrofits described above, that includes routine inspection and maintenance of 10% of the anchor bolts on each foundation for adequate tension at an annual or similar interval and for all bolts to be re-tightened if any bolt fails the tension check. The Department concurs with these recommendations. The Department recommends Council impose anchor bolt inspections under the Wildfire Mitigation Plan, which includes numerous other inspection requirements.

Council previously imposed the following conditions, which will continue to apply, which are intended to minimize health and safety risks from wind turbine structural risks at the site:

- Condition 50: The certificate holder shall design and construct the facility in accordance with requirements set forth by the State of Oregon's Building Code Division and any other applicable codes and design procedures.
- Condition 56: The certificate holder shall follow manufacturers' recommended handling instructions and procedures to prevent damage to towers or blades that could lead to failure.
- Condition 57: The certificate holder shall have an operational safety monitoring program and shall inspect turbine blades on a regular basis for signs of wear. The certificate holder shall repair turbine blades as necessary to protect public safety.
- Condition 58: The certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, to alert operators to potentially dangerous conditions, and the certificate holder shall immediately remedy any dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire.
- Condition 60: The certificate holder shall construct turbines on concrete pads with a minimum of 10 feet of non-flammable and non-erosive ground cover on all sides. The certificate holder shall cover turbine pad areas with non-erosive material immediately following exposure during construction and shall maintain the pad area covering during operation of the facility.

III.P.2. Conclusions of Law

The Department recommends Council find that, based on information provided in RFA3 and subject to compliance with the above referenced site certificate conditions, the certificate holder has demonstrated the facility, with proposed RFA3 changes, would satisfy OAR 345-024-0010, the Public Health and Safety Standards for Wind Energy Facilities.

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

To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant can design and construct the facility to reduce

cumulative adverse environmental effects in the vicinity by practicable measures including, but not limited to, the following:

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

(2) Using underground transmission lines and combining transmission routes.

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

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

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

(6) Using the minimum lighting necessary for safety and security purposes and using techniques to prevent casting glare from the site, except as otherwise required by the Federal Aviation Administration or the Oregon Department of Aviation.[85]

III.Q.1. Findings of Fact

OAR 345-024-0015(4) applies to the proposed RFA3 changes. The proposed RFA3 changes do not trigger or necessitate review of Subparts (1), (2), (3), (5) and (6).

OAR 345-024-0015(4) requires that the facility be designed to reduce risk of injury to raptors or other vulnerable wildlife. RFA3 Attachment 11 includes a 2022 Avian Risk Assessment; RFA3 Attachment 12 includes a Repower (Avian) Fatality Monitoring Plan (1-year post repower fatality study).[86] Council previously imposed Condition 86, requiring the certificate holder to protect the area within a 1300-foot buffer around active nest sites of Swainson's hawk, Ferruginous hawk, and Burrowing owl, during sensitive periods specific to each species. Protocol approved by ODFW will be used by the certificate holder to determine active sites. The Department recommends Council find that this condition applies to the facility repower and would ensure that impacts to the three identified species would not likely be significant.

The 2022 Avian Risk Assessment identifies that the repowered turbines are not expected to result in an increase in avian fatality, and states that the original fatality study conducted from

[85] OAR 345-024-0015, effective May 15, 2012.

[86] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 11: Avian Risk Assessment 2023-11-09 Technical Memorandum Prepared by WEST.

2011-2013 did not exceed the thresholds of concern established for raptor species in the WMMP.

The Repower Fatality Monitoring Plan proposes to use USGS's estimator program, GenEst, the most current methodology available and supported for use by ODFW. The Repower Fatality Monitoring Plan requires that mitigation be evaluated if the study results show an exceedance of the established thresholds of concern. The Repower Monitoring Plan is recommended to be added to the existing operational Wildlife Monitoring and Mitigation Plan which has applicable long-term monitoring requirements. The combined plans are provided in Attachment I of this order, and would be required to be adhered to under existing Condition 87.

III.Q.2. Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the existing site certificate conditions, the Department recommends the Council find that the certificate holder has taken practicable measures to design and construct the facility, with proposed RFA3 changes, to reduce cumulative adverse environmental effects in the vicinity of the facility.

IV. EVALUATION OF OTHER APPLICABLE REGULATORY REQUIREMENTS

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

(1) Standards and Regulations:

(a) Existing Noise Sources. No person owning or controlling an existing industrial or commercial noise source shall cause or permit the operation of that noise source if the statistical noise levels generated by that source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 7, except as otherwise provided in these rules.

(b) New Noise Sources:

(A) New Sources Located on Previously Used Sites. No person owning or controlling a new industrial or commercial noise source located on a previously used industrial or commercial site shall cause or permit the operation of that noise source if the statistical noise levels generated by that new source and measured at an appropriate measurement point, specified in subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as otherwise provided in these rules. For noise levels generated by a wind energy facility including wind turbines of any size and any associated equipment or machinery, subparagraph (1)(b)(B)(iii) applies.

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

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

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

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

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

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

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

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

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level. [Table not included. See ED. NOTE.]

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

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DEQ 23-2018, minor correction filed 04/02/2018, effective 04/02/2018
DEQ 24-2017, minor correction filed 11/08/2017, effective 11/08/2017
DEQ 14-2017, amend filed 10/30/2017, effective 11/02/2017

IV.A.1. Findings of Fact

Council has the authority to interpret and implement other state agency and Commission rules and statutes that are relevant to the siting of an energy facility,[87] including noise rules adopted by the Environmental Quality Commission and previously administered by the Department of Environmental Quality (DEQ).[88, 89]

The DEQ noise control regulations establish standards for noise sources located on previously unused and previously used sites. To show that a facility complies with this test, the certificate holder may use an assumed ambient hourly L50 noise level of 26 dBA or measure the actual ambient hourly noise levels at the receiver in accordance with the procedures specified in the regulation. In this case, the certificate holder elected to use an assumed ambient hourly L50 noise level of 26 dBA.

To demonstrate compliance with the ambient noise degradation test, the noise generated during facility operation must not cause the hourly L50 noise level at any noise-sensitive property to exceed 36 dBA. However, OAR 340-035-0035(1)(b)(B)(iii)(III) relieves the certificate holder from having to show compliance with the ambient noise degradation test "if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located" (a "noise waiver").

Under OAR 345-035-0035(1)(b)(A), a new industrial or commercial noise source located on a previously used site may not increase ambient statistical noise levels L10 or L50 by more than 10 dBA, or exceed the levels provided in Table 17 below.

Table 17: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical Descriptor	Maximum Permissible Hourly Statistical Noise Levels (dBA)	
	Daytime (7:00 AM – 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
L50	55	50
L10	60	55

[87] See ORS 469.310 (stating that the legislative policy behind EFSC was to establish "a comprehensive system for the siting, monitoring and regulating of the location, construction and operation of all energy facilities in this state") and ORS 469.401(3) (giving EFSC the authority to bind other state agencies as to the approval of a facility).

[88] The Environmental Quality Commission and the DEQ suspended their own administration of the noise program because in 1991 the state legislature withdrew all funding for implementing and administering the program. A July 2003 DEQ Management Directive provides information on DEQ's former Noise Control Program and how DEQ staff should respond to noise inquiries and complaints. The Directive states (among other items) that the Energy Facility Siting Council (EFSC), under the Department of Energy, is authorized to approve the siting of large energy facilities in the State and that EFSC staff review applications to ensure that proposed facilities meet the State noise regulations.

[89] "We (the Oregon Supreme Court) conclude that EFSC had the authority to grant (1) an exception to the noise standards under OAR 340-035-0035(6)(a), and (2) a variance under OAR 340-035-0100 and ORS 467.060." B2HAPPDoc7 Supreme Court Decision Stop B2H Coalition v. Dept, of Energy 2023-03-09, pp 805-807.

Table 17: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical Descriptor	Maximum Permissible Hourly Statistical Noise Levels (dBA)	
	Daytime (7:00 AM – 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
L1	75	60
Note: The hourly L50, L10, and L1 noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent, and 1 percent of the hour, respectively. Source: OAR 345-035-0035, Table 8.		

Under OAR 340-035-0035(1)(b)(B)(iii), the increase in ambient statistical noise levels that result from a wind energy facility may be based on actual measurements or may be based on an assumed ambient background level of 26 dBA. The rule also allows for exceedances of the standards described above if the person who owns the noise sensitive property where the exceedance occurs a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. For noise sources other than a wind energy facility, the rules require actual measurements to be used to determine ambient background levels and no easements are contemplated.

IV.A.1.1. Potential Noise Impacts

The primary noise generating components associated with the RFA3 changes are the 36 turbines proposed to be repowered. RFA3 Attachment 23 includes a noise analysis based on the following sources and sound power levels:

- 36 repowered turbines, based on GE Low-Noise Trailing Edge (LNTE) wind turbine: 105.5 dBA
- 4 existing Suzlon S88 wind turbine: 103.7 dBA

RFA13 Attachment 24 includes a list of the names and addresses of 237 noise sensitive properties within 1-mile of the site boundary, based on data provided by the Gilliam County Assessor's Office on January 4, 2024. Of the 237 noise sensitive properties within 1-mile of the site boundary, sound power levels were modeled at 17 noise sensitive properties that were predicted to experience noise levels of 36 dBA or above (representing a 10 dBA increase over an assumed 26 dBA ambient noise level).

Sound power levels and the Computer Aided Noise Abatement (CadnaA) acoustic modeling software to predict RFA3 facility repower sound pressure levels.[90] The acoustical model also adopted sound propagation factors from International Organization for Standardization's (ISO) 9613-2 "Acoustics—Sound Attenuation During Propagation Outdoors Part 2: General Method of Calculation" to establish parameters for the noise assessment.

[90] In their Sound level analysis, the certificate holder explains that the CaDnaA version used in its acoustical model was Version 2023.

Operational noise from the facility, with proposed RFA3 changes, is compared to the maximum allowable noise limits (OAR 340-035-0035, Table 8) provided above in Table 17, the most restrictive noise limit is 50 dBA at night. The anti-ambient noise degradation standard requires a demonstration that noise generated from the facility, once repowered, must not cause the hourly L50 noise level at any NSR to exceed 10 dBA above ambient statistical noise levels, or in this case, result in operational L50 noise levels of 36 dBA.

The results of the acoustic modeling were provided as Attachment 23 *Sound Level Analysis* and indicate that two noise sensitive properties would exceed 36 dBA and would require a noise easement. RFA3 Attachment 23 includes fully executed legally effective noise easements for these properties. The noise modeling results demonstrate that the facility, with proposed RFA3 changes, would not exceed the maximum allowable decibel threshold of 50 dBA at and noise sensitive property within the analysis area.

Council previously imposed Condition 95 to require the certificate holder to maintain a complaint response system to address noise complaints, and promptly notify the Department of any complaints received regarding facility noise. Condition 95 would continue to apply to the facility, once repowered.

IV.A.2. Conclusions of Law

Based on the foregoing recommended findings of fact, and subject to compliance with existing site certificate conditions described above, the Department recommends the Council find that the facility, with proposed RFA3 changes, will comply with the applicable Noise Control Regulations in OAR 340-035-0035.

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

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any "waters of the state."[91] When the certificate holder requests that a removal-fill be permit be governed by the site certificate, the Council, in consultation with DSL, must determine whether a removal-fill permit should be issued.

[91] ORS 196.800(15) defines "Waters of this state." The term includes wetlands and certain other waterbodies.

As authorized under OAR 345-027-0360(3), the Department establishes the analysis area for Removal-Fill Law as the area within the approximately 1,653 acre proposed RFA3 repower corridor.[92,93]

IV.B.1. Findings of Fact

For RFA3, the certificate holder retained qualified wetlands biologists with Jacobs to evaluate wetlands and waters of the state (WOS) within the repower corridor and prepare a technical report submitted in RFA3 Attachment 25 (September 2023 Wetlands Delineation Report).

The sources reviewed for the September 2023 Wetlands Delineation Report included a desktop review of:

- CH2M HILL. 2009. Preconstruction Survey Addendum to the Wetlands and Waters Delineation Report for the Leaning Juniper II Wind Power Facility—LJIIA. Gilliam County, Oregon. Prepared for Iberdrola.
- Curtis, Katherine E. and Robert W. Lichvar. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. July.[94]
- Gilliam County Tax Lot Maps (geographic information system data for Gilliam County May 2023)
- Lichvar, Robert W. and Shawn M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. A Delineation Manual. August.[95]
- Nadeau, Tracie-Lynn. 2015. Streamflow Duration Assessment Method for the Pacific Northwest. EPA 910-K-14-001, U.S. Environmental Protection Agency, Region 10, Seattle, Washington.
- Thorson, T. D., S. A. Bryce, D. A. Lammers, A. J. Woods, J. M. Omernik, J. Kagan, D. E. Pater, and J. A. Comstock. 2003. Ecoregions of Oregon (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,500,000).

[92] The Amended Project Order establishes the analysis area as the area within the site boundary. The analysis area is modified in this order to accurately reflect the extent of literature and field surveys conducted to inform the evaluation of resources and potential impacts. LJWAPPDoc59 LJW pASC Amended Project Order.

[93] OAR 345-027-0360(3) For any Council standard that requires evaluation of impacts within an analysis area, the analysis area is the larger of either the study areas, as defined in OAR 345-001-0010(59), or the analysis areas described in the project order for the application for site certificate, unless otherwise approved in writing by the Department following a pre-amendment conference. On May 1, 2023, the Department and certificate holder held a pre-amendment conference. LJIIAAMD3Doc8 Pre-Amendment Conference 2023-05-01.

[94] Available at: https://www.spl.usace.army.mil/Portals/17/docs/regulatory/JD/UpdatedDatasheetforIDOHWM_ERDC_2010.pdf

[95] Available at: https://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Ordinary_High_Watermark_Manual_Aug_2008.pdf

- National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture and the National Oceanic and Atmospheric Administration. 2023. U.S Drought Monitor: Oregon.[96]
- U.S. Fish and Wildlife Service. National Wetlands Inventory. 2023[97]
- National Geographic Society. USA Topo Maps. 2013.[98]
- USGS. 2023. Hydrography: NHD-Plus High Resolution National Hydrography Dataset[99]
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). 2023. Arlington, Oregon, WETS Table, Gilliam County, Oregon.[100]
- NRCS. 2023. Web Soil Survey.[101]
- U.S. Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Vicksburg, MS., U.S. Army Engineer Waterways Experiment Station, Technical Report Y-87-1.
- USACE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Environmental Laboratory. Vicksburg, MS., U.S. Army Engineer Research and Development Center, ERDC/EL TR-08-28. September.
- USACE. 2020. National Wetland Plant List: Arid West Region. 2020. V.3.5[102]
- ESRI Aerial Imagery. 2023. National Agricultural Imagery Program, Oregon. Resolution: 1 meter.

Jacobs's wetland biologists conducted field investigations on June 6 and 7, and August 17, 2023. Field investigation of wetlands followed procedures in the Corps of Engineers Wetland Delineation Manual (1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2008). Information from the desktop study was reviewed to identify areas mapped by the National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), and areas with potential signatures of water on aerial imagery. All NWI- and NHD-mapped features in the study area and areas with aerial signature were field-verified to determine whether they contained stream channels, wetlands, or other waters. All

[96] National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln, the United States Department of Agriculture and the National Oceanic and Atmospheric Administration. 2023. U.S Drought Monitor: Oregon. Available at: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR

[97] U.S. Fish and Wildlife Service. 2023. National Wetlands Inventory Mapper. Available at: http://www.fws.gov/wetlands/ Accessed by the Department 2024-02-15.

[98] National Geographic Society, I-Cubed. USA Topo Maps. Available at: https://www.arcgis.com/home/item.html?id=99cd5fbd98934028802b4f797c4b1732

[99] U.S. Geological Survey. 2023. Hydrography: NHD-Plus High Resolution National Hydrography Dataset. Available at: https://www.usgs.gov/core-science-systems/ngp/national-hydrography Accessed by the Department 2024-02-15.

[100] U.S. Department of Agriculture, Natural Resources Conservation Service. 2023. *Arlington, Oregon, WETS Table, Gilliam County, Oregon*. U.S. Department of Agriculture. Available at: http://agacis.rcc-acis.org/

[101] Ibid. 2022. Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm Accessed May 2022.

[102] U.S. Army Corps of Engineers. 2020. National Wetland Plant List: Arid West Region. Available at: http://wetland-plants.usace.army.mil/

roads within the study area were driven to observe any additional potential wetlands, drainages, or culverts. Culvert locations were mapped and evaluated for potential indications of recent water flow or indications of bed and bank. Wetland biologists used The National Wetland Plant List: 2020 Arid West Region Ratings to determine the wetland indicator status of vegetation.[103]

No hydric soils are mapped in the study area. NHD drainages are mapped in several locations in the study area; these features are also mapped as riverine wetlands in NWI. No other NWI wetlands are mapped in the analysis area. One small freshwater pond is mapped outside of the study area on the northeast side near Highway 19. Some wetland and drainage signatures can be seen on the aerial imagery. Field surveys identified two wetlands and two discontinuous ephemeral waters (Wetlands 1 and 2 and Streams 1 and 2, respectively) within the RFA3 repower corridor.[104] Table 18, below, provides a summary of the potential wetland within the site.

Table 18: Wetlands and Other Waters of the State within Analysis Area

Wetland/WOS	Size / Area in RFA3 Repower Corridor	Likely Federally Jurisdictional?	Likely Oregon Removal Fill Jurisdiction?
Wetland 1	0.071 acres	No	Yes
Wetland 2	0.095 acres	No	Yes
WOS - Stream 1	0.017 acres or 292 linear feet	No	No
WOS - Stream 2	0.030 acres or 260 linear feet	No	No

Mitigation Measures

The certificate holder commits to avoiding Wetlands 1 and 2. In lieu of DSL concurrence on the 2023 Wetland Delineation Report, the Department recommends Council require that the certificate holder be required to flag and avoid via 50-meter buffer impacts to Wetlands 1 and 2, and Streams 1 and 2, unless DSL concurrence is obtained and determines that Streams 1 and 2 are not jurisdictional. Recommended condition is presented below:

> **Recommended Removal Fill Condition 128:** During the facility repower, the certificate holder shall flag and monitor a 50-foot buffer from impacts to Wetlands 1 and 2 and Streams 1 and 2, as identified in the September 2023 Wetland Delineation Report. The

[103] LJIIAAMD3Doc7 Complete RFA_2024-02-14. Attachment 25: 2023 Wetlands and Nonwetland Waters Delineation Report. Prepared by Jacobs Engineering Group (Jacobs) for the Leaning Juniper IIA Repower Project. September 2023.

[104] LJIIAAMD3 Complete RFA 2024-02-14 Attachment 25: 2023 Wetlands and Nonwetland Waters Delineation Report. Prepared by Jacobs Engineering Group (Jacobs) for the Leaning Juniper IIA Repower Project. September 2023. DSL #WD2023-0393

50-foot buffer may be waived if the certificate holder provides to the Department DSL concurrence that wetlands or streams are not jurisdictional waters of the state. [AMD3]

IV.B.2. Conclusions of Law

Based on the above recommended findings of fact, and subject to compliance with the recommended conditions, the Department recommends Council find that the facility, with the proposed RFA3 changes, will comply with the requirements of Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085-0500 through 141-085-0785).

IV.C. Water Rights: ORS chapter 690

IV.C.1. Findings of Fact

Under ORS chapters 537 and 540 and OAR chapter 690, the Oregon Water Resources Department (OWRD) administers water rights for appropriation and use of the water resources of the state. OAR 690 establishes the procedures and standards which shall be applied by the OWRD in the evaluation of applications for a permit to appropriate surface water, ground water, to construct a reservoir and store water, to use reserved water, or to use water stored in a reservoir.

RFA3 does not include a request for a permit to appropriate surface water, ground water, to construct a reservoir and store water, to use reserved water, or to use water stored in a reservoir. Therefore, Council does not need to make findings of fact or conclusions of law associated with compliance with the regulations that apply to those permits.

IV.C.2. Conclusions of Law

The Department recommends Council not make findings of compliance with Water Rights requirements because no permits have been requested by the certificate holder.

V. PROPOSED CONCLUSIONS AND ORDER

Based on the recommended findings of fact and conclusions of law included in this order, under OAR 345-027-0375, the Department recommends Council find that the preponderance of evidence on the record, supports the following conclusions:

1. The facility, with proposed RFA3 changes, complies with the applicable substantive criteria under the Council's Land Use standard, as described in OAR 345-022-0030, from the date RFA3 was submitted.

2. The facility, with proposed RFA3 changes, complies with the requirements of the Energy Facility Siting Statutes ORS 469.300 to 469.520.

3. The facility, with proposed RFA3 changes, complies with all applicable standards adopted by Council pursuant to ORS 469.501, in effect on the date Council issues its Final Order.

4. The facility, with proposed RFA3 changes, complies with all other Oregon statutes and administrative rules identified in effect on the date Council issues its Final Order.

5. Taking into account the facility, with proposed RFA3 changes, the amount of the bond or letter of credit required under OAR 345-022-0050 is adequate.

Accordingly, the Department recommends Council find that the facility, with the proposed RFA3 changes, complies with the General Standard of Review OAR 345-022-0000 and OAR 345-027-0375. The Department recommends that the Council find, based on a preponderance of the evidence on the record, that the site certificate may be amended as requested.

The Department therefore recommends that the Council approve Request for Amendment 3 of the Site Certificate for the Leaning Juniper IIA Wind Power Facility, and issue the 3rd Amended Site Certificate included as Attachment A to this order.

Issued February 29, 2024

OREGON DEPARTMENT OF ENERGY

Todd Cornett
Todd Cornett (Feb 29, 2024 12:00 PST)

Todd Cornett, Assistant Director for Siting

Attachments

Attachment A: Draft Third Amended Site Certificate (red-line)
Attachment B: Reviewing Agency/Consultant Comments on RFA3
Attachment C: Soil Monitoring Plan
Attachment D: Decommissioning Unit Costs and General Costs
Attachment E: Draft Repower Habitat Mitigation Plan
Attachment F: Draft Repower Revegetation and Noxious Weed Control Plan
Attachment G: Inadvertent Discovery Plan
Attachment H: Draft Wildfire Mitigation Plan
Attachment I: Amended Wildlife Monitoring and Mitigation Plan

Attachment A: Draft Third Amended Site Certificate

ENERGY FACILITY SITING COUNCIL
OF THE
STATE OF OREGON

Third Amended Site Certificate
for the
Leaning Juniper IIA Wind Power Facility

ISSUANCE DATES:

Site Certificate	September 21, 2007
First Amended Site Certificate	November 20, 2009
Second Amended Site Certificate	June 21, 2013
Third Amended Site Certificate	TBD

Table of Contents

Attachments

The Oregon Energy Facility Siting Council

THIRD AMENDED SITE CERTIFICATE FOR THE LEANING JUNIPER IIA WIND POWER FACILITY

I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this site certificate for the Leaning Juniper IIA Wind Power Facility (the facility) in the manner authorized under ORS Chapter 469. This site certificate is a binding agreement between the State of Oregon (State), acting through the Council, and Leaning Juniper Wind Power II, LLC (certificate holder) authorizing the certificate holder to construct and operate the facility in Gilliam County, Oregon. ~~[AMD2, LJF]~~

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: (a) the Council's *Final Order on the Application* for the facility issued on September 21, 2007; (b) the Council's *Final Order on Amendment 1 for LJF* issued on November 20, 2009; (c) the Council's *Final Order on Amendment 2 for LJF* issued on June 20, 2013; and (d) the Council's *Final Order on Amendment 3 for LJIIA* issued on TBD. In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) this Third Amended Site Certificate, (2) the *Final Order on Amendment ~~2~~3 for LJIIA,* (3) the *Final Order on Amendment 2 for LJF*, (4) the *Final Order on Amendment 1 for LJF*, (5~~4~~) the *Final Order on the Application for LJF* and (6~~5~~) the record of the proceedings that led to the Final Orders on the Application and Amendments 1, 2 and ~~2~~3. ~~[AMD1, 2 and 3]~~

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

II. SITE CERTIFICATION

1. To the extent authorized by state law and subject to the conditions set forth herein, the State authorizes the certificate holder to construct, operate and retire a wind energy facility, together with certain related or supporting facilities, at the site in Gilliam County, Oregon, as described in Section III of this site certificate. ORS 469.401(1).

2. This site certificate is effective until it is terminated under OAR 345-027-0110 or the rules in effect on the date that termination is sought or until the site certificate is revoked under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. ORS 469.401(1).

3. This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Council's Final Orders on the Application and Amendment #1 ~~for LJF and Amendment #2 for LJF~~, #2 and #3 for LJIIA. Such matters include, but are not limited to: building code compliance, wage, hour and other labor regulations, local government fees and charges and 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. 469.503(3). [AMD1, 2 and 3]

4. Both the State and the certificate holder shall abide by local ordinances, state law and the rules of the Council in effect on the date this site certificate is executed. ORS 469.401(2). In addition, 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).

5. For a permit, license or other approval 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).

6. Subject to the conditions herein, this site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation and retirement of the facility as to matters that are addressed in and governed by this site certificate. ORS 469.401(3).

7. 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. ORS 469.401(3).

8. After issuance of this site certificate, each state agency or local government agency that issues a permit, license or other approval for the facility shall continue to exercise enforcement authority over such permit, license or other approval. ORS 469.401(3).

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

III. DESCRIPTION

1. The Facility

(a) The Energy Facility

The energy facility is an operating electric power generating plant with an average electric generating capacity of approximately ~~30~~ 41 megawatts (MW) and ~~up to an approveda~~ peak generating capacity of ~~not more than 90.3~~ 98.4 ~~megawatts~~ MW that produces power from wind energy. The facility consists of ~~not more than 43~~ 40 wind turbines, including four 2.1 MW Suzlon S88 wind turbines and 36 2.5 MW Suzlon S88 wind turbines with GE generating

components.[1] ~~The maximum peak generating capacity of each turbine is not more than 2.1 megawatts.[2] The energy facility is described further in the Final Orders on the Application and Amendment #1 for the LJF.~~ [~~Amendment~~ #2

Suzlon S88 wind turbines with GE generating components (repowered turbines) shall include foundation retrofits of a concrete ring around the pedestal or by adding a fiber-reinforced polymer wrap around the entire vertical face of the pedestal.

(b) Related or Supporting Facilities

The facility includes the following related or supporting facilities described below and in greater detail in the Final Order on Amendment #2 and #3 for LJ~~F~~:IIA:

- Power collection system
- Substation~~s~~ and interconnection system
- Meteorological towers
- Operations and maintenance facilities
- Control system
- Access roads

Power Collection System

The facility includes two 34.5 kilovolt (kV) underground collector lines. The lines extend approximately 19-miles and are located approximately 3 feet below ground surface. ~~. A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine to a collector substation.~~ [AMD3]

Substation~~s~~ and Interconnection System

The facility includes a substation located near the Bonneville Power Administration (BPA) Jones Canyon Switching Station. An aboveground transmission line carries the power from the substation to a BPA switching station and an interconnection with the regional transmission grid through BPA's McNary-Santiam 230-kV transmission line. [~~Amendment~~ AMD2]

Meteorological Towers

The facility includes two permanent meteorological (met) towers. The met towers are non-guyed steel towers approximately 80 meters in height. [~~Amendment~~ AMD2]

Operations and Maintenance Facilities

[1] Reference to the turbine model and megawatt capacity shall not be binding. Future changes to turbines are authorized subject to compliance with the maximum number of turbines and blade tip height limitations, as referenced in Condition 27.

The facility includes one operations and maintenance (O&M) building with approximately 2.0 acres of fenced, graveled parking and storage area. [~~Amendment~~ AMD2]

Control System

A fiber optic communications network links the wind turbines to a central computer at the O&M buildings. A "supervisory, control and data acquisition" (SCADA) system collects operating and performance data from each wind turbine and from the project as a whole and allows remote operation of the wind turbines.

Access Roads

The facility includes approximately 3 miles of 15-foot wide access roads to provide access to the turbine strings.

(c) Site Boundary, Micrositing Areas and Disturbance Limits

The site boundary is approximately 6,404 acres, as presented in Attachment 1 Figure 1.[3]

The facility micrositing corridors for wind turbines and related or supporting facilities are described in the *Final Order on ASC*, Attachment D.[4] Corridor widths vary from 400 feet for roads connecting turbine strings, to up to 2,640 feet for a road and collector line corridor in the northeastern portion of the facility. [5]

The facility repower micrositing corridor includes 1,564 acres and is located within the larger micrositing corridor. Temporary disturbance areas shall be limited, per facility component/repower action, as presented in Table 2. The location of the facility repower micrositing corridor is presented in Attachment 1, Figures 2 and 3

Table 1~~2~~: Facility Repower Disturbance Limits

Component	Temporary Disturbance
Turbine Pads	275 feet (radius)
Spur Road	85 feet (width)
String Road	85 feet (width)
Collector Line	75 feet (width)
Laydown Areas	22.8 acres
Crane Paths	100 feet (width)

[3] OAR 345-001-0010(31) defines "site boundary" as "the perimeter of the site of a proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors proposed by the applicant."
[4] LJWAPPDoc125-4 LJW Final Order Att D.
[5] OAR 345-001-0010(21) defines micrositing corridor as, "a continuous area of land within which construction of facility components may occur, subject to site certificate conditions."

Table 12: Facility Repower Disturbance Limits

Component	Temporary Disturbance
Source: LJIIAAMD3Doc7 Complete RFA_2024-02-14, Section 2.7 and Table 2-2.	

2. Location of the ~~Proposed~~ Facility

The facility is located within an approximately 6,404 acre site boundary, southwest of Arlington, in Gilliam County, Oregon. The site is in Townships 1 and 3 North and Ranges 20 and 21 East. The facility is located on land subject to lease agreements with landowners. [AMD2]

IV. FACILITY REPOWER CONDITIONS

The conditions in Section IV in this Site Certificate are organized by phase, intended to align with the phases of repower development (pre-repower, during repower and post-repower.

(a) Pre-Repower Conditions

Recommended Organizational Expertise Condition 105: Prior to the facility repower, as applicable, the certificate holder shall identify any necessary permits normally governed by the site certificate for which it plans to obtain via a third-party contractor. Certificate holder shall demonstrate that third-party permits are obtained prior to actions regulated under the associated permit(s).
[AMD3]

Recommended Soil Protection Condition 106: Prior to the facility repower, the certificate holder shall submit to the Department an ODEQ-issued NPDES 1200-C General Construction Permit and Erosion Sediment Control Plan (ESCP).
[AMD3]

Recommended Soil Protection Condition 107: Prior to the facility repower, the certificate holder shall collect the data described in Sections 1.1 and 1.2 of the Soil Monitoring Plan as provided in Final Order on Amendment 3 Attachment C. Results shall be reported to the Department.
[AMD3]

Recommended Retirement and Financial Assurance Condition 108: Prior to the facility repower, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit rider in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The bond or letter of credit amount is $7.9 million (in 2023 dollars), adjusted to the date of issuance as described in (b), or the amount determined as described in (a).

(a) The certificate holder may adjust the amount of the bond or letter of credit rider based on the final design of the repowered facility by applying the unit costs and general costs illustrated in the Final Order on Request for Amendment 3 (RFA3) Attachment

D to the final design of the repowered facility and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department. Any modification to the unit costs of the retirement cost estimate, as presented in the Final Order on RFA3 Attachment D, are subject to review and approval by the Council.

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

(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in 2023 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 (the "Index") and using the annual average index value for 2023 dollars and the quarterly index value for the date of issuance of the bond or letter of credit rider. If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust 2023 dollars to present value.

(ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.

(iii) Add 10 percent of the adjusted Gross Cost for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost for the adjusted future developments contingency.

(iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the resulting total to the nearest $1,000 to determine the adjusted financial assurance amount.

(c) The certificate holder shall use a form of bond or letter of credit approved by the Council.

(d) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.

[AMD3]

Recommended Fish and Wildlife Habitat Condition 109: Prior to the facility repower, the certificate holder shall finalize the Repower Revegetation and Noxious Weed Control Plan as provided in Final Order on Amendment 3 Attachment F, subject to approval by the Department in consultation with ODFW. Finalization includes selection of seed mix, predisturbance data collection, selection of monitoring and reference sites and final review of success criteria, as described in the plan.

[AMD3]

Recommended Fish and Wildlife Habitat Condition 110: Prior to the facility repower, the certificate holder shall finalize the Repower Habitat Mitigation Plan as provided in Final Order on Amendment 3 Attachment E, subject to approval by the Department in consultation with ODFW. Finalization shall be based on the pre-treatment baseline monitoring results to inform initial monitoring treatment actions and schedule; and establish success criteria.

[AMD3]

Recommended Threatened and Endangered Species Condition 111: Prior to the facility repower, in areas of ground disturbance within 1,000-feet of previously identified WGS colonies (2023 Survey), the certificate holder shall perform WGS surveys (non-protocol, spot check) and update maps and flagging. Provide updated maps to the Department and ODFW and identify any significant change in previously identified WGS habitat. [AMD3]

Recommended Historic, Cultural, and Archaeological Resources Condition 112: Prior to disturbance within 200-feet of recorded sites 35GM373 and 35GM388, the certificate holder shall install flagging extending 100-feet from the site boundaries, excluding areas that extend to extending roads. [AMD3]

Recommended Historic, Cultural, and Archaeological Resources Condition 113: Prior to the facility repower, the certificate holder shall review/update the contact information presented in Section 2.1.2 (No. 4) of the Inadvertent Discovery Plan (IDP). [AMD3]

Recommended Public Services Condition 114: Prior to the facility repower, the certificate holder shall notify local police services of the schedule and expected number of temporary workers and traffic volume to result from repower activities. [AMD3]

Recommended Public Services Condition 115: Prior to the facility repower, the certificate holder shall execute a Road Use Agreement with the Gilliam County Public Works Department. [AMD3]

Recommended Wildfire Prevention and Risk Mitigation Condition 116: Prior to the facility repower, the certificate holder shall submit a Final Repower Wildfire Mitigation Plan (WMP) to the Department for review and approval. The Repower WMP shall include requirements for weather monitoring, personnel training and emergency response and communication procedures. [AMD3]

(b) Specific Repower Conditions

Recommended General Standard Condition 117: The certificate holder shall:

(a) Provide written notice to the Department of commencement of the facility repower and shall commence repower actions on or before June XX 2026. [TBD]

(b) Provide written notice to the Department of repower completion. Repower actions shall be substantively complete within three years of repower commencement. [Mandatory Condition OAR 345-025-0006(4), AMD3]

Recommended Historic, Cultural, and Archaeological Resources Condition 118: The certificate holder, and any onsite contractors, shall adhere to the requirements of the

Inadvertent Discovery Plan. The IDP Section 2.1.2 (No. 4) shall be reviewed and updated annually, as applicable.
[AMD3]

Recommended Public Services Condition 119: During and post-facility repower, as applicable, the certificate holder shall adhere to the terms and conditions of the Road Use Agreement.
[AMD3]

Recommended Soil Protection Condition 120: During the facility repower, the certificate holder shall conduct all work in compliance with the NPDES 1200-C General Construction Permit, ESCP or revised ESCP, if applicable. The ESCP shall be revised if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department. Any Department-required ESCP revisions shall be implemented within 14 days, unless otherwise agreed to by the Department based on a good faith effort to address erosion issues.
[AMD3]

Recommended Soil Protection Condition 121: During the facility repower, the certificate holder shall implement the Soil Monitoring Plan, as provided in the Final Order on Amendment 3 Attachment C.
[AMD3]

Recommended Retirement and Financial Assurance Condition 122: During the facility repower, the certificate holder shall describe the status of the bond or letter of credit in the semi-annual report submitted to the Council under Condition 21(a). If repower activities extends for more than 12 months, the certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in Condition 30(b). The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate.
[AMD3]

Recommended Fish and Wildlife Habitat Condition 123: During the facility repower, the certificate holder shall implement the Repower Revegetation and Noxious Weed Control Plan, as finalized under Fish and Wildlife Habitat Condition 109.
[AMD3]

Recommended Fish and Wildlife Habitat Condition 124: During the facility repower, the certificate holder shall implement the Repower Habitat Mitigation Plan, as finalized under Fish and Wildlife Habitat Condition 110.
[AMD3]

Recommended Threatened and Endangered Species Condition 125: During the facility repower, certificate holder shall install flagging/temporary fencing extending 150-feet from any WGS colonies identified during the pre-repower WGS spot check (Threatened and

Endangered Species Condition 125). Certificate holder shall require all onsite vehicles to adhere to a 20-mile speed limit.
[AMD3]

Recommended Historic, Cultural, and Archaeological Resources Condition 126: During the facility repower, the certificate holder shall prohibit ground disturbance within 100-feet from the site boundaries of 35GM373 and 35GM388; the 100-foot buffer does not apply to existing roads. Flagging shall be maintained to protect the resources. Sensitive resource maps identifying the resource location and avoidance area shall be maintained onsite and provided to contractors.
[AMD3]

Recommended Wildfire Prevention and Risk Mitigation Condition 127: During the facility repower, the certificate holder shall require onsite contractors and employees to adhere to the Repower WMP. The Repower WMP shall be updated, as needed, to address changes in site conditions or wildfire risk at the site.
[AMD3]

Recommended Removal Fill Condition 128: During the facility repower, certificate holder shall flag and monitor a 50-foot buffer from impacts to Wetlands 1 and 2 and Streams 1 and 2, as identified in the September 2023 Wetland Delineation Report. The 50-foot buffer may be waived if the certificate holder provides to the Department DSL concurrence that wetlands or streams are not jurisdictional waters of the state.
[AMD3]

Recommended Wildfire Prevention and Risk Mitigation Condition 129: During operation, the certificate holder shall adhere to the requirements of the WMP, as provided in Final Order on Amendment 3 Attachment H. In every annual report required under Condition 21 (OAR 345-026-0080), provide an updated WMP based on changes in best management practices or technologies identified through review of WMP Table 2 sources, as applicable, or as needed based on site conditions and modeled wildfire risk.
[AMD3]

Recommended Waste Minimization Condition 130: Prior to the facility repower, during facility repower and during operations, as applicable, the certificate holder shall:

(a) Submit to the Department a copy of the contract or agreement with the contractor for wind turbine component recycling. If not included with contract or agreement, provide a description of methods and vendors for the packaging, transport, and recycling of wind turbine components; or

(b) Submit to the Department a copy of the contract or agreement with the contractor for wind turbine component use, or description of reuse. If not included with contract, agreement, or description, provide a description of methods and vendors for the packaging, transport, and reuse purpose for wind turbine components; or

(c) If recycling or reuse of wind turbine components is not feasible. Submit to the Department an explanation of why no reasonable option for the recycling or reuse of

wind turbine components is available. Provide description of the methods, vendors, and location for the disposal of wind turbine components. [AMD3]

~~IV. CONDITIONS REQUIRED BY COUNCIL RULES~~

This section lists conditions required by OAR 345-027-0020 (Mandatory Conditions in Site Certificates), OAR 345-027-0023 (Site Specific Conditions), OAR 345-027-0028 (Monitoring Conditions) and OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). These conditions should be read together with the specific facility conditions listed in Section V to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and safety. In these conditions, "Office of Energy" means the Oregon Department of Energy, and the other definitions in OAR 345-001-0010 apply.

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this section and in Section V 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.

In addition to these conditions, the site certificate holder is subject to all conditions and requirements contained in the rules of the Council and in local ordinances and state law in effect on the date the certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the 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.

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site certificate.

1 OAR 345-0257-~~0020~~0006(1): The Council ~~shall~~ may not change the conditions of the site certificate except as provided for in OAR Chapter 345, Division 27.

2 OAR 345-0257-~~0020~~0006(2): The certificate holder ~~shall~~ must submit a legal description of the site to the 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 ~~identifies~~ identify the outer boundaries that contain all parts of the facility.

3 OAR 345-0257-00200006(3): The certificate holder ~~shall~~ must design, construct, operate and retire the facility:

(a) Substantially as described in the site certificate;

(b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and

(c) In compliance with all applicable permit requirements of other state agencies.

4 OAR 345-0257-00200006(4): The certificate holder ~~shall~~ must begin and complete construction of the facility by the dates specified in the site certificate. (*See conditions 25 and 26.*)

5 OAR 345-0257-00200006(5): 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~~ may 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 wind energy facilities, transmission lines or pipelines, 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:

(a) 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 or pipeline occurs during the certificate holder's negotiations to acquire construction rights on another part of the site; or

(b) The certificate holder would construct and operate part of a wind energy facility on that part of the site even if other parts of the facility were modified by amendment of the site certificate or were not built.

6 ~~OAR 345-027-0020(6):~~ If the Council requires mitigation based on an affirmative finding under any standards of Division 22 or Division 24 of this chapter, the certificate holder shall consult with affected state agencies and local governments designated by the Council and shall develop specific mitigation plans consistent with Council findings under the relevant standards. The certificate holder must submit the mitigation plans to the Office and receive Office approval before beginning construction or, as appropriate, operation of the facility.

7 OAR 345-0257-00200006(7): The certificate holder ~~shall~~ must 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.

8 OAR 345-0257-00200006(8): 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~~ must maintain a bond or letter of credit in effect at all times 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. (*See Condition 30.*)

9 OAR 345-0257-00200006(9): The certificate holder ~~shall~~ must retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder ~~shall~~ must retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-041~~1~~0. The certificate holder ~~shall~~ must pay the actual cost to restore the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.

10 OAR 345-0257-00200006(10): The Council ~~shall~~ must include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant.

11 OAR 345-0257-00200006(11): Upon completion of construction, the certificate holder ~~shall~~ must restore vegetation to the extent practicable and ~~shall~~ must landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder ~~shall~~ must 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.

12 OAR 345-0257-00200006(12): The certificate holder ~~shall~~ must design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction, triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. ~~tsunami inundation, fault displacement and subsidence.~~

13 OAR 345-0257-00200006(13): The certificate holder ~~shall~~ must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division ~~and~~ to propose and implement corrective of mitigation actions.

14 OAR 345-0257-00200006(14): The certificate holder ~~shall~~ must notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the

certificate holder to consult with Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.

15 OAR 345-0257-00200006(15): Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall must inform the Department of the proposed new owners. The requirements of OAR 345-027-0410 apply to any transfer of ownership that requires a transfer of the site certificate.

16 OAR 345-0257-00200006(16): 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 345-027-0410, the Council shall must notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Office 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 a 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 section (8) of this rule to restore the site to a useful, non-hazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall must pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall must 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.

17 OAR 345-0257-00230010(4): If the facility includes any transmission line under Council jurisdiction:

(a) The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the 2012 Edition of the National Electrical Safety Code approved on June 3, 2011, by the (American National Standards Institute, Section C2, 1997 Edition); and

(b) The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line.

18 OAR 345-0257-00230010(5): If the proposed energy facility is a pipeline or a transmission line or has, as a related or supporting facility, a pipeline or transmission line, the Council shall specify an approved corridor in the site certificate and shall allow the certificate holder to construct the pipeline or transmission line anywhere within the corridor, subject to the conditions of the site certificate. If the applicant has analyzed more than one corridor in its application for a site certificate, the Council may, subject to the Council's standards, approve more than one corridor.

19 OAR 345-0257-0028<u>0016(6) and -0016</u>: The following general monitoring conditions apply:

(a) The certificate holder shall consult with affected state agencies, local governments and tribes and shall develop specific monitoring programs for impacts to resources protected by the standards of Divisions 22 and 24 of this chapter and resources addressed by applicable statutes, administrative rules and local ordinances. The certificate holder must submit the monitoring programs to the Department of Energy and receive Department approval before beginning construction or, as appropriate, operation of the facility.

(b) The certificate holder shall implement the approved monitoring programs described in section (a) and monitoring programs required by permitting agencies and local governments.

(c) For each monitoring program described in sections (1) and (2), the certificate holder shall have quality assurance measures approved by the Department before beginning construction or, as appropriate, before beginning commercial operation.

(d) 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.

20 OAR 345-026-0048: Following receipt of a site certificate or an amended site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules. As a part of the compliance plan, to verify compliance with the requirement to begin construction by the date specified in the site certificate, the certificate holder shall report promptly to the Department of Energy when construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before beginning construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor. The certificate holder shall document the compliance plan and maintain it for inspection by the Department or the Council.

21 OAR 345-026-0080: The certificate holder shall report according to the following requirements:

(a) General reporting obligation for energy facilities under construction or operating:

(i) Within ~~six~~ three months after beginning ~~construction~~the facility repower, and every ~~six~~ three months thereafter during ~~construction of the energy facility and related or supporting facilities~~the facility repower, the certificate holder shall submit a ~~semiannual construction~~ repower progress report to the Department of Energy. In each ~~construction~~ repower progress report, the certificate holder shall describe any significant changes to major milestones ~~for construction~~. The certificate holder shall report on the progress ~~include such information related to~~of ~~construction~~ the repower and shall address the subjects lists in subsection (c) of this condition. ~~as specified in the site certificate.~~ When the reporting date coincides, the certificate

holder may include the ~~construction~~ progress report within the annual report described in this rule.

(b) After January 1 but not later than ~~By~~ April 30 of each year after beginning ~~construction~~operation of the facility, the certificate holder shall submit an annual report to the Department addressing the subjects listed in ~~this rule~~subsection (c) of this condition. For the purpose of this condition, the beginning of operation of the facility means the date when construction of a significant portion of the facility is substantially complete and the certificate holder begins commercial operation of the facility as reported by the certificate holder and accepted by the Department. The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.

(i) To the extent that information required by this rule is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule. The Council reserves the right to request full copies of such excerpted reports.

(c) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:

(i) Facility Status: An overview of site conditions, the status of facilities under construction and a summary of the operating experience of facilities that are in operation. ~~In this section of the annual report,~~ The certificate holder shall describe any unusual events, such as earthquakes, extraordinary windstorms, major accidents or the like that occurred during the year and that had a significant adverse impact on the facility.

(ii) Reliability and Efficiency of Power Production: For electric power plants, the plant availability and capacity factors for the reporting year. The certificate holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems.

~~(iii) Fuel Use: For thermal power plants:~~

~~(A) The efficiency with which the power plant converts fuel into electric energy. If the fuel chargeable to power heat rate was evaluated when the facility was sited, the certificate holder shall calculate efficiency using the same formula and assumptions, but using actual data; and~~

~~(B) The facility's annual hours of operation by fuel type and, every five years after beginning operation, a summary of the annual hours of operation by fuel type as described in OAR 345-024-0590(5).~~

~~(iv)~~(iii) Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.

~~(v)~~(iv) Monitoring Report: A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with site certificate terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes.

~~(vi)~~(v) Compliance Report: A report describing the certificate holder's compliance with all ~~description of all instances of noncompliance with a~~ site certificate conditions

that are applicable during the reporting period. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate.

~~(vii)~~(vi) Facility Modification Report: A summary of changes to the facility that the certificate holder has made during the reporting period without an amendment of the ~~determined do not require a~~ site certificate ~~amendment~~ in accordance with OAR 345-027-030~~0~~50.

~~(viii) Nongenerating Facility Carbon Dioxide Emissions: For nongenerating facilities that emit carbon dioxide, a report of the annual fuel use by fuel type and annual hours of operation of the carbon dioxide emitting equipment as described in OAR 345-024-0630(4).~~

22 OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange copies of all correspondence or summaries of correspondence related to compliance with statutes, rules and local ordinances on which the Council determined compliance, except for material withheld from public disclosure under state or federal law or under Council rules. The certificate holder may submit abstracts of reports in place of full reports; however, the certificate holder shall provide full copies of abstracted reports and any summarized correspondence at the request of the Department.

23 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72 hours of any occurrence involving the facility if:

(a) There is an attempt by anyone to interfere with its safe operation;

(b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused event such as a fire or explosion affects or threatens to affect the public health and safety or the environment; or

(c) There is any fatal injury at the facility.

~~V. SPECIFIC FACILITY CONDITIONS~~

The conditions listed in this section include conditions based on representations in the site certificate application and supporting record. The Council deems these representations to be binding commitments made by the applicant. These conditions are required under OAR 345-027-0020(10). The certificate holder must comply with these conditions in addition to the conditions listed in Section IV. This section includes other specific facility conditions the Council finds necessary to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect public health and safety. For conditions that require subsequent review and approval of a future action, ORS 469.402 authorizes the Council to delegate the future review and approval to the Department if, in the Council's discretion, the delegation is warranted under the circumstances of the case.

~~1. Certificate Administration Conditions~~

24 [Condition deleted Amendment #2 LJF]

25 The certificate holder shall begin construction of the facility by September 24, 2010. Under OAR 345-015-0085(9), a site certificate is effective upon execution by the Council Chair and the applicant. The Council may grant an extension of the deadline to begin construction

in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted. [Amendment #1 LJF]

26 The certificate holder shall complete construction of the facility by September 24, 2013. Construction is complete when: 1) the facility is substantially complete as defined by the certificate holder's construction contract documents, 2) acceptance testing has been satisfactorily completed and 3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted. [Amendment #1 LJF]

27 The certificate holder shall ~~construct~~ design and operate the~~a~~ facility substantially as described in Section III of the site certificate and must not exceed ~~and may select turbines of any type, subject to~~ the following restrictions:

(a) The total number of turbines at the facility must not exceed 40~~7~~ turbines.

~~(b) The peak generating capacity of each turbine must not exceed 3.0 megawatts.~~

~~(c) The combined peak generating capacity of the facility must not exceed 124 megawatts.~~

~~(d) The turbine hub height must not exceed 100 meters, and~~ The maximum turbine blade tip height must not exceed ~~150~~ 453.8 feet~~meters~~.

~~(e) The minimum blade tip clearance must be 30 meters above ground.~~

~~(f) The certificate holder shall request an amendment of the site certificate to increase the combined peak generating capacity of the facility or to increase the number of wind turbines or the dimensions of wind turbines at the facility.~~

[~~Amendment~~ AMD#1 LJF, #3]

28 The certificate holder shall obtain all necessary federal, state and local permits or approvals required for construction, operation and retirement of the facility or ensure that its contractors obtain the necessary federal, state and local permits or approvals.

29 Before beginning construction, the certificate holder shall notify the Department in advance of any work on the site that does not meet the definition of "construction" in OAR 345-001-0010 or ORS 469.300 and shall provide to the Department a description of the work and evidence that its value is less than $250,000.

30 During facility operation, ~~Before beginning construction of the LJIIA components as described in the *Final Order on Amendment #1* for *LJF*, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount is $8.847 million (in 2006 dollars), adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The~~the certificate holder shall:

(a) Annually adjust the amount of the bond or letter of credit ~~on an annual basis thereafter~~ as described in Retirement and Financial Assurance Condition 108(b).

~~(a) The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the LJIIA components by applying the unit costs and general costs illustrated in Table 2 and Table 3 of the Final Order on the Application to the final design and calculating the financial assurance amount as described in that order,~~

~~adjusted to the date of issuance as described in (b) and subject to approval by the Department.~~

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

~~(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in 2006 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 (the "Index") and using the annual average index value for 2006 dollars 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 2006 dollars to present value.~~

~~(ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.~~

~~(iii) Add 10 percent of the adjusted Gross Cost for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost for the adjusted future developments contingency.~~

~~(iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the resulting total to the nearest $1,000 to determine the adjusted financial assurance amount.~~

~~(c) The certificate holder shall use a form of bond or letter of credit approved by the Council.~~

~~The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.~~

(b) ~~The certificate holder shall~~ Ddescribe the status of the bond or letter of credit in the annual report submitted to the Council under Condition 21(b).

(c) Ensure that t~~T~~he bond or letter of credit ~~shall~~ is not ~~be~~ subject to revocation or reduction before retirement of the facility site.

The Department and Council reserve the right to adjust the contingencies, as appropriate and necessary to ensure that costs to restore the site are adequate.

[~~Amendment #2 LJF~~AMD2, AMD3]

31 If the certificate holder elects to use a bond to meet the requirements of Condition 30 or Condition 101, the certificate holder shall ensure that the surety is obligated to comply with the requirements of applicable statutes, Council rules and this site certificate when the surety exercises any legal or contractual right it may have to assume construction, operation or retirement of the energy facility. The certificate holder shall also ensure that the surety is obligated to notify the Council that it is exercising such rights and to obtain any Council approvals required by applicable statutes, Council rules and this site certificate before the surety commences any activity to complete construction, operate or retire the energy facility. [Amendment #1 LJF]

32 Before ~~beginning construction~~facility repower, the certificate holder shall notify the Department of the identity and qualifications of major construction contractor(s) for specific portions of the work. The certificate holder shall select contractors that have substantial experience in the design and construction of similar facilities. The certificate holder shall report to the Department any change of major construction contractors.

33 The certificate holder shall contractually require all construction contractors and subcontractors involved in the ~~construction of the~~ facility repower to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. Such contractual provisions shall not operate to relieve the certificate holder of responsibility under the site certificate.

34 During ~~construction~~the facility repower, the certificate holder shall have an on-site ~~assistant~~ construction manager who is qualified in environmental compliance to ensure compliance with all ~~construction~~repower-related site certificate conditions. During operation, the certificate holder shall have a project manager who is qualified in environmental compliance to ensure compliance with all ongoing site certificate conditions. The certificate holder shall notify the Department of the name, telephone number, fax number and e-mail address of these managers and shall keep the Department informed of any change in this information.

35 Within 72 hours after discovery of conditions or circumstances that may violate the terms or conditions of the site certificate, the certificate holder shall report the conditions or circumstances to the Department.

~~VI.~~V. SPECIFIC FACILITY CONDITIONS (SELECT APPLY TO REPOWER AND OPERATION)

The conditions in this section only apply to facility repower activities or the operational facility, once repowered, if they are not shaded. All shaded conditions applied to original facility construction and are no longer applicable.

The non-applicable conditions are maintained in the site certificate should there be a future change or facility modification for which certificate holder seeks to complete at the site and may rely on compliance with preconstruction and construction conditions to evaluate potential impacts and or need for a site certificate amendment given protections afforded through these historic conditions.

1. Land Use Conditions

36 The certificate holder shall cooperate with the Gilliam County Road Department to ensure that any unusual damage or wear to county roads that is caused by construction of the facility is repaired by the certificate holder. Upon completion of construction, the certificate holder shall restore county roads to pre-construction condition or better, to the satisfaction of the County Road Department.

37 During construction, the certificate holder shall implement measures to reduce traffic impacts, including:
(a) Providing notice to adjacent landowners when heavy construction traffic is anticipated.
(b) Providing appropriate traffic safety signage and warnings.
(c) Requiring flaggers to be at appropriate locations at appropriate times during construction to direct traffic reduce accident risks.

(d) Using traffic diversion equipment (such as advanced signage and pilot cars) when slow or oversize construction loads are anticipated.
(e) Maintaining at least one travel lane at all times to the extent reasonably possible so that roads will not be closed to traffic because of construction vehicles. [Amendment #1 LJF]
(f) Encouraging carpooling for the construction workforce.
(g) Including traffic control procedures in contract specifications for construction of the facility.
(h) Keeping the access from Highway 19 free of gravel that tracks out onto the highway.

38 The certificate holder shall ensure that no equipment or machinery is parked or stored on any county road except while in use.

39 The certificate holder shall construct all facility components in compliance with the following setback requirements:
(a) All facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Gilliam County Comprehensive Plan as residential.
(b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest edge of any public road right-of-way. The certificate holder shall assume a minimum right-of-way width of 60 feet.
(c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 1,320 feet, measured from the centerline of the turbine tower to the center of the nearest residence existing at the time of tower construction.
(d) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest boundary of the certificate holder's lease area.
(e) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each turbine tower to the nearest edge of any railroad right-of-way or electrical substation.
(f) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each meteorological tower to the nearest edge of any public road right-of-way or railroad right-of-way, nearest boundary of the certificate holder's lease area or nearest electrical substation.
(g) The certificate holder shall maintain a minimum distance of 50 feet measured from any facility O&M building to the nearest edge of any public road right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's lease area.
(h) The certificate holder shall maintain a minimum distance of 50 feet measured from any substation to the nearest edge of any public road right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's electrical substation easement or, if there is no easement, the nearest boundary of the certificate holder's lease area. [Amendment #1 LJF]

40 The certificate holder shall consult with area landowners and lessees during construction and operation of the facility and shall implement measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.

41 The certificate holder shall locate access roads and temporary construction laydown and staging areas to minimize disturbance with farming practices and, wherever feasible, shall place turbines and transmission interconnection lines along the margins of cultivated areas to reduce the potential for conflict with farm operations.

42 Before beginning construction of any phase of the facility, the certificate holder shall record in the real property records of Gilliam County a Covenant Not to Sue with regard to generally accepted farming practices on farmland adjacent to the construction area consistent with Gilliam County Zoning Ordinance 7.020(T)(4)(a)(5). [Amendment #1 LJF]

43 The certificate holder shall install lockable gates at the substation and on private access roads.

44 Within 90 days after beginning operation of any phase of the facility, the certificate holder shall provide to the Department and to the Gilliam County Planning Director the actual latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine tower, connecting line and transmission line built in that phase. In addition, the certificate holder shall provide to the Department and to the Gilliam County Planning Director, a summary of as-built changes in the facility compared to the original plan, if any. [Amendment #1 LJF]

2. Cultural Resource Conditions

45 Before beginning construction of the LJIIA components as described in the *Final Order on Amendment #1 for lJF*, the certificate holder shall provide to the Department a map showing the final design locations of all LJIIA components and areas that would be disturbed during their construction and also showing the LJIIA areas that were surveyed in 2004, 2005 and 2006 for cultural resources as described in the site certificate application. If areas to be disturbed during construction lie outside of the surveyed areas, the certificate holder shall hire qualified personnel to conduct field investigation of those areas. The certificate holder shall provide a written report of the field investigation to the Department and to the State Historic Preservation Office (SHPO). If any historic, cultural or archaeological resources are found during the field investigation, the certificate holder shall ensure that construction and operation of the facility will have no impact on the resources. The certificate holder shall instruct all construction personnel to avoid the areas where resources were identified in the 2004-2006 surveys or were found during pre-construction investigations and shall implement other appropriate measures to protect the resources. [Amendment #2 LJF]

46 The certificate holder shall ensure that a qualified person instructs construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource sites.

47 The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the facility until a qualified archaeologist can evaluate the significance of

the find. The certificate holder shall notify the Department and the State Historic Preservation Office (SHPO) of the find. If the archaeologist determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance or data recovery, in consultation with the Department, SHPO and other appropriate parties. The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department that it has complied with the archaeological permit requirements administered by SHPO.

48 During construction of the LJIIA components as described in the *Final Order on Amendment #1 for lJF*, the certificate holder shall label all identified historic, cultural or archaeological resource sites on construction maps and drawings as "no entry" areas, and if construction activities will occur within 200 feet of an identified site, the certificate holder shall flag a 50-foot buffer around the site. [Amendment #2 LJF]

3. Geotechnical Conditions

49 Before beginning construction ~~of any phase~~ of the facility, the certificate holder shall conduct site-specific geotechnical investigation of that phase and shall report its findings to the Oregon Department of Geology & Mineral Industries (DOGAMI). The certificate holder shall conduct the geotechnical investigation after consultation with DOGAMI and in general accordance with DOGAMI open file report 00-04 "Guidelines for Engineering Geologic Reports and Site-Specific Seismic Hazard Reports." [Amendment #2 LJF]

50 The certificate holder shall design and construct the facility in accordance with requirements set forth by the State of Oregon's Building Code Division and any other applicable codes and design procedures. The certificate holder shall design all components of the facility to meet or exceed the minimum standards required by the 2003 International Building Code.

51 The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety presented by non-seismic hazards. As used in this condition, "non-seismic hazards" include settlement, landslides, flooding and erosion.

4. Hazardous Materials, Fire Protection & Public Safety Conditions

52 The certificate holder shall notify the Department within 72 hours of any accidents including mechanical failures on the site associated with construction or operation of the facility that may result in public health and safety concerns.

53 Before beginning construction of any phase of the facility, the certificate holder shall submit Notices of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation identifying the proposed final locations of the turbines and related or supporting facilities in that phase of construction. The certificate holder shall promptly notify the Department of the responses from the FAA and the Oregon Department of Aviation. [Amendment #1 LJF]

54 To protect the public from electrical hazards, the certificate holder shall enclose the facility substations with appropriate fencing and locked gates.

55 The certificate holder shall construct turbine towers that are smooth steel structures with no exterior ladders or access to the turbine blades and shall install locked access doors accessible only to authorized personnel.

56 The certificate holder shall follow manufacturers' recommended handling instructions and procedures to prevent damage to towers or blades that could lead to failure.

57 The certificate holder shall have an operational safety monitoring program and shall inspect turbine blades on a regular basis for signs of wear. The certificate holder shall repair turbine blades as necessary to protect public safety.

58 The certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, to alert operators to potentially dangerous conditions, and the certificate holder shall immediately remedy any dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire.

59 The certificate holder shall install generator step-up transformers at the base of each tower in locked cabinets designed to protect the public from electrical hazards and shall design the cabinets to avoid creation of artificial habitat for raptor prey.

60 The certificate holder shall ~~construct~~ maintain turbines on concrete pads with a minimum of 10 feet of non-flammable and non-erosive ground cover on all sides. The certificate holder shall cover turbine pad areas with non-erosive material immediately following exposure during ~~construction~~ disturbance and shall maintain the pad area covering during operation of the facility.

61 During ~~construction and~~ operation of the facility, the certificate holder shall develop and implement fire safety plans in consultation with the North Gilliam County Rural Fire Protection District and the Arlington Fire Department to minimize the risk of fire and to respond appropriately to any fires that occur on the facility site. In developing the fire safety plans, the certificate holder should take into account the dry nature of the region and should address risks on a seasonal basis. The certificate holder shall meet annually with District and Fire Department personnel to discuss emergency planning and shall invite District and Fire Department personnel to observe any emergency drill or tower rescue training conducted at the facility.

62 During construction and operation of the facility, the certificate holder shall ensure that the O&M buildings and all service vehicles are equipped with shovels and portable fire extinguishers of a 4A5OBC or equivalent rating.

63 During construction, the certificate holder shall ensure that construction vehicles and equipment are operated on graveled areas to the extent possible and that open flames, such as cutting torches, are kept away from dry grass areas.

64 Upon the beginning of operation of the facility, the certificate holder shall provide to North Gilliam County Rural Fire Protection District and the Arlington Fire Department a site plan indicating the identification number assigned to each turbine and the location of all facility structures. During operation, the certificate will ensure that appropriate District and Fire Department personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site.

65 During operation, the certificate holder shall ensure that all on-site employees receive annual fire prevention and response training, including tower rescue training, by qualified instructors or members of the local fire department and that all employees are instructed to keep vehicles on roads and off dry grassland, except when off-road operation is required for emergency purposes.

66 During ~~construction~~facility repower, the certificate holder shall require that all on-site construction contractors develop and implement a site health and safety plan that informs workers and others on-site what to do in case of an emergency and that includes the locations of fire extinguishers and nearby hospitals, important telephone numbers and first aid techniques. The certificate holder shall ensure that construction contractors have personnel on-site who are trained and equipped for tower rescue and who are first aid and CPR certified.

67 During operation, the certificate holder shall develop and implement a site health and safety plan that informs employees and others on-site what to do in case of an emergency and that includes the locations of fire extinguishers and nearby hospitals, important telephone numbers and first aid techniques.

68 The certificate holder shall handle any hazardous materials used on the site in a manner that protects public health, safety and the environment and shall comply with all applicable local, state and federal environmental laws and regulations.

69 If a spill or release of hazardous materials occurs during construction or operation of the facility, the certificate holder shall notify the Department within 72 hours and shall clean up the spill or release and dispose of any contaminated soil or other materials according to applicable regulations. The certificate holder shall make sure that spill kits containing items such as absorbent pads are located on equipment and storage facilities to respond to accidental spills and shall instruct employees handling hazardous materials in the proper handling, storage and cleanup of these materials.

5. Water, Soils, Streams & Wetlands Conditions

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

71 During ~~construction~~onsite disturbance, the certificate holder shall limit truck traffic to designated existing and improved road surfaces to avoid soil compaction, to the extent possible.

72 During construction, the certificate holder shall avoid impacts to waters of the state in the following manner:

(a) The certificate holder shall avoid any disturbance, including the placement of poles for the collector line, within 25 feet of the stream channel in the area identified as "S5" on Figure J-1 of the Site Certificate Application.

(b) The certificate holder shall avoid any disturbance to the six wetland areas identified as "W1" through "W6" on Figure J-1 of the Site Certificate Application [Amendment #2 LJF].

(c) The certificate holder shall avoid any disturbance to the stream channels identified as "S24" and "S25" on Figure J-1 of the Site Certificate Application.

(d) Before beginning construction affecting the location identified as "S27"on Figure J-1 of the Site Certificate Application, the certificate holder shall apply for and obtain a Removal/Fill Permit from the Department of State Lands, which, in accordance with ORS 469.401, shall issue the permit substantially in the form of Attachment F of the Final Order on the Application and subject only to the conditions of this site certificate including substantive requirements listed in that attachment.

(e) Before beginning construction of any phase of the facility, the certificate holder shall determine whether any construction disturbance in that phase would occur in locations not previously investigated for potential jurisdictional waters as described in the Final Orders on the Application and Amendment #1 for LJF. The certificate holder shall conduct pre-construction investigations to determine whether any jurisdictional waters exist in those locations. The certificate holder shall submit a written report on the pre-construction investigation to the Department of Energy and to the Department of State Lands for approval before beginning construction of any phase of the facility and shall ensure that construction of that phase would have no impact on any jurisdictional water identified in the report. [Amendment #2 LJF]

73 During ~~construction~~facility repower, the certificate holder shall ensure that the wash down of concrete trucks occurs only at a contractor-owned batch plant or at tower foundation locations. If such wash down occurs at tower foundation locations, then the certificate holder shall ensure that wash down wastewater does not run off the construction site into otherwise undisturbed areas and that the wastewater is disposed of on backfill piles and buried underground with the backfill over the tower foundation.

74 The certificate holder shall restore areas outside the permanent footprint that are disturbed during construction according to the methods and monitoring procedures described in the *Revegetation Plan* that is incorporated in the *Final Order on Amendment #2 for LJF* as Attachment F and as amended from time to time. [Amendment #2 LJF]

75 During facility operation, the certificate holder shall routinely inspect and maintain all roads, pads and trenched areas and, as necessary, maintain or repair erosion control measures. The certificate holder shall restore areas that are temporarily disturbed during facility maintenance or repair activities to pre-disturbance condition or better.

76 During facility operation, the certificate holder shall obtain water for on-site uses from one or more on-site wells, subject to compliance with any applicable permit requirements, not exceeding 5,000 gallons per day. The certificate holder shall not change the source of water for on-site uses without prior Department approval.

77 During facility operation, if blade-washing becomes necessary, the certificate holder shall ensure that there is no runoff of wash water from the site or discharges to surface waters, storm sewers or dry wells. The certificate holder shall not use more than 50 gallons of water per blade and shall not wash more than eight turbines (24 blades) per week. The certificate holder shall not use acids, bases or metal brighteners with the wash water. The certificate may use biodegradable, phosphate-free cleaners sparingly.

6. Transmission Line & EMF Conditions

78 The certificate holder shall install the 34.5-kV collector system underground to the extent practical. The certificate holder shall install underground segments of the collector system at a minimum depth of three feet. Where geotechnical conditions or other engineering considerations require, the certificate holder may install segments of the collector system aboveground, but the total length of aboveground segments must not exceed 30 percent of the collector system. The certificate holder shall construct aboveground segments of the collector system using single or double circuit monopole design as described in the site certificate application. [Amendment #2 LJF]

79 At least 30 days before beginning preparation of detailed design and specifications for the electrical transmission lines, the certificate holder shall consult with the Oregon Public Utility Commission staff to ensure that transmission line designs and specifications are consistent with applicable codes and standards.

80 To protect public safety, the certificate holder shall design and maintain the transmission lines so that:

(a) Alternating current electric fields during operation do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public.

(b) Induced voltages during operation are as low as reasonably achievable.

81 The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure.
(b) Ensuring that the area near the facility substation is inaccessible to the public by fencing the area.
(c) Constructing aboveground 34.5-kV transmission lines with a minimum clearance of 25 feet from the ground.
(d) Constructing all aboveground 230-kV transmission lines with a minimum clearance of 30 feet from the ground.
(e) Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks.
[Amendment #1 LJF]

7. Plants, Wildlife & Habitat Protection Conditions

82 During ~~construction and~~ operation of the facility, the certificate holder shall implement the ~~a plan to control the introduction and spread of noxious weeds~~Revegetation and Noxious Weed Control Plan, as finalized under Fish and Wildlife Habitat Condition 109. ~~The certificate shall develop the weed control plan in consultation with the Gilliam County Weed Control Board.~~

83 The certificate holder shall design all aboveground transmission line support structures following the practices suggested by the Avian Powerline Interaction Committee (2006) and shall install anti-perching devices on transmission pole tops and cross arms where the poles are located within ½ mile of turbines. [Amendment #1]

84 The certificate holder may construct turbines and other facility components within the site boundary as described in the Final Orders on the Application and Amendment #1 for the LJF, subject to the following requirements addressing potential habitat impact:
(a) The certificate holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.
(b) The certificate holder shall design and construct facility components that are the minimum size needed for safe operation of the energy facility.
(c) In the final design of the facility within micrositing areas, the certificate holder shall reduce impact on essential or important habitat (Category 4 and above) to the extent practical.
(d) As a protective measure during construction, the certificate holder shall install exclusion fencing around confirmed populations of sessile mousetail (identified in Figure Q-3 of the site certificate application). The certificate holder shall not install facility components or cause temporary disturbance within these areas. Before beginning construction, the certificate holder shall verify the protected status of sessile mousetail and notify the Department. If the species has been upgraded to threatened or endangered under State or federal law, the certificate holder shall take appropriate mitigation actions, subject to Department approval. [Amendment #2 LJF]
(e) If construction would affect locations within the micrositing areas that were not previously surveyed for the occurrence of State or federal threatened or endangered species as described in the Final Orders on the Application and Amendment #1 for LJF,

the certificate holder shall conduct additional pre-construction surveys of those locations, notify the Department of the findings and implement appropriate avoidance or mitigation measures for any threatened or endangered species detected, subject to Department approval.
[Amendment #2 LJF]

85 The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat during construction and operation including, but not limited to, the following:
(a) Preparing maps to show sensitive areas, such as nesting or denning areas for sensitive wildlife species, that are off limits to construction personnel.
(b) Before beginning construction of any phase of the facility, the certificate holder shall have a qualified biologist place exclusion markers around sensitive wildlife habitat areas for that phase of construction, including Category 1 Washington ground squirrel (WGS) areas and an appropriate buffer around these areas. The certificate holder shall maintain the exclusion markings until that phase of construction has been completed.
(c) Ensuring that a qualified person instructs construction and operations personnel to be aware of wildlife in the area and to take precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat.
(d) Avoiding unnecessary road construction, temporary disturbance and vehicle use.
(e) Posting and maintaining speed limit signs (not to exceed 20 miles per hour) on access roads throughout the site. The certificate holder shall ensure that all construction and operations personnel are instructed to observe caution when driving in the facility area to avoid injury or disturbance to wildlife enforce and for personal safety.
[Amendment #1 LJF]

86 During ~~construction of any phase of the facility~~facility repower, the certificate holder shall protect the area within a 1300-foot buffer around active nests of the following species during the sensitive period, as provided in this condition:

Species	Sensitive Period	Early Release Date
Swainson's hawk	April 1 to August 15	May 31
Ferruginous hawk	March 15 to August 15	May 31
Burrowing owl	April 1 to August 15	July 15

During the year in which ~~construction of any phase of the facility~~the repower occurs, the certificate holder shall use a protocol approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether there are any active nests of these species within a half-mile of any areas that would be disturbed during construction of that phase. If a nest is occupied by any of these species after the beginning of the sensitive period, the certificate holder shall not engage in high-impact construction activities (activities that involve blasting, grading or other major ground disturbance) or allow high levels of construction traffic within 1300 feet of the nest site. In addition, the certificate holder will flag the boundaries of the 1300-foot buffer area and shall instruct construction personnel to avoid any unnecessary activity within the buffer area. The certificate holder shall hire an independent biological monitor to observe the active nest sites during the sensitive period for signs of disturbance and to notify the Department of any non-compliance with this condition. If the monitor observes nest site abandonment or other adverse impact to nesting activity, the certificate holder shall implement appropriate mitigation, in consultation with ODFW and subject to the approval of the Department, unless the adverse impact is clearly

shown to have a cause other than construction activity. The certificate holder may begin or resume high-impact construction activities before the ending day of the sensitive period if any known nest site is not occupied by the early release date. If a nest site is occupied, then the certificate holder may begin or resume high-impact construction before the ending day of the sensitive period with the approval of ODFW, after the young are fledged. The certificate holder shall use a protocol approved by ODFW to determine when the young are fledged (the young are independent of the core nest site).
[Amendment #1 LJF]

87 The certificate holder shall conduct wildlife monitoring as described in the *Wildlife Monitoring and Mitigation Plan* that is incorporated in the *Final Order on Amendment #~~2~~ 3 for lJF* as Attachment ~~D~~ I and as amended from time to time. [~~Amendment #2 LJF~~AMD2, AMD3]

88 Before beginning construction of the LJIIA components as described in the *Final Order on Amendment #1 for LJF*, the certificate holder shall obtain an Incidental Take Permit (ITP) letter from the Oregon Department of Fish and Wildlife (ODFW) that incorporates the terms and commitments of the ITP application as set forth in Attachment E of the Final Order on the Application. [~~Amendment #2 LJF~~AMD2]

89 The certificate holder shall acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as long as the site certificate is in effect by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the *Habitat Mitigation Plan* as finalized under Fish and Wildlife Habitat Condition 110, ~~that is incorporated in the *Final Order on Amendment #32 for LJF* as Attachment E~~ and as amended from time to time. [~~Amendment #2 LJF~~AMD2, AMD3]

8. Visual Effects Conditions

90 To reduce the visual impact of the facility, the certificate holder shall:
(a) Mount nacelles on smooth steel towers, painted uniformly in a neutral white color.
(b) Paint substation structures in a neutral color to blend with the surrounding landscape.
(c) Not allow any advertising on any part of the facility.
(d) Use only those signs required for facility safety or required by law, except that the certificate holder may erect a sign to identify the facility.
(e) Maintain any signs allowed under this condition in good repair.

91 The certificate holder shall design and construct the operation and maintenance buildings to be generally consistent with the character of similar buildings used by commercial farmers or ranchers in the area and shall paint the building in a neutral color to blend with the surrounding landscape.

92 The certificate holder shall not use exterior lighting at the facility except:
(a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.
(b) Security lighting at the operations and maintenance buildings and at the substations, provided that such lighting is shielded or downward-directed to reduce glare.

(c) Minimum lighting necessary for repairs or emergencies.
(d) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.
[~~Amendment #1 LJF~~AMD1]

9. Noise Control Conditions

93 To reduce noise impacts at nearby residential areas, the certificate holder shall:
(a) Confine the noisiest operation of heavy construction equipment to the daylight hours.
(b) Require contractors to install and maintain exhaust mufflers on all combustion engine-powered equipment; and
(c) Establish a complaint response system at the construction manager's office to address noise complaints.

94 Before beginning construction of any phase of the facility, the certificate holder shall provide to the Department:
(a) Information that identifies the final design locations of all turbines to be built in that phase of construction.
(b) The maximum sound power level of the turbines and substation transformers based on manufacturers' warranties or confirmed by other means acceptable to the Department.
(c) The results of noise analysis of the facility to be built according to the final design performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B)(iii)(IV) and (VI) demonstrating to the satisfaction of the Department that the total noise generated by the facility (including the noise from turbines and substation transformers) would meet the ambient noise degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise sensitive properties.

(d) For each noise-sensitive property where the certificate holder relies on a noise waiver to demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy of the a legally effective easement or real covenant pursuant to which the owner of the property authorizes the certificate holder's operation of the facility to increase ambient statistical noise levels L_{10} and L_{50} by more than 10 dBA at the appropriate measurement point. The legally-effective easement or real covenant must: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the certificate holder; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval.
[Amendment #1 LJF]

95 During operation, the certificate holder shall maintain a complaint response system to address noise complaints. The certificate holder shall promptly notify the Department of any complaints received regarding facility noise and of any actions taken by the certificate holder to address those complaints.

10. Waste Management Conditions

96 The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities.

97 During operation, the certificate holder shall discharge sanitary wastewater generated at the O&M building to a licensed on-site septic system in compliance with county permit requirements. The certificate holder shall design the septic system design with a capacity that is less than 2,500 gallons per day.

98 The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures:

(a) Training construction personnel to minimize and recycle solid waste.
(b) Minimizing the generation of wastes from construction through detailed estimating of materials needs and through efficient construction practices.
(c) Recycling steel and other metal scrap.
(d) Recycling wood waste.
(e) Recycling packaging wastes such as paper and cardboard.
(f) Collecting non-recyclable waste for transport to a landfill by a licensed waste hauler.
(g) Segregating all hazardous wastes such as used 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 hazardous wastes.

99 The certificate holder may dispose of waste concrete on site with the permission of the landowner and in accordance with OAR 340-093-0080 and other applicable regulations. The certificate holder shall dispose of waste concrete on site by placing the material in an excavated hole, covering it with at least three feet of topsoil and grading the area to match existing contours. If the waste concrete is not disposed of on site, the certificate holder shall arrange for proper disposal in a landfill.

100 The certificate holder shall implement a waste management plan during operation that includes but is not limited to the following measures:

(a) Training employees to minimize and recycle solid waste.
(b) Recycling paper products, metals, glass and plastics.
(c) Recycling used oil and hydraulic fluid.
(d) Collecting non-recyclable waste for transport to a landfill by a licensed waste hauler.
(e) Segregating all hazardous, non-recyclable wastes such as used 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 hazardous wastes.

~~VII. CONDITIONS ADDED BY AMENDMENT #1~~

101 [Condition deleted by Amendment 2 LJF]
102 [Condition deleted by Amendment 2 LJF]
103 [Condition deleted by Amendment 2 LJF]

104 [Condition deleted by Amendment 2 LJF]

~~VIII.~~VI. 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 345-027-0~~4~~100.

~~IX.~~VII. 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.

~~X.~~VIII. GOVERNING LAW AND FORUM

This site certificate shall be governed by the laws of the State of Oregon. Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon.

~~XI.~~IX. 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 WHEREOF, this site certificate has been executed by the State of Oregon, acting by and through its Energy Facility Siting Council, and by Leaning Juniper Wind Power II, LLC.

ENERGY FACILITY SITING COUNCIL

By: _____
~~Marcia L. Grail~~Kent Howe, Chair
Oregon Energy Facility Siting Council

Date: _____

LEANING JUNIPER WIND POWER II, LLC

By: _____

Print: _____

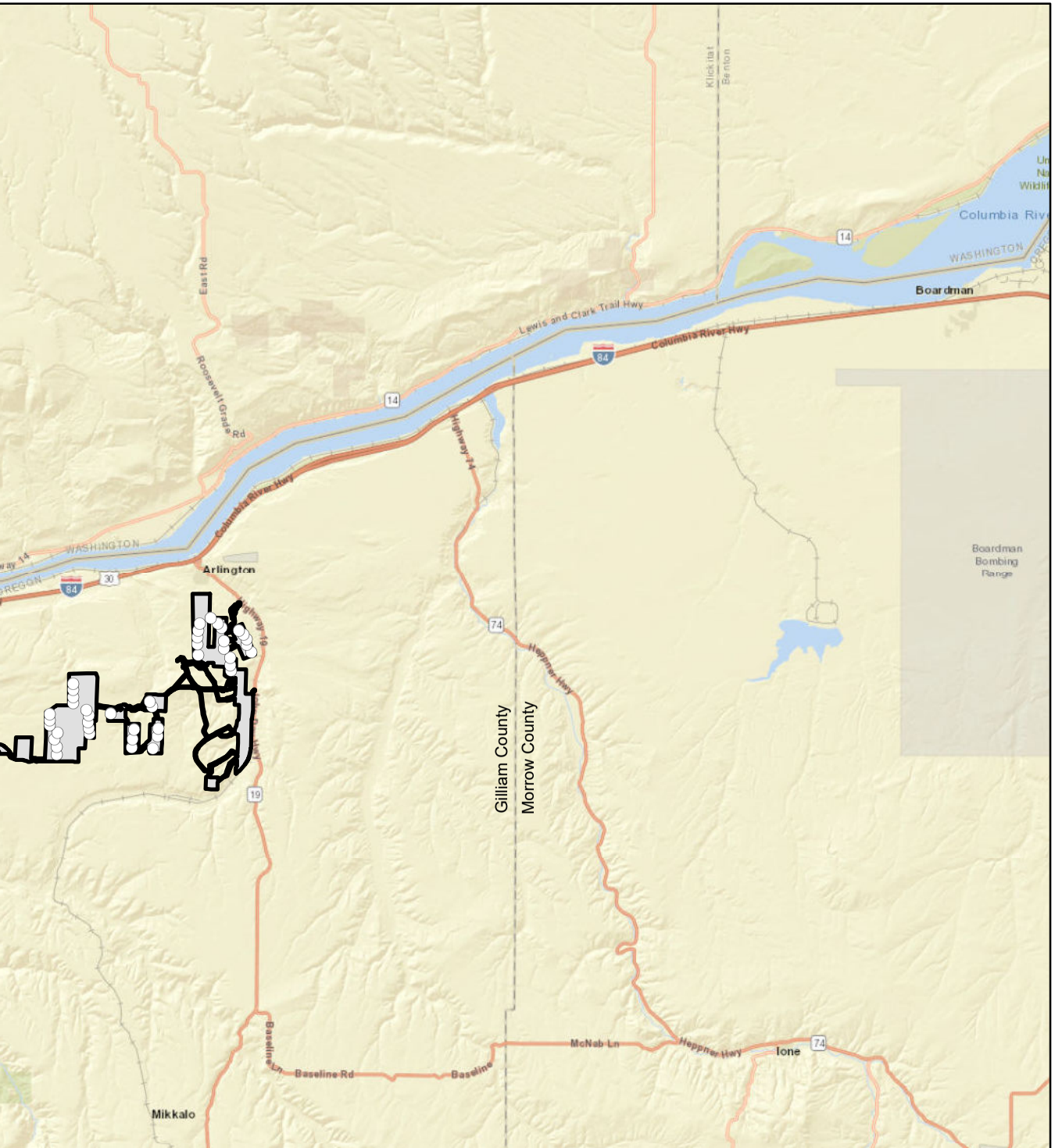
Date: _____

and

By: _____

Print: _____

Date: _____



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Site Boundary

Existing Turbine

N

0 2.5 5 10

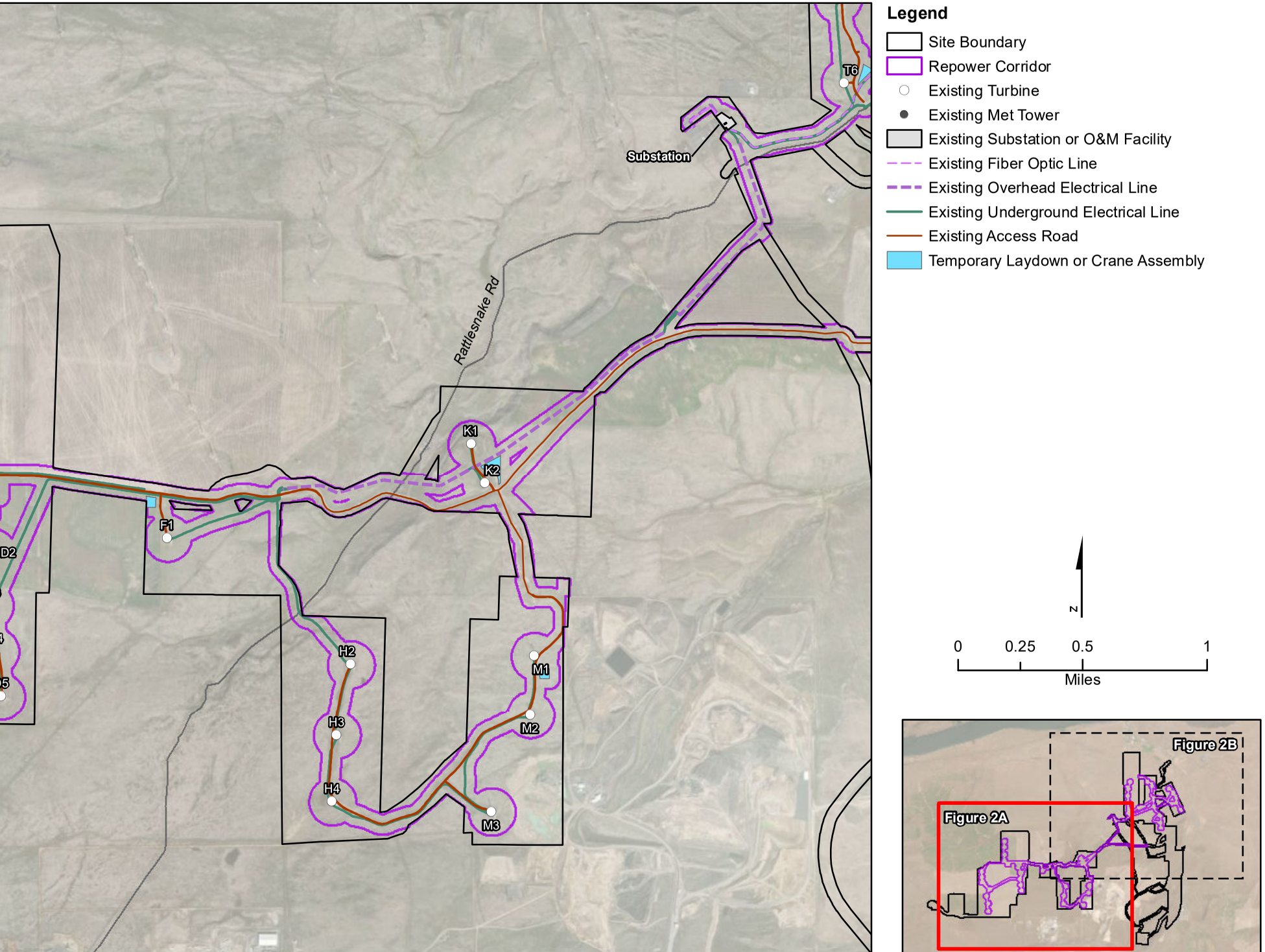
Legend
Site Boundary
Repower Corridor
Existing Turbine
Existing Met Tower
Existing Substation or O&M Facility
Existing Fiber Optic Line
Existing Overhead Electrical Line
Existing Underground Electrical Line
Existing Access Road
Temporary Laydown or Crane Assembly
Substation
Rattlesnake Rd
T6
K1
K2
F1
H2
H3
H4
M1
M2
M3
N
0
0.25
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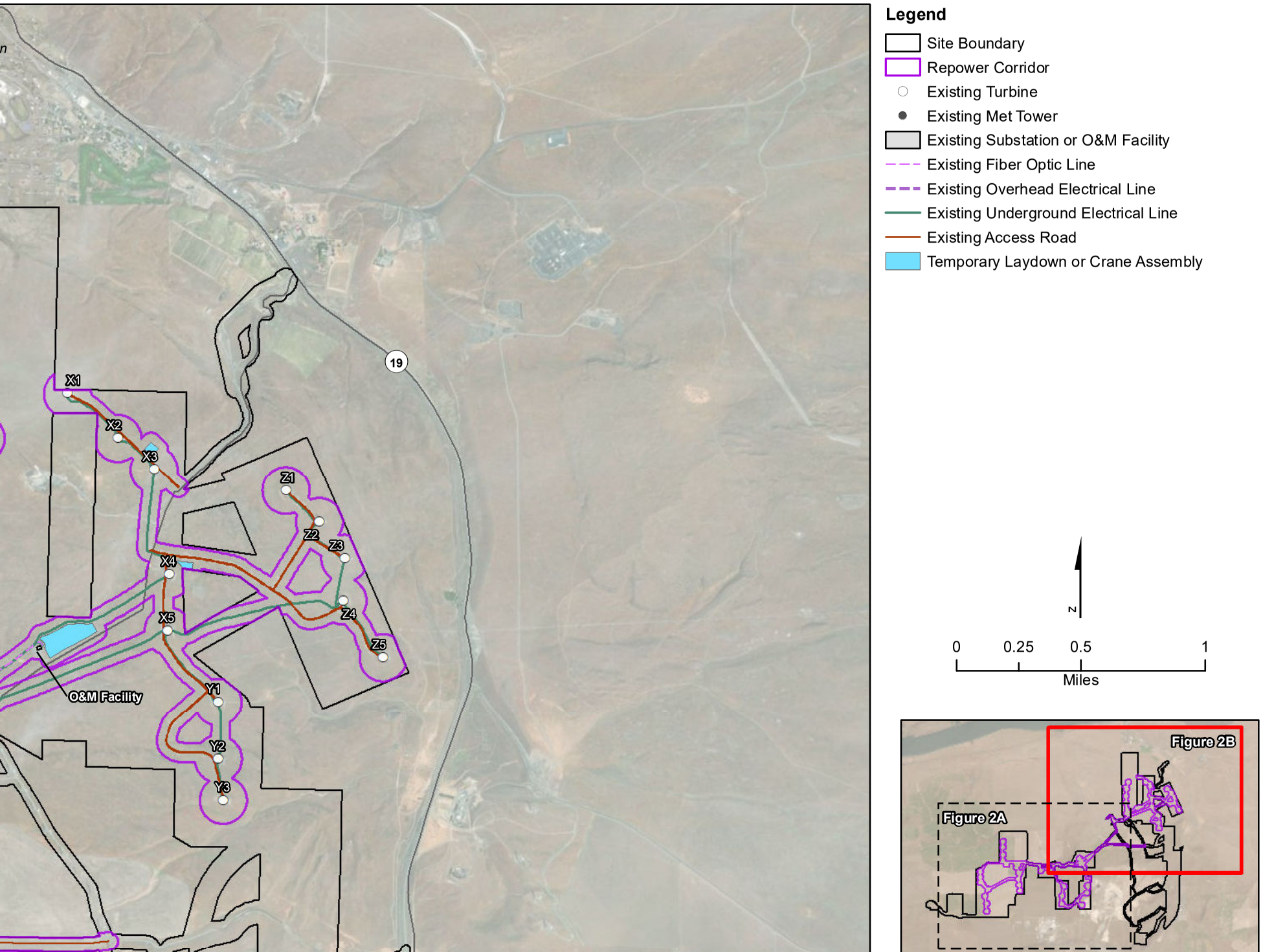
Figure 2A
Figure 2B



Legend

- Site Boundary
- Repower Corridor
- Existing Turbine
- Existing Met Tower
- Existing Substation or O&M Facility
- Existing Fiber Optic Line
- Existing Overhead Electrical Line
- Existing Underground Electrical Line
- Existing Access Road
- Temporary Laydown or Crane Assembly

N

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Miles

Attachment B: Reviewing Agency and Consultant Comments Received for Leaning Juniper IIA Request for Amendment 3

Reviewing Agency Comment Summary Index

Name, Agency	Date	Comment Summary
Michelle Colby, Planning Director, Gilliam County	10-03-2023	Gilliam County request that a new Road Use Agreement be executed prior to construction or mobilization.
Lindsay Somers, Habitat Biologist, ODFW	11-13-2023, 12-06-2023, 02-26-2024, 02-27-2024	ODFW considers repowering activities differently than applications for new site certificates because of prior disturbance. Temporary impacts to WGS habitat buffer are to be mitigated as Category 2, and at a level equivalent with permanent impacts. Enhanced monitoring for WGS. Approved proposed HMA and HMP.
Haley Aldrich	02-23-2024	Concurs with the result of the Barr Foundation Report; recommends that the foundation retrofits be implemented as recommended by Barr, and that the certificate holder be required to implement an anchor bolt inspection program to ensure bolts are properly secured during operations, once repowered.
John Pouley, State Archaeologist, SHPO	12-19-2023	SHPO concurs that impacts from the proposed RFA3 changes will not influence historic properties with the implementation of the recommended buffers for avoidance during repower.

From: Michelle Colby
Sent: Tuesday, October 3, 2023 9:26 AM
To: MCVEIGH-WALKER Chase * ODOE
Cc: Dewey Kennedy; Hutchinson, Matthew
Subject: RE: Email Summary of Public Notice of Receipt of Preliminary Request for Amendment 3 for Leaning Juniper IIA Wind Power Facility Site Certificate

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Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Chase, good day
In the matter of Amendment for Leaning Juniper IIA Wind Power Facility Site certificate, in discussions with Roadmaster Kennedy we, the county, need to make sure all parties are aware as a previous condition and a continued condition of this amendment a new road usage agreement is required prior to any improvements implemented or mobilization of equipment. Gilliam County process dictates any road usage agreement be sign-off/reviewed by Roadmaster, Planning Director and then final approval by Gilliam County Court, at a court meeting, therefore the sooner this is executed the better.
Thanks.

Roadmaster Kennedy's contact information
dewey.kennedy@co.gilliam.or.us
(541) 980-5716 cell

Michelle Colby
Planning Director
Gilliam County
221 S. Oregon St.
PO Box 427
Condon, OR 97823
Ph. 541-351-9517
Michelle.colby@co.gilliam.or.us
Planning Dept. Office hours
Monday –Thursday 8:00 am to 5:00 pm
Friday by appointment only

From: MCVEIGH-WALKER Chase * ODOE <chase.mcveigh-walker@energy.oregon.gov>
Sent: Friday, September 29, 2023 12:56 PM
To: Michelle Colby <michelle.colby@co.gilliam.or.us>; Dewey Kennedy <dewey.kennedy@co.gilliam.or.us>; Elizabeth Farrar <elizabeth.farrar@co.gilliam.or.us>; Delaney Watkins <delaney.watkins@co.gilliam.or.us>; Pat Shannon <pat.shannon@co.gilliam.or.us>; Leah

Watkins <leah.watkins@co.gilliam.or.us>; Miranda Rees <Miranda.rees@co.gilliam.or.us>
Subject: FW: Email Summary of Public Notice of Receipt of Preliminary Request for Amendment 3 for Leaning Juniper IIA Wind Power Facility Site Certificate

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From: Oregon Department of Energy <odoe@cd.energy.oregon.gov>
Sent: Thursday, September 28, 2023 5:18 PM
To: MCVEIGH-WALKER Chase * ODOE <chase.mcveigh-walker@energy.oregon.gov>
Subject: Email Summary of Public Notice of Receipt of Preliminary Request for Amendment 3 for Leaning Juniper IIA Wind Power Facility Site Certificate

OREGON DEPARTMENT OF ENERGY ENERGY FACILITY SITING COUNCIL

Email Summary of Public Notice of Receipt of Preliminary Request for Amendment 3 for Leaning Juniper IIA Wind Power Facility Site Certificate

On September 22, 2023, the Department received preliminary Request for Amendment 3 to the Leaning Juniper IIA Wind Power Facility site certificate (pRFA3) under the Type A review process. Under Type A review, in addition to the written public comment period, there will be a public hearing which includes an opportunity for oral comments.

The pRFA3 seeks Council approval for wind turbine upgrades to 36 of the 43 existing turbines that would include replacing the wind turbine rotors and Nacelles, refurbishing the turbine generators, and reinforcing the turbine foundations. Installation of a new 34.5 collector system and the decommissioning of three of the 43 existing turbines is also included in the amendment request. The upgrades would require Condition 27 to be amended, lowering the minimum aboveground wind turbine blade tip clearance from 30 to 21 meters for the 36 turbines proposed to be upgraded.

The pRFA3 and Public Notice of Receipt of the pRFA3 are available on the Department's website.

The Leaning Juniper IIA Wind Power Facility is an operational 90.3 megawatt (MW) wind energy generation facility, located within a site boundary of 6,404 acres. The facility consists of 43 wind turbines with a maximum blade tip height of 492 feet.

For more information, please contact Chase McVeigh-Walker, Senior Siting Analyst:

Chase McVeigh-Walker, Senior Siting Analyst
550 Capitol Street NE
Salem, OR 97301
Phone: (971) 600-5323
Fax: (503) 373-7806
Email: chase.mcveigh-walker@energy.oregon.gov

You received this notice either because you previously signed up for email updates related to specific siting projects, all Energy Facility Siting Council activities (the "General List"), or Rulemaking activities. You may manage your subscriptions to updates on various ODOE and Energy Facility Siting Council projects by logging in to our ClickDimensions page.

If you have any questions or comments about ClickDimensions please feel free to contact Nancy Hatch at 503-378-3895, toll-free in Oregon at 800-221-8035, or email to Nancy.hatch@oregon.energy.gov

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Oregon Department of Energy
Leading Oregon to a safe, equitable, clean, and sustainable energy future.

The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

AskEnergy@oregon.gov | 503-378-4040 | 550 Capitol St. NE in Salem

ESTERSON Sarah * ODOE

From: Sarah.ESTERSON@energy.oregon.gov
Subject: Leaning Juniper IIA Request for Amendment 3 - Request for Review of Call Summary Notes

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From: Michelle Colby <michelle.colby@co.gilliam.or.us>
Sent: Friday, February 16, 2024 4:29 PM
To: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: RE: Leaning Juniper IIA Request for Amendment 3 - Request for Review of Call Summary Notes

Sarah, the notes look adequate.
Thanks
Hopefully you and Dewey Kenned, Roadmaster were able to connect.

All my best,
Michelle

Michelle Colby
Planning Director
Gilliam County
221 S. Oregon St.
PO Box 427
Condon, OR 97823
Ph. 541-351-9517
Michelle.colby@co.gilliam.or.us
Planning Dept. Office hours
Monday –Thursday 8:00 am to 5:00 pm
Friday by appointment only

Leaning Juniper IIA – Preliminary Request for Amendment 3 of the Site Certificate

Oregon Department of Energy and Special Advisory Group/Gilliam County Planning Department
February 6, 2024 – Call Notes Summary

Facts

Preliminary Request for Amendment 3 (pRFA3) seeks approval from the Energy Facility Siting Council to amend the Leaning Juniper IIA Site Certificate to authorize the following changes to an existing, operational wind facility in Gilliam County:

- Repower 36 of 43 existing 2.1 MW turbines including replacement of rotors and nacelles, refurbish generators, and reinforce foundations. Once repowered, turbines would generate 2.5 MW, each.
- Temporarily disturb approximately 850 acres of high-value farmland
- Install a new 34.5 kV underground collector system
- Decommission three existing wind turbines (one has already been decommissioned)

Land Use

The existing facility is in Exclusive Farm Use zoned land. The facility has been in operation since 2011. During permitting of the facility, LCDC's OAR 660-033-0130(37) was not in place. Therefore, compliance with this rule will be evaluated.

The changes proposed in pRFA3 were evaluated against GCZO Section 7.020(T)(7)(c)(2)

> *An amendment to the conditional use permit shall be required if proposed facility changes would:*
> *a. Increase the land area taken out of agricultural production by an additional 20 acres or more;*
> *b. Increase the land area taken out of agricultural production sufficiently to trigger taking a Goal 3 exception;*
> *c. Require an expansion of the established facility boundaries;*
> *d. Increase the number of towers;*
> e. *Increase generator output by more than 25 percent relative to the generation capacity authorized by the initial permit due to the repowering or upgrading of power generation capacity.*

The existing capacity is 90.3 MW (although permitted at 124 MW). Once repowered under pRFA3, the capacity would be 98.4. The increase in generator output either on an individual generator or as a facility would not increase by more than 25%. Therefore, a conditional use permit amendment is not required; compliance with conditional use requirements is therefore not evaluated. The evaluation through ODOE/EFSC will rely on previously imposed conditions that apply during construction and O&M, and the adequacy of those conditions to minimize local impacts.

Condition Summary

- **Condition 36** requires the certificate holder to "cooperate with the Gilliam County Road Department to ensure that any unusual damage or wear to county roads that is caused by construction of the facility is repaired by the certificate holder. Upon completion of construction, the certificate holder shall restore county roads to pre-construction condition or better, to the satisfaction of the County Road Department."
    - County will confirm if they have Road Use Agreement template that should be required for this condition.

- **Condition 82** requires that the certificate holder implement a Noxious Weed Control Plan, in consultation with Gilliam County Weed Control Board.
    - ODOE will contact Gilliam County Weed Supervisor about observations or complaints at the site to determine if changes or additional requirements specific to monitoring, treatment and/or communication should be included for the repower impacts.

- **Condition 98 and 100** require that the certificate holder implement a waste management plan during construction and operation, respectively. The Department will be recommending a new or amended condition to require reuse/recycling of wind turbine blades, hubs, and other removed wind turbine components resulting from the repower activities.

Other Comments/Recommendations

- The County recommends certificate holder be required to consult with Gilliam County Soil and Water Conservation staff prior to, during and post disturbance of the approximately 850 acres of high-value farmland to ensure that impacts can be minimized and controlled throughout the construction process.

- While temporary impacts to RV parks could be an issue during construction, significant impacts are not expected based on recent experience with other local, Avangrid-based projects.

RE: LJIIA- Ongoing Habitat Impact Discussions

SOMERS Lindsay N * ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>
Mon 11/13/2023 9:19 AM

To:PATRICK, MARCELLA <marcella.patrick@avangrid.com>
Cc:CHERRY Steve P * ODFW <Steve.P.CHERRY@odfw.oregon.gov>;ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>;MCVEIGH-WALKER Chase * ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>

Hi Marcy,

I read through the 2022 report for the LJIIA/B HMA, I think the following options could provide significant uplift at the site based on the provided photos. The site has sage recruitment and native bunchgrass, but appears to have a high percentage of cheatgrass that is likely competing with beneficial grasses/forbs and further slowing sagebrush recruitment. Because impacts to Cat 2 and 3 Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass habitats are to be mitigated I think the following would be appropriate.

- Herbicide treatment for annual grasses, followed by reseeding of native grasses and forbs with the goal of increasing native grass and forb percent cover/diversity.
  - This would be in addition to existing noxious weed control of ODA listed species (i.e. starthistle, skeletonweed, etc).
  - I would recommend a year of monitoring following treatment to determine if seeding is necessary. If there are enough native plants to reestablish in the treated area, seeding may not be needed.
  - Sagebrush is already regenerating, so removing competing annual grasses will likely increase recruitment of young plants.

OR

- Planting of additional shrub species (i.e. bitterbrush, greasewood, fourwing saltbrush or winterfat) to increase percent shrub cover or shrub diversity.
  - If species are supported by site soils/aspects

These are only suggestions, and any uplift at the site will need to be based on site conditions, but I hope this is helpful!

Lindsay

From: SOMERS Lindsay N * ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>
Sent: Tuesday, November 7, 2023 1:31 PM
To: PATRICK, MARCELLA <marcella.patrick@avangrid.com>
Subject: RE: LJIIA- Ongoing Habitat Impact Discussions

Thank you Marcy!

I will forward you some uplift actions that we have recommended in the past for this region early next week at the latest. I will be out of the office the rest of the week for a hunting trip, but If I get that done today I will send it your way.

Best,

Lindsay

From: PATRICK, MARCELLA <marcella.patrick@avangrid.com>
Sent: Tuesday, November 7, 2023 1:27 PM
To: SOMERS Lindsay N * ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>
Cc: Bensted, Amy <amy.bensted@tetratech.com>; HALEY, TALIA <talia.haley@avangrid.com>
Subject: RE: LJIIA- Ongoing Habitat Impact Discussions

And 2022 report – you should have all of the most recent reports now!

Marcy Patrick (*she/her/Ms.*) Cell: 801.946.1092
Permit Manager – Renewables

From: PATRICK, MARCELLA
Sent: Tuesday, November 7, 2023 1:26 PM
To: 'SOMERS Lindsay N ODFW' <Lindsay.N.SOMERS@odfw.oregon.gov>
Cc: 'Bensted, Amy' <amy.bensted@tetratech.com>; HALEY, TALIA <talia.haley@avangrid.com>
Subject: RE: LJIIA- Ongoing Habitat Impact Discussions

2021 report

Marcy Patrick (*she/her/Ms.*) Cell: 801.946.1092
Permit Manager – Renewables

From: PATRICK, MARCELLA
Sent: Tuesday, November 7, 2023 1:25 PM
To: 'SOMERS Lindsay N ODFW' <Lindsay.N.SOMERS@odfw.oregon.gov>
Cc: 'Bensted, Amy' <amy.bensted@tetratech.com>; HALEY, TALIA <talia.haley@avangrid.com>
Subject: RE: LJIIA- Ongoing Habitat Impact Discussions

2020 report

Marcy Patrick (*she/her/Ms.*) Cell: 801.946.1092
Permit Manager – Renewables

Internal Use

From: PATRICK, MARCELLA
Sent: Tuesday, November 7, 2023 1:24 PM
To: 'CHERRY Steve P ODFW' <Steve.P.Cherry@stateoforegon.mail.onmicrosoft.com>; 'SOMERS Lindsay N ODFW' <Lindsay.N.SOMERS@odfw.oregon.gov>
Cc: 'Bensted, Amy' <amy.bensted@tetratech.com>; 'Albrich, Elaine' <ElaineAlbrich@dwt.com>; HALEY, TALIA <talia.haley@avangrid.com>
Subject: RE: LJIIA- Ongoing Habitat Impact Discussions

Hi Lindsay, as promised, attached is the HMA monitoring report from 2019. I'll be sending you the additional reports from years 2020-2022 individually in separate emails due to file size.

Thank you!
Marcy

Marcy Patrick (*she/her/Ms.*) Cell: 801.946.1092
Permit Manager – Renewables

Internal Use

From: PATRICK, MARCELLA
Sent: Monday, November 6, 2023 5:29 PM
To: HALEY, TALIA <talia.haley@avangrid.com>; CHERRY Steve P ODFW <Steve.P.Cherry@stateoforegon.mail.onmicrosoft.com>; SOMERS Lindsay N ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>; Bensted, Amy <amy.bensted@tetratech.com>; Albrich, Elaine <ElaineAlbrich@dwt.com>
Cc: ESTERSON Sarah ODOE <Sarah.ESTERSON@energy.oregon.gov>; MCVEIGH-WALKER Chase ODOE <Chase.MCVEIGH-WALKER@energy.oregon.gov>
Subject: RE: LJIIA- Ongoing Habitat Impact Discussions

Good evening everyone, ahead of our call tomorrow, I am sending a brief agenda and some information to help guide our discussion.

- Confirm temporary impacts anticipated from repowering LJIIA.
  - Amounts reported in pRFA are greater than what is actually anticipated. Refer to table below for updated estimates on limit of disturbance (LOD).
- Confirm habitat subtypes that could potentially require temporal loss mitigation.
  - Following the previously approved HMP (attached), only the SSA habitat subtype would potentially require mitigation for temporal loss.
- Confirm mitigation approach, if mitigation is deemed necessary.
  - Review existing HMA area in relation to actual as-built impacts from initial project construction.
  - Refer to the table below – Avangrid would like to discuss excess mitigation from initial project construction as a credit towards any temporal loss mitigation requirements for the repower.

Have a great night, and talk to you all tomorrow!
Marcy

Estimated Temporary LOD - Repower for LJIIA

Category and Habitat Type	Habitat Subtype	Habitat Description	Temporary Impacts (ac)	Mitigation Acres (0.5:1)
Category 2				
E	ESC	Escarpment	0.1	
SS	SSA	Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass	36.1	18.05513
SS	SSC	Erigonum/Poa sandbergii-annual grass	8.0	
Category 3				
G	AG	Annual Grass and weeds	6.5	
SS	SSA	Sagebrush-rabbitbrush-snakeweed/bunchgrass-annual grass	17.8	8.8899625
SS	SSB	Rabbitbrush-snakeweed-eriogonum/bunchgrass	162.4	
Category 4				
G	AG	Annual Grass and weeds	12.7	
Category 6				
D	DW	Dryland wheat	151.1	
D	DX	Developed	1.5	
		SUM REPOWER CONSTRUCTION =		**26.9450925**

As-Built Impacts for Initial Project Constructic (source: Appendix B Reveg Report from 2011

Phase	Total Mitigatic Area Require
IIA	28.07
IIB	18.36
SUM 2011 CONSTRUCTION =	**46.43**
ACTUAL HMA =	**92**
MITIGATED IN EXCESS =	**45.57**

Marcy Patrick (*she/her/Ms.*) Cell: 801.946.1092
Permit Manager – Renewables

-----Original Appointment-----
From: HALEY, TALIA <talia.haley@avangrid.com>
Sent: Wednesday, November 1, 2023 8:11 AM
To: HALEY, TALIA; PATRICK, MARCELLA; CHERRY Steve P ODFW; SOMERS Lindsay N ODFW; Bensted, Amy; Albrich, Elaine
Cc: Bainter, Allison; CHERRY Steve P * ODFW; ESTERSON Sarah ODOE; MCVEIGH-WALKER Chase ODOE
Subject: LJIIA- Ongoing Habitat Impact Discussions
When: Tuesday, November 7, 2023 12:00 PM-1:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: Microsoft Teams Meeting

A call to continue the discussion regarding the habitat impacts as part of the LJIIA repower project.

Microsoft Teams meeting

Join on your computer, mobile app or room device
Click here to join the meeting

Meeting ID: 360 221 858 144
Passcode: yMTBNt
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Or call in (audio only)
+1 347-774-3063,,588582667# United States, New York City
Phone Conference ID: 588 582 667#
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Internal Use

Oregon
Tina Kotek, Governor

Department of Fish and Wildlife
John Day Watershed
East Region
73471 Mytinger Lane
Pendleton, Oregon 97801
(541) 276-2344
FAX (541)276-4414

November 27, 2023

Chase McVeigh-Walker
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97301

RE: Request for comments on Preliminary Request for Amendment 3 of Site Certificate for Leaning Juniper IIA Wind Power Facility

Dear Chase,

Oregon Department of Energy (ODOE) has requested comments from the Oregon Department of Fish and Wildlife (ODFW) on the Preliminary Request for Amendment (pRFA) for the Leaning Juniper IIA (LJIIA) Wind Power Facility which is located in Gilliam County. This letter contains 1) ODFW contact information for the project; and 2) ODFW's comments on the pRFA.

Contacts

I will be the main contact person for ODFW for the Energy Facility Siting Council (EFSC) permitting process and my contact information is: Lindsay Somers, 73471 Mytinger Lane, Pendleton, OR 97801. My phone number is 541-276-2344, Lindsay.n.somers@odfw.oregon.gov. In addition, please copy Steve Cherry, District Wildlife Biologist, Steve.p.cherry@odfw.oregon.gov, on communications.

General Comments

ODFW appreciates the early and frequent communication from the Certificate Holder prior to conducting repower activities in areas occupied by Washington Ground Squirrels (WGS) (*Urocitellus washingtoni*) which are listed under the Oregon Endangered Species Act (ORS 496.171 through 496.192).

WGS can be found in shrub-steppe or grassland habitat where they occupy sites with deep, loose, sandy loam soil suitable for burrows and with abundant forbs. Historical and current habitat loss and fragmentation has reduced the range of the WGS within Oregon. Occupied WGS habitat, with a 785-foot buffer, is considered essential, limited, and irreplaceable habitat and is

protected by definition under the ODFW Habitat Mitigation Policy (OAR Chapter 635, Division 415).

ODFW classifies wildlife habitats according to our mitigation policy, which describes six habitat categories and establishes mitigation goals and standards for each wildlife habitat ranging from Category 1 (irreplaceable, essential, limited) to Category 6 (non-habitat). WGS colonies are known to shift through time and recent surveys of the LJIIA Wind Facility identified a new colony of WGS adjacent to, but outside, the repower corridor proposed within the pRFA. The Certificate Holder has proposed to temporarily impact habitat within 785-feet of the active WGS colony, but within the disturbance footprint of the original LJIIA construction activities.

ODFW considers repowering activities differently than applications for new site certificates, as the existing infrastructure has already provided an impact to the landscape. Upgrades to existing infrastructure inherently avoids impacts from additional project development, and as such minimizes and avoids impacts to intact WGS habitat. Temporary impacts to these previously disturbed habitats within the original project footprint, but in proximity to an occupied WGS colony, should be mitigated as Category 2 habitat.

Specific Comments

- ODFW recommends project impacts be minimized as practical to previously developed areas or habitats within previous disturbance footprint, all impacts to habitats be temporary in nature, and areas of disturbance be revegetated.

- ODFW recommends flagging of restricted access areas, limiting offroad travel, speed limits on project roads, and monitoring during major construction activities to ensure no impacts outside of approved boundary. If offroad (i.e., not within existing roadbed or gravel pad) or off hard surface activities are necessary, extra preventative measures such as erosion control mats should be used to minimize impacts to soil and vegetation. Additionally, do not blade and remove vegetation, crushing is preferred if there is no risk of wildfire.

- In addition to avoidance and minimization measures, ODFW recommends enhanced monitoring of the potentially impacted WGS colony, including locating the known extent of the colony and monitoring pre- and post-construction to ensure no negative impacts.

- In order to avoid and/or minimize impacts to wildlife during construction of the project ODFW requests that any ground disturbance or vegetation removal within the project boundary be conducted prior to or after the critical period for ground nesting birds, April 15-September 1. Should ground disturbance occur during this period, ODFW requests that vegetative removal occur prior to the critical nesting period.

- ODFW recommends that the Certificate Holder conduct raptor nest surveys be conducted within 2 miles of the project area during the active nesting season: Ferruginous hawk (March 15-August 15), Swainson's hawk and burrowing owl (April 1-August 15), and that no construction occur within 0.25 miles of an active raptor nest, during the nesting season.

ODFW appreciates the opportunity to comment on this pRFA. Don't hesitate to reach out if you have any questions regarding recommendations.

Sincerely,

Lindsay Somers
Regional Habitat Biologist

Cc: Steve Cherry, District Wildlife Biologist

From: SOMERS Lindsay N * ODFW
Sent: Monday, February 26, 2024 3:53 PM
To: ESTERSON Sarah * ODOE
Cc: MCVEIGH-WALKER Chase * ODOE
Subject: LJIIA request for amendment 3

Hi Sarah,

Thank you for sending the Draft LJIIA revegetation plan, repower fatality monitoring plan, and avian risk assessment for review.

I concur that the fatality study will sufficiently describe impacts to birds and bats within the facility following repower activities. Also, the success criteria for the revegetation plan are robust, although having data from the selected reference sites will help determine if noxious weeds are present at reference sites, and if the success criteria are reasonable to achieve.

Regarding mitigation of temporary impacts, ODFW generally considers temporary impacts to be those that last no longer than one life cycle for the shortest-lived species that depends on the affected habitat. Because Washington Ground Squirrels have a life span averaging 2-3 years, impacts to habitat such as sagebrush-steppe, may have a negative impact on more than one generation. For this reason, ODFW recommends mitigating for temporary impacts in slow-recovery habitat types in addition to revegetation. The level of compensatory mitigation recommended for temporal loss of habitat resulting from a temporary impact depends on the Habitat Category impacted, the habitat type impacted, and the average estimated time to recover that habitat to its pre-disturbance ecological function and quality. ODFW would recommend mitigating for each acre of temporary impacts within slow recovering category 2 habitat with at least an acre of mitigation to address this temporal loss.

Please reach out with any questions,

Lindsay

Lindsay Somers
Habitat Biologist-John Day Watershed
Oregon Department of Fish and Wildlife
73471 Mytinger Ln
Pendleton, OR 97801
Office: 541-388-6294
Cell: 541-314-1236

From: ESTERSON Sarah * ODOE
Sent: Tuesday, February 27, 2024 1:39 PM
To: MCVEIGH-WALKER Chase * ODOE
Subject: FW: LJIIA temporary impacts discussion

FYI

From: SOMERS Lindsay N * ODFW <Lindsay.N.SOMERS@odfw.oregon.gov>
Sent: Tuesday, February 27, 2024 1:38 PM
To: PATRICK, MARCELLA <marcella.patrick@avangrid.com>
Cc: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Subject: LJIIA temporary impacts discussion

Hi Marcy,

To follow up on temporary impacts guidance, ODFW generally considers temporary impacts to be those that last no longer than two years, and impacts are addressed through revegetation of the impacted habitat.

For habitat types that take more than two years to return to pre-construction form and function, ODFW will recommend compensatory mitigation to account for temporal loss of habitat quantity for wildlife during that extended time to recovery, in addition to revegetation, typically at ½ the rate of permanent impacts (dependent on quality and function of the habitat being impacted).

For habitat types that take a significant number of years to recover their pre-disturbance form and function (for example sagebrush-steppe), the temporal loss of habitat will likely have a negative impact on more than one generation within that affected wildlife population. Because of the proximity and status of Washington Ground Squirrels to this project area, they are the primary species of interest. They are also a short-lived species, averaging 2-3 years. For this reason, ODFW recommends compensatory mitigation for temporary impacts in these slow-recovery habitat types at a level equivalent with permanent impacts (dependent on quality and function of the habitat being impacted, with a minimum of 1:1 recommended).

Lindsay

Lindsay Somers
Habitat Biologist-John Day Watershed
Oregon Department of Fish and Wildlife
73471 Mytinger Ln
Pendleton, OR 97801
Office: 541-388-6294
Cell: 541-314-1236

HALEY & ALDRICH, INC.
6420 S Macadam Avenue
Suite 100
Portland, Oregon 97230

MEMORANDUM

20 February 2024
File No. 203737-000

TO: Oregon Department of Energy
Sarah Esterson, Senior Policy Advisor

FROM: Haley & Aldrich, Inc.
Gary Mochizuki, P.E., S.E.
Senior Technical Specialist

SUBJECT: Review of Request for Amendment 3 Attachment 4d (Foundation Evaluation Report with Preliminary Retrofit Design) for the Leaning Juniper IIA Site Certificate (OAR 345-024-0010)

On behalf of the Oregon Department of Energy (ODOE), Haley & Aldrich, Inc. (H&A), an environmental and geotechnical engineering consulting firm, reviewed the report by Barr Engineering Company (Barr) issued for Avangrid Renewables, LLC, titled "Leaning Juniper IIA Wind Project, Wind Turbine Foundation Evaluation Report, Repowering with a GE 2.5-116," dated December 14, 2023, signed *"DRAFT FOR REVIEW."*

The purpose of the Barr foundation evaluation was to determine whether the existing wind turbine foundations at the Leaning Juniper IIA site (constructed in 2009) could accommodate the design loads associated with replacing the existing Suzlon S88 nacelles and rotors with new GE 2.5-116 nacelles and rotors using 2023 industry standards. The analysis and conclusions of the Foundation Evaluation Report assess the existing foundations based on the new load demands as provided by GE for the GE 2.5-116 turbine installed on the existing support towers. Independent verification of the loads was not conducted by Barr and was not reviewed by H&A. Barr used the August 5, 2009 geotechnical report to determine the seismicity of the site. Barr's evaluation was conducted solely by calculation and did not include a physical inspection or condition assessment of the existing foundations.

We generally recommend using the latest versions of codes and standards, but we are aware that some revisions from edition to edition are minor; but we advise that the latest site-specific seismicity be reviewed to assure it has not significantly changed from the 2009 geotechnical report used in the Barr evaluation. Also, to assure there is no significant damage to the foundations, a physical condition assessment of the foundations should be incorporated into the foundation evaluation.

The existing foundations consist of reinforced concrete footings. The analysis conducted by Barr included calculations assessing:

- Foundation global stability, bearing capacity, and stiffness,
- Tower/foundation connection for ultimate strength,
- Reinforced concrete ultimate strength and fatigue strength, and
- Grout Strength.

The report concluded that the foundation and tower/foundation connection passed all design checks for normal (operational), extreme, and fatigue conditions except the concrete fatigue strength in bearing was found to be inadequate. The concrete bearing strength referred to in the report is the side blowout of the concrete podium beneath the bottom flange of the tower.

Barr recommended two options for strengthening the foundation. The two options are as follows:

1. Provide confinement of the circular pedestal by adding a concrete ring around the pedestal,
2. Provide confinement of the circular pedestal by adding a fiber-reinforced polymer wrap around the entire vertical face of the pedestal.

The strengthening of the foundation concepts proposed by Barr appear to be adequate to increase the fatigue strength in bearing.

In closing, we take no exception to the conclusions of the report assuming the following conditions are met:

- The *"DRAFT FOR REVIEW"* stamp is removed from the foundation evaluation report,
- A field condition assessment report is incorporated as part of the evaluation,
- The most recent known site-specific seismicity is considered in the evaluation, and
- The remainder of the report otherwise remains the same.

We recommend all anchor bolts be retightened at the time of the foundation retrofit construction. We also recommend that 10 percent of the bolts for each foundation be checked at least annually and that all bolts be tightened if any bolt fails the tension test.

If you have any questions about the contents of this memo, please do not hesitate to contact us.

Sincerely,

Gary Mochizuki, P.E., S.E. (WA,OR,CA,HI)
Senior Technical Specialist

HALEY ALDRICH

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

December 19, 2023

Ms. Kathleen Sloan
Oregon Department of Energy
550 Capitol St. NE
Salem, OR 97391

RE: SHPO Case No. 23-1643
ODOE Leaning Juniper IIA Wind Power Facility
Proposed repowering of existing wind facility components within areas that have been permitted by EFSC
Multiple legals, Arlington, Gilliam County

Dear Kathleen Sloan:

Thank you for submitting information for the undertaking referenced above. Oregon SHPO concurs there will be no historic properties affected for this undertaking, if the following recommendations in the report are followed:

"1. Site 35GM373 can be avoided by prohibiting ground-disturbing activities north of the access road as shown on Figure 4A in Appendix A.
2. Site 35GM388 can be avoided by establishing a 100-foot (30-meter) buffer around the site boundary as shown on Figure 4B in Appendix A.
The remaining five archaeological sites are either not eligible or are located outside of the Facility repower corridor and no further archaeological work is recommended. The following describes the archaeological resources found within or near the Facility repower corridor with further descriptions on the site, NRHP eligibility, and avoidance recommendations."

If the undertaking design or effect changes or if additional historic properties are identified, further consultation with Oregon SHPO will be necessary before proceeding with the proposed undertaking. Additional consultation regarding this case must be sent through Go Digital. In order to help us track the undertaking accurately, reference the SHPO case number above in all correspondence.

Our office has assigned the report SHPO biblio number 34268. Details will be available in the bibliographic database.

Please contact our office if you have any questions, comments or need additional assistance.

Sincerely,

John D. Pouley

John Pouley, M.A., RPA
State Archaeologist
(503) 480-9164
john.pouley@oprd.oregon.gov

cc: David Sheldon, Jacobs Engineering

Attachment C: Soil Monitoring Plan

~~Draft~~ Repower Soil Monitoring Plan

Leaning Juniper IIA Wind Power Facility
Gilliam County, Oregon

Prepared for
Leaning Juniper Wind Power II, LLC

Prepared by

December 2023

Revised by Department February 2024

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Contents

~~Tables~~

Figure

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1.0 Introduction

Leaning Juniper IIA Wind Power Facility (Facility) is an operational wind power facility with 43 turbines and a maximum generating capacity of 90.3 megawatts (MW) located within a site boundary of approximately 6,404 acres in Gilliam County, Oregon. Leaning Juniper Wind Power II, LLC (Certificate Holder) is seeking a third amendment to the Facility Site Certificate to repower 36 of the Facility turbines and decommission 3 turbines, which will result in 40 operational turbines. The proposed changes to the Facility, as identified in the Request for Amendment 3 (RFA 3), would not alter the previously approved site boundary or micrositing corridors. All repower disturbance would occur in a portion of the micrositing corridor designated by Certificate Holder as the "repower corridor." Additional details regarding proposed activities associated with the Facility repower are provided in the RFA 3. The Oregon Department of Energy (ODOE) requested, as part of RFA 3, that the Certificate Holder develop a soil monitoring plan for the Facility repower.

This Plan has been prepared to describe the methods, success criteria, and monitoring and reporting requirements for soils that may be temporarily disturbed during Facility repower construction. As required by the Oregon Administrative Rule's (OAR) 345-022-0022 Soil Protection Standard, the Oregon Energy Facility Siting Council (EFSC) can issue a Site Certificate only if EFSC finds that the design, construction, and operation of the Facility, considering mitigation, are not likely to result in a significant adverse impact to soils. ~~In addition, the RFA3 would be subject to the Erosion and Sediment Control Plan (Condition 70) identified in the September 21, 2007 Final Order of the Site Certificate. In 2007, EFSC found that the Facility complies with the Soil Protection Standard and the OAR has not changed since the original site certificate was issued for the Facility.~~

The soils in the repower corridor consist of silty and sandy loams typically less than 15 feet thick. These soil types consist of deep, well-drained soils with slow to rapid runoff and slow to moderate permeability (LJII 2006). The Certificate Holder has confirmed that the six soil types (Krebs, Olex, Sagehill, Ritzville, Warden, Willis) and conditions within the repower corridor have remained the same since the original Site Certificate was issued in 2007. Temporary disturbance associated with RFA 3 construction would impact up to approximately 396 acres within previously approved micrositing corridors located in the repower corridor; no new permanent disturbance is anticipated.

Temporary disturbances to soil from construction activities within the repower corridor would involve topsoil removal and stockpiling, grading and excavation of subsoil, and soil compaction from laydown activities, heavy equipment movement, and vehicle traffic. Areas within the repower corridor that contain steady high winds, where vegetation has been removed and soil has been disturbed and left bare, would likely experience erosion from water or wind until they are stabilized; thus, the potential for erosion in these areas is considered moderate. There is also the increased potential for dust generation within the repower corridor during construction when the soil is exposed or excavated. Unless adequate measures are taken to prevent soil removal, soil quality could deteriorate over time. Left unprotected, the soil within the repower corridor would

further degrade by erosion and begin to adversely affect the surrounding environment. Therefore, soil best management practices would be implemented by the construction contractor through the Facility's National Pollutant Discharge Elimination System (NPDES) 1200-C Stormwater Construction Permit to mitigate the potential for erosion and mitigation efforts will be required under the Erosion Control Plan and the NPDES 1200-C permit. The condition of the soils prior to construction would be recorded and would include, but not be limited to ~~, existing infiltration rate,~~ soil compaction. ~~In addition, landscape features such as berms and ditches that would need to be preserved or rebuilt would be identified and recorded. Furthermore, soil protection measures such as topsoil separation and decompaction would be completed as specified during construction.~~ This Plan supports these efforts and provides direction for monitoring soil quality in the repower corridor prior to and after the construction of the wind turbines.

~~2.0 Monitoring Program~~

~~Soil quality is the capacity of a soil to function within a natural or managed ecosystem. The quality of the soil helps to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation. To identify changes that may occur in soil quality within the repower corridor from construction activities, monitoring is necessary. Soil monitoring would determine how the soil is functioning; whether or not it sustains biological diversity, activity, and productivity; regulates and partitions water and solute flow; filters and buffers organic and inorganic materials; and stores and cycles nutrients. Because soil cannot be measured directly, its quality is assessed indirectly using a small set of soil properties that are measured soil in different scales and in a given time frame (NRCS 2001a). Soil quality assessments are conducted by evaluating indictors, or the physical, chemical, and biological properties, processes, or characteristics of the soil. Indicators also include morphological or visual features of plants (e.g., rooting depth can indicate bulk density of the plant or how compact the soil may be). Indicators are selected based on their relationship to specific soil properties and quality. Once selected, indicators can be assessed quantitatively by obtaining a precise, numeric value of that indicator (e.g., measurement of the infiltration rate). Thus, the indicators would reveal the general trend or direction of soil quality within the repower corridor; whether or not soil quality is increasing, decreasing, or being maintaining (NRCS 2001b). Because high quality soil is the foundation of soil health, the collection of representative soil samples within the repower corridor, both pre- and post-construction information would be collected.~~

~~One way of determining if soil quality is increasing, decreasing, or being maintained is to collect pre- and post- construction harvest yield data from land planted in dryland wheat within the repower corridor and compare this data to land planted in dryland wheat outside the repower corridor using paired plots. This harvest yield data can then be analyzed to see if there is a change in overall yield. If soil quality is increasing in the dryland wheat fields during construction, then dryland wheat harvest yield will increase. If soil quality is decreasing in the wheat fields during construction, dryland wheat will not be able to maintain productivity, store or cycle nutrients, or~~

~~regulate its water flow; therefore, harvest yield will decrease. Furthermore, if soil quality is maintained in the wheat fields during construction, then harvest yield will also be maintained.~~

~~If harvest yield monitoring is not feasible, pre- and post-construction soil assessments would be conducted to monitor changes or trends in soil quality within the repower corridor. These assessments would be conducted in the year prior to construction and for 2 years following construction. The assessment would include three paired plots. Soil samples from each of the major soil types would be collected from inside the repower corridor (repower corridor plot) and the other outside the repower corridor (reference plot). Paired plots would then be used and located in areas with similar topographical features (aspect and slope) and the same soil types. Plots to conduct soil sampling for the assessment would be identified during a site visit prior to the start of construction and will be selected based on micrositing information. There are 19 soil types found within the repower corridor, but only three occupying significant portions of the corridor. Approximately 32% of the corridor is in the Ritzville silt loam, 2 to 7 percent slopes, and 24% is in the Olex silt loam, 0 to 5 percent slopes. An additional 14% is within the Krebs silt loam, 2 to 5 percent slopes. Because the other soil types each occupy only a small percentage of the total (most types less than 3% each), they will not be separately monitored. To monitor change in soil quality over time, the same plots will be measured at each sampling time and if possible, measurements would be conducted with the same soil moisture conditions at each sampling time to reduce variability. If the plots are placed in locations that do not result in construction activities due to later micrositing, they would be removed from the study.~~

~~The Natural Resources Conservation Service Soil Quality Test Kit Guide (NRCS 2001a) includes field procedures to assist in the evaluation of the level of one or more soil functions and contains soil testing methods for different soil qualities. These testing methods are used as a screening tool to provide immediate results when comparing monitoring changes in soil quality over time and for diagnosing possible soil health problems. The proposed soil quality metrics and timing in Table 1 would help determine if the temporary disturbances associated with RFA3 construction would increase, decrease, or maintain soil quality within the repower corridor. These metrics would also provide the benchmark conditions used in determining the soil profile description, infiltration rate, and nutrient test within the plots. The following sections describe the relevant tests for this Project, as well as the interpretation of results and reclamation measures.~~

~~Table 1. Proposed Soil Quality Metrics and Timing~~

~~Metric~~	~~Metric Description~~	~~Timing of Study~~	~~Number of Data Points~~
~~Agricultural landscape features such as berms and ditches~~	~~Identification and recording of existing features~~	~~Prior to construction~~	~~Observations collected during pre-construction surveys~~
~~Soil physical observations and estimations~~	~~Provides soil profile description (depth of topsoil, observation of plant roots, resistance, soil structure, size of aggregates or peds, grade~~	~~Soil profiles will be described prior to construction and one time in the first year of the study.~~	~~One soil pit per each sample site pre- and post-construction.~~

~~Metric~~	~~Metric Description~~	~~Timing of Study~~	~~Number of Data Points~~
	~~of aggregates, and soil textural class)~~		
~~Soil infiltration rate~~	~~Provides measurement of the rate of downward entry of water into the soil[1]~~	~~Infiltration measurements will be taken the year prior to construction and for 2 years following construction. preferably during mid-growing season.~~	~~Three infiltration tests per sample site per year.~~
~~Soil compaction~~	~~Provides measurement of compaction onsite.~~	~~Compaction measurements will be taken the year prior to construction and for 2 years following construction. preferably during mid-growing season.~~	~~Three compaction measurements per sample site per year.~~
~~Nutrient testing~~	~~Provides measurement of the amount of plant-available nutrients, the total organic matter present, and the pH.~~	~~Nutrient tests will be taken the year prior to construction and for 2 years following construction.~~	~~One nutrient test per sample site per year~~
~~1. Desta,K. 2019. Soil Quality Monitoring: A Practical Guide. Oklahoma Cooperative Extension Service.~~			

~~2.1~~1.1 Agricultural Landscape Features

Prior to construction, certificate holder or its surveyors will identify and record any agricultural landscape features such as berms and ditches within the repower corridor. In addition, certificate holder or its surveyors will document current farming practices and check for a plow pan or the compacted layer of soil that forms beneath the depth at which traditional plowing or tilling equipment operates. This documentation shall be submitted to the Department and the construction contractor. Construction activities shall avoid impacting important agricultural landscape features unless approved by landowner or lessees.

~~2.2 Soil Physical Observations and Estimations~~

~~This soil quality test is conducted to determine the physical structure of the soil or the arrangement and organization of the particles in the soil. The physical structure of the soil includes its depth, aggregate size, and water holding capacity. These physical properties help determine how much water and nutrients the soil can retain and transport; crop productivity potential; level of surface compaction; water movement; and how much water the soil can hold. Soil structure also influences the retention and transmission of water and air in the soil, as well as the mechanical proper ties of the soil. Therefore, this test would be conducted within the repower corridor to help determine if construction activities such as topsoil removal, and grading and excavation of subsoil have impacted soil quality. The collection of this information is important as it would help determine whether or not the removal of topsoil, grading or excavation was impacting water storage, nutrient cycles, soil fertility, organic carbon content, and soil productivity.~~

~~To conduct this test, a single soil pit that is a foot deep would be dug in each plot. Using a shovel, a slice of soil from the wall of the pit would be cut and used to measure the depth of the topsoil. Data such as plant root observations, soil resistance, soil structure, size of aggregates, grade of aggregates, and soil textural class would be recorded to provide a soil profile for each plot. Testing of the soils physical properties would be conducted once prior to construction and once following construction as these properties remain the same unless there are additional disturbances to the soil. These properties would serve as the benchmark conditions for each plot and would assist in confirming that each soil sample matches the NRCS soil profile ascribed to that location.~~

~~2.3 Infiltration Rate Test~~

~~Infiltration is the process of water entering the soil. The rate at which water enters the soil is the infiltration rate, which is dependent on the soil type; soil structure, or amount of aggregation; and the soil water content (Lowery et al. 1996). This test involves measuring the amount of time it takes water to completely infiltrate the soil surface. When the soil surface has not been compacted there is an initial high rate of infiltration, but as the water enters the soil the rate of infiltration declines as the water replaces the air in the pore space. If compaction of the soil surface does occur it reduces the pore space within the soil, causing a lower infiltration rate and standing water to be present. A lower infiltration rate also causes an increase in water runoff, leading to greater soil erosion and less available water for plants. Infiltration classes based on rates as defined by the Natural Resources Conservation Service (NRCS 2020) are listed in Table 2. This test would be conducted to help determine if laydown activities, movement of heavy equipment, or vehicle traffic have impacted soil quality within the repower corridor. This test would be performed annually at both the repower corridor plots and reference plots prior to the start of construction,~~

~~To conduct this test, a portion of the plot would be cleared of surface residue and a 6-inch-diameter metal ring would be hammered into the soil at a depth of 3 inches. A sheet of plastic wrap would then be draped over the soil and ring and 1 inch of water would be poured into the ring lined with plastic wrap. The plastic wrap would then be carefully removed, leaving the water in the ring. The amount of time it takes for the 1-inch of water to infiltrate the soil would then be recorded. Because the first inch of water only wets the soil, this process would be repeated at least two times for a better estimate of the infiltration rate.~~

~~Table 2. NRCS Infiltration Rates and Classes~~

~~Infiltration Rate (minutes per inch)~~	~~Infiltration Rate (inches per hour)~~	~~Infiltration Class (soil permeability class)~~
~~<3~~	~~>20~~	~~Very rapid~~
~~3 to 10~~	~~6 to 20~~	~~Rapid~~
~~10 to 30~~	~~2 to 6~~	~~Moderately rapid~~
~~30 to 100~~	~~0.6 to 2~~	~~Moderate~~
~~100 to 300~~	~~0.2 to 0.6~~	~~Moderately slow~~
~~300 to 1,000~~	~~0.06 to 0.2~~	~~Slow~~

~~1,000 to 40,000~~	~~0.0015 to 0.06~~	~~Very slow~~
~~>40,000~~	~~<0.0015~~	~~Impermeable~~

~~2.4~~1.2 Compaction

Soil scientists use a soil penetrometer to field measure subsurface compaction in soil. This tool measures resistance (pressure) to the advance of a cone-tipped rod with a T-handle, vertically through the soil column. The metric intends to measure soil compaction that can inhibit the ability of plants to penetrate the soil. An operator pushes the penetrometer rod with a cone base into the ground with consistent force. A pressure gauge records pressure in pounds per square inch(psi), equaling levels of resistance at differing soil layers. Resistance is measured at 3-inch intervals until the meter goes above 300 psi, which is a level of soil compaction most roots cannot penetrate. For this test compaction would be measured at 3, 6, 9, and 12 inches if the soils allowed.

1. Baseline and post-construction soil compaction measurements and testing must be done in conditions favorable to soil testing (e.g. non-saturated or frozen soils).
2. Baseline soil compaction measurements will be documented and established by using the above protocol, or other protocol as approved by the Department, to establish baseline soil conditions within:
    a. One (1) adjacent plot to each turbine work area;
    b. Adjacent plots, established by Department and certificate holder, along facility roads where temporary impacts are wider than 50 feet from operational road width;
    c. Adjacent plots, established by Department and certificate holder, along underground collector lines where temporary impacts are wider than 50 feet from operational width.
3. Recordation of the baseline soil plots must be represented on a map based on facility design and temporary impact areas. (Draft site plans are included as Attachment 1 to this plan)
4. Prior to construction completion at a facility site and prior to construction contractor moving from the location, soil compaction testing following the above protocols must be done within the temporary work area.
~~1.~~5. If soil measurements demonstrate that the soils within the work areas are more than 10% compacted than the adjacent baseline plot, then remediation activities must be completed prior to construction contractor moving to a new location or off-site. See Section 3.0 below, the facility NDES 1200-C permit, and applicable site certificate conditions.

~~2.5 Nutrient Test: Nitrogen, Phosphorous, Organic Matter, and pH~~

~~The nutrient test is conducted to determine the amount of nutrients in the soil that may be available to plants. In general, this test measures the amount of plant-available nutrients in the soil, the total organic matter present, and the pH and is an indicator of plant productivity. Elements such~~

~~as carbon must be in a chemical form and must be dissolved in soil water to be used by a plant. When the soil has excess nutrients, some nutrients bind to the soil and become temporarily unavailable, and some react with other elements to form insoluble minerals which can be dissolved again later. When there is too much water in the soil it can leach the nutrients from it, but if there is not enough water the nutrients cannot dissolve and move into the plant (Gatiboni 2022). Thus, measuring the organic matter in the soil helps determine the amount of stored nutrients that can be made available to plants based on the health of the soil microorganisms. Measuring soil pH helps determine the acidity or alkalinity of the soil, which affects the availability of plant nutrients, activity of microorganisms, and the solubility of soil minerals. When plant-available nutrients are diminished there will be reduced plant growth, chlorosis of the foliage (color changes to light-green or yellow), distortion in leaf shape, thinning of stems, limited root growth or poorly developed root systems, and a tendency to wilt readily (Gatiboni 2022). Therefore, this test would help determine if construction activities such as topsoil removal and stock piling, grading and excavation of subsoil, and soil compaction from laydown activities, heavy equipment movement, and vehicle traffic have impacted the plant-available nutrients within the repower corridor.~~

~~To conduct this test, soil samples would be taken the year prior to construction, preferably during the growing season, at three locations within each plot to get a statistically representative sampling size. Soil samples would be collected from the top 6 inches at each soil plot location. Samples collected from the paired sample plots would then be sent to Simply Soil Testing lab in Burlington, Washington. Tests for nitrogen, phosphorous, potassium, pH, and organic matter would be run for paired soil types.~~

~~3.0~~2.0 ~~Interpretation of Results and~~ Reclamation Measures

~~The goal of a soil quality assessment is to provide information about the trend of soil quality; whether it is increasing, decreasing, or being maintained. The results obtained in the initial soil quality assessment would provide relative amounts of nutrients of in the soil from which to evaluate future changes to the soil within the repower corridor. Subsequent assessments would provide information regarding the trend or direction of soil quality and determine if the indicators are moving in the desired direction or becoming relatively stable at an acceptable level. Because soil quality would not begin to show improvement for a number of years, the continuation of soil sampling within the plots would verify whether or not the relative amounts of essential nutrients in the soil within the repower corridor is increasing, decreasing, or remaining at the same level.~~

~~For the purposes of this Repower Project, if yield monitoring or soil monitoring reveal that the essential nutrient level is no more than 10 percent above or below the relative amount between the repower corridor plots and reference plots, then monitoring will be discontinued. Monitoring would continue at all plots until the plots have been reclaimed to within 10 percent of the relative amount. However, if yield monitoring or soil monitoring trends reveal that the essential nutrient level is more than 10 percent above or below the relative amount between the repower corridor plots and the reference plots, it will be assumed that construction activities have had an adverse~~

~~impact on the soils. Therefore, soil quality monitoring within the repower corridor plots and reference plots will continue to be monitored for 2 years following construction. These i~~Impacts to soils from compaction would be mitigated by the certificate holder and its construction contractor by:

- The facility National Pollutant Discharge Elimination System (NPDES) 1200-C general stormwater permit, and Erosion and Sediment Control Plan (ESCP). The ESCP may be revised by the Department or certificate holder to address erosion, compaction, or impacts to soils at the site if the BMPs in the ESCP are not mitigating soil impacts.
- ~~using a~~Adaptive management techniques may be used including, but not limited to, decompaction of impacted souls, the addition of supplementary nutrients or minerals to adject the pH, or the addition of composed organic matter.

~~4.0~~3.0 References

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Attachment 1

Facility Repower Draft Corridor Figures

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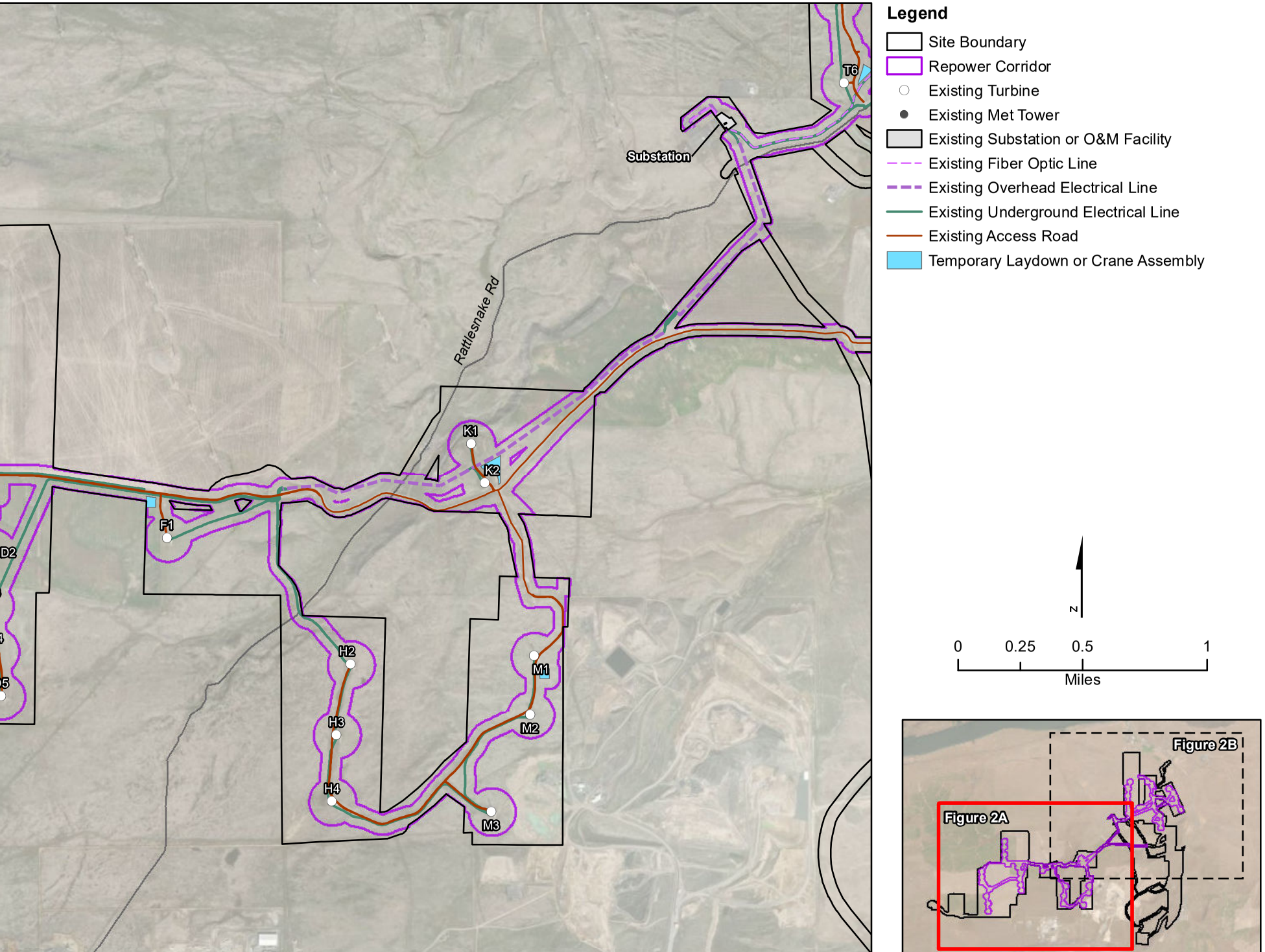
Legend
Site Boundary
Repower Corridor
Existing Turbine
Existing Met Tower
Existing Substation or O&M Facility
Existing Fiber Optic Line
Existing Overhead Electrical Line
Existing Underground Electrical Line
Existing Access Road
Temporary Laydown or Crane Assembly
Substation
Rattlesnake Rd
T6
K1
K2
F1
H2
H3
H4
M1
M2
M3
N
0
0.25
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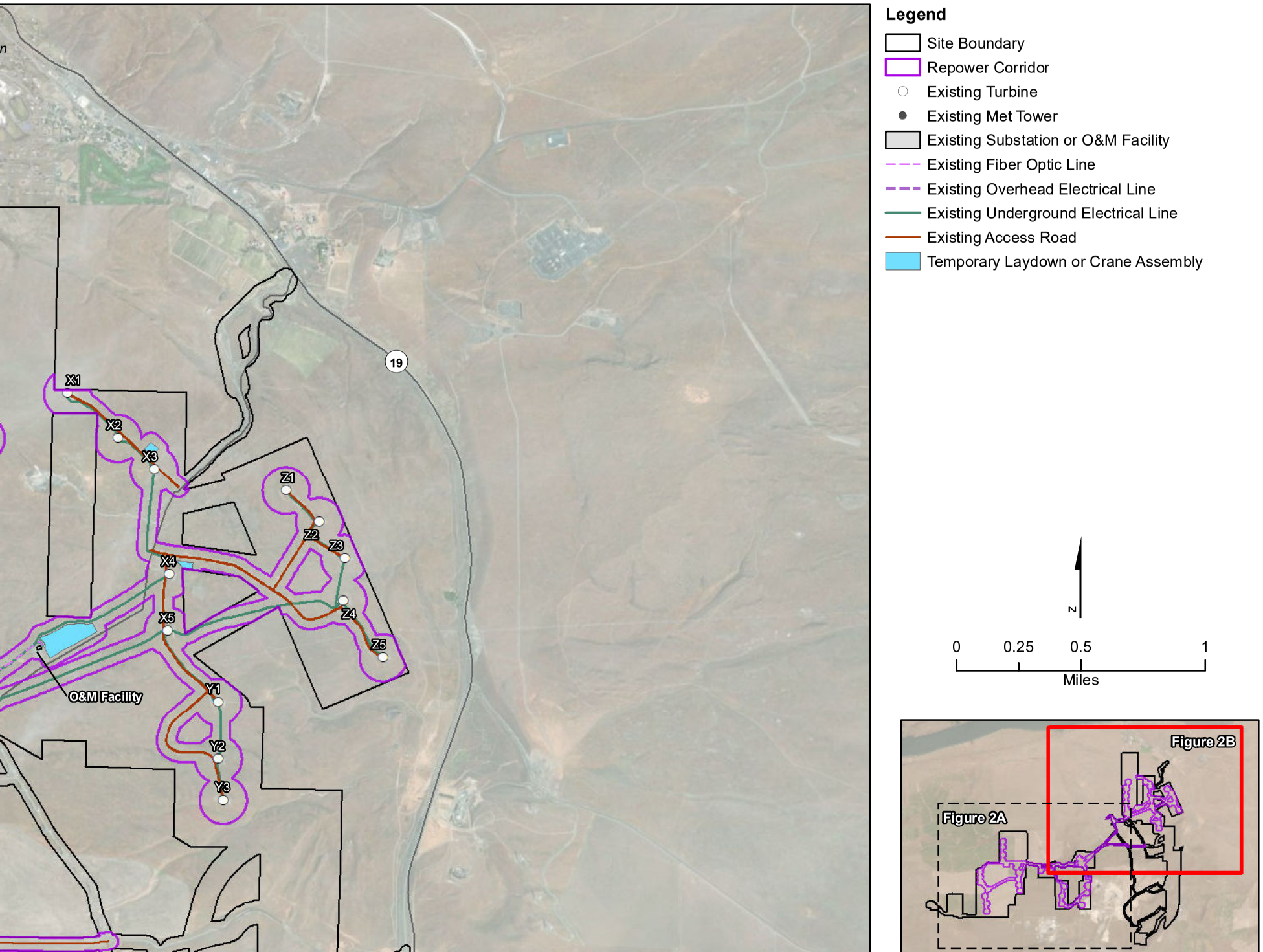
1
Miles
Figure 2A
Figure 2B



Legend

- Site Boundary
- Repower Corridor
- Existing Turbine
- Existing Met Tower
- Existing Substation or O&M Facility
- Existing Fiber Optic Line
- Existing Overhead Electrical Line
- Existing Underground Electrical Line
- Existing Access Road
- Temporary Laydown or Crane Assembly

N

0 0.25 0.5 1

Miles

Attachment D: Decommissioning Unit Costs and General Costs

Bid Item	Area	Description	Takeoff Quantity	Labor Quantity	Labor Amount	Material Amount	Equip Amount	Total Amount
01		**TURBINES AND TOWERS**						
	01A	**DISCONNECT ELECTRICAL AND READY FOR DISASSEMBLY**						
		Field personnel, general purpose laborer, average crew of four	0.40 week	64 mh	**5,672**	-	-	**5,672**
		Rent aerial lift, telescoping boom to 60' high, 600 lb cap	2.00 day	-	-	-	**1,315**	**1,315**
		01A DISCONNECT ELECTRICAL AND READY FOR DISASSEMBLY	**1.00 EA**	**64 hrs**	**5,672**		**1,315**	**6,987**
	01B	**FELL TURBINE TOWERS (40 AFTER REPOWER)**						
		Field personnel, general purpose laborer, average, crew of two	13.00 week	1,040 mh	**92,171**	-	-	**92,171**
		Rent dozer, crawler, torque converter, diesel 700 HP	65.00 day	-	-	-	**390,650**	**390,650**
		Selective demolition, torch cutting, steel, 1" thick plate -- CUT FOR FELLING	1,400.00 lf	160 mh	**20,300**	**5,975**	**418**	**26,692**
		Wire rope, 6 x 19, 1/2" diam, fiber core, 5000' rolls	18,000.00 lf	-	-	**27,717**	-	**27,717**
		01B FELL TURBINE TOWERS (40 AFTER REPOWER)	**40.00 EA**	**1,200 hrs**	**112,471**	**33,692**	**391,068**	**537,230**
	01C	**PROCESS FOR RECYCLING, TOWER**						
		Field personnel, general purpose laborer, average	50.00 week	2,000 mh	**177,251**	-	-	**177,251**
		Rent excavator diesel hydraulic crawler mounted 2 CY capacity	250.00 day	-	-	-	**401,876**	**401,876**
		Rent excavator attachment, grapples	250.00 day	-	-	-	**64,688**	**64,688**
		Operating costs for cutting torch, including tips and gas	978.00 day	-	-	-	**270,600**	**270,600**
		Selective demolition, torch cutting, steel, 1" thick plate -- CUT FOR RECYCLING	325,968.00 lf	7,800 mh	**989,626**	-	**20,361**	**1,009,987**
		01C PROCESS FOR RECYCLING, TOWER	**40.00 EA**	**9,800 hrs**	**1,166,877**		**757,524**	**1,924,401**
	01Ca	**REMOVE AND LOAD NACELLE AND HUB (36 AFTER REPOWER)**						
		Field personnel, general purpose laborer, average, crew of two	3.00 week	240 mh	**21,270**	-	-	**21,270**
		Rent crane truck mounted, hydraulic, 80 ton capacity	15.00 day	-	-	-	**58,111**	**58,111**
		01Ca REMOVE AND LOAD NACELLE AND HUB (36 AFTER REPOWER)	**40.00 EA**	**240 hrs**	**21,270**		**58,111**	**79,381**
	01Cb	**PROCESS AND DISPOSE OF BLADES**						
		Field personnel, general purpose laborer, average, crew of two	48.00 week	3,840 mh	**340,323**	-	-	**340,323**
		Rent excavator diesel hydraulic crawler mounted 2 CY capacity	120.00 day	-	-	-	**192,900**	**192,900**
		Rent excavator attachment, bucket thumbs	120.00 day	-	-	-	**35,715**	**35,715**
		Selective demolition, dump charges, typical urban city, building construction materials, includes tipping fees only	886.26 ton	-	-	**96,179**	-	**96,179**
		Hauling, excavated or borrow material, loose cubic yards, 5 mile round trip, 1 load/hour, 16.5 C.Y. dump trailer, highway haulers, excludes loading	3,545.04 lcy	280 mh	**29,236**	-	**33,597**	**62,832**
		01Cb PROCESS AND DISPOSE OF BLADES	**120.00 EA**	**4,120 hrs**	**369,558**	**96,179**	**262,212**	**727,949**
	01D	**REMOVE AND LOAD PAD TRANSFORMERS**						
		Field personnel, general purpose laborer, average, crew of two	2.00 week	160 mh	**14,180**	-	-	**14,180**
		Rent crane truck mounted, hydraulic, 80 ton capacity	14.00 day	-	-	-	**54,237**	**54,237**

Bid Item	Area	Description	Takeoff Quantity	Labor Quantity	Labor Amount	Material Amount	Equip Amount	Total Amount
		01D REMOVE AND LOAD PAD TRANSFORMERS	**40.00 EA**	**160 hrs**	**14,180**		**54,237**	**68,417**
	01E	**FOUNDATION PAD REMOVAL AND DISPOSAL (43 AFTER REPOWER)**						
		Original 43 Bldg. footings and foundations demolition, remove concrete footing, 2' thick, 3' wide, excludes disposal costs and dump fees	2,193.00 cy	800 mh	**97,075**	**-**	**237,974**	**335,049**
		Extra for 36 Bldg. footings and foundations demolition, remove concrete footing, 2' thick, 3' wide, excludes disposal costs and dump fees	900.00 cy	400 mh	**48,537**	**-**	**97,664**	**146,201**
		Selective demolition, dump charges, typical urban city, building construction materials, includes tipping fees only	6,186.00 ton	-	**-**	**671,316**	**-**	**671,316**
		Hauling, excavated or borrow material, loose cubic yards, 5 mile round trip, 1 load/hour, 16.5 C.Y. dump trailer, highway haulers, excludes loading	4,000.00 lcy	296 mh	**30,935**	**-**	**37,908**	**68,844**
		01E FOUNDATION PAD REMOVAL AND DISPOSAL (43 AFTER REPOWER)	**3,093.00 CY**	**1,496 hrs**	**176,548**	**671,316**	**373,546**	**1,221,410**
		01 TURBINES AND TOWERS	**40.00 EA**	**17,080 hrs**	**1,866,576**	**801,187**	**1,898,013**	**4,565,776**
02		**MET TOWERS**						
	02A	**FELL MET TOWERS**						
		Field personnel, general purpose laborer, average, crew of two	0.40 week	32 mh	**2,836**	**-**	**-**	**2,836**
		Rent dozer, crawler, torque converter, diesel 700 HP	2.00 day	-	**-**	**-**	**12,020**	**12,020**
		Selective demolition, torch cutting, steel, 1" thick plate -- CUT FOR FELLING	4.00 lf	0 mh	**12**	**17**	**0**	**30**
		Wire rope, 6 x 19, 1/2" diam, fiber core, 5000' rolls	500.00 lf	-	**-**	**770**	**-**	**770**
		02A FELL MET TOWERS	**2.00 EA**	**32 hrs**	**2,848**	**787**	**12,020**	**15,655**
	02B	**DESTRUCT MET TOWERS**						
		Field personnel, general purpose laborer, average, crew of two	0.40 week	32 mh	**2,836**	**-**	**-**	**2,836**
		Rent excavator diesel hydraulic crawler mounted 2 CY capacity	2.00 day	-	**-**	**-**	**3,215**	**3,215**
		Rent excavator attachment, grapples	2.00 day	-	**-**	**-**	**518**	**518**
		Operating costs for cutting torch, including tips and gas	2.00 day	-	**-**	**-**	**553**	**553**
		Selective demolition, torch cutting, steel, 1" thick plate -- CUT FOR RECYCLING	1,000.00 lf	24 mh	**3,048**	**4,268**	**63**	**7,378**
		02B DESTRUCT MET TOWERS	**2.00 EA**	**56 hrs**	**5,884**	**4,268**	**4,349**	**14,500**
		02 MET TOWERS	**2.00 EA**	**88 hrs**	**8,732**	**5,055**	**16,369**	**30,156**
03		**O&M BUILDING**						
	03B	**DISMANTLE AND DISPOSE OF O&M FACILITY**						
		Rent dozer, crawler, torque converter, diesel 200 HP	7.00 day	-	**-**	**-**	**14,191**	**14,191**
		Building demolition, small buildings or single buildings, steel, includes 20 mile haul, excludes salvage, foundation demolition or dump fees	6,000.00 cf	19 mh	**1,926**	**-**	**1,689**	**3,615**
		Bldg. footings and foundations demolition, remove concrete footing, 2' thick, 3' wide, excludes disposal costs and dump fees	13.04 cy	5 mh	**651**	**-**	**1,415**	**2,066**

Bid Item	Area	Description	Takeoff Quantity	Labor Quantity	Labor Amount	Material Amount	Equip Amount	Total Amount
	03B	**DISMANTLE AND DISPOSE OF O&M FACILITY**						
		Selective demolition, dump charges, typical urban city, building construction materials, includes tipping fees only	50.00 ton	-	-	5,426	-	5,426
		03B DISMANTLE AND DISPOSE OF O&M FACILITY	**1.00 EA**	**25 hrs**	2,577	5,426	17,294	25,298
		03 O&M BUILDING	**1.00 LS**	**25 hrs**	2,577	5,426	17,294	25,298
04		**SUBSTATION & POWER LINE**						
	04A	**REMOVE ABOVE-GROUND 34.5-kV COLLECTOR (PER MILE)**						
		Field personnel, general purpose laborer, average crew of two	1.00 week	80 mh	7,090	-	-	7,090
		Rented truck, flatbed, GVW = 20,000 Lbs	5.00 day	-	-	-	1,636	1,636
		Selective demolition, utility poles & cross arms, utility poles, wood, 35'-45' high -- 60'	10.00 ea	40 mh	4,860	-	566	5,426
		Selective demolition, dump charges, typical urban city, building construction materials, includes tipping fees only	0.50 ton	-	-	54	-	54
		04A REMOVE ABOVE-GROUND 34.5-kV COLLECTOR (PER MILE)	**2.00 MI**	**120 hrs**	11,950	54	2,202	14,206
	04B	**REMOVE 230-kV TRANSMISSION LINE (PER MILE)**						
		Field personnel, general purpose laborer, average crew of three	0.50 week	40 mh	3,545	-	-	3,545
		Rented truck, flatbed, GVW = 20,000 Lbs	3.00 day	-	-	-	982	982
		Selective demolition, utility poles & cross arms, utility poles, wood, 35'-45' high -- 60'	2.00 ea	8 mh	972	-	113	1,085
		04B REMOVE 230-kV TRANSMISSION LINE (PER MILE)	**0.10 MI**	**48 hrs**	4,517		1,095	5,612
	04C	**REMOVE BELOW-GROUND 34.5-kV COLLECTOR TAILS**						
		Field personnel, general purpose laborer, average crew of three	1.00 week	120 mh	10,635	-	-	10,635
		Rent excavator diesel hydraulic crawler mounted 2 CY capacity	5.00 day	-	-	-	8,038	8,038
		Rented truck, flatbed, GVW = 20,000 Lbs	5.00 day	-	-	-	1,636	1,636
		04C REMOVE BELOW-GROUND 34.5-kV COLLECTOR TAILS	**43.00 EA**	**120 hrs**	10,635		9,673	20,308
	04D	**REMOVE SUBSTATION EQUIPMENT**						
		Field personnel, general purpose laborer, average, crew of two	1.00 week	80 mh	7,090	-	-	7,090
		Electrical Disconnect and Safe off	1.00 week	1 week	7,626	-	-	7,626
		Rent crane truck mounted, hydraulic, 80 ton capacity	5.00 day	-	-	-	19,370	19,370
		04D REMOVE SUBSTATION EQUIPMENT	**1.00 LS**	**120 hrs**	14,716		19,370	34,086
	04E	**DEMOLISH SUBSTATION**						
		Field personnel, general purpose laborer, average, crew of two	2.00 week	160 mh	14,180	-	-	14,180
		Rent crane truck mounted, hydraulic, 80 ton capacity	5.00 day	-	-	-	19,370	19,370
		Selective demolition, utility poles & cross arms, utility poles, wood, 35'-45' high -- 60'	4.00 ea	16 mh	1,944	-	226	2,170
		Selective demolition, dump charges, typical urban city, building construction materials, includes tipping fees only	1.00 ton	-	-	109	-	109

Bid Item	Area	Description	Takeoff Quantity	Labor Quantity	Labor Amount	Material Amount	Equip Amount	Total Amount
		04E DEMOLISH SUBSTATION	**1.00 LS**	**176 hrs**	**16,124**	**109**	**19,597**	**35,829**
		04 SUBSTATION & POWER LINE	**1.00 LS**	**584 hrs**	**57,942**	**163**	**51,937**	**110,042**
05		**ACCESS ROADS**						
	05A	**ROAD REMOVAL, GRADING AND SEEDING (PER MILE)**						
		Rent backhoe-loader wheel type 112 HP, 1-1/2 CY capacity	110.00 day	880 mh	**92,918**	**-**	**112,760**	**205,678**
		Rent scrapers, self-propelled, dual engine 21 CY capacity	110.00 day	-	**-**	**-**	**361,284**	**361,284**
		Rent water truck, off highway, 6000 gallon capacity	100.00 day	-	**-**	**7,333**	**209,862**	**217,195**
		Stripping, strip topsoil, clay, dry & soft, 200 HP dozer, ideal condtn	34,843.88 cy	240 mh	**25,553**	**-**	**44,150**	**69,703**
		Excavation, bulk, scrapers, bank measure, sandy clay & loam, 3000' haul, 21 C.Y. bucket, self propelled scrapers, 1/4 push dozer	34,843.88 bcy	560 mh	**60,338**	**-**	**159,055**	**219,393**
		Seeding, seeding only, field seed	32.39 acre	40 mh	**3,820**	**39,188**	**5,783**	**48,791**
		05A ROAD REMOVAL, GRADING AND SEEDING (PER MILE)	**16.70 MI**	**1,720 hrs**	**182,630**	**46,520**	**892,894**	**1,122,044**
		05 ACCESS ROADS	**16.70 MI**	**1,720 hrs**	**182,630**	**46,520**	**892,894**	**1,122,044**
06		**TEMPORARY AREAS**						
	06A	**SEED TEMPORARILY DISTURBED AREAS**						
		Seeding, seeding only, field seed	396.20 acre	14 mh	**1,337**	**174,439**	**24,965**	**200,741**
		06A SEED TEMPORARILY DISTURBED AREAS	**396.20 AC**	**14 hrs**	**1,337**	**174,439**	**24,965**	**200,741**
		06 TEMPORARY AREAS	**396.20 AC**	**14 hrs**	**1,337**	**174,439**	**24,965**	**200,741**
07		**GENERAL COSTS**						
	07A	**PERMITS, MOBILIZATION, ENGINEERING, OVERHEAD, UTILITY DISCONNECTS (UNIT COST)**						
		Field personnel, field engineer, average	10.00 week	10 week	**31,970**	**-**	**-**	**31,970**
		Field personnel, superintendent, average	20.00 week	20 week	**68,193**	**-**	**-**	**68,193**
		Field personnel, Safety Professional, average	20.00 week	20 week	**68,193**	**-**	**-**	**68,193**
		Mobilization or demobilization, dozer, loader, backhoe or excavator, above 150 H.P., up to 50 miles	12.00 ea	40 mh	**4,176**	**-**	**5,570**	**9,746**
		07A PERMITS, MOBILIZATION, ENGINEERING, OVERHEAD, UTILITY DISCONNECTS (UNIT COST)	**1.00 LS**	**2,040 hrs**	**172,532**		**5,570**	**178,102**
		07 GENERAL COSTS	**1.00 LS**	**2,040 hrs**	**172,532**		**5,570**	**178,102**

Estimate Totals

Description	Amount	Totals	Rate
Labor	2,292,326	hrs	
Material	1,032,790		
Subcontract			
Equipment	2,907,043	hrs	
Other			
Total Site Restoration Cost	**6,232,159**	**6,232,159**	
Total		***6,232,159***	

Attachment E: Draft Repower Habitat Mitigation Plan (HMP)

Draft Repower Habitat Mitigation Plan

Leaning Juniper IIA Wind Power Facility
Gilliam County, Oregon

Prepared for
Leaning Juniper Wind Power II, LLC

Prepared by

TETRA TECH

As amended by the Department (recommendations in the DPO on RFA3)

~~**December 2023**~~**February 2024**

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Contents

Table

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1.0 Introduction

Leaning Juniper IIA Wind Power Facility (Facility) is an operational wind power facility with 43 turbines and a maximum generating capacity of 90.3 megawatts (MW) located within a site boundary of approximately 6,404 acres in Gilliam County, Oregon. The Facility's approved Habitat Mitigation Plan (HMP) includes enhancement and monitoring of a 92-acre Habitat Mitigation Area (HMA) in Gilliam County, Oregon, that Leaning Juniper Wind Power II, LLC (Certificate Holder) has successfully implemented (MB&G 2023, State of Oregon 2013). The Certificate Holder is seeking a third amendment to the Facility Site Certificate to repower 36 of the Facility turbines and decommission 3 turbines, which will result in 40 operational turbines. The Oregon Department of Energy (ODOE) requested that, as part of Request for Amendment 3 (RFA3), the Certificate Holder identify enhancement actions at the existing HMA to mitigate for temporal loss of habitat during the Facility repower. Therefore, this Repower Habitat Mitigation Plan (Plan) describes the proposed enhancement actions to mitigate for the Facility repower habitat impacts, as well as proposed monitoring and success criteria, consistent with the Oregon Department of Fish and Wildlife (ODFW) Habitat Mitigation Policy (635-415-0025).

As described in Section 3.0, the 92-acre HMA provided mitigation for the original Facility construction in excess of the amount required due to a reduction in impacts during construction compared to estimated impacts during Facility permitting. This Plan identifies enhancement actions above and beyond the actions included in the original HMP required to mitigate for the original Facility impacts. These enhancement actions will provide additional habitat uplift within the HMA that would not otherwise be performed, ensuring the Facility repower is consistent with the ODFW Habitat Mitigation Policy.

2.0 Methods for Calculating the Mitigation Need

Proposed Facility repower impacts by habitat category are described in RFA3. The proposed changes to the Facility identified in RFA3 would not alter the previously approved site boundary or micrositing corridors. All repower disturbance would occur in a portion of the micrositing corridor designated by Certificate Holder as the "repower corridor." Areas of permanent impact from the repower are contained within areas of permanent impacts associated with the original Facility construction and operation. All areas of temporary disturbance are located in areas previously disturbed by the original Facility construction that have subsequently been revegetated (MB&G 2015). Consistent with the approved HMP for the Facility, this Plan proposes habitat mitigation for temporary impacts to habitat subtypes anticipated to take longer than 3 to 5 years to recover to account for temporal loss of habitat while these habitats recover following revegetation at the Facility. Only one habitat subtype will be disturbed during Facility repower that meets this criteria: SSA habitat (sagebrush-rabbitbrush-snakeweed/bunchgrass/annual grass). Approximately 54 acres of SSA habitat are anticipated to be temporarily disturbed during Facility repower, including

approximately 36 acres of Category 2 SSA and approximately 18 acres of Category 3 SSA. Applying a mitigation ratio of 1:1 and 0.5:1, consistent with ~~the approved HMP~~Council and ODFW recommendations, approximately ~~27~~ 45 acres of mitigation are needed for Facility repower compliance with the ODFW Habitat Mitigation Policy (Table 1).

Table 1. Mitigation Calculation

Habitat Category and Subtype[1]	Temporary Impact (acres)	Mitigation Ratio	Mitigation Need (acres)
Category 2 SSA	36	~~0.5:1~~1:1	~~18~~36
Category 3 SSA	18	0.5:1	9
Total	**54**	**0.5:1**	**~~27~~45**
1. Only impacted habitat subtypes that require mitigation are included here.			

3.0 Mitigation

The Certificate Holder's existing 92-acre HMA has been protected and enhanced to mitigate for the Facility's original construction habitat impacts, consistent with the ODFW Habitat Mitigation Policy and the approved HMP (MB&G 2023, State of Oregon 2013). Areas temporarily disturbed during original Facility construction had met or were trending towards meeting revegetation success criteria at the end of the 5-year revegetation monitoring period, indicating no additional mitigation is needed to compensate for revegetation failure (MB&G 2015).

Similarly, ongoing monitoring at the HMA has identified increases in native cover and diversity in the shrub-steppe and bunchgrass communities to the extent that the success criteria of the HMP are being met (MB&G 2023). Ongoing enhancement actions include grazing exclusion, weed control, and habitat protection. Although sagebrush and native bunchgrass recruitment have been successful, ongoing monitoring shows moderate cover of the invasive (but not noxious) annual grass cheatgrass (*Bromus tectorum*). Therefore, the Certificate Holder proposes to perform herbicide treatment for annual grasses followed by reseeding of native grasses and forbs, if necessary, on ~~27~~ 45 acres within the HMA (i.e., repower mitigation area) with the goal of increasing native grass and forb percent cover and diversity. These proposed enhancements would be performed in addition to ongoing HMA enhancements (e.g., in addition to existing site-wide monitoring and treatment of Oregon Department of Agriculture–listed noxious weed species such as yellow starthistle [*Centaurea solstitialis*] and rush skeletonweed [*Chondrilla juncea*]).

As described in Section 5.0 below, monitoring of the repower mitigation area will be conducted in the summer following the herbicide treatment to determine if seeding of native plants is necessary based on any reestablishment of native plants observed in the treated area. If native plants are found not to be reestablishing, or cheatgrass remains abundant in treated areas, an additional round of herbicide treatment followed by seeding of native grasses and forbs will be conducted. Big sagebrush (*Artemisia tridentata*) is already regenerating at the HMA, so removing competing

annual grasses has the potential to increase recruitment of young sagebrush plants. These proposed enhancements are based on coordination with ODFW, review of the annual HMA monitoring reports, and a site visit conducted at the HMA in November 2023.

The Certificate Holder's implementation of additional enhancements (i.e., herbicide treatment and potentially seeding of native grasses and forbs) on ~~27~~ 45 acres of the 92-acre HMA is sufficient to meet the Category 2 mitigation goal of "no net loss of habitat quantity or quality and to provide a net benefit of habitat quantity or quality" and the Category 3 mitigation goal of "no net loss of habitat quantity or quality."

Enhancement and conservation of the existing HMA were based on the anticipated impacts from original Facility construction. Actual construction impacts of the original Facility were reduced compared to the anticipated impacts such that 46 acres of mitigation would have been sufficient to meet the Facility's mitigation need (MB&G 2011). As a result, the 92-acre HMA that was implemented provided 46 acres of additional mitigation in excess of the amount required. Thus, the Certificate Holder provided double the mitigation needed to meet the ODFW Habitat Mitigation Policy for the original Facility. With implementation of additional enhancements on ~~27~~ 45 acres of the 92-acre HMA, the Facility will continue to be consistent with the ODFW Habitat Mitigation Policy considering the temporary re-disturbance of habitat during repower activities. The final extent of the enhancement actions will be determined based on the actual habitat impacts during Facility repower.

4.0 Repower Mitigation Area Selection

As noted above, a site visit was conducted at the HMA in November 2023. During this site visit, ~~27~~ 45 acres within the HMA were identified for treatment of cheatgrass and seeding of native grasses and forbs, if applicable. As shown on Figure 1, this repower mitigation area selected for treatment primarily encompasses areas mapped as the SSA habitat subtype. During the site visit, this habitat subtype was noted as containing higher cover of cheatgrass and lower cover of native perennial bunchgrasses than the adjacent GB (perennial bunchgrass) and SSC (Sandberg bluegrass-annual grass) habitat subtypes. However, areas of SSC and GB habitats were also included in the ~~27~~45-acre repower mitigation area to assess the effectiveness of cheatgrass treatment in all three habitat subtypes within the HMA.

During the site visit, three locations for establishment of monitoring transects within the ~~27~~45-acre repower mitigation area were also selected (Figure 1). In addition, two alternate monitoring locations were identified in case one of the selected monitoring locations is deemed unsatisfactory during pre-treatment baseline monitoring (see Section 5.0). Monitoring locations were selected in areas with high cover of cheatgrass to best monitor treatment success. Final selection of monitoring locations will be determined during pre-treatment baseline monitoring, with the goal of placing monitoring locations within representative sections of the repower mitigation area to capture the range of potential responses to treatment.

5.0 Monitoring and Treatment Schedule

The Certificate Holder will monitor the ~~27~~45-acre repower mitigation area to document pre- and post-treatment conditions. This monitoring will document changes in species diversity and composition. Monitoring will be conducted by the Certificate Holder and the results of monitoring will be reported to ODFW and ODOE. Calendar years (e.g., 2025, 2026, etc.) are provided for the monitoring schedule along with treatment and monitoring years (e.g., Year 0, Year 1, etc.) for ease of reference, but the actual calendar years of implementation may be adjusted, if needed, based on the timing of habitat disturbance for the repower.

The monitoring and treatment schedule for the ~~27~~45-acre repower mitigation area is as follows:

- Year 0 (e.g., 2025/2026):
    - Late spring/early summer 2025: document pre-treatment baseline conditions.
    - Fall 2025/early spring 2026: herbicide treatment. Timing of treatment will depend on herbicide being used for cheatgrass control and recommendations of herbicide applicator.
    - Continue ongoing annual monitoring of entire 92-acre HMA, including the ~~27-acre~~45-acre repower mitigation area.
- Year 1 (e.g., 2026/2027):
    - Late spring/early summer 2025: monitor post-treatment conditions to document annual grass response to herbicide treatment and determine native plant reestablishment and thus need for seeding.
    - Fall 2026/early spring 2027: additional herbicide treatment, as needed. Timing of treatment will depend on herbicide being used for cheatgrass control and recommendations of herbicide applicator.
    - Winter 2026/early spring 2027: seeding of native forbs and grasses, as needed.
    - Continue ongoing annual monitoring of entire 92-acre HMA, including treated ~~27-acre~~45-acre repower mitigation area.
- Year 2 and on (2027+): continue ongoing annual monitoring of 92-acre HMA including assessment of the general vegetation conditions through photo plots and a meandering pedestrian survey, including within the ~~27-acre~~45-acre repower mitigation area.

In addition to assessment of vegetation conditions through photo plots and a meandering pedestrian survey, monitoring in Year 0 and Year 1 in the ~~27-acre~~45-acre repower mitigation area will also include collecting quantitative data along three 50-meter-long monitoring transects within the 27 acres. Data collected will include vegetative composition and cover, as well as the percent cover of litter, biotic crust, and bare ground. The Daubenmire method (NRCS and BLM 1999) will be used to assess total vegetative cover and species composition and cover along each transect. A 0.5-meter by 0.5-meter quadrat will be placed every 5 meters along the transect, and the percent cover of each plant species within each quadrat will be recorded using Daubenmire cover classes. Cover classes within each quadrat will then be used to determine canopy cover of each species along the

entire transect. Transect monitoring will continue in Year 2 and on until the success criteria are met (see Section 6.0).

In addition to the cover of each species within the quadrat, the percent cover of bare soil, litter, and biotic crusts within each quadrat will be recorded. The collected data will be used to determine the percent cover of vegetation differentiated by life form (i.e., graminoid, forb, shrub) and nativity (i.e., native vs. non-native), which will be used to determine whether seeding is needed following herbicide treatment. Photographs will be taken at the end of each transect, and the compass bearing will be recorded for each photograph taken.

6.0 Success Criteria

Following initial Year 0 baseline monitoring as described in Section 5.0, the Certificate Holder will coordinate with the Department and ODFW to develop success criteria for the repower mitigation area. The mitigation will be considered successful and the Facility's mitigation obligations met when all treatments have been performed and documented in accordance with the methods described in this Plan and the established success criteria have been met. This mitigation, as proposed, will satisfy the ODFW Habitat Mitigation Policy Goals for temporal impacts to Category 2 and 3 habitat.

7.0 References

MB&G (Mason, Bruce & Girard, Inc.). 2011. 2011 Revegetation Monitoring Report. Leaning Juniper II Wind Power Project. Gilliam County, Oregon. November 22, 2011.

MB&G. 2015. 2015 (Year-5) Revegetation Monitoring Report. Leaning Juniper II Wind Power Project. Gilliam County, Oregon. December 7, 2015.

MB&G. 2023. Leaning Juniper IIa and IIb: 2023 (Year-13) Habitat Mitigation Area (HMA) Photo-Monitoring and Reporting. August 2, 2023 memo from Daniel Covington of MB&G to Brant Ivey of Avangrid Renewables.

NRCS and BLM (Natural Resources Conservation Service and the U.S. Bureau of Land Management). 1999. Sampling Vegetation Attributes. Interagency Technical Reference. BLM/RS/ST-96/002+1730. Pp 55-63. First published in 1996; revised in 1997 and 1999.

State of Oregon. 2013. Final Order on Request for Amendment 2 to the Site Certificate. p. 39. June 21.

Figure

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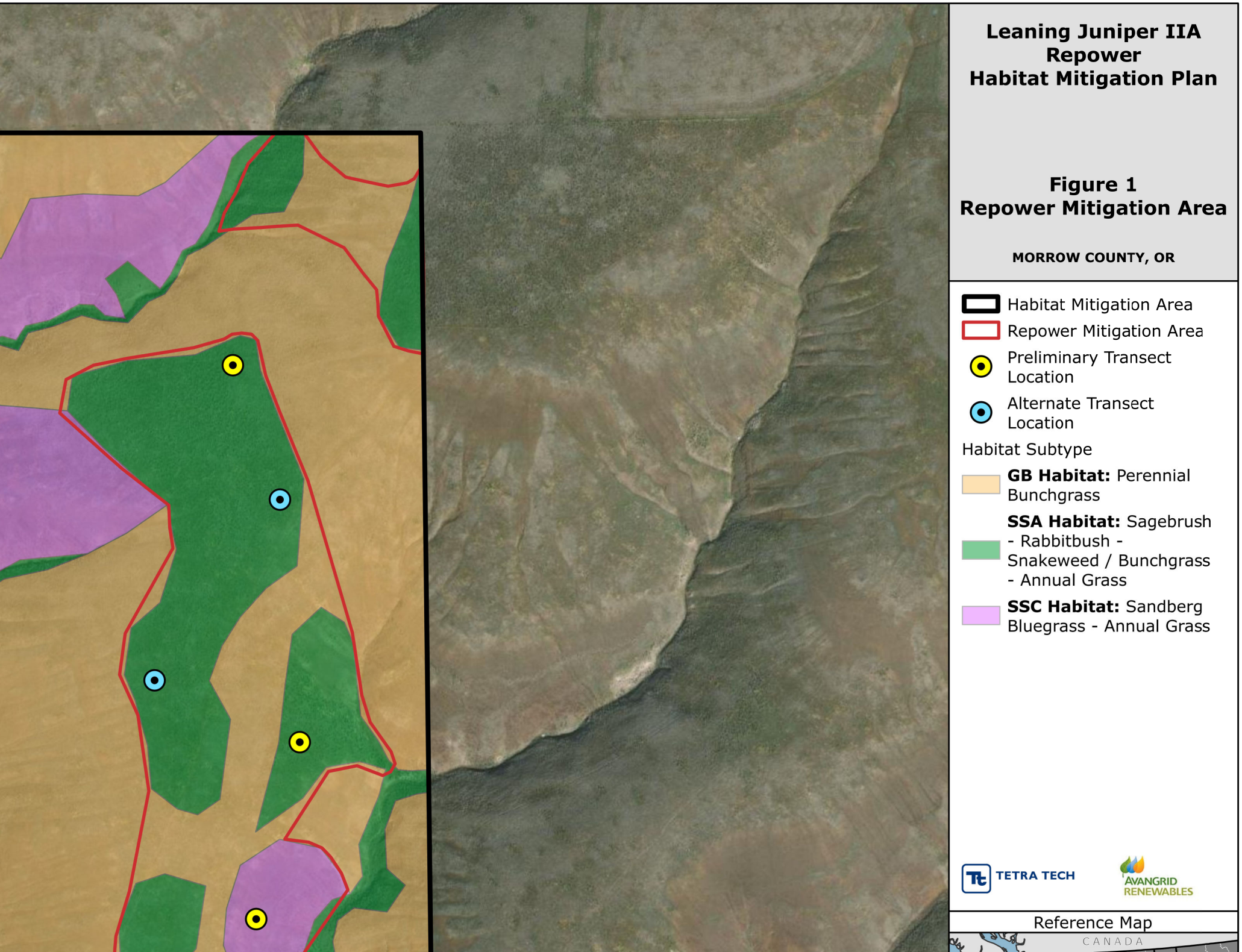

Leaning Juniper IIA Repower Habitat Mitigation Plan

Figure 1 Repower Mitigation Area

MORROW COUNTY, OR

- Habitat Mitigation Area
- Repower Mitigation Area
- Preliminary Transect Location
- Alternate Transect Location

Habitat Subtype

- **GB Habitat:** Perennial Bunchgrass
- **SSA Habitat:** Sagebrush - Rabbitbush - Snakeweed / Bunchgrass - Annual Grass
- **SSC Habitat:** Sandberg Bluegrass - Annual Grass

TETRA TECH

AVANGRID RENEWABLES

Reference Map

Attachment F: Draft Revegetation and Noxious Weed Control Plan

Draft Repower Revegetation and Noxious Weed Control Plan

Leaning Juniper IIA Wind Power Facility Gilliam County, Oregon

Prepared for
Leaning Juniper Wind Power II, LLC

Prepared by

TETRA TECH

December 2023

Updated by Department February 2024

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Appendices

1.0 Introduction

Leaning Juniper IIA Wind Power Facility (Facility) is an operational wind power facility with 43 turbines and a maximum generating capacity of 90.3 megawatts (MW) located within a site boundary of approximately 6,404 acres in Gilliam County, Oregon. Leaning Juniper Wind Power II, LLC (Certificate Holder) is seeking a third amendment to the Facility Site Certificate to repower 36 of the Facility turbines and decommission 3 turbines, which will result in 40 operational turbines. The proposed changes to the Facility, as identified in the Request for Amendment 3 (RFA 3), would not alter the previously approved site boundary or micrositing corridors. All repower disturbance would occur in a portion of the micrositing corridor designated by Certificate Holder as the "repower corridor." Additional details regarding proposed activities associated with the Facility repower are provided in the RFA 3. The Oregon Department of Energy (ODOE) requested, as part of RFA 3, that the Certificate Holder develop a revegetation and noxious weed control plan for the Facility repower. This Draft Repower Revegetation and Noxious Weed Control Plan (Plan) supersedes the Revegetation Plan prepared for the Facility in 2013 (Attachment F of the Final Order on Amendment #2).

This Plan has been prepared to describe methods, success criteria, and monitoring and reporting requirements for the restoration and revegetation of areas temporarily disturbed during Facility repower construction. In addition, this Plan provides methods to prevent and minimize the introduction and spread of noxious weeds from the construction and operation of the Facility repower. The Certificate Holder and its contractors will be responsible for implementing the methods detailed in this Plan.

2.0 Existing Conditions and Description of Impacts

2.1 Existing Conditions

The Facility repower site is located on private land used primarily for livestock grazing, dry land winter wheat production, and operation of the existing wind Facility. A habitat survey was conducted in June and August 2023 to update the existing Facility habitat mapping. Habitat subtypes mapped within the repower corridor include the following:

- Dryland Wheat (DW)
- Developed: Other (DX)
- Exposed Basalt (EB)
- Escarpment (ESC)
- Annual Grass and Weeds (AG)
- Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass (SSA)

- Rabbitbrush-Snakeweed-Eriogonum/Bunchgrass (SSB)
- Eriogonum/Poa sandbergii – Annual Grass (SSC)
- Ephemeral Stream (ES)
- Herbaceous Wetland (HW)

2.2 Description of Impacts

Construction of the repower will result up to approximately 396 acres of temporary impacts. All areas of temporary disturbance are located in areas previously disturbed by the original Facility construction that have subsequently been successfully revegetated (MB&G 2015).

Table 1 presents the anticipated acreage of temporary impacts to habitat subtypes associated with Facility repower construction and operation. Table 1 will be updated prior to construction to reflect the final impact acreage by habitat subtype for the final layout. Figures depicting the location of Facility repower infrastructure, as well as habitat types and habitat categories mapped within the repower corridor, are included as Figures 7a and 7b of RFA 3.

Table 1. Anticipated Temporary Impacts by Habitat Subtype

ODFW[1] Habitat Category	Habitat Subtype	Temporary Disturbance (Acres)[2]
2	Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass (SSA)	36.1
	Eriogonum/Poa sandbergii – Annual Grass (SSC)	8.0
	Escarpment (ESC)	0.1
3	Rabbitbrush-Snakeweed-Eriogonum/Bunchgrass (SSB)	162.4
	Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass (SSA)	17.8
	Annual Grass and Weeds (AG)	6.5
4	Annual Grass and Weeds (AG)	12.7
Category 1, 2, 3, and Habitat Total		**243.6**
6	Dryland Wheat (DW)	151.1
	Developed: Other (DX)	1.5
Category 6 Habitat Subtotal		**152.7**
Grand Total[1]		**396.2**

Note: Totals in this table may not appear to sum correctly due to rounding.

1. ODFW = Oregon Department of Fish and Wildlife

2. Temporary disturbance acreages generally include a 280-foot radius around turbines (except for M2 which is located near a Washington ground squirrel [*Urocitellus washingtoni*] colony), 60-foot width for access roads, 50-foot width for underground collection lines, temporary laydown areas, all clipped to the site boundary and excluding the existing permanent limits of disturbance.

3.0 Revegetation Methods

Revegetation of temporarily disturbed agricultural habitat will be conducted as described in Section 3.1. Revegetation of temporarily disturbed non-agriculture (i.e., Dryland Wheat) and non-

developed (i.e., Developed: Other) habitat will be conducted as described in Section 3.2. Restoration of temporarily disturbed developed habitat will be determined on a case-by-case basis and is not further discussed in this Plan.

Revegetation will begin as soon as feasible after completion of each construction phase. Seeding and planting will be done in a timely manner and in the appropriate season to facilitate germination and establishment of seeded species. Site preparation will involve standard, commonly used methods, and will take into account all relevant site-specific factors, including slope, size of area, and erosion potential. The Certificate Holder shall restore temporarily disturbed areas by preparing the soil and seeding using common application methods. The Certificate Holder shall use mulching and other appropriate practices to control erosion and sediment during construction and during revegetation work. As noted in the ~~Soil Monitoring Plan~~Final Order on RFA3 ~~prepared for the Facility repower (Appendix A)~~, construction activities would need to comply with the Facility's Erosion and Sediment Control Plan and National Pollutant Discharge Elimination System 1200-C Stormwater Construction Permit. In addition, the Certificate Holder will implement a soil compaction monitoring program ~~as outlined in Appendix A~~ to ensure that construction and operation of the repower are not likely to result in a significant adverse impact to soils.

3.1 Revegetation of Agricultural Lands

Temporarily disturbed agricultural lands (i.e., dryland wheat fields) will be reseeded with the appropriate crop or maintained as fallow in consultation with the landowner or farm operator. The Certificate Holder will consult with the landowner or farm operator to determine seed mix, application methods, and rates for seed and fertilizer. Success of cropland revegetation will have been achieved when production of the revegetated area is comparable to that of adjacent, non-disturbed croplands of the same type. Success determination will involve consultation with the landowner or farm operator, and the Certificate Holder will report to ODOE on the success of cropland restoration efforts.

3.2 Revegetation of Wildlife Habitat

Following construction, all areas, with the exception of temporarily disturbed agricultural lands and developed lands, will be reseeded with a mix of native or native grasses (see Section 3.2.2). All seeds will be obtained from a reputable supplier in compliance with the Oregon Seed Law (Oregon Administrative Rule 603-056). Seeding and planting will be done in a timely manner and in the appropriate season to facilitate germination and establishment of seeded species.

3.2.1 Seeding Methods

The seeding methods and timing of planting will be appropriate to the seed mixes (see Section 3.3.2), weather conditions (e.g., precipitation, wind speed, temperature, etc.), and site conditions (including area size, slope, and erosion potential) based upon consultation with ODFW and the seed supplier. Seeding between late-fall and late-winter/early-spring is typically recommended; however, the Certificate Holder will consult with ODFW and/or the seed supplier to determine the

optimal timing for seed application based on climatic conditions of the particular year when construction and revegetation efforts are implemented. Three common seed application methods that may be used are broadcast seeding, drill seeding, and hydroseeding.

3.2.2 Seed Mixes and Shrub Plantings

One seed mix is being proposed for revegetation efforts throughout all temporarily disturbed wildlife habitat areas of the Facility repower corridor. This seed mix, presented in Table 2, includes native grass species selected based on relative availability (i.e., are species commonly available from seed suppliers) and compatibility with local growing conditions. Appendix B provides a list of vendors within the region who supply or can be contracted to collect the seeds included in the proposed seed mix. Composition of the final seed mix will be determined following pre-construction baseline surveys (see Section 5.2) and in consultation with ODOE and ODFW.

The Certificate Holder will make all attempts to procure the approved seed mix. However, if the species included in the seed mix are not available at the time of procurement, the Certificate Holder will obtain approval from ODOE prior to making substitutions to the approved seed mix.

Table 2. Proposed Seed Mix

Common Name	*Scientific Name*	Percent of Mix
Sandberg bluegrass	*Poa secunda* ssp. *secunda*	25
Sherman big bluegrass; alkali bluegrass	*Poa secunda* ssp. *juncifolia* (syn. *Poa ampla*)	25
Streambank wheatgrass	*Elymus lanceolatus* ssp. *riparius* (syn. *Agropyron riparium*)	20
Thickspike wheatgrass	*Elymus lanceolatus* ssp. *lanceolatus*	20
Sand dropseed	*Sporobolus cryptandrus*	10

For the approximately 54 acres of temporarily disturbed Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass habitat (Table 1), basin big sagebrush (*Artemisia tridentata* var. *tridentata*) seeds would be added to the proposed seed mix at a rate of 0.1 to 0.2 pounds of pure live seed per acre. Due to the ability of broom snakeweed (*Gutierrezia sarothrae*) and rabbitbrush (*Chrysothamnus viscidiflorus, Ericameria nauseosa*) to recolonize disturbed areas, these species are not proposed for planting. However, if revegetation monitoring (see Section 5.0) indicates these species are not recolonizing temporarily disturbed areas of the Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass (SSA) and Rabbitbrush-Snakeweed-Eriogonum/Bunchgrass (SSB) habitat subtypes, remedial actions such as seeding of these species will be implemented.

4.0 Revegetation Documentation

Records will be kept of revegetation efforts, both for agricultural lands and other habitat. Records will include the following:

- Date construction phase or construction activity was completed;
- Description of the impacted area (location, acres impacted, pre-disturbance condition);
- Date revegetation was initiated;
- Description of the revegetation effort;
- Supporting figures representing the location, acres affected, and pre-disturbance condition of the revegetation area; and
- Confirmation from the landowner that temporary disturbances in cropland have been satisfactorily restored.

The Certificate Holder will update these records as revegetation work occurs and will provide ODOE with copies of these records, along with submission of the annual report required by the Site Certificate.

5.0 Revegetation Monitoring

Following implementation of revegetation efforts, the Certificate Holder will monitor the temporarily disturbed wildlife habitat areas, unless the landowner has converted the area to land uses that preclude meeting revegetation success criteria. Monitoring will be conducted by a qualified botanist or revegetation specialist annually for five years starting the first growing season after seeding.

Following annual monitoring, a monitoring report will be prepared and will include the following:

- The results of annual monitoring;
- The investigator's assessment of whether the revegetated areas are trending toward meeting the success criteria;
- Assessments of factors impacting the ability of the revegetated area to trend towards meeting the success criteria; and
- Recommendations of remedial actions, if any.

Based on the fifth annual assessment, a long-term monitoring plan will be developed in coordination with ODOE and ODFW. This may include remedial actions, additional monitoring, and/or additional mitigation for areas that have been determined by ODOE, in consultation with ODFW, not to have met the success criteria. If it is determined, in consultation with ODOE and ODFW, that revegetated areas have met the success criteria prior to the fifth annual assessment,

annual monitoring will be deemed complete and a long-term monitoring plan will be developed in coordination with ODOE and ODFW.

5.1 Monitoring and Reference Sites

To determine if revegetation efforts are meeting the success criteria outlined in Section 5.4, paired monitoring (i.e., treatment) and reference (i.e., control) sites will be established in each of the habitat subtypes that will be temporarily disturbed by construction (with the exception of agricultural land). Reference sites are intended to represent target conditions for the revegetation effort. Vegetation within monitoring sites in revegetation areas will be compared with those in the associated reference sites to measure success of the revegetation activities.

Seventeen paired monitoring and reference sites (34 total sites) will be established and monitored. Table 3 presents the number of monitoring and reference sites that will be established within each habitat subtype anticipated to be temporarily disturbed. The number of paired monitoring and reference sites was based on the extent of anticipated temporary disturbance as follows:

- Less than 1 acre of temporary disturbance = 0 sites
- 1 to 10 acres of temporary disturbance = 1 site
- 11 to 35 acres of temporary disturbance = 2 sites
- For each additional 25 acres of impacts, one additional site will be added (e.g., 36-60 acres of impact = 3 sites, 61-85 acres = 4 sites, etc.)

Table 3. Number of Monitoring and Reference Sites within Each Habitat Subtype

Habitat Category	Habitat Subtype	Temporary Disturbance (Acres)	Number of Monitoring Sites	Number of Reference Sites
2	Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass (SSA)	36.1	3	3
	Eriogonum/Poa sandbergii – Annual Grass (SSC)	8.0	1	1
	Escarpment (ESC)	0.1	0	0
3	Rabbitbrush-Snakeweed-Eriogonum/Bunchgrass (SSB)	162.4	8	8
	Sagebrush-Rabbitbrush-Snakeweed/Bunchgrass-Annual Grass (SSA)	17.8	2	2
	Annual Grass and Weeds (AG)	6.5	1	1
4	Annual Grass and Weeds (AG)	12.7	2	2
TOTAL		**243.6**	**17**	**17**

Preliminary locations of monitoring and reference sites are provided on Figure 1. Locations were randomly selected using existing habitat mapping. Additional monitoring and reference site locations were also chosen as alternative locations in case one of the selected monitoring and reference site locations is deemed unacceptable during pre-construction baseline surveys (see

Section 5.2). The locations of these alternative monitoring and reference sites are also provided on Figure 1.

5.2 Pre-Construction Baseline Surveys

Prior to initiation of construction, surveys will be conducted to evaluate baseline conditions within the proposed monitoring and reference sites shown on Figure 1. Both quantitative and qualitative data will be collected during the pre-construction baseline surveys as described in Section 5.3.1. Selection of appropriate sites and collection of pre-construction data will ensure that monitoring and reference sites are located in areas of similar habitat type and quality prior to disturbance. This will help ensure that comparison between monitoring and reference sites is appropriate for determining successful revegetation.

If it is determined during pre-construction baseline surveys that one of the selected monitoring or reference sites is deemed unacceptable (e.g., an area has been converted to cropland), one of the alternate monitoring and/or reference sites will be selected, and baseline monitoring will be conducted for those sites. In addition, a reconnaissance survey of alternate monitoring and reference sites that are not selected will be conducted to ensure that these sites are located in suitable areas (e.g., in the appropriate habitat type and habitat quality) in case one of these alternate sites is needed during future monitoring (e.g., one of the selected monitoring or reference sites is converted to a different land use).

5.3 Revegetation Monitoring Methods

5.3.1 Data Collection

Both quantitative and qualitative data will be collected during pre-construction baseline surveys and post-construction annual monitoring. Quantitative data will be collected along one 50-meter long transect located within each selected monitoring and reference site. During pre-construction baseline surveys (Section 5.2), the exact locations of these transects will be established and the ends of each transect line will be recorded using a global positioning system unit capable of submeter accuracy. The Daubenmire method (NRCS and BLM 1999) will be used to assess vegetative cover and species composition along each transect. A 0.5-meter by 0.5-meter quadrat will be placed every 5 meters along the transect, and the percent cover of each plant species, as well as bare soil, litter, and biotic crust within each quadrat, will be recorded using Daubenmire cover classes. Site characteristics including slope, aspect, elevation, soil type, and habitat type will also be recorded. The datasheet for recording data is provided in Appendix C. In addition, photographs will also be taken at the end of each transect, and the compass bearing will be recorded for each photograph taken.

Qualitative monitoring will supplement quantitative data and help to describe overall site conditions and assess the need for remedial actions to ensure sites are progressing toward the success criteria outlined in Section 5.4. Qualitative data that will be collected during pre-construction baseline surveys and annual monitoring will include the following:

- Evidence of ongoing, recent, or past disturbance
- Evidence of wildlife use
- Degree of erosion (high, moderate, or low)
- Overall plant vigor

5.3.2 Data Analysis

Based on data collected, the following parameters will be assessed for each reference and monitoring site:

- Total vegetative cover;
- Cover of native and desirable grass species;
- Cover of shrubs;
- Percent cover of invasive species and state and county-designated noxious weeds;
- Proportion of native and desirable plant species; and
- Species diversity (number of plant species observed).

These results will then be compared for each monitoring site and paired reference site to determine if the revegetated areas are trending toward meeting or have met the success criteria as described in Section 5.4.

5.4 Revegetation Success Criteria

Each monitoring report will include an assessment of whether the temporarily disturbed revegetated areas are meeting or trending toward meeting the success criteria. Revegetation areas would be deemed successfully revegetated when the following success criteria are met:

- **Native Forbs:** No success criteria will be applied as forbs are not included in the proposed revegetation seed mix due to concerns regarding noxious weed control.
- **Native Shrubs:** The average cover of the shrub component should be at least 50 percent of the reference site within 5 years. At least 15 percent of the shrub cover should be the dominant species found on the reference site. The diversity of shrub species within the revegetated areas should at least equal the shrub species diversity measured on the reference site.
- **Native and Desirable Grasses:** Cover of native and desirable (i.e., species included in seed mixes and/or native species that have naturally colonized) grass species is at least 85 percent similar to reference sites.
- **Noxious Weeds:** Presence and cover of noxious weeds is equal to or less than that of the reference site.

Final determination of whether the Certificate Holder has met the revegetation obligations will be made by ODOE, in consultation with ODFW.

6.0 Remedial Action

After each monitoring visit, the Certificate Holder's qualified investigator will report to the Certificate Holder regarding the revegetation progress of each revegetation area. If applicable, the investigator will make recommendations to the Certificate Holder for reseeding, weed control, or other remedial measures for areas that are not showing progress toward achieving revegetation success. The investigator will provide a description of factors that may be contributing to the lack of revegetation success. The Certificate Holder will include the investigator's recommendations for remedial actions and the measures taken in that year's monitoring report. ODOE may require reseeding or other remedial measures in cases where success criteria have not been met.

7.0 Noxious Weed Control

The management of noxious weeds will be considered throughout all stages of construction and operation of the Facility repower and will include the following:

- **Prevention:** Implementing measures to prevent the spread of noxious weeds during construction, operation, and maintenance activities.
- **Treatment:** Treating noxious weed populations with their appropriate control methods, at appropriate time intervals.
- **Monitoring:** Assessing noxious weed changes within the Facility site boundary over time and ensuring that legacy as well as new weed populations are not increasing their distributions.

7.1 Prevention

Prior to the start of construction, all personnel will be instructed on of the importance of noxious weed control. The Certificate Holder or their construction contractor will provide information and training to all construction personnel regarding noxious weed identification and prevention strategies. Operations and maintenance personnel will be similarly informed.

Implementation of best management practices will also aid in minimizing the spread of noxious weeds during construction activities, revegetation efforts, and operation and maintenance activities. Best management practices that will be implemented include:

- Limiting vehicle access to designated routes, whether existing roads or newly constructed roads, and the outer limits of construction disturbances per the final design for the Facility;
- Limiting vehicle traffic in noxious weed-infested areas;

- Cleaning construction vehicles prior to entering the Facility for the first time and upon completion of work at the Facility at a wash station located at an onsite location, or at a public car wash in the vicinity of the Facility;
- Cleaning vehicles and equipment associated with ground disturbance and movement of topsoil utilizing a mobile wash station after performing work in noxious weed-infested areas and prior to performing work in non-infested areas;
- Where feasible, not moving topsoil and other soils from noxious weed-infested areas outside of the infested areas and returning them to their previous location during reclamation activities;
- Providing information regarding target noxious weed species at the operations and maintenance building;
- Revegetating the site with appropriate, local native seed or native plants; when these are not available, non-invasive, and non-persistent non-native species may be used; and
- Ensuring that seed and straw mulch used for site rehabilitation and revegetation are certified free of noxious weed seed and propagules.

7.2 Treatment

Noxious weed treatment will focus on control of existing populations of noxious weeds within areas disturbed by repower construction. Existing noxious weed populations will be prevented from expanding in size and density and spreading to new sites. Where practicable, existing populations of noxious weeds should be eradicated. Additionally, if it is determined that noxious weeds have invaded areas immediately adjacent to the Facility (e.g., areas visible just beyond the outer limits of construction disturbances associated with the Facility or along access roads) as a result of construction, the Certificate Holder will contact the landowner and seek approval to treat those noxious weed populations. New noxious weeds detected during post-construction restoration will also be considered a result of construction activities and shall be controlled and treated accordingly.

Control of noxious weeds will be implemented through manual, mechanical, chemical, or biological control measures. Manual control methods include hand-pulling and using hand tools to remove noxious weeds. Mechanical control includes mowing or disking with machinery. Chemical application is accomplished through use of herbicides targeted to the individual weed species. Biological control is the use of non-native agents, including invertebrate parasites and predators, and plant pathogens, to reduce populations of non-native invasive plants (USFS 2005). Several state and county-designated noxious weeds have been targeted for biological control (ODA 2023a). The most appropriate control method depends on the noxious weed species being treated, the size of infestation, and the terrain and habitat needing treated. Standard treatment methods for noxious weeds can be found in the Pacific Northwest Weed Management Handbook (Peachey 2023), the Oregon Department of Agriculture (ODA) Oregon Noxious Weed Profiles (ODA 2023b), and *Weed Control in Natural Areas in the Western United States* (DiTomaso et al. 2013).

The Certificate Holder will be responsible for hiring a qualified (e.g., possesses a Commercial or Public Pesticide Applicator license from the ODA, has training in noxious weed management) contractor to implement the treatment of noxious weeds. In addition, the Certificate Holder or their contractor will ensure that noxious weed treatment does not affect revegetation efforts.

7.3 Noxious Weed Monitoring

Monitoring for noxious weeds will be conducted for the first five years following construction to assess weed growth and inform noxious weed control measures. Monitoring for noxious weed infestations will also enable the Certificate Holder to respond to new noxious weeds infestations in a timely manner and ensure the success of the site's revegetation. Noxious weed inspections will occur across the entire Facility through visual inspection of the site while driving and/or walking. These inspections will be used to inform ongoing noxious weed control efforts.

Monitoring will assess the success of noxious weed treatments and will document any new noxious weed infestations observed. These results will be summarized in annual monitoring reports that describe the noxious weeds identified, treatments implemented, and treatment success, and will make recommendations to improve treatment success (if necessary) and note any new target noxious weed species or emergence. Reports will be submitted to ODOE, ODA, ODFW, and Gilliam County annually.

Based on the success of control efforts after the fifth year of annual monitoring, the Certificate Holder will consult with ODOE, ODA, and Gilliam County to design a long-term weed control plan. The Certificate Holder will maintain ongoing communication with individual landowners, ODA, Gilliam County, and ODOE regarding noxious weeds within the Facility. Landowners may also contact the Certificate Holder directly to report the presence of noxious weeds related to Facility activity. The Certificate Holder will control the noxious weeds on a case-by-case basis and prepare a summary of measures taken for that landowner. During the operational period of the Facility, the Certificate Holder will control noxious weeds as described in the long-term weed control plan.

8.0 Roles and Responsibilities

The Certificate Holder is the overall responsible party for construction and operation of the Facility repower and implementation of the noxious weed management activities described in this document. However, the Certificate Holder may use contractors to complete tasks associated with noxious weed management and monitoring. Example responsible parties and their roles may include the following:

Monitoring Contractor

- Perform site visits (annually as needed) to document noxious weed occurrences.
- Provide summary memo after each visit to the Certificate Holder's operations manager outlining findings and treatment recommendations.

- Communicate directly with Weed Management Contractor and provide maps and photos of noxious weed species locations to Weed Management Contractor.
- Communicate with ODA and Gilliam County about noxious weed survey findings and treatment plans.
- Prepare annual report for the Facility describing noxious weed monitoring findings and treatments.
- Organize and attend quarterly calls with the Certificate Holder and Weed Management Contractor.
- Attend calls with ODA and Gilliam County as needed.

Certificate Holder Site Manager

- Communicate findings and recommendations from Monitoring Contractor to the Weed Management Contractor.
- Review annual reports to ensure all treatments performed by Weed Management Contractor are documented.
- Maintain landowner communications, providing guidance to Monitoring Contractor and Weed Management Contractor regarding landowner restrictions/requests for performing noxious weed monitoring and treatment on their properties.
- Attend quarterly calls with Monitoring Contractor and Weed Management Contractor.
- Attend calls with ODA and Gilliam County as needed.

Weed Management Contractor

- Review Monitoring Contractor memos describing noxious weed occurrences and recommendations and plan appropriate treatment to address those issues.
- Communicate treatment plan to Certificate Holder.
- Maintain records of when, where, and what type of noxious weed treatments are being performed and provides documentation of work being performed to the Certificate Holder Site Manager.
- Maintain all appropriate documentation of chemicals applied. Share documentation during quarterly calls with Certificate Holder and Monitoring Contractor, and prior to annual report preparation. Documentation should include type and quantity of herbicides applied, dates applied, and any associated U.S. Environmental Protection Agency/Oregon Department of Environmental Quality licensing/documentation of chemicals used.
- Attend quarterly calls with Monitoring Contractor and Certificate Holder.

An example noxious weed monitoring schedule is presented in Table 4. This monitoring schedule will be revised, as applicable, based on conditions observed on site (e.g., if noxious weeds are being successfully controlled, monitoring frequency will be reduced).

Table 4. Example Noxious Weed Monitoring Schedule

Monitoring Site Visits	Frequency	Focus
March-April	Once	Conduct a full site-wide noxious weed survey to identify areas for treatment. Work with Weed Management Contractor on a post-emergent chemical treatment, mechanical, or other treatment plan to manage small populations. Report on previous treatments' effectiveness, as applicable.
April-August	Monthly, or as needed	Monitor treated areas for effectiveness, identify new noxious weed populations, make recommendations for chemical retreatment or mechanical or other controls to manage new or existing small noxious weed populations.
July-August	Once	Monitor and collect data on noxious weed populations in revegetated areas.
September-October	Once	Conduct a full site-wide noxious weed survey to monitor treated areas, identify new noxious weed populations, make recommendations for chemical retreatment or mechanical or other controls and plan for pre-emergent chemical applications.

9.0 Plan Amendment

This Plan may be amended from time to time by agreement of the Certificate Holder and the Oregon Energy Facility Siting Council (EFSC). Such amendments may be made without amendment of the Site Certificate. EFSC authorizes ODOE to agree to amendments to this Plan. ODOE shall notify EFSC of all amendments, and EFSC retains the authority to approve, reject, or modify any amendment of this plan agreed to by ODOE. This Plan may also be amended periodically as the Certificate Holder continues to evaluate and modify, as needed, agricultural dual-use activities at the Facility.

10.0 References

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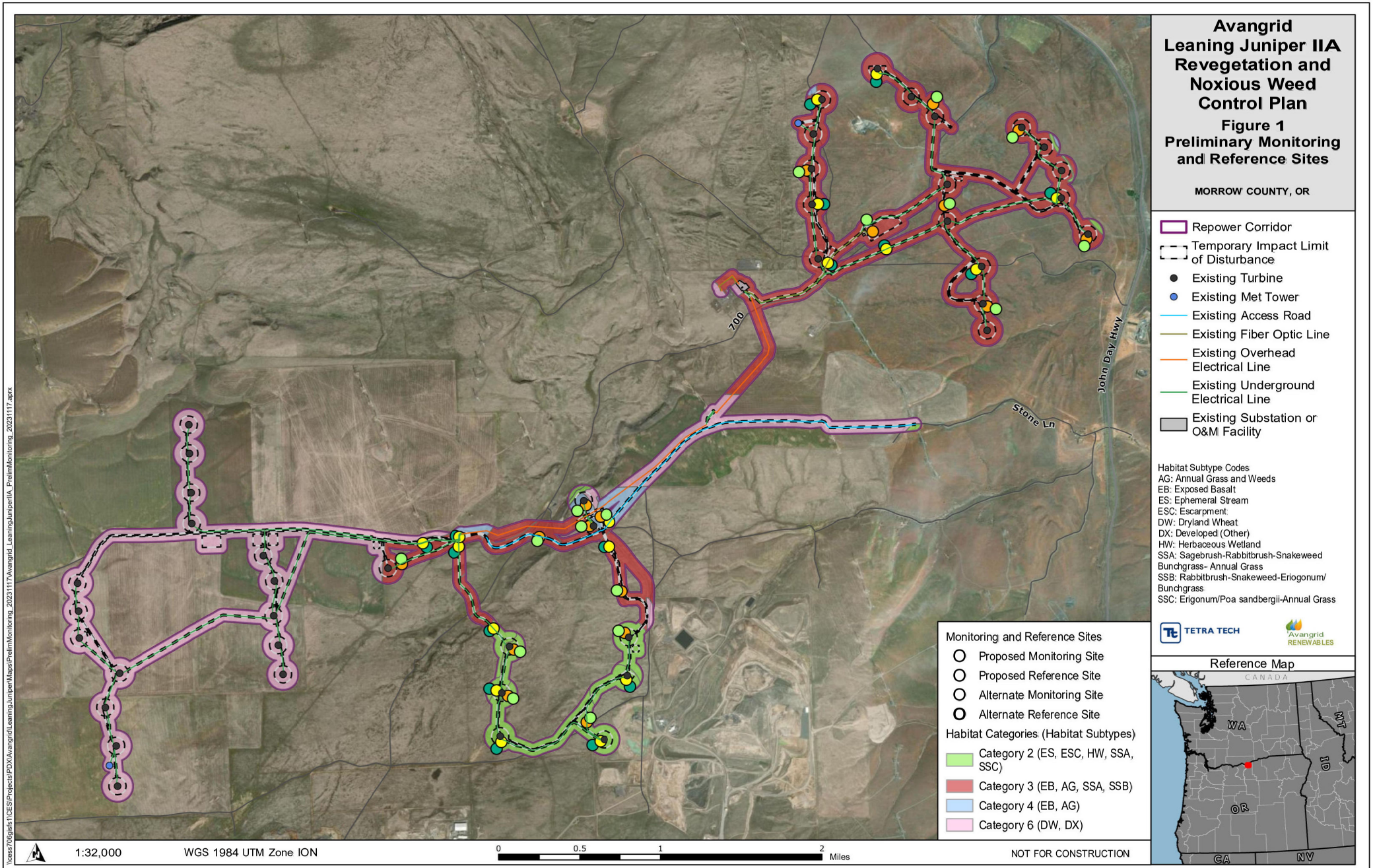
Figure



Avangrid Leaning Juniper IIA Revegetation and Noxious Weed Control Plan

Figure 1 Preliminary Monitoring and Reference Sites

MORROW COUNTY, OR

- Repower Corridor
- Temporary Impact Limit of Disturbance
- Existing Turbine
- Existing Met Tower
- Existing Access Road
- Existing Fiber Optic Line
- Existing Overhead Electrical Line
- Existing Underground Electrical Line
- Existing Substation or O&M Facility

Habitat Subtype Codes
AG: Annual Grass and Weeds
EB: Exposed Basalt
ES: Ephemeral Stream
ESC: Escarpment
DW: Dryland Wheat
DX: Developed (Other)
HW: Herbaceous Wetland
SSA: Sagebrush-Rabbitbrush-Snakeweed Bunchgrass- Annual Grass
SSB: Rabbitbrush-Snakeweed-Eriogonum/ Bunchgrass
SSC: Erigonum/Poa sandbergii-Annual Grass

TETRA TECH

Avangrid RENEWABLES

Reference Map

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~~Appendix A. Soil Monitoring Plan~~

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Appendix B. Seed Suppliers

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Table B-1. Seed Suppliers

Company	City, State	Web Address	Contact
BFI Native Seeds	Moses Lake, WA	http://www.bfinativeseeds.com/	(509) 765-6348
Emerald Seed & Supply	Redmond, OR	http://www.emeraldseedandsupply.com/	(541) 504-0307
Great Basin Seed	Ephraim, UT	https://greatbasinseeds.com/	(435) 283-1411
L&H Seeds	Connell, WA	https://www.lhseeds.com/	(509) 234-4433
Plants of the Wild	Tekoe, WA	www.plantsofthewild.com	kathy@plantsofthewild.com
Rainier Seeds, Inc.	Davenport, WA	www.rainierseeds.com	(509) 215-1690
Wildlands, Inc.	Richland, WA	www.wildlandsnursery.com/nursery	(509) 375-4177

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Appendix C. Revegetation Monitoring Datasheet

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Date:			Surveyor(s):							
Site #:			Soil Type:					Elevation:		
Transect Bearing:			Slope:		Aspect:			Habitat Type:		
	Quadrat Number (enter "Cover Class" for each species, as well as bare ground, litter, and biotic crust observed in each quadrat)									
Plant Species	1	2	3	4	5	6	7	8	9	10
Bare Ground										
Litter										
Biotic Crust										

Daubenmire Cover Classes

Cover Class	Range of Coverage	Midpoint of Range
1	0 - 5%	2.5%
2	6 - 25%	15.0%
3	25 - 50%	37.5%
4	50 - 75%	62.5%
5	75 - 95%	85.0%
6	95 - 100%	97.5%

Degree of Erosion (high, moderate, low):

Evidence of Wildlife Use:

Disturbances noted (past, ongoing, or recent):

Overall plant vigor:

Notes:

Attachment G: Inadvertent Discovery Plan

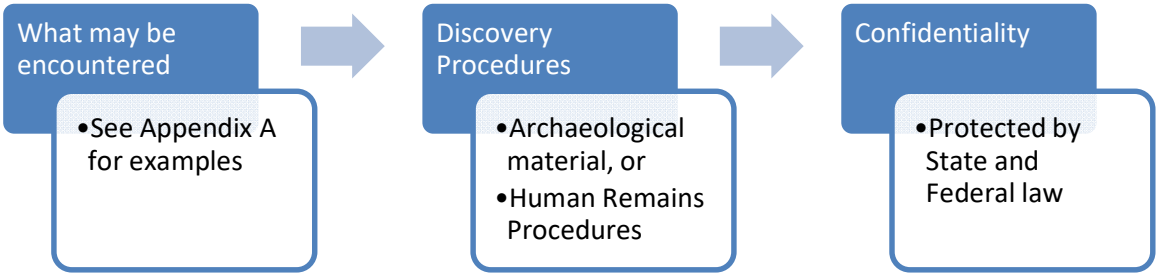
Appendix D
Inadvertent Discovery Plan

ARCHAEOLOGICAL INADVERTENT DISCOVERY PLAN (IDP)

Leaning Juniper IIA Repowering Project

James Gregory September 11, 2023 SHPO Case #06-0268

1 HOW TO USE THIS DOCUMENT



Archaeology consists of the physical remains of the activities of people in the past. This IDP should be followed if any archaeological sites, objects, or human remains are found. These are protected under federal and state laws and their disturbance can result in criminal penalties.

This document pertains to the work of the contractor, including any and all individuals, organizations, or companies associated with Avangrid Renewables, LLC.

2 WHAT MAY BE ENCOUNTERED

Archaeology can be found during any ground-disturbing activity. If encountered, all excavation and work in the area MUST STOP. Archaeological objects vary and can include evidence or remnants of historic-era and precontact activities by humans. Archaeological objects can include but are not limited to:

- **Stone flakes**, **arrowheads**, **stone tools**, **bone or wooden tools**, **baskets**, **beads**
- Historic building materials such as **nails**, **glass**, **metal** such as cans, barrel rings, farm implements, **ceramics**, **bottles**, **marbles**, **beads**
- Layers of **discolored earth** resulting from hearth fire
- Structural remains such as **foundations**
- **Shell** middens
- **Human skeletal remains** and/or **bone fragments** which may be whole or fragmented

For photographic examples of artifacts, please see Appendix A. (Human remains not included.)

If there is an inadvertent discovery of any archaeological objects, see procedures below.

If in doubt call it in.

2.1.1 DISCOVERY PROCEDURES: WHAT TO DO IF YOU FIND SOMETHING

1. Stop ALL work in the vicinity of the find.
2. Secure and protect area of inadvertent discovery with 30-meter/100-foot buffer. Work may continue outside of this buffer.
3. Notify Project Manager and Agency Official.
4. Project Manager will need to contact a professional archaeologist to assess the find.
5. If archaeologist determines the find is an archaeological site or object, contact the Oregon State Historic Preservation Office (SHPO). If it is determined to *not* be archaeological, you may continue work.

2.1.2 HUMAN REMAINS PROCEDURES

1. If it is believed the find may be human remains, stop ALL work.
2. Secure and protect area of inadvertent discovery with 30-meter/100-foot buffer, then continue work outside of this buffer with caution.
3. Cover remains from view and protect them from damage or exposure, restrict access, and leave in place until directed otherwise. **Do not take photographs. Do Not Call 911. Do not speak to the media**.
4. Notify:
    - Project Manager: James Gregory/Jacobs Engineering at 503-358-3880
    - Contracted Archaeologist: David Sheldon/Jacobs Engineering at 360-219-6953
    - Agency Official: N.A.
    - Legislative Commission on Indian Services: Patrick Flanagan at 503-986-1067
    - Oregon State Police, Lt. Craig Heuberger at 503-508-0779 or cheuber@osp.oregon.gov
    - SHPO: State Archaeologist, John Pouley at 503-480-9164 *OR* Assistant State Archaeologist, Jamie French at 503-979-7580
    - Burns Paiute: Diane Teeman – Chairwoman, Cultural Resources Lead at 541-413-9910
    - Confederated Tribes of the Warm Springs of Oregon: Mars Galloway – Cultural Resource Manager at 541-553-3583
    - Confederated Tribes of the Umatilla Indian Reservation: Teara Farrow Ferman – Program Manager at 541-429-7203
5. If the site is determined not to be a crime scene by the Oregon State Police, do not move anything! The remains will continue to be *secured in place* along with any associated funerary objects, while protected from weather, water runoff, and shielded from view.
6. Do not resume any work in the buffered area until a plan is developed and carried out between the State Police, SHPO, Legislative Commission on Indian Services, and appropriate Native American Tribes and you are directed that work may proceed.

2.2 CONFIDENTIALITY

Avangrid Renewables, LLC, and employees shall make their best efforts, in accordance with federal and state law, to ensure that personnel and contractors keep the discovery confidential. The media, or any third-party member or members of the public, are not to be contacted or have information regarding the discovery, and any public or media inquiry is to be reported to SHPO.

Prior to any release, the responsible agencies and Tribes shall concur on the amount of information, if any, to be released to the public.

To protect fragile, vulnerable, or threatened sites, the National Historic Preservation Act, as amended (Section 304 [16 U.S.C. 470s-3]), and Oregon State law (ORS 192.501(11)) establishes that the location of archaeological sites, both on land and underwater, shall be confidential.

2.3 Appendices and Supplementary Materials

A. Visual Reference Guide to Encountering Archaeology

B. Figures

APPENDIX A

VISUAL REFERENCE GUIDE TO ENCOUNTERING ARCHAEOLOGY

Photo 1: Stone Flakes

Photo 2: Stone Tool Fragments

Photo 3: Cordage

Photo 4: Shell Midden

Photo 5: Historic Glass Artifacts

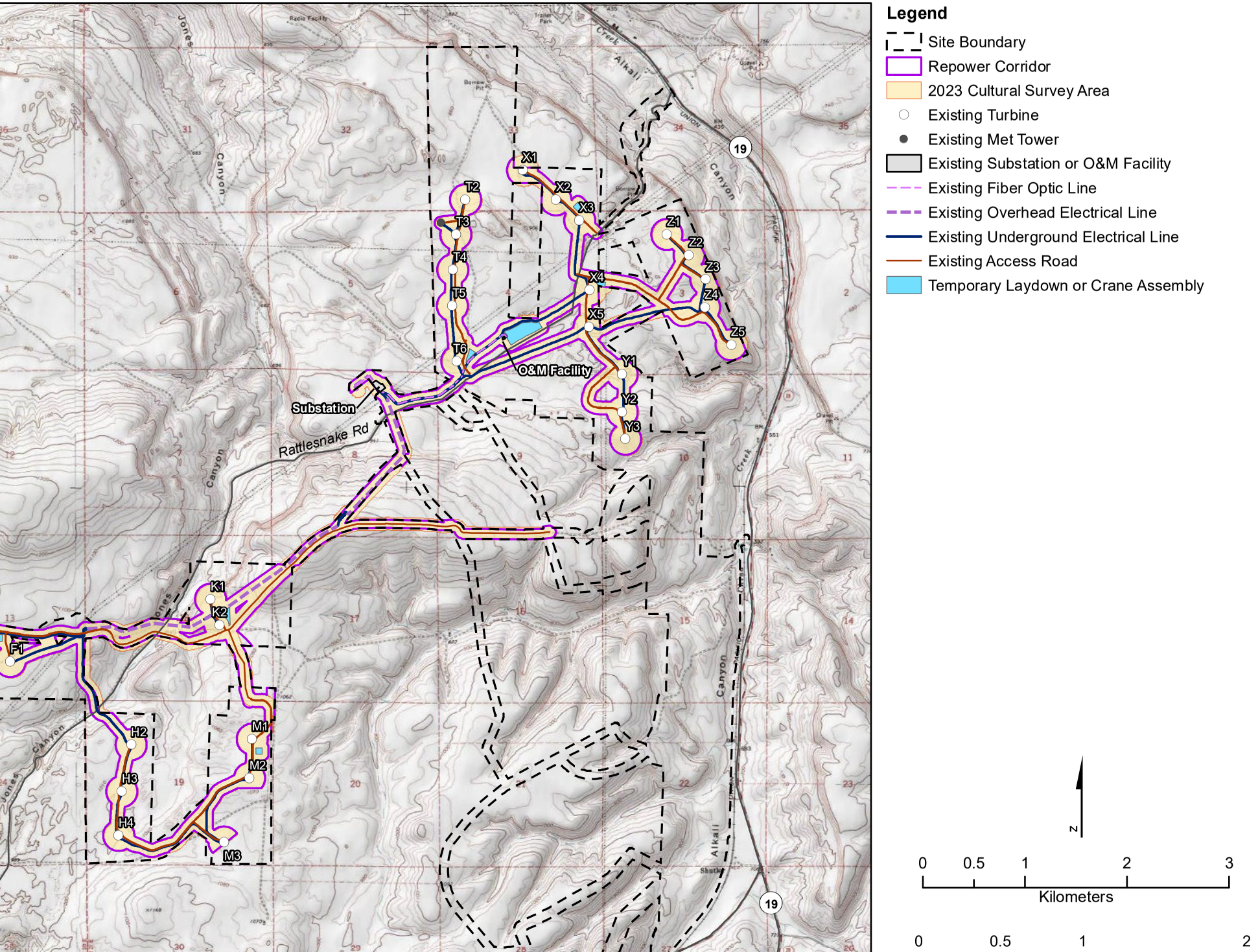
Photo 6: Historic Metal Artifacts

Photo 7: Historic Building Foundations

Photo 8: 18th Century Ship

APPENDIX B

FIGURES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2023 Cultural Survey Area
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Existing Substation or O&M Facility
Existing Fiber Optic Line
Existing Overhead Electrical Line
Existing Underground Electrical Line
Existing Access Road
Temporary Laydown or Crane Assembly
X1
X2
X3
X4
X5
T2
T3
T4
T5
T6
Z1
Z2
Z3
Z4
Z5
Y1
Y2
Y3
O&M Facility
Substation
Rattlesnake Rd
K1
K2
F1
H2
H3
H4
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M2
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Kilometers
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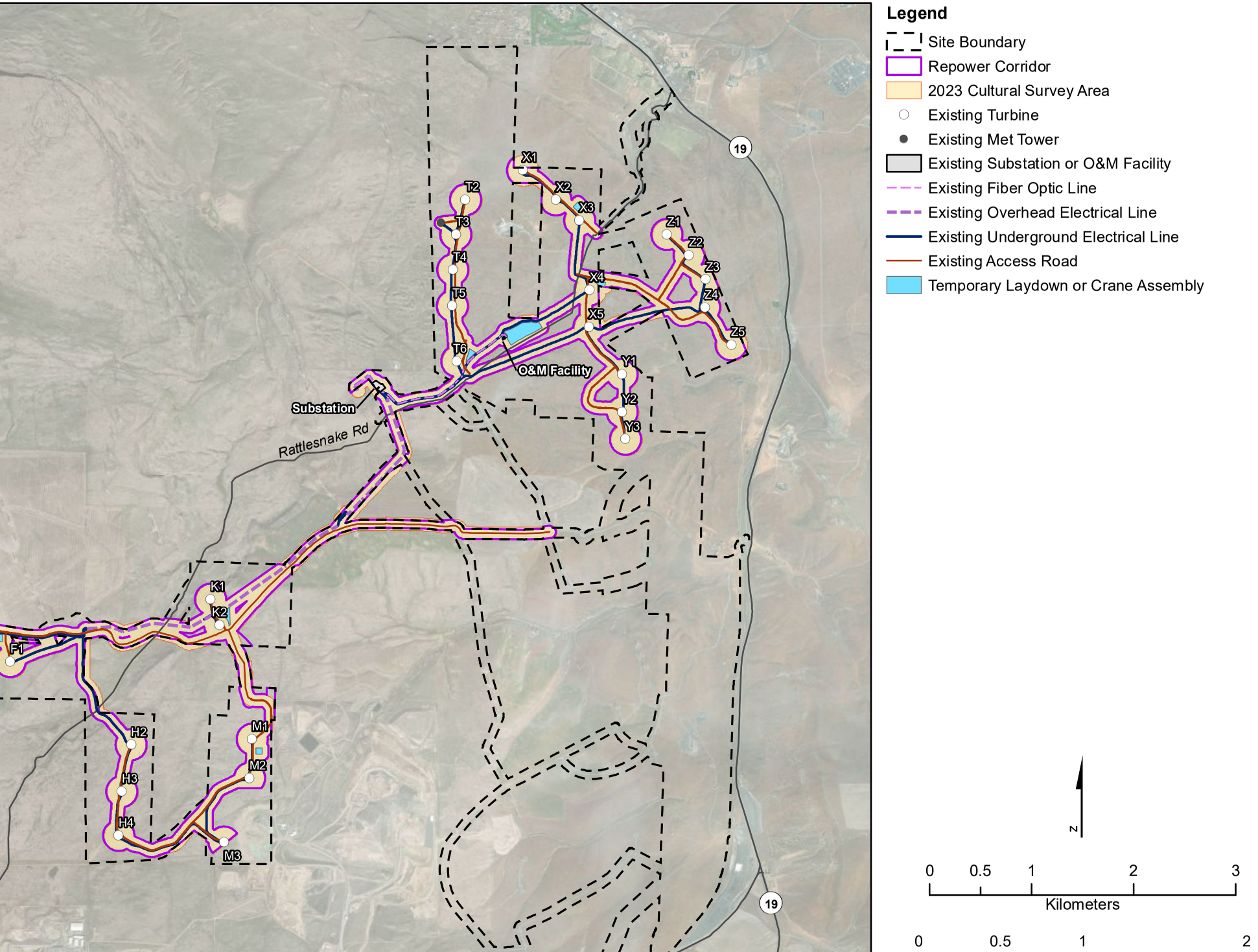
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Site Boundary
Repower Corridor
2023 Cultural Survey Area
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Existing Met Tower
Existing Substation or O&M Facility
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Existing Overhead Electrical Line
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Kilometers
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Attachment H: Wildfire Mitigation Plan (WMP)

Wildfire Mitigation Plan for the Leaning Juniper IIA Wind Power Facility

Document No: 230717173800_d50dfc00
Version: Final

Leaning Juniper IIA Repowering Project
February 2024

As amended by the Department, February 2024

Wildfire Mitigation Plan for the Leaning Juniper IIA Wind Power Facility

Client name:	Avangrid Renewables, LLC		
Project name:	Leaning Juniper IIA Repowering Project		
Document no:	230717173800_d50dfc00	**Project no:**	D3747400
Version:	Final	**Project manager:**	James Gregory/Jacobs
Date:	February 2024	**Prepared by:**	Olivia Roberts/Jacobs

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Tables

Figures

Acronyms and Abbreviations

ACP	American Clean Power
APLIC	Avian Power Line Interaction Committee
Certificate Holder	Leaning Juniper Wind Power, LLC
CWPP	*Community Wildfire Protection Plan*
Facility	Leaning Juniper IIA Wind Power Facility
LJIIA	Leaning Juniper IIA
NERC	North American Electric Reliability Corporation
O&M	operations and maintenance
ODOE	Oregon Department of Energy
OSBC	Oregon Specialty Building Codes

1. Introduction

Leaning Juniper Wind Power, LLC (Certificate Holder), a wholly owned subsidiary of Avangrid Renewables, LLC, proposes to repower the Leaning Juniper IIA (LJIIA) Wind Power Facility (Facility) in Gilliam County, Oregon. Once repowered, the Facility will generate up to 98.4 megawatts with 43 wind turbines within a site boundary of approximately 6,404 acres.

2. Wildfire Risk

This Wildfire Mitigation Plan has been prepared to meet Oregon Administrative Rule 345-022-0115(1)(b), which requires the following:

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

The data sources used in this mitigation plan to identify areas within the site boundary subject to heightened risk of wildfire include the *Oregon CWPP Planning Tool* (CWPP 2018), and the *Gilliam County Multiple-Jurisdictional Natural Hazards Mitigation Plan* (Gilliam County 2018). Both data sources are reputable for the following reasons: (1) the *Community Wildfire Protection Plan* (CWPP) planning tool is a government database developed to meet the requirements of Senate Bill 762 and associated administrative rules, and (2) the *Gilliam County Multiple-Jurisdictional Natural Hazards Mitigation Plan* was reviewed by the Federal Emergency Management Agency and has an effective date through January 2024.

The CWPP data include a Quantitative Wildfire Risk Assessment located on the Oregon Explorer website (CWPP 2018). The data indicate that approximately 95 percent of the site boundary has a low wildfire risk, with less than 5 percent of the area having a very high/high wildfire risk (Figures 1 and 2). The *Gilliam County Multiple-Jurisdictional Natural Hazards Mitigation Plan* describes a county-wide risk assessment of wildfire as “high” probability and describes many areas in the county as “conducive for large and fast-moving wildfires” due to high winds typical for regional dry conditions and terrain. The plan identifies risk factors for starting wildfires in the county as highways, railroads, lighting, power lines, debris burning, and equipment.

The existing structures within the LJIIA Facility site boundary include the Bonneville Power Administration Slatt-Buckley 500-kilovolt transmission line, wind turbines, substation, and an operations and maintenance (O&M) structure. If a wildfire were ignited onsite, the areas subject to heighted risk would be the areas associated with these structures. However, the LJIIA Facility site is bordered by John Day Highway running north and south that would serve as a fire break were a wildfire to occur east. Rattlesnake Road bisects the Facility site boundary running east and west and also serves as a fire break were a wildfire to occur south of the site boundary.

3. Operational Procedures and Inspections

> *(B) Describe the procedures, standards, and timeframes that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;*

The Facility components that could cause electrical fires are the wind turbines, substation, and overhead electrical lines. During operations, the Certificate Holder will conduct housekeeping inspections for maintaining a Facility that minimizes the risk of fire. Operational procedures and inspections follow.

- Monthly inspection requirements during operations:
  - Ensure equipment is appropriately maintained to control sources of combustible materials.
  - Remove and prevent the accumulation of combustible materials.
  - Collect and properly dispose of combustible waste.

  - Ensure flammable chemicals are stored in a flammable cabinet.
  - If any leaks are identified during inspections, stop the leak immediately. If the leak cannot be stopped, contain it. Once the leak has been stopped or contained, clean the area immediately to mitigate any fire hazard and then report the leak to Avangrid's Environmental Health and Safety Department.
  - Inspect and maintain safeguards installed on heat-producing equipment to prevent accidental ignition of combustible materials, in accordance with equipment O&M manuals.
  - Visually inspect portable fire extinguishers on a monthly basis.
  - Visually inspect substation and surrounding area on a monthly basis and complete Avian Power Line Interaction Committee (APLIC) inspection forms.
- Semiannual inspection requirements during operations:
  - Each time technicians enter a wind turbine they will inspect the turbine for cleanliness and fire hazards.
  - Thoroughly clean and inspect wind turbines on a semiannual basis in accordance with Oregon Department of Emergency Management maintenance requirements.
  - Conduct semiannual visual inspections of overhead electrical lines and complete APLIC inspection forms.
- Annual inspection requirements during operations:
  - Test fire protection equipment in accordance with the manufacturer specifications and National Fire Protection Association requirements. Portable dry chemical fire extinguishers will have a maintenance check annually and a hydrostatic test every 12 years. Carbon dioxide extinguishers will have an annual maintenance check and a hydrostatic test every 5 years. A contractor knowledgeable in the requirements will perform the check and testing. This check and testing will also be performed after an extinguisher has been used on a fire.
  - Conduct routine inspection and maintenance of 10% of the anchor bolts on each retrofitted foundation for adequate tension. All bolts to be re-tightened if any bolt fails the tension check.

In the event that any discrepancies are identified in the inspections outlined above, remedial actions will be taken to resolve the issue immediately and reported to the Plant Manager. If the issue cannot be resolved immediately by the technician, the Plant Manager will schedule remedial actions and monitor the equipment until the issue is resolved to ensure maintaining a Facility that minimizes the risk of fire.

In addition to the inspection requirements above, the Certificate Holder will maintain a fire safe Facility by prohibiting smoking and sources of open flames in areas where combustible materials are located. Smoking will be authorized in designated areas only.

The existing Suzlon S88 wind turbine models at the Facility will adhere to the following additional operational requirements due to a known manufacturer equipment issue associated with the cabling connections in the junction box:

- Temperature strips are to be installed on the aluminum junction boxes at each Suzlon S88 turbine. Temperature strips will be inspected every time a turbine is visited by a plant technician, at least twice per year.
- If the maximum temperature on the strip exceeds 900 degrees Celsius, the cabling connections will be trimmed and reterminated by a qualified vendor.

To reduce the availability of fuels for wildfire near electrical components, the Certificate Holder will maintain the existing nonflammable gravel pads around the wind turbines and substation, mow vegetation under overhead electrical lines, and implement ongoing vegetation management:

- Apply herbicide on gravel pad around turbine pad and turbine access road to prevent vegetation, annually at a minimum, and as needed based on site conditions.
- Apply herbicide on substation gravel pad, annually at a minimum, and as needed based on site conditions. Highly compacted gravel foundations of substation are not suitable for vegetation ground.
- Mow vegetation beneath overhead electrical lines to achieve clearance requirements between conductor and ground, annually at a minimum, and as needed based on site conditions.
- Monitor success of noxious weed treatments in first five years of operations and develop a long-term operational weed control plan in consultation with the Oregon Department of Energy (ODOE), Oregon Department of Agriculture, and Gilliam County (if required) after the initial five-year monitoring period.
- Control noxious weed populations, if identified during operational monitoring, through manual, mechanical, chemical, and/or biological methods. The specific method of control will be chosen based on the most appropriate method for the specific noxious weed identified.

4. Preventative Actions During Operations

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

During operations, the Certificate Holder will conduct vegetation management inspections each spring, prior to the summer months when fire risk is heightened. During these inspections, the technician will ensure vegetation setbacks from installed equipment is adequate and will enact vegetation control measures if needed. During this period, the turbine pads, access roads, electrical collector systems, and the substation will also have herbicide applied to control vegetation growth.

The Certificate Holder will also monitor for periods of heightened fire risk through the third-party contractor StormGeo, which provides weather monitoring to track conditions at the Facility. Through this monitoring system, the Plant Manager will be notified of Red Flag Warnings and weather conditions that produce an increased risk of fire danger.

If maintenance activities need to occur at the Facility during periods of heightened fire risk, Certificate Holder will deploy the following additional measures to prevent a wildfire:

- If regrowth around Facility components is observed, the Plant Manager will enact measures to control the growth through either mechanical or chemical measures, dependent on the vegetation.
- Maintenance activities at the Facility will be scheduled with consideration to heightened fire risk. All activities will require a Hot Work Permit issued by the Plant Manager, which characterizes the fire risk of the maintenance activity and necessary precautions.
- When possible, maintenance work involving a spark risk will be postponed.
- If maintenance activities cannot be postponed until weather conditions improve, the Plant Manager will enact fire risk prevention procedures to ensure the continued operation of the Facility. A contractor will be hired to monitor fire risk and will be onsite with a water truck overseeing the maintenance activities as a fire watch.

5. Personnel Training During Operations

In addition to the preventative actions described above, workers, contracting employees, and other personnel performing official duties at the Facility will undergo regular training exercises throughout the operational life of the Facility, as follows:

- Twice-annual tabletop drills, including training on response measures in the event of a fire.

- Annual drills involving local first responders, such as emergency medical services, law enforcement, and/or fire and rescue personnel. Discussion of potential fire-fighting hazards within the Facility, including transformer fires that contain energized components and large reservoirs of oil, the risk of falling debris from blades/nacelle burning, the importance of ensuring that equipment is de-energized before firefighting is attempted, and site layout awareness to ensure response times are optimized.

6. Minimization Procedures During Operations

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

In the event of a wildfire at or in the vicinity of the Facility, the Plant Manager will notify onsite personnel via radio or telephone to initiate Emergency Response Procedures and designate the safe assembly location for all personnel to evacuate to. The Plant Manager will contact 911 and request the appropriate emergency services, providing all pertinent information concerning the fire emergency. A designee will be assigned to account for all personnel at the Facility and locate any missing persons while the Plant Manager coordinates with emergency response personnel. In the event of a wildfire at the Facility, the Certificate Holder will report the incidence to ODOE within 72 hours.

Procedures to minimize risks to public health and safety, first responder health and safety, and damages to Council-protected resources are identified in Table 1 to supplement the measures described earlier in this plan.

Table 1. Procedures to Minimize Wildfire Risk

Topic	Procedures
Public health and safety	The public will be excluded from the substation by fencing. Turbine doors will be locked to prevent unauthorized entry. Pad mount step-up transformers at the base of turbines, and electrical junction boxes, will be surrounded by bollards to minimized inadvertent vehicle and farm equipment collisions with electrical equipment.
First Responders	The Certificate Holder will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires at the Facility, unlikely as they may be, should focus on controlling spread to adjacent lands. Operational staff will be trained in the use of fire extinguishers for responding to incipient stage fires on site.
Resource Protection	Resources covered by Council standards near the Facility area include agricultural land, shrub-steppe habitat, and cultural resources. The existing county roads will form a fire break between fields that will discourage the spread of wildfire between fields or into wildlife habitat. The two closest cultural sites are Site 35GM373, a historic farmstead or ranch complex located at an intersection of roads in Jones Canyon; and Site 35GM 388, a small debris scatter near the eastern edge of the repower corridor survey area. The Certificate Holder will avoid these resources during Facility planning and implementation.

7. Plan Updates

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

~~The Certificate Holder may consider revisions to this plan at its sole discretion to incorporate future best practices or emerging technology depending on whether the new technology is cost effective and suitable for the site conditions~~. The Certificate Holder shall ~~will~~ track and report annually to the Department (pursuant to OAR 345-

022-0080(2), Condition 21) whether the industry groups and applicable design standards outlined in Table 2 have changed or been updated ~~to~~ resulting in new~~identify future~~ technologies or best practices that could be implemented at the Facility. The Plan shall be updated based on changes in best practices or technologies deemed necessary and appropriate at the site, or as needed at the site based on changes in site conditions and modeled wildfire risk.

Table 2. Resources for Future Best Practices

Reference	Description	Method
American Clean Power (ACP)	ACP establishes best practices for renewable energy projects.	The Certificate Holder's parent company is a member of ACP and participates in best practice development.[a]
North American Electric Reliability Corporation (NERC)	NERC develops electrical standards for large energy facilities.	The Certificate Holder will follow NERC Standard FAC-003-0 for its vegetation management program of transmission lines,[b] or updates to this standard as approved by NERC.
Oregon Specialty Building Codes (OSBC)	OSBC designs building codes applicable to inhabitable spaces, including the O&M structure and the substation enclosure.	Remodeling of the O&M structure and substation enclosure that requires permits will follow any updates to the OSBC at that time.
APLIC	APLIC develops avian protection methods for electrical facilities to minimize fire risk to bird/mammal nests on electrical equipment.	The Certificate Holder's parent company is a member of APLIC.[c] An operational wildlife monitoring program will inspect for wildlife nesting on facilities that could cause fire, and take actions following applicable laws (for example, the Migratory Bird Treaty Act).

[a] Link to ACP Standards & Practices: https://cleanpower.org/resources/types/standards-and-practices/.
[b] NERC FAC-003-0: https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-0.pdf.
[c] Link to APLIC member organization: https://www.aplic.org/member_websites.php.

8. ~~Construction~~ Repower Wildfire Mitigation and Measures

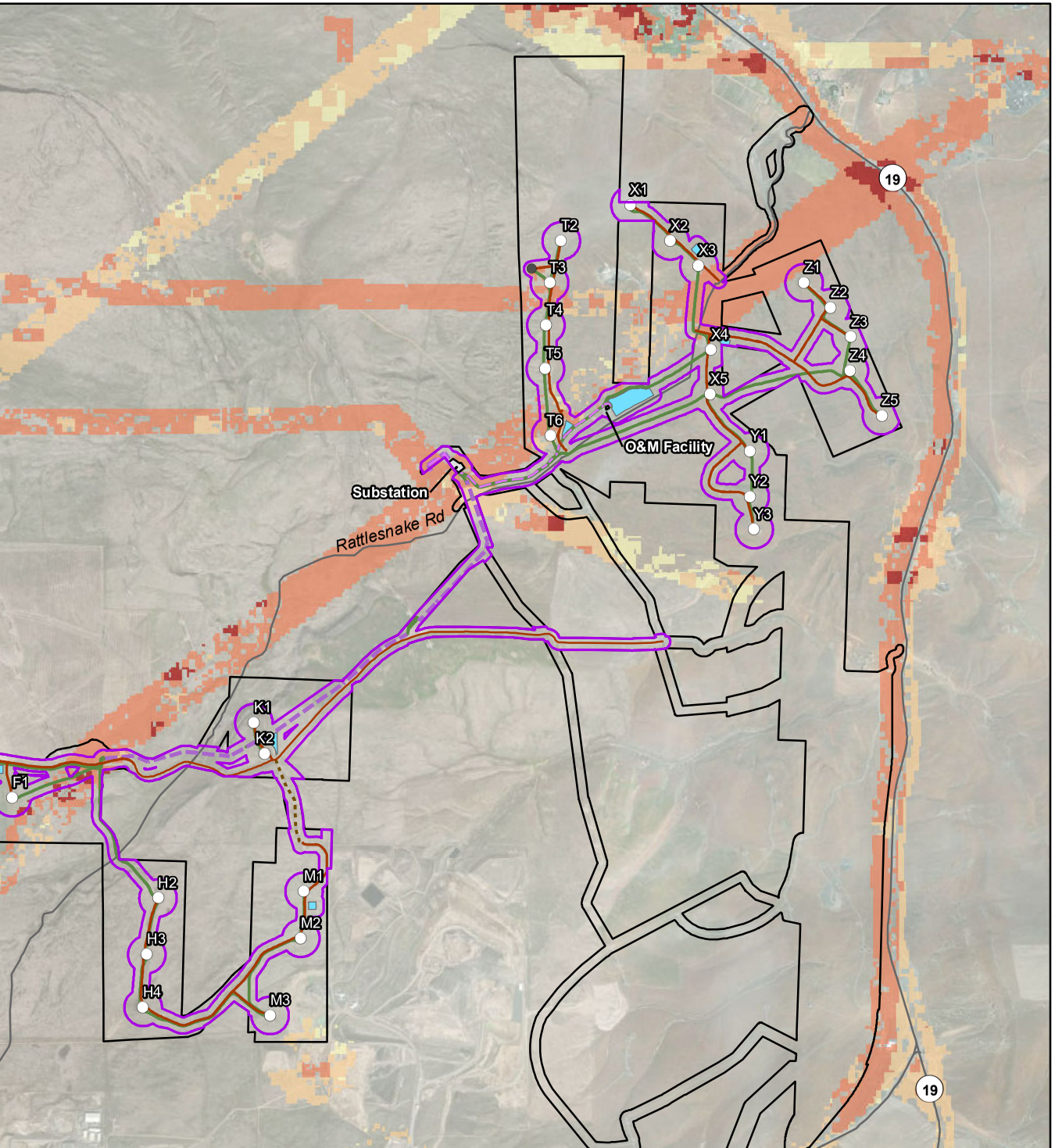
The Certificate Holder will require the contractor completing construction activities to develop a site-specific Fire Safety Plan to identify sources of fire risk during ~~construction~~facility repower, and all necessary minimization procedures to control the risk of fire during ~~construction~~facility repower, including weather monitoring, personnel training, and emergency response and communication procedures. This Fire Safety Plan will be completed in consultation with the North Gilliam County Rural Fire Protection District and the Arlington Fire Department and provided to ODOE ~~as a preconstruction deliverable in accordance with Site Certificate Condition Number 61~~.

9. References

CWPP. 2018. *Oregon CWPP Planning Tool*. Available on the Oregon Explorer website: https://tools.oregonexplorer.info/oe_htmlviewer/index.html?viewer=wildfireplanning.

Gilliam County. 2018. *Gilliam County Multiple-Jurisdictional Natural Hazards Mitigation Plan*. Effective January 17, 2019 through January 16, 2024. 6.20.2022-Gilliam County NHMP 2019.pdf (revize.com)

Figures



Legend

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- Repower Corridor
- Existing Turbine
- Existing Met Tower
- Existing Substation or O&M Facility
- Existing Fiber Optic Line
- Existing Overhead Electrical Line
- Existing Underground Electrical Line
- Existing Access Road
- Proposed Crane Walk
- Temporary Laydown or Crane Assembly

Wildfire Risk to Assets

- Very High
- High
- Moderate
- Low

N

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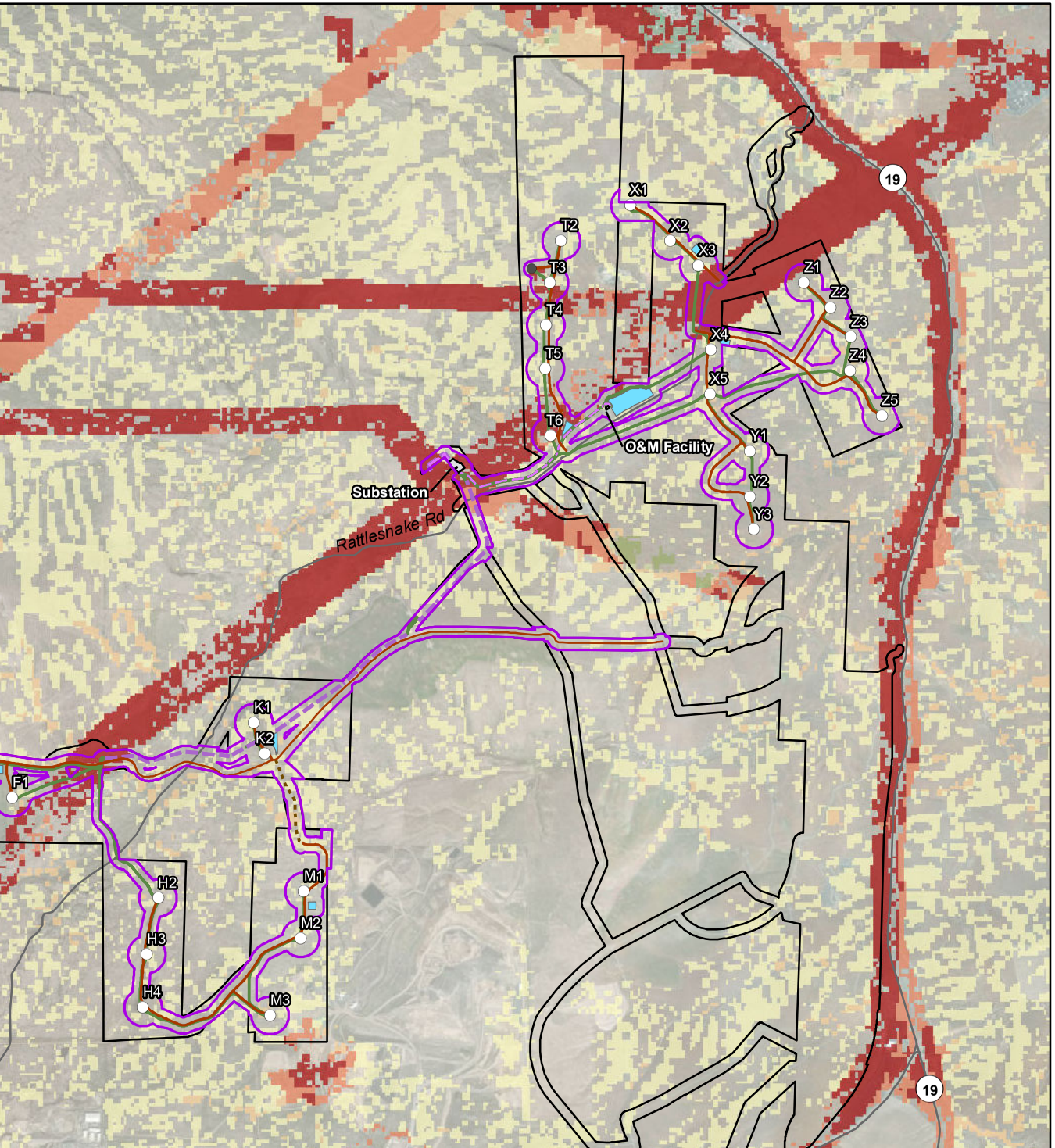

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- Existing Overhead Electrical Line
- Existing Underground Electrical Line
- Existing Access Road
- Proposed Crane Walk
- Temporary Laydown or Crane Assembly

Overall Wildfire Risk

- Very high
- High
- Moderate
- Low
- Low benefit
- Benefit

N

0 0.5 1 2

Attachment I: Operational Wildlife Monitoring and Mitigation Plan (WMMP) and Repower Fatality Monitoring Plan

Table of Contents

Leaning Juniper IIA and IIB Wind Projects: Ongoing Wildlife Monitoring and Mitigation Plan

NOVEMBER 6, 2015

This Ongoing Wildlife Monitoring and Mitigation Plan (the Plan) describes wildlife monitoring that the certificate holders shall conduct during operation of the Leaning Juniper IIA and IIB Wind Power Facilities. The ongoing monitoring objectives are to determine whether the facility causes significant fatalities of birds and bats and to determine whether the facility results in a loss of habitat quality.

Following Amendment 2 of the original Leaning Juniper II Wind Power Facility site certificate, the single facility was divided into two separate facilities, with LJIIA and LJIIB each receiving its own site certificate. However, the site certificate holders agreed to share mitigation and environmental responsibilities. Therefore, the requirements for the facility as a whole, including both LJIIA and LJIIB, remain in this Wildlife Monitoring and Mitigation Plan (WMMP) and each individual site certificate holder remains bound by its terms.

Collectively, LJIIA and LJIIB ('the Facilities' or 'LJIIA/B') consists of 117 wind turbines, four non-guyed meteorological (met) towers and other related or supporting facilities as described in the site certificate. The permanent facility components occupy approximately 111 acres, of which up to 52 acres is Category 5 wildlife habitat or better, based on the Oregon Department of Fish and Wildlife (ODFW) standards (OAR 635-415-0025).[1]

Each certificate holder shall use experienced personnel to implement the ongoing monitoring required under this plan and properly trained personnel to conduct the monitoring, subject to approval by the Oregon Department of Energy (Department) as to professional qualifications. For all components of this plan except the Wildlife Monitoring and Reporting System (WMRS), each certificate holder shall hire an independent third party (not employees of the certificate holder) to perform monitoring tasks.

The Wildlife Monitoring and Mitigation Plan for the Facilities originally included the following components:

1) Fatality monitoring program including: (completed, Downes et al. 2013)
    a) Removal trials
    b) Searcher efficiency trials
    c) Fatality search protocol
    d) Statistical analysis
2) Raptor nesting surveys (ongoing)
3) Washington ground squirrel surveys (ongoing)
4) Grassland bird study (completed, Downes and Gritski 2014)
5) Wildlife Monitoring and Reporting System (ongoing)

[1] A more complete description of the habitat areas affected by the Facilities, LJIIA and LJIIB, is provided in the Final Order on Amendment #1, Section IV.4(b), which expanded the site boundary to include LJIIB.

Since the original Wildlife Monitoring and Mitigation Plan was adopted on November 20, 2009 (and updated in June 21, 2013), the requirements of (1) and (4) and the initial requirements of (2), (3), (5), and (6) above have been completed, as reflected and described in this Plan. This Plan reflects the ongoing, long-term monitoring and mitigation requirements for raptor nesting surveys (Section 2), Washington ground squirrel surveys (Section 3), and the Wildlife Monitoring and Reporting System (Sections 5 and 6). Section 8, Literature Cited, was added to provide references and sources for completed requirements of the Plan.

Based on the results of the monitoring programs, mitigation of significant impacts may be required. The selection of the mitigation actions should allow for flexibility in creating appropriate responses to monitoring results that cannot be known in advance. If the Department determines that mitigation is needed, the certificate holders shall propose appropriate mitigation actions to the Department and shall carry out mitigation actions approved by the Department, subject to review by the Oregon Energy Facility Council (Council).

1. Fatality Monitoring

The certificate holders conducted two years of post-construction fatality monitoring following substantial completion or commercial operations date (COD) of the Facilities reflecting operating impacts on wildlife. The results of the post-construction fatality monitoring are presented in Downes et al. (2013).

2. Raptor Nest Surveys

The objectives of raptor nest surveys are: (1) to estimate the size of the local breeding populations of raptor species that nest on the ground or aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to determine whether operation of the facility results in a reduction of nesting activity or nesting success in the local populations of the following raptor species: Swainson's hawk, golden eagle, ferruginous hawk and burrowing owl. For each phase of LJIIA/B, the certificate holder conducted the first year of post-construction raptor nest surveys in 2011 (Downes et al. 2012), the first raptor nesting season after construction of that phase was completed. The second year of surveys was done in 2015 with results presented in Gerhardt and Kronner (2015). Hereafter, the certificate holders shall conduct long-term raptor nest surveys as described below and summarized in Section 2(d). The certificate holder will share the data with state and federal biologists

(a) Survey Protocol

- *For Raptor Species that Nest Aboveground*

During long-term survey years, each certificate holder shall use aerial and ground surveys to evaluate nest success by gathering data on active nests, on nests with young and on young fledged. Each certificate holder will conduct aerial surveys to determine nest occupancy in late May or early June within the site and a 2-mile buffer around the site (as identified in Downes et al., 2012, Leaning Juniper II Wildlife Monitoring Report for 2011–2012). Two helicopter visits to each nest may be required to determine *occupancy*. These surveys may be coordinated with adjacent wind facilities. All nests discovered during pre-construction surveys and any nests discovered during post-construction surveys, whether active or inactive, will be given identification numbers. Nest locations will be recorded on U.S. Geological Survey 7.5-minute quadrangle maps. Global positioning system coordinates will be recorded for each nest. Locations of inactive nests will be recorded because they could become occupied during future

years. For occupied nests, the certificate holder shall determine nesting *success* by a minimum of one ground visit to determine species, number of young and young fledged. "Nesting success" means that the young have successfully fledged (reach advanced stage of development, the young are capable of independent movements). Nests that cannot be monitored due to the landowner denying aerial or ground access will be checked from a distance where feasible.

For Burrowing Owls The certificate holders monitored burrowing owl nests in 2011 and in 2015 (Downes et al. 2012, Gerhardt and Kronner 2015). Hereafter, each certificate holder will survey burrowing owl nest sites discovered during pre- and post-construction surveys (as identified in Downes et al., 2012, Leaning Juniper II Wildlife Monitoring Report for 2011–2012) as a part of the long-term raptor nest monitoring program described above and in Section 2(d). Any nests discovered during future post-construction surveys, whether active or showing signs of intermittent use by the species will be given identification numbers and monitored. Nest locations will be recorded on U.S. Geological Survey 7.5-minute quadrangle maps. Global positioning system coordinates will be recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they could become occupied during future years.

(b) Analysis

For each phase of the facility, the certificate holders analyzed the raptor nesting data collected after two survey years to determine whether a reduction in either nesting success or nest use has occurred in the vicinity of the facility (see Gerhardt and Kronner 2015).. The number of nests and raptor species composition demonstrated natural variation within the typical range of the various species, between 2011 and 2015. The Swainson's hawk nesting density continued to be high for a landscape dominated by natural habitats. Much of this variability can be attributed to natural conditions associated with precipitation levels, available prey base (voles, ground squirrels, and invertebrates), and interspecies (common raven) competition.

(c) Mitigation

The certificate holders shall propose mitigation for the affected species in consultation with the Department and ODFW and shall implement mitigation as approved by the Council (see Section 2(d)).

(d) Long-term Raptor Nest Monitoring and Mitigation Plan

In addition to the two years of post-construction raptor nest surveys described in Section 2(a), each certificate holder shall conduct long-term raptor nest surveys at five-year intervals for the life of the facility.[2] The certificate holders shall conduct the first long-term raptor nest survey in 2020. In conducting long-term surveys, the certificate holders shall follow the same survey protocols as described above in Section 2(a) and in Gerhardt and Kronner (2015) unless the certificate holders propose an alternative protocol that is approved by the Department. In developing an alternative protocol, the certificate holders shall consult with ODFW.

Each certificate holder shall analyze the raptor nesting data collected after each year of long-term raptor nest surveys to determine whether a reduction in either nesting success or nest use has occurred in the vicinity of the facility. If the analysis indicates a reduction in nesting

[2] As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

success or nest use by Swainson's hawks, golden eagles, ferruginous hawks or burrowing owls within the facility site or within 2 miles of the facility site, then the certificate holders shall propose appropriate mitigation for the affected species as described in Section 2(a) and shall implement mitigation as approved by the Council. At a minimum, if the analysis shows that any raptors of these species have abandoned a nest territory within the facility site or within ½ mile of the facility site or has not fledged any young over the two survey years within that same area, the certificate holders shall assume the abandonment or unsuccessful fledging is due to operation of the facility unless another cause can be demonstrated convincingly.

Any reduction in nesting success or nest use could be due to operation of the facility, operation of another wind facility in the vicinity or some other cause, including changes in land use patterns after construction of the facility. The certificate holders shall attribute the reduction to operation of LJIIA/B if the wind turbine closest to the affected nest site is an LJIIA/B turbine unless the certificate holder demonstrates, and the Department agrees, that the reduction was due to a different cause.

Given the low raptor nesting densities in the area and the presence of other wind energy facilities nearby, statistical power to detect a relationship between distances from a wind turbine and nesting parameters (e.g., number of fledglings per reproductive pair) will be very low. Therefore, impacts may have to be judged based on trends in the data, results from other wind energy facility monitoring studies and literature on what is known regarding the populations in the region.

3. Washington Ground Squirrel Surveys

For the LJIIA/B area, the certificate holders conducted surveys in 2011, the year following construction, and 2014 to collect data on Washington ground squirrel (WGS) activity within the lease boundary (Downes et al. 2012, 2014). A qualified professional biologist monitored the WGS sites in the facility identified during the pre-construction surveys (2005 through 2007) and the buffer area within 500 feet in all directions from the identified WGS sites in suitable habitat. The sites include the historic areas at LJIIA/B (as identified in Downes et al. 2012). Overall, WGS are active in the area but have shifted areas of occupancy from pre-construction boundaries.

Hereafter, the certificate holders shall conduct long-term WGS use surveys at LJII-A/B) every three years for the life of the facility (2017, 2020, 2023...). Post-construction WGS monitoring for the LJIIA/B areas will assess the status (occurrence) and use (extent) of colonies. Surveyors will conduct standard recording protocols (level of use, notes on natal sites and physical extent of the sites) during meandering pedestrian (40-60 m spacing) surveys of the identified sites and suitable habitat within 500 ft. buffer twice between late March and late May, during the active WGS periods. The biologist will also record incidental observations (including mapping and dates of observation) during other survey activities on the facility sites. These observations shall also include current land use and any land use or project-caused conditions (erosion, declines in vegetation quality) that may adversely affect WGS sites. This monitoring will be consistent with the Incidental Take Permit (ITP) application for LJIIA as set forth in Attachment E of the Final Order on the Application. These surveys may be coordinated with adjacent wind facilities to enhance data collection and analysis of WGS activity in the area.

4. Grassland Bird Study

The grassland bird study was a 2-year, post-construction evaluation of grassland bird use in the Facility area. Parts of the Facility occupy native habitat suitable for various ground-nesting bird species that nest in grassland or open low shrub habitat. The objective of the post-construction grassland bird study is to determine if there are noticeable changes in the presence and overall use by special status grassland bird species compared to pre-construction data collected in 2006.

(a) Study Area

The study areas were located within the LJIIA/B area and covered approximately 1,362 acres.[3] The study areas were selected because they are somewhat removed from human activity (except low traffic use on facility access roads and one county road) and contain a large area of grassland/shrub-steppe habitat (mapped as habitat sub-type "SSB") that is not proposed to be altered during project construction or operations.

(b) Survey Protocol

The certificate holders conducted the first year of post-construction grassland surveys in 2011, the first spring following the beginning of commercial operation of the facility (Downes et al. 2012). The certificate holders conducted a second year of grassland surveys in 2014. Findings of the grassland bird study were presented Downes and Gritski (2014).

(c) Data Analysis and Reporting

After the first survey year (2011), the certificate holders submitted a preliminary summary report to the Department (Downes et al. 2012). After the second survey year (2014), the certificate holders submitted a more comprehensive final report (Downes and Gritski 2014). Overall, no noticeable change in presence and overall use by special status grassland birds was observed when compared to pre-construction findings.

5. Wildlife Monitoring and Reporting System

The Wildlife Monitoring and Reporting System (WMRS) is an on-going monitoring program to report avian and bat casualties found by maintenance personnel during operation of the facility. It consists of weekly Environmental Coordinator (EC) Inspections of selected turbines conducted during both spring and fall migration seasons, monthly SPCC Turbine Checks of every turbine, and Incidental Observations with discovery of bird and bat carcasses and injured wildlife incidental to operations and maintenance. The certificate holders' maintenance personnel will be trained in the methods needed to carry out this program.

All avian and bat carcasses discovered by the certificate holders' maintenance personnel will be reported to the on-site EC for same day data recording (species, location, date, conditions) and for photo documentation. This information will be processed within WRMS and reviewed by the certificate holders biologists for confirmation of information and identification. If the carcass is suspected to be an eagle or a state or federally- listed endangered or threatened

[4] The certificate holders may establish a Technical Advisor Committee (TAC) but are not required to do so. If the certificate holders establish a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

species, the certificate holders will contact ODFW and US Fish and Wildlife Service (USFWS) to report and coordinate collection. The certificate holder will secure the carcass (e.g., cover with a container) until, if appropriate, collection is completed. The certificate holders will not handle or transport any bat or bat carcass without a state or federal scientific collection or special use permit (SPUT).

6. Data Reporting

Each certificate holder will report wildlife monitoring data and analysis to the Department. Monitoring data include fatality monitoring program data; raptor nest survey data; WGS survey data, incidental observation, and assessment reports; grassland bird study data; and WMRS (specifically eagles or state and federally-listed endangered or threatened species) data. The certificate holders may include the reporting of wildlife monitoring data and analysis in the annual report required under OAR 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted. In addition, the certificate holder shall provide to the Department any data or record generated in carrying out this monitoring plan upon request by the Department.

The certificate holders shall notify USFWS and ODFW immediately if any federal or state endangered or threatened species are killed or injured on the facility site.

The public will have an opportunity to receive information about monitoring results and to offer comment. Within 30 days after receiving the final versions of reports that are required under this plan, the Department will make the reports available to the public on its website and will specify a time in which the public may submit comments to the Department.[4]

7. Amendment of the Plan

This Wildlife Monitoring and Mitigation Plan may be amended from time to time by agreement of the certificate holders and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this Plan and to mitigation actions that may be required under this Plan. The Department shall notify the Council of all amendments and mitigation actions, and the Council retains the authority to approve, reject, or modify any amendment of this Plan or mitigation action agreed to by the Department.

8. Literature Cited (Documents cited are available on the Oregon Department of Energy web site)

Downes, S., B. Gritski, B. Anderson, and S. Zielin. 2012. Leaning Juniper II Wind Power Facility Wildlife Monitoring Study Annual Report, March 2011—July 2012. Prepared for Leaning Juniper II, LLC, Portland, Oregon. Prepared by Northwest Wildlife Consultants, Inc. dated October 23, 2012.

Downes, S., B. Gritski, and S. Woods. 2013. Leaning Juniper II Wind Power Facility Wildlife Fatality Monitoring Study January 2011-July 2013. Prepared for Iberdrola Renewables, Portland, Oregon. Prepared by Northwest Wildlife Consultants, Inc., Pendleton, Oregon dated November 27, 2013.

[4] The certificate holders may establish a Technical Advisor Committee (TAC) but are not required to do so. If the certificate holders establish a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

Downes, S. and B. Gritski. 2014. Leaning Juniper II Wind Power Facility 2014 Wildlife Monitoring. Prepared for Iberdrola Renewables, Portland, Oregon. Prepared by Northwest Wildlife Consultants, Inc., Pendleton, Oregon dated December 8, 2014.

Gerhardt R. and K. Kronner. 2015. Leaning Juniper II Wind Power Facility Raptor Nest Survey 2015. Report prepared by Northwest Wildlife Consultants, Inc. dated September 15, 2015 Leaning Juniper Wind Power II (LJWPII), LLC. 2013. Leaning Juniper IIA and IIB Wind Project: Wildlife Monitoring and Mitigation Plan. June 21, 2013. Oregon Energy Facility Siting Council of the State of Oregon, Final Order on Amendment #2-Attachment D. Second Amended Site Certificate for the Leaning Juniper II Wind Power Facility

Leaning Juniper IIA Wind Power Facility Repower Fatality Monitoring Plan

Prepared for
Leaning Juniper Wind Power II, LLC

Prepared by

December 2023

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1.0 Introduction

Leaning Juniper IIA Wind Power Facility (Facility) is an operational wind power facility with 43 turbines and a maximum generating capacity of 90.3 megawatts (MW) located within a site boundary of approximately 6,404 acres in Gilliam County, Oregon. The Facility's approved Wildlife Monitoring and Mitigation Plan (WMMP) includes a fatality monitoring program and grassland bird study that were completed in 2013 and 2014, respectively (Downes et al. 2013; Downes and Gritski 2014). The approved WMMP also includes the following ongoing components: raptor nesting surveys, Washington ground squirrel (*Urocitellus washingtoni*) surveys, and a Wildlife Monitoring and Reporting System (State of Oregon 2013). Leaning Juniper Wind Power II, LLC (Certificate Holder) is seeking a third amendment to the Facility Site Certificate to repower 36 of the Facility turbines and decommission 3 turbines which will result in 40 operational turbines. The Oregon Department of Energy (ODOE) requested that, as part of Request for Amendment 3, the Certificate Holder develop a fatality monitoring plan as an attachment to the approved WMMP that includes one year of post-construction fatality monitoring of the repowered turbines according to current methodological and analytical approaches. Therefore, this Repower Fatality Monitoring Plan (Plan) describes the proposed fatality monitoring program for the repower while leaving unchanged the ongoing monitoring associated with the approved WMMP.

This Plan has the following components:

1) Post-repowering avian and bat fatality monitoring program including:
    - Standardized carcass searches;
    - Carcass persistence trials;
    - Searcher efficiency trials; and
    - Data analysis and fatality estimation.

Based on the results of the monitoring program, mitigation of significant impacts may be required. The selection of the mitigation actions should allow for flexibility in creating appropriate responses to monitoring results that cannot be known in advance. If ODOE determines that mitigation is needed, the Certificate Holder will propose appropriate mitigation actions to ODOE and will carry out mitigation actions approved by ODOE, subject to review by the Energy Facility Siting Council (EFSC).

2.0 Fatality Monitoring

The objective of fatality monitoring is to estimate the number of bird and bat fatalities that are attributable to Facility operation. The Certificate Holder will employ qualified and properly trained personnel (investigators) to perform fatality monitoring. The program will include standardized carcass searches to detect fatalities, methods to adjust for sources of bias inherent in fatality detection, and the estimation of annual fatality rates attributable to facility operation based on

these data. Sources of bias will be measured through (1) carcass persistence trials to estimate the mean length of time that a carcass persists and is available for detection; (2) searcher efficiency trials to estimate the proportion of carcasses detected by investigators; and (3) estimation of the portion of the carcass fall distribution searched. Methods and results of all components of the fatality monitoring program will be reported to ODOE following the full year of monitoring. If an investigator determines that a carcass found at the Facility (during searches or incidentally) is a state or federally threatened or endangered species, reporting timelines specified in the WMMP will be followed.

2.1 Standardized Carcass Searches

The objective of standardized carcass searches is to systematically search around Facility turbines for one year for bird and bat fatalities that occur in proximity to Facility infrastructure. As bias parameters (e.g., low searcher efficiency) can introduce uncertainty into fatality estimates making evaluation against fatality thresholds (Section 2.6) ambiguous, this fatality monitoring plan uses transect plots and large bird scans to reduce uncertainty.

2.1.1 Search Plot Size and Configuration

This fatality monitoring effort focuses on three size classes of fatalities: bats, small birds, and large birds. Turbine-related fatalities are distributed non-uniformly around a turbine (fall distribution). As a result, carcass density is not the same at all distances from a turbine, but typically rises over a short distance and eventually decreases to zero (Huso et al. 2016; Dalthorp 2020). The fall distribution depends on a number of factors including species' size and body mass (e.g., larger, heavier carcasses tend to land farther from turbines than lighter carcasses; Hull and Muir 2010; Huso et al. 2016; Choi et al. 2020), the maximum blade tip height of a turbine, and operational speed of the turbine. Therefore, search plot size and configuration selected for standardized carcass searches is intended to minimize bias in fatality estimation by maximizing (1) the spatial coverage of Facility turbines, (2) the visibility of smaller carcasses (Good et al. 2012; Maurer 2017), and (3) the proportion of the fall distribution searched for large birds (Hull and Muir 2010; Hallingstad et al. 2018).

Two plot types will be surveyed including transect plots and large bird scan plots. Transect sampling plots will allow for detection of the three size classes and will include a circular plot centered on the turbine with a radius of 100 meters extending from the turbine. The entirety of this radius will be searched using transects that will be spaced at 6-meter intervals to ensure full coverage of the plot. Transect plots will be utilized at 12 of the 40 (30%) available turbines across the Facility.

Large bird scan plots will be completed at all 40 turbines and will focus on detecting large birds out to 120 meters from the turbine. At a scan plot, an observer will use binoculars to scan the landscape out to 120 meters for large birds. The effectiveness of large bird scans can vary based on vegetation conditions, and areas that are not visible due to topographic limits or vegetation will be delineated as unsearchable.

2.1.2 Search Schedule and Interval

Fatality monitoring will begin just prior to the start of the first full season following the Facility repower. Fatality monitoring will commence with a "clearance search." The clearance search serves to identify fatalities that occurred prior to the initiation of the fatality monitoring program and for which the time period of occurrence cannot be assigned (see Section 3.4). After the initial clearance search, standardized carcass searches will begin the first week of the first full season following completion of the repower.

Fatality estimates are sensitive to carcass persistence time (see Section 2.2) and search intervals that are shorter than average persistence can introduce uncertainty into fatality estimates. Thus, the carcass searches will be completed weekly at transect plots during the spring, summer and fall seasons to capture migration and breeding seasons of birds and bats and every 14 days in winter. Large bird scans will be completed every 14 days in all seasons. Study attributes are provided in Table 1.

Table 1. Search Methods For Fatality Monitoring at the Facility

Season	Search Method	Search Interval	Target Taxa	Number of Turbines	Rationale
Spring: March 16 to May 31 Summer: June 1 to August 15 Fall: August 16 to November 15	Transect Plots	7 days	Bats, small birds	12	30% of turbines searched to 100-meter (m) search plot with transects to capture high proportion of small bird and bat carcass distribution
	Large Bird Scans	14 days	Large birds	40	100% of available turbines searched to capture a high proportion of carcass distribution searched Facility-wide.
Winter November 16 to March 15	Transect Plots	14 days	Bats, small birds	12	30% of turbines searched to 100-m search plot with transects to capture high proportion of small bird and bat carcass distribution
	Large Bird Scans	14 days	Large birds	40	100% of available turbines searched to capture a high proportion of carcass distribution searched Facility-wide

2.1.3 Search Strategy and Fatality Documentation

Searches in transect plots will involve walking transects within the 100-meter search radius centered on the turbine, with transects spaced at 6-meter intervals to ensure full search coverage of the entire search radius. Areas within the transect plot that cannot be searched will be mapped as unsearchable areas (Hallingstad et al. 2018). Examples of unsearchable areas may include a wetland, cliff face, high fence, private property boundary, or any area that precludes a searcher from safely conducting their search.

Large bird scans will involve binocular scans made from the turbine base and one to three topographical high points within the search plot. From the turbine base, the investigators will scan 90 degrees from each of the four cardinal directions out to the extent of the 120-meter circular search plot. Additionally, to address any portions of the large bird plot that are not visible from the base of the turbine due to topographical or other features, investigators will walk out to points in the plot where those areas become visible. Areas within the search plot that cannot be searched will be mapped as unsearchable areas (Hallingstad et al. 2018). Examples of unsearchable areas may include a wetland, cliff face, high fence, tall or dense vegetation, private property boundary, or any area that precludes visibility through the binocular scan method. Searchable areas and time spent scanning may be adjusted for habitat types and search methods after evaluation of the first searcher efficiency trial (see Section 2.3).

Investigators will flag all bird and bat carcasses discovered. Carcasses are defined as a complete carcass or body part, three or more primary flight feathers, five or more tail feathers, or 10 or more feathers of any type concentrated together in an area 3 meters square or smaller. When parts of carcasses and feathers from the same species are found within a search plot, investigators will make note of the relative positions and assess whether these are from the same fatality.

All carcasses (bird and bat) found during the standardized carcass searches will be photographed, recorded, and labeled with a unique number. Investigators will record the location of the carcass using a global positioning system (GPS)-enabled device. Data collected per carcass found will include the date; the turbine number; the distance from and bearing from the nearest turbine; the species, age, and sex of the carcass when possible; the extent to which the carcass is intact; the estimated time since death; the habitat in which the carcass was found; whether the carcass was collected or left in place; and whether the carcass was found during a standardized carcass search or incidentally. Additional measurements may be required to identify the species of bat carcasses. Investigators will describe all evidence that might assist in determination of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation, or disease. If the necessary collection permits are not acquired by the Certificate Holder, all carcasses will be discreetly marked so as to avoid double counting and will be left in place.

2.1.4 Duration

The investigators will perform one full year of fatality monitoring starting in the first year of Facility repower operation. When the year of monitoring at the Facility has been completed, the raw data will be compiled by the investigators and the Certificate Holder in a comprehensive report, which will include fatality estimates. The results will be compared with other wind energy facilities in the region. If fatality rates for the first year of monitoring at the Facility exceed any of the thresholds of concern (see Section 2.6) or the range of fatality rates found at other wind power facilities in the region (as available), the Certificate Holder will consult with ODOE and the Oregon Department of Fish and Wildlife (ODFW) regarding potential mitigation. If mitigation is deemed appropriate, the Certificate Holder will propose appropriate mitigation for ODOE and ODFW review within 6 months after reporting the fatality rates to the ODOE.

2.2 Carcass Persistence Trials

Carcass persistence is defined as probability that a carcass will persist in the study area for a given amount of time (e.g., until the next survey), and accounts for carcass removal bias. Carcasses may be removed from the survey plot due to scavenging or other means (e.g., decomposition, farming practices). Carcass persistence is measured by the number of days a carcass remains within the search plot before it is no longer detectable by an investigator within a given search interval. It is assumed that carcass removal occurs at a constant rate and does not depend on the time since death of the organism. The objective of carcass persistence trials is to estimate the length of time bird and bat carcasses remain within the search area and available to be detected by investigators. Estimates of carcass persistence will be used to adjust raw carcass counts for removal bias.

The investigators will conduct a carcass persistence trial within each season during a fatality monitoring year. A minimum of 10 each of large bird, small bird, and bat surrogate trial carcasses will be placed each season. The investigators will select species with the same coloration and size attributes as species expected to occur at or near the Facility, if possible. Trial carcass species may include legally obtained domestic species (e.g., ring-necked pheasants, juvenile Japanese quail), unprotected species (e.g., European starling, house sparrows) and dark mice as a surrogate for bats. If a fresh raptor carcass is discovered, it may be used as an "opportunistic" large bird carcass persistence trial carcass, checked on a similar schedule. Such an opportunistic trial would be included with the seasonal assessment in which it was found.

Trial carcasses will be marked discreetly for recognition by investigators and other personnel. Carcasses will be placed at randomly generated locations within the search plots. Small birds and bat surrogates will be placed within transect plots and large bird carcasses will be placed within the large bird scan plots on day 0 of the trial. To minimize overseeding the site with carcasses available to scavengers or creating an unnatural attractant to potential scavengers, the Certificate Holder will use the results from large bird carcasses placed within the large bird scan plots as correction for scavenging bias for all large bird fatalities detected, regardless of plot type. Additionally, efforts will be made to place carcasses using methods that do not visually alert wildlife to their placement.

Trial carcasses will be left in place until the end of the carcass persistence trial. An approximate schedule for assessing removal status is once daily for the first 4 days, and on days 7, 10, 14, 21, 28, and 35. This check schedule may be extended to include the possibility of longer persistence times after initial placement (e.g., 60 or 90 days) to capture potentially longer large bird persistence times. This check schedule may also be adjusted depending on actual carcass persistence rates, weather conditions, and coordination with the other survey work. The condition of scavenged carcasses will be documented during each assessment, and at the end of the trial all traces of the carcasses will be removed from the site. Scavenger or other activity could result in complete removal of all traces of a carcass in a location or distribution of feathers and carcass parts to several locations. This feather distribution will not constitute complete carcass removal if evidence of the carcass remains within an area similar in size to a search plot and if the evidence would be detectable to a searcher during a normal survey.

2.3 Searcher Efficiency Trials

Searcher efficiency is defined as the probability that investigators will find a carcass that is available to be found within the search plot. Several factors influence searcher efficiency, including investigator experience, vegetation conditions within a search plot, and characteristics of individual carcasses (e.g., size, color). The objective of searcher efficiency trials is to estimate the percentage of bird and bat fatalities that investigators are able to find.

A trained Searcher Efficiency Proctor will conduct searcher efficiency trials within each of the seasons for each method used. A minimum of 12 each of large bird, small bird, and bat surrogate trial carcasses will be placed in the spring, summer, and fall seasons within the transect plots. In winter, when bat fatalities are not anticipated, a minimum of 12 each of large bird and small bird carcasses will be placed in transect plots. A minimum of 12 large bird trials will be placed within three distance bins per season at large bird scan plots (i.e., 0–40 meters, 40–80 meters, 80–120 meters) to account for possible distance effects on searcher efficiency. Although trials will be conducted across seasons, data will be pooled so that there are 16 trials per distance bin.

Investigators will not be notified of carcass placement or test dates. The Searcher Efficiency Proctor will vary the number of trials per season to capture seasonal variation in site conditions that may affect the ability to detect fatalities, and the number of carcasses per trial so that the investigators will not know the total number of trial carcasses being used in any trial. Similar to carcass persistence trials, searcher efficiency trial carcass species may include legally obtained domestic species (e.g., ring-necked pheasants, juvenile Japanese quail), unprotected species (e.g., European starling, house sparrows), raptor carcasses (as necessary collection permits allow), feathered turkey decoys (Hallingstad et al. 2018), and dark mice as a surrogate for bats.

The Searcher Efficiency Proctor will mark the trial carcasses to differentiate them from other carcasses that might be found within the search plot and in a manner that does not increase carcass visibility. On the day of a standardized carcass search before the beginning of the search, the Searcher Efficiency Proctor will place trial carcasses at randomly generated locations within search plots (one to three trial carcasses per search plot). The number and location of trial carcasses found during the standardized carcass search will be recorded. The number of efficiency trial carcasses available for detection during each trial will be determined immediately after the trial by the Searcher Efficiency Proctor. Following the standardized carcass search, all traces of searcher efficiency trial carcasses will be removed from the site.

2.4 Incidental Finds and Injured Birds

Incidental finds are carcasses that are detected outside the parameters of standardized carcass searches. Investigators may discover carcasses in areas surrounding the turbines but outside of the plots, while completing carcass persistence checks, or while moving through the Facility. Additionally, carcasses detected during clearance surveys do not have an associated timeframe for fatality occurrence and therefore are considered incidental finds. For each incidental find, the searcher will identify, photograph, record data, and collect the carcass as would be done for carcasses detected during standardized carcass searches. If the incidental find is located in a search

plot within a reasonable timeframe from when that plot was to be searched (e.g., while placing searcher efficiency carcasses on the same day as the search), the fatality data will be included in the calculation of fatality rates. If the incidental find is found outside a formal search plot or search time, the data will be reported separately and excluded from statistical analysis.

The Certificate Holder will contact a qualified rehabilitation specialist approved by ODOE[1] to respond to injured wildlife. The Certificate Holder will pay costs, if any, charged for time and expenses related to care and rehabilitation of injured native birds found on the site, unless the cause of injury is clearly demonstrated to be unrelated to the Facility operations.

2.5 Fatality Estimation

Estimated annual fatality rates for the Facility will be calculated at the end of the monitoring year. Annual fatality rates will be estimated by adjusting raw fatality counts for sources of bias including carcass persistence, searcher efficiency, and the proportion of the fall distribution that was searched for each size class (Huso and Dalthorp 2014).

A correction factor (density weighted proportion [DWP]) will be used to adjust for the proportion of the fall distribution that was searched for each size class within the transect plots and for large birds within the large bird scan plot. For both search plot types, the DWP will be calculated as the product of the percentage of a 10-meter annulus that is covered by the searched area within the plot and the proportion of the fall distribution of a given size class that overlaps that 10-meter annulus. The product of these values for each 10-meter annulus that overlaps the search plot will be summed to calculate the overall proportion of the fall distribution searched for each size class within the respective search plot type. Calculations will utilize ballistic modeling results presented in Hull and Muir (2010) for small birds and bats, and Hallingstad et al. (2018) for large birds. Other peer-reviewed models that update the state of the science may be utilized if they become available within the duration of the monitoring period.

Annual fatality rates will be estimated for nine categories, provided a sufficient sample size has been reached to allow estimation. The nine categories are:

1. All birds;
2. Small birds;
3. Large birds;
4. All bats;
5. Migratory tree-dwelling bats;
6. Raptors;
7. Raptor species of special concern;

[1] Approved specialists include of Blue Mountain Wildlife, a wildlife rehabilitation center in Pendleton, and the Audubon Wildlife Care Center in Portland. The Certificate Holder must obtain ODOE approval before using other specialists.

8. Grassland species; and
9. State and federally listed threatened and endangered species and State Sensitive Species listed under Oregon Administrative Rules (OAR) 635-100-0040.

The fatality estimator program, GenEst (Dalthorp et al. 2018), will be used to estimate annual fatality rates. GenEst provides the most current state-of-the-science software for fatality estimation by minimizing biases and allowing users to select the most appropriate methods and assumptions for project-specific circumstances. Rigorous testing of the performance of GenEst compared to other estimators using simulated data has shown GenEst to be the least biased, enabling more precise fatality estimation and reliable comparison of fatality estimates among projects (Simonis et al. 2018). Additionally, with sufficient sample size, GenEst allows for fatality estimates to be split into subcategories, which allows for estimates to be parsed by parameters such as season, year, or turbine type.

The estimation of annual fatality rates will account for:

1. The search interval;
2. The number of carcasses detected during standardized carcass searches within the monitoring period where the cause of death is assumed to be the operation of the Facility;
3. Carcass persistence expressed as the probability that a carcass remains in the study area (persists) and is available for detection by the investigators during persistence trials;
4. Searcher efficiency expressed as the probability that a trial carcass is found by investigators during searcher efficiency trials; and
5. The portion of the fall distribution that was searched at the Facility (DWP) for the given size class and search plot type.

2.6 Mitigation

The Certificate Holder will use best available science to resolve any uncertainty in the fatality monitoring results and to determine whether the results indicate that additional mitigation should be considered. ODOE may require additional, targeted monitoring if the data indicate the potential for significant impacts that cannot be addressed by analysis and appropriate mitigation.

Mitigation may be appropriate if fatality rates exceed a “threshold of concern” (Table 2). For the purpose of determining whether a threshold has been exceeded, the Certificate Holder will determine the mean estimated annual fatality rate for species groups after the year of monitoring (provided three or more detections within any of the species groups listed in Table 2 are available to accurately determine estimates for these groups). Based on current knowledge of the species that are likely to use the habitat in the area of the Facility, the thresholds of concern established by EFSC (Table 2) will be used in conjunction with most current regional fatality rates published by the Renewable Energy Wildlife Institute (formerly the American Wind and Wildlife Institute) and/or other organizations (e.g., WEST 2021) to evaluate the fatality rates associated with the Facility and guide discussions on appropriate mitigation.

Table 2. Fatality Thresholds of Concern by Species Group

Species Group	Threshold of Concern[1] (Fatalities per MW)
Raptors[2] (All eagles, hawks, falcons and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson's hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl.)	0.06
Grassland species (All native bird species that rely on grassland habitat and are either resident species occurring year-round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.20
Bats[3]	2.50

1. EFSC adopted the concept of "thresholds of concern" for raptors, grassland species, and state sensitive avian species in the Final Order on the Application for the Klondike III Wind Project (June 30, 2006) and for bats in the Final Order on the Application for the Biglow Canyon Wind Farm (June 30, 2006). The exceeding of a threshold, by itself, would not be a scientific indicator that operation of the Facility would result in range-wide population-level declines of any of the species affected.
2. Regionally, the median fatality rate for all raptors in the Northern Rockies avifaunal biome (includes eastern Oregon; 25 studies) was 0.06 birds/MW/year (AWWI 2020a). 75 percent of studies in the Northern Rockies reporting raptor estimates reported approximately 0.12 birds/MW/year.
3. Regionally, the median fatality rate for all bats in the USFWS Pacific Region (includes Oregon; 37 studies) was 0.69 bats/MW/year (AWWI 2020b). Seventy-five percent of studies in the Pacific Region reporting bat estimates reported approximately 1.88 bats/MW/year .

If the data from the year of monitoring show that a threshold of concern for a species group or individual state sensitive bird species has been exceeded, the Certificate Holder will consult with ODOE and ODFW to determine if mitigation is appropriate based on analysis of the data and consideration of any other significant information available at the time. ODFW, ODOE, and the Certificate Holder may review fatality data on a per turbine basis to aid in discussions. If mitigation is determined to be necessary, the Certificate Holder will propose mitigation measures designed to benefit the affected species or species group. ODOE may recommend additional, targeted data collection if the need for mitigation is unclear based on the information available at the time. If, following consultation and any such additional data collection, ODOE determines that mitigation is required, the Certificate Holder will propose mitigation measures designed to benefit the affected species or species group, commensurate with the level of impact.

Acceptable mitigation may include, but is not limited to, contributions to wildlife rehabilitators, conducting or making a contribution to research that will aid in understanding more about the affected species or species group and its conservation needs in the region, improving wildfire response, constructing and maintaining artificial nest structures for raptors, or habitat mitigation. Habitat mitigation may include, but is not limited to, protection of nesting, foraging, or roosting

habitat for the affected species or group of native species through a conservation easement or similar agreement. Tracts of land that are intact and functional for wildlife are preferable to degraded habitat areas. Preference should be given to protection of land that would otherwise be subject to development or use that would diminish the wildlife value of the land. In addition, habitat mitigation measures might include enhancement of the protected tract by weed removal and control; increasing the diversity of native grasses and forbs; and planting sagebrush or other shrubs. This may take into consideration whether the mitigation required or provided in other Facility plans would also benefit the affected species.

3.0 References

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